

CHAPTER 22

NATURAL RESOURCES MANAGEMENT

22-1 Scope

This chapter establishes Navy program requirements for ensuring military readiness and sustainability while complying with natural resource protection laws, and conserving and managing natural resources in the United States, its territories, and possessions for both appropriated and non-appropriated fund activities. This dual dynamic of Stewardship and Readiness is essential for the long-term maintenance of military and natural resources sustainability. This chapter also summarizes the natural resources management (NRM) program for managing Navy lands, waters, forests, fish and wildlife, and outdoor recreation resources. Refer to Chapter 18 for NRM policies for overseas installations. An in-depth source of information on Natural Resources Regulations is available on the U.S. Navy RegFinder CD disk available from the U.S. Navy Civil Engineer Officer School.

22-1.1 References. Relevant references are:

- a. NAVFAC Natural Resources Management Procedural Manual, P-73, Vol. II
- b. DOD 3210.6-R, DOD Grant and Cooperative Agreement Regulations of April 1998
- c. 32 CFR 190, DOD Natural Resources Management Program
- d. DODINST 4715.1 of 24 Feb 1996, Environmental Security
- e. DODINST 4715.3 of 3 May 1996, Environmental Conservation Program
- f. 15 CFR 923, Coastal Zone Management Program Regulations
- g. 50 CFR 17, Endangered and Threatened Wildlife and Plants
- h. 50 CFR 17.11 & 17.12, Fish and Wildlife Service List of Endangered and Threatened Wildlife and Plants
- i. 50 CFR 10, 18, 216, & 228, Regulations Concerning Marine Mammals
- j. Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. 1801-1883
- k. 50 CFR 10.13, List of Migratory Birds
- l. 33 CFR 320-330, Clean Water Act Section 404 and Rivers and Harbors Act Section 10 Regulatory Programs
- m. NAVFAC Real Estate Procedural Manual, P-73, Vol. I
- n. 7 USC 4201 et seq. Farm Land Protection Policy

- o. DOD Financial Management Regulation 7000.14-R, Volume 11A, chapter 16, Accounting for Production and Sale of Forest Products
- p. NAVCOMPT Manual Volume 3
- q. 15 CFR 930, Federal Consistency with Approved Coastal Management Programs
- r. CNO ltr of 25 September 1998, Sikes Act Improvement Act with Guidelines for Preparing Integrated NRM Plans.
- s. Conserving Biodiversity on Military Lands- A Handbook for Natural Resources Managers, 1996
- t. ASN (I&E) memo of 12 August 1998, DON Policy Memo 98-06: Review of INRMPs Under NEPA.
- u. CNO ltr of 30 November 1998, Guidance on Preparing NEPA Documents for INRMPs.
- v. NAVFAC ltr of 2 July 1996, Guidelines for establishment of Ecological Areas.
- w. SECNAVINST: 6401.1A of 16 August 94, Veterinary Health Services
- x. SECNAVINST 11011.47 Acquisition, Use By Others and Disposal of Department of the Navy Real Property
- y. Undersecretary of the Navy, Memo of 28 December 2000, Compliance with Environmental Requirements of Naval Exercises or Training at Sea

22-2 Legislation

- a. Bald Eagle Protection Act, 16 U.S.C. 668
- b. Coastal Barrier Resources Act of 1982, 16 U.S.C. 3505
- c. Coastal Zone Management Act (CZMA), 16 U.S.C. 1451
- d. Conservation Programs on Military Reservations (Sikes Act), 16 U.S.C. 670
- e. Defense Appropriations Act of 1991 Legacy Program, P.L. 101-511
- f. Endangered Species Act (ESA), 16 U.S.C. 1531 et seq
- g. Federal Insecticide, Fungicide, and Rodenticide Act, 7 U.S.C. 136
- h. Federal Noxious Weed Act of 1974, 7 U.S.C. 2801
- i. Federal Water Pollution Control Act as amended by the Clean Water Act of 1977 (CWA), 33 U.S.C. 1251

- j. Fish and Wildlife Conservation Act, 16 U.S.C. 2901
- k. Fish and Wildlife Coordination Act, 16 U.S.C. 661
- l. Forest Resources Conservation and Shortage Relief Act, 16 U.S.C. 620
- m. Magnuson-Stevens Fishery Conservation and Management Act, 16 U.S.C. 1801-1883
- n. Marine Mammal Protection Act, 16 U.S.C. 1361
- o. Marine Protection, Research, and Sanctuaries Act of 1972, 16 U.S.C. 1431
- p. Migratory Bird Treaty Act, 16 U.S.C. 703
- q. Military Construction Authorization Act - Leases; Non-excess property, 10 U.S.C. 2667
- r. Military Construction Authorization Act - Military Reservations and Facilities - Hunting, Fishing, and Trapping, 10 U.S.C. 2671
- s. Military Construction Authorization Act - Sale of Certain Interests in Lands; Logs, 10 U.S.C. 2665
- t. National Defense Authorization Act of 1989 - Volunteer and Partnership Cost-Share Programs, P.L. 101-189
- u. National Environmental Policy Act (NEPA), 42 U.S.C. 4321
- v. National Invasive Species Act of 1996, 16 U.S.C. 4701
- w. Oil Pollution Act of 1990 (OPA 90), 33 U.S.C. 2701
- x. Outdoor Recreation - Federal/State Programs Act, 16 U.S.C. 460 P-3
- y. Soil Conservation Act, 16 U.S.C. 3B

22-3 Executive Orders (EO)

11644, as amended by EO 11989, Use of Off-Road Vehicles on Public Lands of 24 May 1977

11988, Floodplain Management of 24 May 1977

11990, Protection of Wetlands of 24 May 1977 as amended

12962, Recreational Fisheries of 7 June 1995

13089, Coral Reef Protection of 11 June 1998

13112, Invasive Species, of 3 February 1999

13148, Greening the Government through Leadership in Environmental Management of April 21 2000

13158, Marine Protected Areas of 26 May 2000

13186, Responsibilities of Federal Agencies to Protect Migratory Birds of 17 January 2001

22-4 Terms and Definitions

Agricultural Outleasing. Use of non-excess DOD lands under a lease to an agency, organization, or person generally for growing crops or grazing domestic animals. The term “agriculture” includes activities related to producing, harvesting, processing, or marketing an agricultural, aquaculture, maricultural, or horticultural commodity, including the breeding, raising, shearing, feeding, caring for, training, and management of livestock, bees, poultry, fish, shellfish, and fur-bearing animals and wildlife, and the planting, cultivating for harvest, or processing short rotation (less than 15 years) forest products.

Annual Increment. An INRMP addendum prepared annually, to facilitate implementation of the INRMP.

Best Management Practices (BMP). Within the scope of this chapter, BMPs are practical, economical and effective management or control practices that will reduce or prevent water pollution. Usually BMPs are applied as a system of practices based on site-specific conditions rather than a single practice. State agencies usually prepare BMPs for land disturbing activities related to agriculture, forestry, and construction.

Biodiversity. The variety of life and its processes; it includes the variety of living organisms, the genetic differences among them, the communities and ecosystems in which they occur, and the ecological and evolutionary processes that keep them functioning, yet ever changing and adapting.

Biological Assessment (BA). A biological evaluation conducted by the action agency as part of the interagency consultation process under the Endangered Species Act (ESA). The purpose of the assessment is to determine whether or not the proposed action is likely to: (1) adversely affect listed species or designated critical habitat; (2) jeopardize the continued existence of species that are proposed for listing; or (3) adversely modify proposed critical habitat.

Biological Opinion (BO). A document stating the opinion of the U.S. Fish and Wildlife Service (USFWS) or National Marine Fisheries Service (NMFS) about whether or not a Federal action, described in a BA, is likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of critical habitat.

Bird Aircraft Strike Hazard (BASH) Prevention Program. An integrated program, based on a BASH Plan, to support the Navy’s flying mission. This program promotes land management practices to minimize bird attractants, and safety procedures to recognize, control, and avoid hazardous bird concentrations. A critical part of the BASH Program involves disciplined reporting of bird strikes.

