BY ORDER OF THE SECRETARY OF THE AIR FORCE

AIR FORCE INSTRUCTION 32-7064

18 NOVEMBER 2014

Incorporating Change 2, 22 November 2016

Civil Engineering

INTEGRATED NATURAL RESOURCES MANAGEMENT

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

ACCESSIBILITY: Publications and forms are available on the e-Publishing website at **www.e-Publishing.af.mil** for downloading or ordering.

RELEASABILITY: There are no releasability restrictions on this publication.

OPR: HQ USAF/A4CF
(Energy and Environment Branch)

Certified by: HQ USAF/A4CF
(Mr. Robert M. Gill)

Pages: 96

Supersedes: AFI32-7064, 17 September 2004

This publication implements Department of Defense Instruction (DoDI) 4715.03, *Natural Resources Conservation Program* and Air Force Policy Directive (AFPD) 32-70, *Environmental Quality*. It identifies requirements to manage natural resources on Air Force installations in accordance with applicable federal, state, and local laws and regulations. It applies to individuals at all levels who manage natural resources on AF installations within the United States and its territories, including the Air Force Reserve, Air National Guard (ANG), and government-owned, contractor-operated facilities on Air Force controlled lands except where noted otherwise. At installations outside the United States and its territories, implement this AFI consistent with applicable international agreements, Unified Combatant Command (UCC) policy, environmental annexes to operational orders or plans, country-specific Final Governing Standards (FGS), or in their absence, the Overseas Environmental Baseline Guidance Document (OEBGD). In case of conflict, UCC policy, the environmental annex, the FGS, or the OEBGD takes precedence over this AFI. Any organization may supplement this instruction, to include the Major Commands (MAJCOMs), ANG, and AFRC, however, direct supplements must be provided to the OPR of this publication for coordination prior to certification and approval. Further, the ANG or AFRC will support the intent of this Air Force Instruction, and where needed may prepare an appropriate policy, supplement, guidance, and/or procedural document reflecting its unique legal status, resources, and structure, as recognized by the reserve component authorities of Title 10 of the United States Code, Air Force Doctrine and other governing authorities. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) listed above using the Air Force Form 847, Recommendation for Change of Publication; route Air Force Forms 847 from the field through

the appropriate functional chain of command. The authorities to waive wing/unit level requirements in this publication are identified with a tier ("T-0, T-1, T-2, T-3") number following the compliance statement. See AFI 33-360, *Publications and Forms Management*, Table 1.1 for a description of the authorities associated with the tier numbers. Submit requests for waivers through the chain of command to the appropriate tier waiver approval authority, or alternately, to the publication OPR for non-tiered compliance items. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located in the Air Force Records Information Management System (AFRIMS). The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

SUMMARY OF CHANGES

These interim changes (IC-2) revise AFI 32-7064 by reflecting changes identified and agreed to during the compliance statement review by SAF/AA to ensure adherence to AFI 33-360 compliance statement format and waiver tier requirements. Interim changes (IC-1) revise AFI 32-7064 by (1) removing incorrectly identified Finding of No Practicable Alternatives (FONPA) delegated decision authority, (2) clarifying consideration of alternatives and FONPA decision making for wetlands via the Environmental Impact Analysis Process (EIAP), (3) clarifying EIAP and related references, (4) providing signatory authority for cooperative agreements in accordance with Sikes Act, (5) and clarifying issues related to EIAP and the Endangered Species Act.

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Chapter 1

PROGRAM OVERVIEW

1.1. Overview . This instruction addresses the management of natural resources on Air Force (AF) properties to comply with federal law and applicable state and local standards. This instruction provides AF installations a framework for planning, implementing, and documenting natural resources management programs. The primary objective of AF natural resources programs is to sustain, restore and modernize natural infrastructure to ensure operational capability and no net loss in the capability of AF lands to support the military mission of the installation.