Candidate Species. Any species being considered by the Secretary of Interior or Commerce for listing under ESA as an endangered or a threatened species, but not yet the subject of a proposed listing.

Coastal State. A State of the United States in, or bordering on, the Atlantic, Pacific, or Arctic Ocean, the Gulf of Mexico, Long Island Sound, or one or more of the Great Lakes. The term also includes Puerto Rico, the U.S. Virgin Islands, Guam, and America Samoa.

Coastal Zone. An area specifically identified or otherwise delineated by a coastal State in its approved Coastal Zone Management Plan (CZMP). It is an area of coastal waters and adjacent shorelines strongly influenced by each other and in proximity to the shorelines of the several coastal States, including islands, transitional and intertidal areas, salt marshes, wetlands, and beaches.

Conservation. The prudent care, protection, and management of natural resources that best reflect sound resource stewardship for present and future generations.

Cooperative Agreement. A Cooperative Agreement is used to acquire goods or services or stimulate an activity undertaken for the public good. Cooperative agreements assume substantial involvement between the Federal agency and recipient during performance of the activity. Cooperative agreements may be used to accomplish work identified in the INRMP, and may be entered into with States, local governments, non-governmental organizations, and individuals to provide for the maintenance and improvement of natural resources on, or to benefit natural resources research on DOD installations. Agreements authorized by the Sikes Act (22-2.5) are not subject to the provisions of the Federal Grant and Cooperative Agreement Act, but must comply with the procedural requirements of the DOD Grant and Cooperative Agreement Regulations, reference (b). Funds approved for a particular fiscal year may be obligated to cover the costs of goods and services provided under a cooperative agreement during any 18-month period beginning in that fiscal year in accordance with the Sikes Act Improvement Act of 18 November 1997.

Critical Habitat. The geographic area on which are found those physical or biological features essential to the conservation of a species listed and published by the USFWS or NMFS under the authority of the ESA.

Ecological Reserve Areas. Those areas dedicated primarily or exclusively to preserving examples of ecosystems and genetic diversity and to scientific research and education on ecological and environmental problems. Guidance for selection and establishment of Ecological Reserve Areas is in reference (a).

Ecological Risk Assessment. A quantitative and/or qualitative appraisal of the actual or potential effects of a hazardous waste (HW) site on plants and animals other than people or domesticated species.

Ecosystem. A system formed by the interaction of a community of organisms with each other and the environment.

Ecosystem Management. Ecosystem management in DOD draws on a long-term vision of desired future ecological conditions, integrating ecological, economic and social factors. The goal of ecosystem management is to maintain and improve the sustainability and native biological diversity of ecosystems while supporting human needs, including the military mission.

Endangered or Threatened Species. A species of fauna or flora that has been listed by the USFWS or the NMFS for special protection and management under the ESA.

Environmentally and Economically Beneficial Landscaping. Landscaping, construction and design practices which support EO 13148, Greening the Government through Leadership in Environmental Management.

Essential Fish Habitat. (EFH) means the water and substrates necessary to fish for spawning, feeding, or growth to maturity.

Fish and Wildlife Management. Actions designed to preserve, enhance and regulate indigenous wildlife and its habitats, including conservation of protected species and non-game species, management and harvest of game species, BASH reduction, and animal damage control.

Forest Management. Actions designed for the production and sale of forest products and for maintaining the health and vigor of forest ecosystems. Actions include timber management, forest administration, timber sales, reforestation, afforestation, timber stand improvement, timber access road construction and maintenance, forest protection, and other directly related functions; and for maintaining the health and vigor of forest ecosystems.

Forest Products. All plant materials in wooded areas that have commercial value.

Game Species. Fish and wildlife harvested per applicable Federal and State hunting and fishing laws.

Geographic Information Systems (GIS). An organized collection of computer hardware, software, and geographic data designed to efficiently capture, store, update, manipulate, analyze, and display all forms of geographically referenced data.

Grounds. All land areas not occupied by buildings, structures, pavements, and other facilities. Depending on the intensity of management, grounds may be classified as improved, as those near buildings, semi-improved, or unimproved.

Habitat. An area where a plant or animal species lives, grows, and reproduces, and the environment that satisfies its life requirements.

Integrated Natural Resources Management Plan (INRMP). The INRMP is a long term planning document to guide the installation commander in the management of natural resources to support the installation mission, while protecting and enhancing installation resources for multiple use, sustainable yield, and biological integrity. The primary purpose of the INRMP is to ensure that natural resources conservation measures and military operations on the installation are integrated and consistent with stewardship and legal requirements.

Land Management. Programs and techniques to manage lands, wetlands, and water quality, including soil conservation, erosion control and nonpoint source pollution, surface and subsurface waters, habitat restoration, control of noxious weed and poisonous plants, agricultural outleasing, range management, identification and protection of wetlands, watersheds, floodplains management, landscaping, and grounds maintenance.

Multiple Use. The sustainable use of natural resources for the best combination of purposes to meet the long-term needs of the DOD and the public.

Natural Resources. Landforms, soils, waters, and their associated flora and fauna.

Natural Resources Coordinator. An individual who has been delegated the responsibility for implementing the INRMP

Natural Resources Damage Assessment. The process of collecting and analyzing information to determine injury to, or destruction of, or loss of, natural resources, and the assessment of damages for that injury, including the costs of assessing the injury, loss or destruction resulting from a past or present hazardous substance (HS) release or oil spill.

Natural Resources Management Procedural Manual (NRMPM). Reference (a), which provides comprehensive guidance for implementing requirements of pertinent laws, EOs, and Federal regulations, DOD directives, SECNAV and OPNAV instructions.

Natural Resources Management Professional. Individual with an undergraduate or graduate degree from an accredited university in a natural resources-related science and who has the responsibility for managing natural resources on a regular basis.

Non-game Species. Fish and wildlife species not classified as game species and that are not harvested for recreation or subsistence purposes.

Nonpoint Source (NPS) Pollution/Polluted Runoff. Pollution caused by diffuse sources that are not regulated as point sources; normally associated with runoff from construction activities, urban, agricultural and silvicultural runoff, and other land disturbing such as military training and operations that disturb lands, soils, and waters. NPS pollution can result from stormwater runoff, precipitation, atmospheric deposition, or percolation.

Noxious Weeds. Plant species identified by Federal or State agencies as requiring control or eradication.

Off-road Vehicle. A vehicle designed or used for recreational travel on natural terrain. The term excludes a registered motorboat confined to use on open water and a military, emergency, or law enforcement vehicle during use by an employee or agent of the government or one of its contractors in the course of carrying out their tasks.

Outdoor Recreation. Program, activity, or opportunity dependent on the natural environment. Examples are picnicking, bird-watching, hiking, wild and scenic river use, hunting, fishing, and primitive camping that will not impair or degrade natural resources.

Outdoor Recreation Management. Management of natural resources to provide recreation opportunities that are sustainable, within the military mission, within established carrying capacities, and consistent with the natural resources upon which they are based.

Projects, INRMP-related. Includes studies, plans, surveys, inventories, and land/water treatments as well as physical improvements, minor construction, and public relations described in the INRMP.

Proposed Species. Any species of fish, wildlife or plant that is proposed in the Federal Register to be listed under section 4 of the ESA.

State Listed Species. Any species of fish, wildlife, or plant protected by an appropriate State agency as issued in a State's endangered species law and other pertinent regulations.

Stewardship. The responsibility to inventory, manage, conserve, protect, and enhance the natural resources entrusted to one's care in a way that respects the intrinsic value of those resources, and the needs of present and future generations.

Sustainable Yield. Production of renewable natural resources at a level such that harvest or consumptive use does not exceed net growth.

Watchable Wildlife Program. A national program designed to promote viewing areas for the American public to observe, experience and enjoy native North American wildlife and habitat.

Watershed. The ridge or crestline dividing two drainage areas; the area drained by a river or stream.

Wetlands. Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of vegetation typically adapted for life in saturated soil conditions, such as swamps, marshes, and bogs.

22-5 Requirements and Policies

a. **Stewardship Supporting Naval Readiness and Sustainability.** Responsibility for good stewardship of natural resources shall be an important and identifiable function of all commands. Each command shall establish procedures to continuously inform Navy decision makers of the conditions of natural resources, the objectives of INRMPS, and potential or actual conflicts between Navy actions/management plans and the requirements of this instruction. Commands shall recognize and balance environmental stewardship with mission readiness in retaining control and use of Navy land, sea, and air space for sustainment of mission needs and military readiness.

The policy of the Navy is to act responsibly in the public interest to restore, improve, conserve, and properly use natural resources on Navy-administered lands. There shall be a conscious and active concern for the inherent value of natural resources in all Navy plans, actions, and programs. Proposals for new and continuing actions that affect natural resources shall be coordinated with installation Natural Resources Managers (see reference (a)).

The Navy will also strive to protect and conserve natural resources throughout the land, sea, and air space areas in which the Navy operates.

b. **Ecosystem Management.** It is Navy policy to incorporate ecosystem management as the basis for planning and management of Navy installations. This approach shall take a long-term view of human activities, including military uses, and biological resources as part of the same environment. The goal is to preserve and enhance ecosystem integrity, and to sustain both biological diversity and continued availability of those resources for military readiness and sustainability and other human uses. Ecosystem-based management shall include:

- (1) A shift from single species to multiple species conservation.

- (2) Formation of partnerships necessary to consider and manage ecosystems that cross boundaries.
- (3) Use of the best available scientific information and adaptive management techniques.

c. **Natural Resources Management.** Natural resources under the stewardship and control of the Navy shall be managed to support and be consistent with the military mission, while protecting and enhancing those resources for multiple use, sustainable yield, and biological integrity. Land use practices and decisions shall be based on scientifically sound conservation procedures and techniques, and use scientific methods and an ecosystem approach.

d. **Navy NRM Program Goals.** The basic natural resources program goal is to support military readiness and sustainability. Commands shall accomplish the following when managing natural resources on Navy lands:

- (1) Assign specific responsibility, provide centralized supervision and assign professionally trained personnel to this program; and provide natural resource personnel the opportunity to participate in NRM job-training activities and professional meetings.

- (2) Protect, conserve, and manage the watersheds, wetlands, natural landscapes, soils, forests, fish and wildlife, prime and unique farmland, and other natural resources, as vital elements of a natural resources program.

- (3) Manage natural resources to provide outdoor recreation opportunities.

- (4) Use and care for natural resources in the combination best serving the present and future needs of the U.S. and its people.

- (5) Provide for the optimum use of land and water areas and access thereto while maintaining ecological integrity.

- (6) Interact with the surrounding community to develop positive and productive community involvement, participation and educational opportunities

e. **Integrated Natural Resources Management Plans (INRMP).** The INRMP is a long term planning document to guide the installation Commander in the management of natural resources to support the installation mission, while protecting and enhancing natural resources for multiple uses, sustainable yield, and biological integrity. Each installation having custody of Class I property (land and water) suitable for the conservation and management of natural resources will prepare (or ensure preparation of) and implement a comprehensive INRMP that fulfills the requirements of the Sikes Act. The primary purpose of the INRMP is to ensure that natural resources conservation measures and military operations on the installation are integrated and consistent with stewardship and legal requirements. Professionally trained personnel will prepare INRMPs to support the installation operational mission, meet stewardship and legal requirements, enhance the quality of life on the installation; and ensure installation resources are managed through an ecosystem approach. Cooperative agreements are authorized to implement these plans. Installation commanders will continuously monitor INRMPs, review them annually, and revise them as necessary. They will renew INRMPs at least every 5 years. Natural resources managers are encouraged to use geographic information systems as the basis of their INRMP and to use reference (s),

“Conserving Biodiversity on Military Lands-A Handbook for Natural Resources Managers” as a basic reference document.

Sikes Act required INRMP elements, development and implementation processes are summarized below:

(1) **Required Plan Elements.** Consistent with military operations on the installation, each INRMP will, where appropriate and applicable, provide for:

- (a) Fish and wildlife management, land management, forest management, and fish and wildlife-oriented recreation. Fish and wildlife habitat enhancement or modifications.
- (b) Wetland protection, enhancement, and restoration.
- (c) Integration of, and consistency among, the various activities conducted under the Plan.
- (d) Establishment of specific natural resources management objectives and time frames for proposed actions.
- (e) Sustained use by the public of natural resources for recreation to the extent that such use is consistent with the needs of fish and wildlife management and subject to installation safety and security requirements.
- (f) Enforcement of natural resources laws and regulations.
- (g) No net loss in the capability of military lands to support the military mission of the installation.

(2) **Authorship.** Priority should be given to preparing the INRMP in-house by installation natural resources personnel and coordinating it with the appropriate EFD/EFA wherever possible. If commands must contract for plan preparation, it is critical that the installation natural resources coordinator maintain a sufficient level of quality control to ensure proper coordination and ease of implementation of the plan, and that it addresses the appropriate issues.

(3) **Coordination and Review.** Installations are encouraged to work with other organizations, agencies, and individuals both on and off the installation throughout the planning process. Building partnerships with the right organization(s) is essential for ecosystem management. Coordination of preparation of the INRMP with installation personnel responsible for military operations is especially critical.

(4) **Cooperative Preparation.** The Sikes Act requires preparation of INRMPs in cooperation with the USFWS and the appropriate State Fish and Wildlife Agency. The act requires that the INRMPs reflect mutual agreement of the parties concerning the conservation, protection, and management of covered fish and wildlife resources. A MOU between installation, USFWS, and State may serve to address the responsibilities, expectations, and commitments of the various partners. Mutual agreement on the INRMP by USFWS and state officials can be documented by an MOU, signatures of the appropriate official on the title page of the INRMPs, or letters of endorsement attached to the INRMP.

(5) **NEPA Documentation.** In accordance with reference (t) NEPA documentation is required before approval of all new or newly revised INRMPs. Under normal circumstances, an EA will suffice.

However, if the goals, objectives, or essential projects identified in the INRMP will have a significant environmental impact, an EIS may be required. Reference (u) contains guidelines for preparing NEPA documents for INRMPs.

(6) **Public Involvement.** Installations shall provide an opportunity for the submission of public comments on INRMPs. These comments will be incorporated when possible and applicable.

(7) **Endorsement.** The INRMP Title page shall include a signature block for the installation commanding officer, installation natural resources manager/coordinator, regional commander, and the EFD/EFA natural resources manager to reflect concurrence and acceptance of the Plan. Copies of completed INRMPs should go to the Major Claimant environmental office.

(8) **Implementation.** INRMPs shall reflect an annual strategy that addresses legal requirements, other priorities, funding, and manpower. The installation, Major Claimant, or COMNAVFACENGCOM natural resources fund sources should provide funding. A Sikes Act Cooperative Agreement, developed with State agencies, universities, non-governmental organizations, and individuals, typically provides a vehicle to accomplish work addressed in the INRMP. Other options include contracts, in-house self-help processes, and use of volunteers from conservation programs such as the Student Conservation Association.

(9) **Record Keeping and Reporting.** Commands should endeavor to keep a narrative and photographic record of projects implemented through the INRMP to document accomplishments and facilitate monitoring programs and data calls.