Chapter 2

ROLES AND RESPONSIBILITIES.

2.1. Assistant Secretary of the Air Force for Installations, Environment, and Energy (SAF/IE).

2.1.1. Oversee the AF natural resources program as the Air Force Natural Resources Trustee.

2.1.2. Promulgate and oversee policy for integrated natural resources management as part of the AF Environmental Management System (EMS) IAW AFI 32-7001 *Environmental Management*.

2.1.3. Serve as principal representative and advocate for integrated natural resources compliance with the Office of Secretary of Defense (OSD) staff, federal agencies, and Congress.

2.1.4. Coordinate Air Force natural resource management procedures with those of the other military services for the purpose of exploring common areas of interest and to prevent duplication of effort.

2.1.5. Approve establishment of conservation banks, wetland banks, or other property easements on Air Force property for the purpose of mitigation for development and military readiness activities that affect natural resources and the military mission.

2.2. Secretary of the Air Force, General Counsel of the Air Force (SAF/GC).

2.2.1. Provide legal advice to SAF and HQ USAF organizations, as appropriate, on natural resources laws, regulations, policy, international conventions, treaties, and agreements involving multiple installations, controversy, other agencies or tribal entities.

2.3. Headquarters, United States Air Force, Deputy Chief of Staff for Logistics, Engineering, & Force Protection, Director of Civil Engineers (AF/A4C).

2.3.1. Execute policy, advocates for, allocates resources, and oversees execution of AF natural resources programs.

2.3.2. Coordinate and analyze environmental performance reporting, compliance tracking and resource needs.

2.3.3. Collect, analyze and report AF-wide performance information to SAF/IE.

2.3.4. Advocate for conservation funding through the Planning, Programming, Budgeting, and Execution process.

2.3.5. Determine the need for an installation Integrated Natural Resources Management Plan (INRMP) IAW the Sikes Act, Title 16 United States Code (U.S.C.), Section (§) 670a(a)(1)(B), and based on the criteria in paragraph 2.2. The Director of Civil Engineers may re-delegate this authority to no lower than Division Chief level within AF/A4C.

2.3.6. Designate one primary voting member and up to three alternates to the Department of Defense (DoD) Conservation Committee.

2.3.7. Establish and maintain cooperative working relationships with federal agency headquarters level environmental regulators, OSD, Major Commands, and other stakeholders.

2.3.8. Serve as process-owner for overall environmental requirements development for AF-owned IT systems.

2.4. Air Force Civil Engineer Center (AFCEC) Environmental Directorate (AFCEC/CZ).

2.4.1. Staff a natural resources Subject Matter Expert (SME) that serves as the natural resources program manager and provides technical assistance and guidance to AF on natural resources issues. **(T-2).**

2.4.2. Advocate for resources required to implement approved installation Integrated Natural Resources Management Plans. The Deputy Director, Air National Guard (ANG), programs for resources required to implement INRMPs at ANG installations. **(T-2).**

2.4.3. Provide and manage contracts, interagency agreements, and cooperative agreements on behalf of, and for use by AF organizations for natural resources program management assistance and implementation of natural resources management projects, with the exception of the installation BASH program, which is managed by the Wing Flight Safety Office. AFCEC Director is delegated authority to sign cooperative agreements and interagency agreements entered into pursuant to the Sikes Act, 16 U.S.C. §670c-1. **(T-1).**

2.4.4. Administer the reimbursable forestry, agricultural and grazing, and fish and wildlife account programs as well as dispersed outdoor recreation programs on AF installations. **(T-2).**

2.4.5. Manage the Department of Defense Forest Reserve Account program for AF and distributes funds for approved projects. **(T-2).**

2.4.6. Operate the AF Wildland Fire Center at Eglin Air Force Base, administers National Wildfire Coordinating Group (NWCG) training and certification records for personnel involved in wildland fire management activities, and maintains records of wildfires and prescribed fires on AF property. **(T-1).**

2.4.7. Administer training and certification records for AF conservation law enforcement officers. **(T-2).**

2.4.8. Develop and promotes the natural resources program requirements to support the AF Environmental Management System (EMS). **(T-2).**

2.4.9. Manage the AF General Thomas D. White and the Secretary of Defense environmental awards program IAW AFI 36-2817, *Engineering Awards Program*.