(10) **Updating INRMPs.** INRMPs shall be reviewed annually, and updated at least every 5 years. Commands should acquire the services of the cognizant EFD/EFA for technical assistance.

f. **Evaluation of Need for an INRMP.** Major Claimants and Regional Natural Resources Managers (NRM) shall determine if their installations require preparation and implementation of an INRMP. They should accomplish this evaluation with technical assistance from the cognizant EFD/EFA natural resources manager and should base it upon a minimum of one site visit to assess installation natural resources. The evaluation should take into account military uses of the area and capacity to support the mission; acreage, habitat types, and special natural features; aesthetics and outdoor recreational opportunities; the ecological context of the installation and the local community relationship. If the Major Claimant and Regional NRM determines that an INRMP is not required or is to be consolidated with another installation in the region, it shall document this determination and provide it to CNO N45 with a copy to COMNAVFACENGCOM. Even if the Major Claimant does not require an INRMP for a particular installation, it may consider it prudent to address natural resources stewardship issues in a less formal document. A Major Claimant must re-evaluate an installation without an INRMP every 5 years to reconsider its status. Relief from INRMP requirements does not negate the need for natural resources compliance nor does it preclude the need for natural resources project funding.

g. **Funding for Natural Resource Programs.** Funding to implement an INRMP is an important responsibility of Navy commands and shall be included in installation Program Objective Memorandum (POM) submittals. Funds may be available from other sources such as agricultural out-leasing, forestry programs, Sikes Act user fees, Moral Welfare & Recreation (MWR), and the Legacy Resource Management Program to supplement portions of these programs, but the funding for natural resource compliance projects should be reflected in POM requirements.

h. **Pesticide Use in NRM Programs.** If any multiple-use program of land management involves pesticides, users will ensure that use complies with applicable requirements. Consistent with chapter 13, pesticide use will be minimized. Coordinate pesticide use with the installation and supporting NAVFAC pest management personnel.

i. **Public Access Associated with the NRM Program.** The INRMP will address the appropriate level of public access for recreational opportunities consistent with installation security, military mission and sustainable natural resources management objectives.

j. **Access by Federal and State Conservation Officials.** Commanders shall permit Federal and State Conservation Officers access to enforce natural resources laws after taking proper safety and security measures. Assistance from Federal and State Conservation Officers should be solicited with any existing or proposed Wildlife Law Enforcement Program on the installation.

k. **Coastal Zone Management.** See chapter 28 for policy and guidance on ensuring that Navy activities with the potential to affect coastal uses or resources are in full compliance with the Federal consistency provisions of the Coastal Zone Management Act (CZMA).

(1) **Support of State Programs.** Navy shall support, as applicable, the conservation requirements detailed in approved State Coastal Zone Management Plan. The Navy shall encourage research and development efforts to address nonpoint sources of pollution to identify and understand Navy impacts on the coastal and marine environment.

(2) **Consistency with Coastal Zone Plans.** The CZMA, reference (f), requires that Navy installations ensure their operations, activities, projects, and programs in or on coastal lands or waters that affect coastal zones, comply with the coastal State's approved management program to the maximum extent practicable and shall cooperate in resolving concerns identified during the consistency review process.

(3) **Protection of Coastal Barriers.** Before construction, maintenance, military activities, or other Federal expenditures may take place in designated Coastal Barrier Resources, the Navy is required to consult with the Secretary of the Interior. Navy installations may expend funds in areas designated as coastal barriers only for uses which include military activities essential to national security, projects for the study, management, protection and enhancement of natural resources, scientific research, essential emergency actions, maintenance (but not expansion) of publicly owned structures, and non-structural projects for shoreline stabilization (see Coastal Barrier Resources Act of 1982, 16 U.S.C. 3505).

(4) **Protection of Coral Reefs.** The Navy recognizes that coral reefs and related endemic mangrove and sea grass ecosystems are biologically rich and diverse habitats. High priority should be given to the protection of these resources in accordance with Executive Order 13089 and DOD and Navy policy statements and DoD Implementation Plan on coral reef protection. The identification and conservation of coral reefs should be addressed in INRMPs, where appropriate, to ensure their protection. The Navy will avoid impacting coral reefs (see EO 13089). Any action that is likely to adversely affect a U.S. coral reef system or that may qualify as an exemption under the E.O. shall be promptly reported to CNO (N45).

(5) **Ecological Reserve Areas.** Recognizing the national and international need to maintain areas in natural and near-natural conditions, and the need to have available such areas for baseline research and scientific manipulation, natural areas on Navy lands that warrant special conservation efforts may be identified as Ecological Reserve Areas. These special natural areas should include characteristic or outstanding botanical, ecological, geological, and scenic features or processes. Any proposals to designate ecological reserve areas on Navy installations shall be approved by the Major Claimant and CNO.

1. **Nonindigenous Organisms.** The Navy shall prevent the introduction of non-native organisms into natural ecosystems. Section 19-10, Ship Ballast Water and Anchor System Sediment Control provides measures to prevent such aquatic introductions, as mandated by the National Invasive Species Act of 1996 (P.L. 104-332). This law mandates the establishment of an Armed Forces Ballast Water Management Program to prevent such introductions.

22-6 Fish and Wildlife

a. **Fish and Wildlife Management.** It is Navy policy to comply with applicable laws for the protection and management of wildlife resources, and to develop, where compatible with the mission, programs for the development, enhancement, and use of wildlife resources. Where appropriate, the Navy shall perform those programs under cooperative agreements with State and Federal wildlife agencies.

b. Policy and guidance on complying with the Marine Mammal Protection Act and the Endangered Species Act for naval exercises and training activities at sea is contained in the Undersecretary of the Navy's memorandum on "compliance with environmental requirements in the conduct of naval exercise or training at sea," of 20 December 2000.

c. **Endangered Species.** The Navy shall, in consultation with the USFWS and NMFS, insure that any action authorized, funded or carried out by Navy that "may effect" protected species or critical habitat is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of critical habitat. Such consultations can be either formal or informal.

(1) **Biological Assessment.** When necessary, the Navy will prepare a Biological Assessment (BA). The BA evaluates the effects of a proposed action on listed and proposed species and designated and proposed critical habitat. This document assists in the determination whether the action is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat. All BAs that may affect Fleet training and/or operations shall be approved by the Major Claimant and the Regional Environmental Coordinator prior to sending to regulatory offices such as NMFS (Note for Marine Mammals see special provisions below) and USFWS. It is recommended that EFD/A expertise is utilized in development of the BA. In addition, the Navy will use its authority to further programs for the conservation of endangered and threatened species.

(2) **Approval from Chain of Command on Endangered Species Issues.** To ensure that proper budgeting and planning is conducted to support ongoing and new natural resources efforts (consistent with Section 7(a)(1) of the Endangered Species Act) for the conservation of endangered and threatened species on Navy Lands, and to ensure that Navy lands will remain available to support the military mission, review and approval by the chain of command, including the major claimant and CNO N45 is required prior to introducing or committing to introduce species that are by federal or state law or

regulation endangered, threatened, proposed, or candidate for listing on a Navy installation. Approval is also required by the chain of command, including the major claimant and CNO N45 prior to commencing or committing to commence habitat enhancement designed to actively promote introduction of federally or state listed endangered, threatened, proposed, or candidate species to a Navy installation or any Navy lands. Availability of funds, ongoing and planned stewardship efforts, and consistency with Navy mission will be key considerations in evaluating requests from field commands. Requests must also identify the need for and extent to which documentation is required pursuant to the National Environmental Policy Act. The approval process described above in no way alters the Navy commitment to use its authority to enhance the recovery of listed endangered and threatened species and their habitats.

(3) **Surveys.** The Navy shall conduct surveys of federally listed threatened or endangered, proposed and candidate species, review its mission activities, identify those that may affect federally listed species or habitats, and consult formally or informally with the appropriate agency as required.

d. **Marine Mammals.** The Marine Mammal Protection Act (MMPA), subject to limited exceptions, prohibits any person, (including Federal agencies) or vessels subject to the jurisdiction of the United States from “taking” marine mammals on the high seas, in U.S. waters or on land under the jurisdiction of the U.S. “Taking” includes the “harassment” of a marine mammal. Section 101(a)(5) of the MMPA directs the Secretaries of Commerce and Interior to allow upon request, the incidental (but not intentional) taking of marine mammals by U.S. citizens who engage in a specified activity (exclusive of commercial fishing) within a specified geographical region if certain findings are made and regulations are issued. Permission may be granted to “take” marine mammal(s) incident to Navy activities if the regulatory agencies Secretary determines that the Navy action will: 1) have a negligible impact on the species or stock(s); and 2) not have an unmitigatable adverse impact on the availability of the species or stock(s) for subsistence uses (permitting procedures are contained in reference (j)). Marine mammals may also be subject to the Endangered Species Act requirements discussed above.

(1) The Navy will continue to avoid or minimize adverse impacts to marine mammals. Navy vessels shall report marine mammal strikes in accordance with guidelines found in chapter 19. Navy commands will evaluate their proposed actions that may affect marine mammals and determine whether it is likely that marine mammals will be taken.