2.4.10. Provide technical guidance and expertise to AF for grounds maintenance and pest management. **(T-3).**

2.5. Air Force Legal Operations Agency, Environmental Law Field Support Center (AFLOA/JACE-FSC). Provide legal support to AFCEC, Major Commands, and installations on issues concerning natural resources. **(T-1).**

2.6. Air Force Safety Center (AFSEC/SEFW) Bird/Wildlife Aircraft Strike Hazard (BASH) Team . Provide guidance and directives on minimizing wildlife hazards to aircraft operations. **(T-1).**

2.7. Installation Commander.

2.7.1. Approve the INRMP by signature on all revised INRMPs. The Installation Commander may re-delegate signature authority to a lower level provided that the signatory has control over all aspects and management objectives addressed within the subject INRMP. **(T-2).**

2.7.2. Certifiy the annual review of the INRMP as valid and current; or delegates thecertification of the annual INRMP review authority to no lower than the Civil Engineer Squadron Commander. **(T-2).**

2.7.3. Provide appropriate staffing to ensure implementation of the INRMP. **(T-2).**

2.7.4. Control access to and use of installation natural resources. **(T-2).**

2.7.5. Sign cooperative agreements and interagency agreements entered into, pursuant to the Sikes Act, 16 U.S.C. §670c-1. The Chief of the National Guard Bureau, or an official duly delegated authority to act on his/her behalf, signs Sikes Act cooperative agreements and interagency agreements for the ANG. **(T-1)**.

2.7.6. Approve and sign the installation Wildland Fire Management Plan (WFMP). The Installation Commander may re-delegate signature authority to a lower level provided that the signatory has control over all aspects of WFMP implementation. **(T-2).**

2.7.7. Ensure that a notice of intent (NOI) is prepared, per 32 C.F.R. Part 989.17, and a public scoping process initiated per 32 C.F.R. Part 989.18 as described in section 4.4.2. for the EIAP on actions that may affect wetlands. **(T-1)**.

2.7.8. Consider, in coordination with the Environmental Planning Function (EPF), the impact of proposed actions on federally listed threatened and endangered species by including the species in the scoping of the NEPA analysis at the earliest possible time and follow the process described in section 8.3.4. **(T-1)**.

2.7.9. Consider, in coordination with the Environmental Planning Function (EPF), the impact of their proposed actions on federally listed threatened and endangered species by including the species in the scoping of the NEPA analysis at the earliest possible time and follow the process described in section 8.3.4. **(T-1).**

2.8. Environmental Management System. Consistent with Executive Order (E.O.) 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*, January 24, 2007, and E.O. 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, October 5, 2009, Air Force installations must develop and implement an EMS to sustain, restore, and modernize natural infrastructure to support mission capability. AFI 32-7001, *Environmental Management* provides direction for the Air Force Environmental Management System. Natural Resources are an Environmental Aspect within the Air Force EMS.

Chapter 3

IMPLEMENTING INTEGRATED NATURAL RESOURES MANAGEMENT

3.1. Integrated Natural Resources Management Plan. In accordance with the Sikes Act, 16 U.S.C §670 *et. seq.*, the INRMP is the principal tool for managing military installation natural resources. Each military installation in the United States under the jurisdiction of the Secretary of Defense must prepare and implement an INRMP unless a determination is made that the absence of significant natural resources makes preparation of such a plan inappropriate (see 3.2). **(T-0)**. Prepare INRMPs to assist the installation commander with the conservation and rehabilitation of natural resources consistent with the use of the installation to ensure the readiness of the Armed Forces. The INRMP defines natural resources management goals and objectives that are consistent with the military mission, and ensures no net loss in the capability of installation lands to support the military mission. All installation organizations, to include tenant units, must support the implementation of INRMP goals and objectives, as applicable. **(T-0)**. Attachment 2 provides guidelines for INRMP preparation.

3.2. Determining the Need for an INRMP. Air Force determines the requirement for an installation INRMP based on Category I and II criteria defined below.

3.2.1. Category I Criteria: Category I installations require an INRMP. Category I installations have significant natural resources requiring conservation and management. Installation size (acreage) should not be used as a sole determining factor in deciding the need for an INRMP. The United States Fish and Wildlife Service (USFWS) and the state fish and wildlife management agency should be consulted when determining if significant natural resources exist to warrant an INRMP. Installations including or bordering marine environments should also consult with the National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries). An installation has significant natural resources, and will develop and implement an INRMP, if any of the following criteria apply: **(T-0).**

3.2.1.1. The installation conducts on-the-ground military missions on unimproved lands that necessitates conservation measures to sustain the natural resources and minimize impacts (e.g. soil erosion control).

3.2.1.2. Species listed as threatened or endangered in accordance with the Endangered Species Act (ESA) (16 U.S.C. §§1531-1544) are present on the installation, or critical habitat has been designated or is currently proposed on the installation, and active installation conservation measures are necessary to conserve the species.

3.2.1.3. Hunting, fishing or other natural resources-based outdoor recreation activities (e.g. off-road vehicles) are allowed on the installation.

3.2.1.4. The installation operates outgrants (leases, licenses, permits) for livestock grazing, crop production, or stable operations that allow horseback riding on unimproved lands.

3.2.1.5. The installation operates a commercial forestry program or manages other non-urban forest lands in support of: readiness and training activities, maintaining forest health, or in support of other ecosystem management goals and objectives.

3.2.1.6. The installation has significant Bird/wildlife Aircraft Strike Hazard issues that require habitat manipulation outside the managed airfield; or require wildlife hazing or depredation activities that are beyond the scope of standard bird/wildlife prevention, control, and dispersal operations conducted under the auspices of a BASH Plan administered by the Wing Flight Safety office.

3.2.1.7. Important or unique biological resources are present, such as wetlands, species listed for state protection, candidate species for federal protection, or unique habitats that provide essential loafing, nesting, or foraging areas for migratory birds, bats, or other wildlife protected by state or federal law. The unique character of a biological resource is determined through consultation with the USFWS and state fish and wildlife agency, whereby it is established that ecological issues related to the resource require a level of planning and management that can only be addressed by an INRMP.

3.2.2. Category II Criteria: Category II installations do not require an INRMP. Category II installations are deemed exempt from the INRMP requirement because of the absence of significant natural resources as defined by the Category I criteria. Consult with the USFWS and appropriate state natural resource management agencies when determining whether significant natural resources exist. Additionally, consult with NOAA Fisheries if the installation includes or borders marine environments. The Director, AF/A4C, or delegated authority will confirm Category II status.

3.3. Cooperative INRMP Preparation. Prepare INRMPs in cooperation with appropriate stakeholders. Notify stakeholders when a new or revised INRMP is prepared, and solicit participation and input to the INRMP development and review process. Attachment 3 specifies the required coordination and approval process and timeline for cooperative INRMP preparation.

3.3.1. Internal Stakeholder Participation. Implementation of an INRMP requires the action and/or collaboration of the entire installation command structure as well as tenant organizations to ensure mission readiness. Solicit participation from known installation stakeholders early in the INRMP preparation process, to include the Flight Safety office.