(2) If the action proponent determines that a permit is required because “takes” are likely, before contacting regulatory agencies or officials regarding Navy generated noise and its effects on marine mammals, either on land or in the water, the action proponent must notify and receive concurrence from CNO N45 via the chain of command. The proponent must also notify the appropriate Regional Environmental Coordinator Staff. In addition, prior to release to any outside agency or the public of any documents containing analysis of sound effects on marine mammals, hard and electronic copies of pre-final documents shall be submitted to CNO N45 via the chain of command for review and concurrence. This pre-final document review shall occur only after appropriate legal and technical review by the major claimant. Types of documents containing such an analysis subject to CNO N45 review include, but are not limited to, Biological Assessments, Incidental Harassment Authorization applications, and Overseas Environmental Assessments involving sound in the water. Review of documents by CNO N45 will be completed within 10 working days of receipt. To ensure timely review and comment, the major claimant POC must verify with CNO N45 the receipt of the documents to be reviewed. Comments must be resolved by the major claimant before submission to appropriate agencies for their review.

e. **Recreational Fisheries.** As applicable, Navy installations shall incorporate into natural resource management planning provisions for habitat restoration projects, public access where feasible, and participation in outreach programs for recreational fisheries. In keeping with E.O. 12962, Federal agencies shall improve the quantity, function, sustainable productivity, and distribution of U.S. aquatic resources for increased recreational fishing opportunities by restoring degraded habitat, fostering conservation, providing access and awareness of opportunities for recreational fishing.

f. **Essential Fish Habitat (EFH).** Under the provisions of the Magnuson-Stevens Fishery Conservation and Management Act, as reauthorized by the Sustainable Fisheries Act Amendments, Federal agencies must consult with the National Marine Fisheries Service (NMFS) prior to undertaking any actions that may adversely affect EFH. Federal agencies retain the discretion to determine what actions fall within the definition of "adverse affect." It is OPNAV policy that temporary or minimal impacts, as defined below, are not considered to "adversely affect" EFH. "Temporary impacts" are those that are limited in duration and that allow the particular environment to recover without measurable impact. "Minimal impacts" are those that may result in relatively small changes in the affected environment and insignificant changes in ecological functions. Note that even minor, localized effects can be adverse when the reduction in the quality and/or quantity of EFH is not insignificant. Types or categories of Navy actions may be removed from further consultation requirements if NMFS determines that they will likely result in no more than "minimal adverse effects" individually or cumulatively using the general concurrence process contained in reference (j). Action proponents shall coordinate general concurrence requests of national or regional scope with CNO N45 and the appropriate Regional Environmental Coordinator staff via the chain of command.

g. **Bald and Golden Eagles.** It is illegal for anyone to take a bald or golden eagle. The Navy, as a Federal agency, must cancel any lease, license, or other agreement that authorizes grazing of domestic livestock by anyone convicted of a bald or golden eagle violation.

h. **Migratory Birds.** Navy installations shall coordinate with the USFWS to minimize the effects of actions that may harm or kill migratory birds listed in reference (k), their young, or eggs. Contractors must have the appropriate permits when performing work for the Navy.

i. **Fish and Wildlife Coordination.** When the Navy proposes to take an action that modifies any stream or body of water, the Fish and Wildlife Coordination Act requires that Navy installations first consult with the USFWS and the cognizant State wildlife agency with a view to the conservation of wildlife resources possibly affected by the proposed action. Recommendations of the USFWS and State must be included in reports to Congress or to persons authorizing the construction. The Navy must fully consider the wildlife aspects of the proposed action. This is not applicable to activities in connection with programs primarily for land management and use carried out by Federal agencies with respect to Federal lands under their jurisdiction which may require separate regulatory actions.

j. **Fish and Wildlife Conservation.** Congress directs all Federal agencies to use their statutory and administrative authority, to the maximum extent practicable and consistent with each agency's responsibilities, to conserve and to promote conservation of non-game fish and wildlife and their habitats

k. **Fish and Wildlife Management.** Navy installations will obtain the services of a professional biologist for management of fish and wildlife resources. When contracting fish and wildlife work on military-controlled lands, installations will give priority to Federal and State agencies having responsibilities for conservation and management of fish and wildlife. Where installations collect fees or pro

ceeds from hunting, fishing, aquaculture, mariculture, and trapping, they will use the fees only for funding or supplementing wildlife management programs. Uses may include funding of partnerships, cooperative and research agreements with appropriate agencies.

l. **BASH Program.** Naval air installations Safety and Air Operations Offices shall ensure BASH plans are prepared and implemented. BASH plans should be prepared in close cooperation with the installation Safety and Air Operations Officers. Reference (a) details basic guidance for the preparation of BASH plans. Personnel responsible for BASH programs should ensure that bird strike reporting and information exchange is closely coordinated with the Naval Safety Center. The NAVFAC BASH Biologist is available to assist with the development of BASH Plans, Implementation of BIRD RAD, and other BASH related requirements. The Naval Safety Center has a web site with additional BASH information.

m. **Feral Cat and Dog Control.** Feral or free/free-ranging domestic cats and dogs are considered by the professional wildlife management community to be exotic species to North America. Professional wildlife managers recognize exotic and invasive species as one of the most widespread and serious threats to the integrity of native wildlife populations and natural ecosystems. Existing policy put forth in paragraph 4-2c(4) of reference (w) states "Dogs, cats and other privately-owned or stray animals will not be permitted to run at large on military reservations." Consistent with this policy, Navy commands must ensure the humane capture and removal of feral cats and dogs on their lands."

Due to the potential of feral or free ranging cat populations to act as disease reservoirs, threatening human health, native wildlife populations and natural ecosystems, Navy commands shall not allow Trap Neuter Release (TNR) or similar programs on their lands.

Prevention of feral cat and dog populations requires close coordination and cooperation between natural resources, pest management, security, veterinary, and housing personnel to develop and implement an effective and humane removal programs. Navy Commands should work closely with local animal control agencies to determine the best approach for the ultimate disposition of the captured animals.

22-7 Land Management

a. **Land Management Issues.** When appropriate, INRMPs shall address land management issues such as ecosystem management, wetlands and watersheds, estuaries, soil and water conservation, biodiversity, grounds maintenance, nonpoint source pollution control, landscaping, agricultural uses and potential, fire management, insect and disease management, rangeland conditions and trends, management for multiple use, and critical or unique coastal barrier systems, coral reef systems, critical habitats and other areas of special interest.

b. **Funding.** Funding for land management activities may be provided from appropriated and reimbursable funding sources. Compliance activities are funded from appropriated O&M,N account while limited reimbursable funds may be available for stewardship activities. Revenues from the agriculture and grazing outlease program are available for:

(1) Administrative expenses of agricultural leases. The Navy shall give priority to funding natural resources professionals directly responsible for the administration of agricultural programs.

(2) Initiation, improvement, and perpetuation of agricultural outleases.

(3) Implementation of related INRMP stewardship projects. Navy installations with land management programs will obtain the services of a natural resources professional for guidance of land management programs such as grounds maintenance, landscaping, wetland protection and enhancement, erosion control, nonpoint source pollution prevention and agricultural outleasing.

c. **Wetlands Protection.** Section 404 of the CWA prohibits discharges of dredged or filled material into waters of the U.S., including wetlands, without first obtaining a permit from the U.S. Army Corps of Engineers (COE), reference (I). The Navy will comply with the national goal of no net loss of wetlands, and will avoid loss of size, function and value of wetlands. In addition, the Navy will preserve and enhance the natural and beneficial values of wetlands in carrying out its activities. In order to comply with the "No Net Loss of Wetlands Policy" of the Navy, commands with land management responsibilities shall ensure the following:

(1) That the Navy plan all construction and operational actions to avoid adverse impacts to or destruction of wetlands. Any construction requirement that cannot be sited to avoid wetlands shall be designed to minimize wetlands degradation and shall include compensatory mitigation as required by wetlands regulatory agencies in all phases of the project's planning, programming, and budgeting process. Within this policy, use of Navy lands and lands of other entities are permissible for mitigation purposes for Navy projects when consistent with EPA and COE guidelines or permit provisions. Requests by non-Navy entities to mitigate the effects of non-Navy projects on Navy property should be reviewed on a case-by-case basis for their effect on Navy mission, the environment, and appropriateness of economic compensation to the Navy for the long-term use of the site, all such projects need to be approved by the chain of command.