3.3.2. Interagency Stakeholder Participation. The Sikes Act Section 101(a)(2) (16 U.S.C. § 670a(a)(2))., requires that an INRMP be prepared in cooperation with the USFWS, the appropriate state fish and wildlife agency for the state in which the military installation is located, and NOAA Fisheries for installations that include or border marine environments. Invite the USFWS, NOAA Fisheries (if applicable), and the state fish and wildlife agency to participate in the scoping, design, and preparation of an INRMP. For installations occupying lands withdrawn from the public domain, invite the Bureau of Land Management (BLM) to participate in the scoping and design of an INRMP. On withdrawn lands where the BLM is a stakeholder, a Memorandum of Understanding between the installation and the BLM may be used to establish agreement on the roles and responsibilities of each party for the management of installation natural resources.

3.3.3. Internal Review. Draft INRMP documents require internal agency review prior to release for review and comment by external agencies and the general public.

3.3.3.1. Submit the draft INRMP for formal review and comment within the installation chain of command. Incorporate comments into the INRMP as appropriate.

3.3.3.2. Provide the Installation Support Team the opportunity to review and comment on draft INRMP documents; and to Headquarters, Air National Guard for ANG installations **(T-2).**

3.3.4. Interagency Review. Provide the USFWS, state fish and wildlife agency, and NOAA Fisheries (when applicable), the opportunity to review a draft INRMP before submitting the document for public review. For installations occupying lands withdrawn from the public domain, ensure the BLM is also given the opportunity to review a draft INRMP before submitting for public review.

3.3.5. Public Review**.** Provide an opportunity for the public to review any initial draft INRMP document, or major INRMP revision, and provide comments. Make public notification when a draft INRMP is available for comment, and ensure the period allowed for the submittal of comments is no less than 30 days. Ensure the USFWS, state fish and wildlife agency, and NOAA Fisheries (if applicable), are also given the opportunity to review all public comments received on an INRMP.

3.4. INRMP Approval. An INRMP is considered compliant with the Sikes Act if it has been approved in writing by the appropriate representative from each cooperating agency within the past five years. Approval of a new or revised INRMP is documented by signature on a signature page signed by the Installation Commander (or designee), and a designated representative of the USFWS, state fish and wildlife agency, and NOAA Fisheries when applicable. A letter of coordination and approval signed by the designated representative of a cooperating agency suffices in lieu of a signature on the INRMP signature page. INRMP approval is sustained through the annual INRMP review and coordination process (see 3.5). The INRMP is considered current until an annual review coordination process results in a determination by the cooperating agencies that a revision is necessary; or if concurrence is rescinded by notice from a cooperating agency. The BLM is not a required signatory to an INRMP, but ensure the agency is given the opportunity to review and comment on draft INRMP documents.

3.4.1. Establishment of Mutual Agreement. Each signature on an INRMP signature page, or approval letter, reflects the mutual agreement of the parties on those portions of the INRMP within the scope of each agency's authority. By signature of the authorized representative from a cooperating agency, the agency asserts agreement that the INRMP is sufficient and compliant in accordance with the Sikes Act. Mutual agreement is the goal with respect to the entire INRMP. However, mutual agreement is necessary only with respect to those elements of the INRMP that are subject to the jurisdictional authority of the USFWS or NOAA Fisheries as specified by law (e.g. ESA, Marine Mammal Protection Act), or the inherent rights of the state to conserve, protect, and manage fish and wildlife resources.

3.4.2. Failure to Reach Mutual Agreement. In cases where the USFWS or state withholds its agreement to an INRMP based on objections to elements of the INRMP that are clearly not within the scope of the particular agency's authority, an installation may, notwithstanding the objections, finalize the INRMP as specified in Attachment 3 and proceed to manage its natural resources in accordance with the terms of the plan. The installation shall seek a written explanation from a cooperating agency to document why a signature is withheld.