(2) That any action significantly affecting wetlands is addressed by the environmental review and public notification process per Chapter 2.

(3) That boundaries of legally defined wetlands, on all Navy lands, are identified and mapped with sufficient accuracy to protect them from potential unplanned impacts, and that the maps are distributed to all potential users, including facilities planners, operational units, and tenant commands. Wetland maps suitable for planning actions are available through the EFD/As in GIS format. Jurisdictional maps may be required prior to actual construction if there is any potential of wetlands present in the vicinity of the project. Field verification and jurisdictional determinations should be required for all projects. This determination should be coordinated with Natural Resources personnel.

(4) That adequate NRM expertise is available to installation commanding officers (COs) for the protection, management, identification, and mapping of wetlands.

(5) That implementation of wetlands creation or enhancement projects and wetlands banking, where compatible with the installation mission, is encouraged. Identification of potential wetland mitigation sites should be included as part of INRMPS.

d. **Nonpoint Source Pollution.** Section 319 of the CWA describes guidelines for the control of nonpoint source pollution. These guidelines assign the States responsibility to implement nonpoint source pollution best management practices. Federal consistency provisions also authorize States to review Federal activities for consistency with State nonpoint source programs. Section 6217 of the CZMA establishes authority for States to administer coastal nonpoint pollution programs when approved by National Oceanic and Atmospheric Administration (NOAA) and the Environmental Protection Agency

(EPA). The Navy shall support and accelerate the development and implementation of NPS pollution management programs that ensure water quality protection. The Navy shall place special emphasis on preventing NPS pollution from ground disturbing actions (e.g., construction, farming, and timber harvesting activities) in shoreline/streamside areas. Installations that control land areas shall evaluate the scope of nonpoint source pollution with assistance from EFDs/EFAs. INRMPs should be used as a primary tool for identifying NPS problem areas, specifying corrective measures, and coordinating nonpoint source compliance planning with State coastal and nonpoint source programs when addressing land management issues.

e. **Agriculture.** The Navy shall identify lands that are suitable for agricultural outlease purposes when compatible with military needs. Each agricultural outlease must include a conservation plan which details the best management practices to protect the natural resources and government interests under the lease. NAVFAC provides the technical and administrative functions of this program in accordance with reference (x). Chapter 19 of reference (m) outlines procedures for the administration of rent receipts received from lessees. Navy installations shall identify and minimize the adverse effects of their actions on prime and unique farmlands in accordance with reference (n).

f. **Soil Conservation.** Federal agencies must manage lands to control and prevent soil erosion and preserve natural resources by conducting surveys and implementing soil conservation measures.

g. **Control of Noxious Weeds.** Navy installations will cooperate with States in which there is a program for controlling noxious plants, and will provide access for that control, provided that: access is consistent with installation security procedures, control measures are acceptable and control measures have been implemented on privately owned adjacent lands.

h. **Floodplain Management.** The Navy will provide leadership in avoiding direct or indirect development of flood plains, and in restoring and preserving the natural and beneficial values served by floodplains. The Navy must evaluate potential effects of actions in floodplains and provide early opportunity for public review of proposals in floodplains.

i. **Environmentally and Economically Beneficial Landscaping.** Navy installations shall support the goals of EO 13148, Beneficial Landscaping, on all new or extended landscaped areas and shall consider native plants when replacement or rejuvenation of existing landscaping is required. Because the Federal Government owns and landscapes large areas of land, our stewardship presents opportunities to develop practical and cost-effective methods to complement and enhance our local surroundings by employing landscaping practices and technologies that conserve water and prevent pollution. To promote the President's April 26, 1994 Memorandum on Environmentally Beneficial Landscaping, it is Navy policy to:

- (1) Use regionally native plants for landscaping,
- (2) Design, use and promote construction practices that minimize adverse effects on natural habitat,
- (3) Prevent pollution by reducing fertilizer and pesticide use, integrated pest management practices, recycling green waste (composting) and minimizing runoff,

(4) Implement water-efficient practices, use efficient irrigation systems and recycled water, and use landscaping to conserve energy,

(5) Create demonstration projects to promote awareness of environmental and economic benefits of these practices.

These landscaping practices should benefit the environment and generate long-term cost savings. The use of native plants not only protects our natural heritage and provides wildlife habitat, but can also reduce fertilizer, pesticide, and irrigation demands and their associated costs.

j. **Invasive Species.** Navy installations will prevent the introduction of invasive species and provide for their control per E.O. 13112. The Navy will identify actions that affect the introduction of invasive species, prevent their introduction, respond rapidly to their control, monitor populations, restore affected native species and their habitat, conduct research and develop technologies to prevent further introductions, and promote public education of the issue. The Navy will not authorize, fund, or implement actions that are likely to cause or promote the introduction or spread of invasive species in the U.S. or abroad. Proper ecosystem management requires the control of noxious weeds, aquatic nuisance species, and other invasive species. Use of native plants in landscaping, grounds maintenance, and land restoration projects is required. Installation natural resources managers shall ensure that invasive species prevention recommendations are incorporated into new construction programs and operations. Land or ecosystem restoration projects shall require the use of native species only. Natural resources managers shall monitor invasive species populations and identify areas where research and new technology may be needed to better control invasive species in the military environment.

22-8 Forest Management

a. **Management of Navy Forests.** Navy forest management shall maintain and improve the economic and ecological value, health and diversity of the forest resources and related ecosystems. Such management actions shall produce financial returns to the government, and contribute commercial forest products to the economy. It is Navy policy to manage forestlands by restoration, enhancement, and improvement of forest resources. The Navy shall accomplish this through an active program of professional forest management, based on soil-site capabilities, in a multi-disciplinary, ecologically sound manner. Navy forest management shall include, as appropriate, harvest, reforestation, afforestation, and silvicultural treatments that shall foster forest health and vigor, structural and biological diversity, and regeneration.,

Installations with forests or lands with the potential for the growth and production of forest products will provide for optimum sustainable yield of forest products and the improvement of forest resources, consistent with the military mission and installation INRMP. INRMPs will, when appropriate, include current forest inventories, conditions, trends, and potential uses; silvicultural goals; maintenance of forested areas and access roads; forest and stand improvement methods; harvesting and reforestation methods and schedules; and protection and enhancement of other natural resources. All Navy installations with commercial forestry programs shall employ or use a professional forester to manage forest resources. This includes preparation and oversight of all forestry service and sales contracts and monitoring the use of reimbursable forestry funds provided to support the program. NAVFAC provides the technical and administrative functions of this program in accordance with reference (x).

b. **Use of Clearcutting.** Installations shall use clearcutting as a standard harvest management practice only where essential to meet specific forest plan objectives, as defined in the installation-specific INRMP, or for cleanup of natural catastrophes such as hurricanes, tornadoes, wildfires, etc. The Navy shall judiciously use alternative harvest methods, instead of clearcutting, whenever possible.

c. **Management of Late Successional Forests.** The harvest of mature/late successional forests shall be based on balanced economic, social, and environmental values identified during the management/planning process. It is Navy policy to maintain old-growth forests in their natural state to preserve their biological, scientific, and aesthetic benefits.

d. **Product Sales.** Navy contracts for sale of forest products will include requirements for orderly harvesting, operational procedures, and payment for sold products. The Navy will not give away, nor abandon, nor carelessly destroy forest products, nor use them to offset costs of contracts, nor trade them for products, supplies, or services. Proceeds collected from the disposal or sale of all merchantable forest products produced on a Navy installation will be turned over to the servicing Navy accounting and finance officer and deposited in the Navy Forestry Account. For each installation generating forest product sales, records will be kept to show sales proceeds generated by fiscal year for determining payments to States, as required by 10 U.S.C. 2665. Criteria and procedures for administering timber sale contracts are contained in Chapter 3 of reference (a).

e. **Accounting and Use of Forestry Proceeds.** Navy installations or commands incurring obligations for the production and sale of forest products shall receive reimbursement from collections made from the sale of such products. Forest management program obligations must be related directly to the economic production and sale of forest products and the enhancement, protection, conservation and management of Navy forests. These anticipated program expenses must be identified in the installation or command Annual Increment each year. Insofar as they meet this test, obligations may include funding of cooperative agreements and research agreements with appropriate agencies. Reimbursable program obligations do not include expenses incurred for operations that, while related to the land and forest, are for other purposes, nor do they include expenses for the protection of forests that are incapable of economic production of forest products. Nonessential program expenses will be limited to ensure a balanced program as required by reference (o), reference (p) and Chapter 3 of reference (a).

f. **Export Lumber.** The 1990 Forest Resources Conservation and Shortage Relief Act (16 U.S.C. 620 et seq.) prohibits the export of unprocessed timber originating from Federal lands west of the 100th meridian in the contiguous 48 States and restricts substitution of unprocessed Federal timber for timber exported from private lands. All Navy solicitations and contracts for timber sales affected by this statutory limitation will contain a provision restricting the export of unprocessed timber obtained on Navy lands.

g. **Forest Pest Suppression.** Navy shall cooperate fully in the planning, coordination, and execution of field operations to prevent and suppress damaging forest insect and disease outbreaks, consistent with the terms of the Forest Pest Suppression Memorandum of Agreement (MOA) between the Department of Agriculture and the DOD of 11 December 1990, and whenever it is determined to be necessary by either the Regional U.S. Forest Supervisor or cooperating State forestry department or commission.

22-9 Outdoor Recreation

Opportunities for natural resources-based outdoor recreation improve quality of life for Navy personnel, allow close partnership with the local community, improve knowledge of the natural world and the Navy's stewardship of natural resources. It is Navy policy to provide outdoor educational and recreation opportunities appropriate to the mission and the resources of the installations. Through their INRMP, installations are encouraged to develop their own programs and cooperate with other groups in programs such as Watchable Wildlife. Natural resources managers are encouraged to continue the development and enhancement of hunting, fishing, and other outdoor uses of natural resources by the disabled. The Sikes Act requires that installations provide public access for natural resources uses to the extent it is appropriate and consistent with the military mission and in accordance with the INRMP.

a. **National Park Service.** A Memorandum of Understanding (MOU) between the Department of Defense and the Department of the Interior provides guidance on the management of natural resources for outdoor recreation. Cooperative agreements with the National Park Service, in conjunction with the INRMP, are the mechanism for a program of planning, development, maintenance, and coordination of outdoor recreation on Navy lands.

b. **Off-Road Vehicles.** Off-road recreational vehicle use on Navy land is permissible only on designated areas and trails. See Chapter 5 of reference (a) for policies, procedures, and criteria for establishing designated off-road areas and trails.

22-10 Environmental Restoration

a. **Natural Resources Damage Assessments (NRDA).** Navy policy is to restore, rehabilitate, or replace natural resources within its management or control injured by spills of oil or hazardous substances. Entities designated as natural resource trustees must determine the injury to and loss of natural resources that occur as the result of a release of hazardous substances or oil. Chapter 27 more fully discusses these requirements.

b. **Ecological Risk Assessments (ERAs).** The Navy shall use natural resources professionals, familiar with the site and trained in NRDA, to assist in assessing ecological risks in site cleanup decisions. Where sensitive habitats are involved, they shall also review sites and work plans, evaluate contractor qualifications, and assist in remedial action and site restoration planning.

22-11 Natural Resources Miscellaneous

a. **Natural Resources Awards.** Navy installations are encouraged to participate fully in the Navy, DOD, and other awards programs open to them, in order to promote conservation and demonstrate a leadership role in protecting the environment. Guidance on military awards programs is included as appendix D.

b. **Partnerships.** Navy installations shall encourage the use of partnerships and volunteers to complete projects under the direction and approval of Navy professional natural resources personnel. Programs that foster pride in accomplishment among volunteers, partners and the Navy are encouraged. Examples of effective partnership programs are Coastal America, Partners in Flight, Student Conservation Association, and the Chesapeake Bay Initiative.

c. **Use of Volunteers.** Navy installations shall use appropriate volunteers to enhance natural resource conservation programs whenever practicable. Professionally trained natural resources managers shall direct the performance of this work, following procedures and guidelines described in 10 U.S.C. 1588(a)(2).

d. **Ecological Reserve Areas.** Any proposals to designate ecological reserve areas on Navy installations shall be approved by the Major Claimant and CNO.

e. **Enforcement of Resource Protection Laws.** Enforcement of laws, primarily aimed at protecting natural resources (and recreation activities that depend on natural resources) shall be an integral part of a natural resources program and shall be coordinated with or under the direction of the natural resources manager for the affected area. Natural resources law enforcement training shall be budgeted for, and each installation with hunting, fishing, or protected species shall ensure trained personnel are available.

f. **Natural Resources Data Call Station.** The Natural Resources Data Call Station is a web-based/on-line tool for submitting, compiling, and retrieving information about the NRM Program. The goal is to obtain and maintain the most current information possible to track the status of various natural resources programs and to have current data to respond to various program inquiries and generate accurate reports. Major Claimants must assign a specific installation point-of-contact to keep the system up to date.

22.12 Training

Every person preparing, implementing, supervising and managing natural resources programs shall receive environmental and natural resources training outlined in chapter 24 of this instruction. They shall receive comprehensive natural resources training specific to their job assignment, and familiarize themselves with the provisions of this chapter and the procedures outlined in reference (a). Continued professional training shall be an integral part of responsible NRM and BASH.

22.13 Responsibilities

22-13.1 Chief of Naval Operations (CNO N45) shall serve as principal leader, overall Navy program manager and advisor for the Navy in matters related to NRM and, including but not limited to:

a. Ensure an adequate, Navy-wide organizational capability at headquarters and in the field to meet the demands and challenges of natural resource management dictated by DOD and legislative requirements.

b. Ensure the programming of resources necessary to establish and maintain an integrated natural resources program consistent with legislative requirements, DOD policy, and stewardship of Navy lands and resources.

c. Provide policy needed to establish and maintain a program for the management, conservation, and enhancement of natural resources on Navy lands.

d. Coordinate and ensure resolution of natural resources issues affecting the Navy mission.

- e. Provide a natural resources professional to serve on the DOD Conservation Committee.
- f. Coordinate pertinent aspects of the Navy Natural Resources Program and issues with headquarters elements of other Federal agencies, military services, and other environmental organizations.
- g. Make staffing recommendations for natural resources personnel, including designation or assignment of Navy natural resources representatives for DOD, DON or other natural resources working groups, initiatives, commitments of programs.

22-13.2 Regional Commanders/Area Coordinators shall report new conservation regulatory requirements (i.e. proposed listings of threatened and endangered species, proposed critical habitat restrictions, biological opinions, NEPA mitigation measures, etc.) via the chain of command, in coordination with the EFDs/EFAs and NAVFACHQ, to N45 that impact Naval readiness and sustainability. This assessment may be accomplished via the Natural Resources Data Call Station or by written report by 15 November for the preceding fiscal year. This assessment should be very detailed on the particular impacts on readiness, sustainability and training (for instance to include: days of training lost due to Natural Resources Restrictions, endangered species impacts and costs for mitigation and protection, limitations on night operations, limitations on training capability, costs of mitigation related to endangered species, migratory birds, and any other issues or impacts that are important to Navy to support overall readiness and sustainability etc.).

- a. Participate in the preparation of INRMPs for installations within their area of cognizance. Coordinate an ecosystems approach to NR Management and INRMP development with other military services.
- b. Endorse INRMPs and promote and coordinate their implementation with the appropriate Major Claimant and EFD/EFA.
- c. Advise CNO (N45) of situations that require national-level coordination with other Federal agencies.
- d. Maintain close liaison with CNO N45, COMNAVFACENGCOM and EFDs/EFAs, to promote and ensure regional efficiencies.
- e. Use the services of the EFDs/EFAs for preparation/implementation of INRMPs, development/administration of Cooperative Agreements and contracts, and other natural resources support, as needed.
- f. Evaluate and validate POM submittals and other requests for funds for Natural Resources projects.

22-13.3 COMNAVFACENGCOM shall:

- a. Serve as Navy Natural Resources Technical Program Manager. Assist major claimants in implementing Navy policy to ensure stewardship of Navy lands and resources and compliance with natural resources laws and regulations

- b. Provide technical expertise to evaluate and validate POM submittals and other requests for funds for natural resource projects.
- c. Provide technical assistance to develop and implement, in conjunction with CNO N45 sponsorship, a Navy-wide Natural Resources Conference every year for Navy Natural Resources Personnel.
- d. Assist major claimants in implementing policy for managing and conserving soil, water, forest, land, grounds, fish and wildlife, wetlands, floodplains and natural areas.
- e. Determine the potential for NRM programs on installations that contain land and water areas suitable for the conservation and management of natural resources.
- f. Gather information from installations, EFDs/EFAs, and Major Claimants; maintaining NRM Program information needed to satisfy reporting requirements, legislative information requests and to support project requests in a Natural Resources Data Center.
- g. Provide professional staffing on a regional basis via the EFDs/EFAs to:
 - (1) Implement program management guidance and appropriate Navy-wide instructions for INRMPS.
 - (2) Approve budgets and plans for management of Navy forests and allocate forestry program funds. A report showing the expenditures, purposes for expenditures and all uses of forestry funds shall be forwarded once per year to CNO N45. This report is due by 15 December.
 - (3) Manage and allocate agricultural outlease funds from proposals endorsed and validated, by the region, major claimants and NAVFAC, for all projects and other requests for these funds. A report showing the expenditures, purposes for expenditure and all uses of agriculture funds shall be made once per year and forwarded to CNO N45. The report is due by 15 December.
 - (4) Provide technical oversight and budget approval of installation fish and wildlife/hunting and fishing fee and permit programs in consultation with the installation and regional environmental office.
- h. Provide technical and administrative guidance and assistance necessary for the development of INRMPS.
- i. Evaluate and incorporate new methods, policies, technologies, and procedures for the preservation, management and enhancement of natural resources.
- j. When requested by major claimants and subordinate commands, coordinate NRM requirements with other Federal, State or local professional authorities, including section 7 consultations under the ESA.
- k. Provide technical oversight, documents and contracts for the Navy forestry program.

- l. Develop, manage and execute agricultural out-leasing programs, provide appropriate technical expertise and conservation planning, prepare reports, documents and contracts.
- m. Provide the technical and administrative guidance for the development of cooperative agreements to implement natural resources plans and execute cooperative agreements on behalf of installation commanders upon request.
- n. Provide functional and technical support to CNO N45 and Navy Regions for national and regional professional workshops, forums, and conferences for information/technology transfer and exchange.
- o. Resolve natural resources impact issues in support of the environmental impact analysis process, including identification, location and quantification of compensatory, remedial or mitigative NRM measures to offset project impacts.
- p. Ensure that current and planned activities (e.g. master planning, construction requests and design) are effectively coordinated in a timely manner with appropriate natural resources managers.
- q. Provide technical assistance to regional environmental coordinators, area commanders, and installations in carrying out their responsibilities.
- r. Provide natural resources expertise and contract authority for natural resource matters to Marine Corps installations, upon funded request.
- s. Provide technical expertise in management of BASH programs.
- t. Develop and maintain liaison with appropriate Federal, State, local agencies, and other organizations to facilitate implementation of INRMPs.

22-13.4 Major Claimants and intermediate commands shall:

- a. Require, ensure, and assist subordinate installation's NRM planning and program implementation, and training for NR professionals and coordinators at the installations.
- b. Program and budget resources to fund both routine and recurring costs to operate and maintain NRM planning and INRMP implementation. Evaluate and validate POM submittals and other requests for funds for Natural Resources projects.
- c. Ensure that subordinate installation COs act as stewards of natural resources under their jurisdiction. Promote cooperative projects with Federal, State, and local organizations.
- d. Ensure that effective NRM is an identifiable function, and is specifically accountable in performance evaluations, at each command level.
- e. Ensure that installation NRM program implementation and effectiveness are evaluated by natural resources professionals as part of EQAs (See chapter 20).

- f. Ensure that adequate NRM expertise is available to installation COs for the inventory, protection, management, identification, and mapping of wetlands and other natural resources features.
- g. Ensure that contracts for operation of government owned, contractor operated (GOCO) installations include provisions for complying with policies and procedures as prescribed in this chapter and instruction.
- h. Ensure adequate natural resources programs are in place at installations scheduled for closure to continue to manage and protect the resources until land has been officially transferred to another owner.
- i. Maintain records necessary to monitor and evaluate natural resources under their management, and provide requested information to agencies with jurisdiction and to the public.
- j. Take appropriate action necessary to assure that actions authorized, funded, or carried out comply with the ESA.
- k. Coordinate proposals for new and continuing actions that affect natural resources with the managers of those resources, and ensure that State best management practices for nonpoint source pollution are incorporated into these proposals.
- l. Work with NAVFAC EFD/As to develop and maintain liaison with appropriate Federal, State, and local agencies, and other organizations to facilitate implementation of INRMPs.
- m. Implement Navy policy to ensure stewardship of Navy lands and resources and compliance with natural resources laws and regulations
- n. Implement policy for managing and conserving soil, water, forest, land, grounds, fish and wildlife, wetlands, floodplains and natural areas.

22-13.5 COs of shore activities holding Class 1 plant accounts shall:

- a. Act as stewards of natural resources under their jurisdiction, develop and maintain an effective conservation program as outlined in this instruction, and use technical assistance from the EFD/As as necessary.
- b. Integrate natural resources requirements into the day-to-day decision-making process.
- c. Request funding sufficient to ensure support of an integrated program as prescribed by this chapter and the NAVFAC P-73, Vol. II, including personnel support and training.
- d. If not exempt, ensure the preparation and implementation of an INRMP and systematically apply the conservation practices set forth in plan.
- e. Appoint, by letter, an installation Natural Resources Manager/Coordinator whose duties include ensuring that the CO is informed regarding: natural resources issues, conditions of natural resources, objectives of the INRMP, and potential or actual conflicts between mission requirements and natural resources mandates. Designated installation POC's are responsible for the inherently governmental decisions made on behalf of the installation and CO with regard to Sikes Act compliance.

- f. Implement programs to reduce the potential for collisions between aircraft and birds or other animals if the installation supports a flying mission.
- g. Ensure that current and planned mission activities are effectively coordinated in a timely manner with appropriate natural resource managers.
- h. Ensure incorporation of soil and water conservation measures and landscaping in the preliminary engineering, design, and construction of facilities involving ground disturbance in coordination with EFD/As. Ensure that state-approved erosion prevention/control measures are included as requirements in the specifications for all ground disturbing construction projects. Include these costs as a specific item in new project investigations and preliminary engineering reports.
- i. Review all non-excess land to identify areas that may be suitable and available for agricultural outleasing or commercial forestry. Document the results of this review as described in chapters 2 and 3 of reference (a).
- j. Enter into fish and wildlife and outdoor recreation cooperative agreements developed on behalf of the Secretary of Defense as required by the Sikes Act.
- k. Seek the aid of, and coordinate the NRM program with, Federal, State, and local agencies.
- l. Coordinate proposals for new and continuing actions that affect natural resources with the managers of those resources.
- m. Conduct surveys and other appropriate actions as necessary to document the presence of threatened or endangered species, identify currently used and periodically/indirectly used habitat for these species and assist in the determination of whether any such habitats should be designated as "critical habitats." COs shall conduct surveys to determine the presence and distribution of candidate species and State/territory rare and endangered species.
- n. Properly consider any action affecting natural resources in the environmental review and public notification process. (See Chapter 2).
- o. Maintain records necessary to monitor and evaluate natural resources under their management, and provide requested information to agencies with jurisdiction and to the public.
- p. Integrate NRM principles with environmental protection programs to coordinate an effective overall environmental program.
- q. Inventory, evaluate and delineate wetlands on the installation and develop management prescriptions for the protection and enhancement of these wetlands to meet the Navy's "No Net Loss" goal.
- r. Provide and budget for Natural resources law enforcement by personnel trained in natural resources law enforcement for installations with hunting, fishing, or protected species.