3.5. Annual INRMP Review and Coordination. Establish and maintain regular communications with the appropriate federal and state agencies for the region where the installation is located (see 2.3). At a minimum, the installation natural resources manager shall

conduct an annual review of the INRMP in coordination with internal stakeholders and local representatives of the USFWS, state fish and wildlife agency, and NOAA Fisheries where applicable. Installations will document the findings of the annual review in an Annual INRMP Review Summary. By signature to the Annual INRMP Review Summary, the collaborating agency representative asserts concurrence with the findings. If any agency declines to participate in an on-site annual review, the installation shall submit an Annual INRMP Review Summary document to the agency via official correspondence and request return correspondence with concurrence. **(T-0).**

3.5.1. The installation natural resource manager must ensure the following is included in the Annual INRMP Review Summary: **(T-1)**.

3.5.1.1. A summary of specific INRMP accomplishments since the last review.

3.5.1.2. A summary of the required INRMP updates into the INRMP to keep the INRMP current in operation and effect for the management of installation natural resources; or alternatively, a statement that significant changes to the installation mission or natural resources goals require an INRMP revision (see 3.6) meeting.

3.5.1.3. A statement that sufficient numbers of qualified natural resources management personnel and resources are available to oversee implementation of projects and activities identified in the INRMP Work Plan.

3.5.1.4. An Annual Work Plan for implementing the INRMP that includes the current year and at least two future fiscal years. The Work Plan must include all projects and activities identified as essential for the successful implementation of INRMP goals and objectives, and an implementation schedule that is realistic and practicable.

3.5.1.5. A statement indicating the projects in the Annual Work Plan for which the collaborating agencies have expressed an interest in participating in project execution. If the collaborating agencies do not express an interest in executing projects in the Annual Work Plan, then include the following statement in the Annual INRMP Review Summary: "The execution strategy for the Annual Work Plan has been discussed with the participating agencies, and the agency representatives have not expressed an interest in participating in project execution, and agree that implementation will be performed through other authorized acquisition methods."

3.6. INRMP Update and Revision. Conduct INRMP updates and revisions in cooperation with the USFWS, state fish and wildlife agency, and NOAA Fisheries where applicable. Include all appropriate internal and external stakeholders in the update and revision process. In accordance with the Sikes Act, ensure the cooperating agencies review an INRMP on a regular basis, but not less often than every five years. Cooperating agencies should mutually agree that the INRMP presents a natural resources management program that is current as to operation and effect for those elements of the INRMP under the jurisdictional authority of each agency.

3.6.1. <u>INRMP Update</u>**.** An INRMP update consists of minor edits that provide current information, or adjusts implementation timelines that would not result in changes to management goals and objectives that are substantively different than those previously agreed to by the cooperating agencies, and would not result in environmental consequences different from those in the existing INRMP. Minor update requirements are identified during the annual INRMP review and coordination (see 3.5). An INRMP update documents minor

changes agreed to by the partners on how the INRMP is implemented, and does not represent a change in the scope of the INRMP. Mutual agreement by cooperating agencies that an updated INRMP remains current as to operation and effect with respect to the Sikes Act is documented by signatures to the Annual INRMP Review Summary document. An INRMP update does not require public review and comment on the decision to continue implementing the INRMP as updated.

3.6.2. INRMP Revision. Revise an INRMP if changes in the installation mission or land use would alter the biogeophysical environment such that significant edits need to be made to ensure that the INRMP reflects the current natural resources management requirements and appropriate program goals and objectives. Revise an INRMP if a change in land use or condition would result in environmental impacts not anticipated by the parties to the INRMP when the INRMP was last reviewed as to operation and effect. The need for an INRMP revision is determined during the annual INRMP review (see 3.5). Provide an opportunity for the public to review and comment on a draft INRMP revision (see 3.3.3). For new and revised INRMPs, mutual agreement by a cooperating agency is documented by the signature of an authorized representative from each agency on the signature page for the INRMP, or by written correspondence (see 3.4).

3.7. Environmental Impact Analysis Process (EIAP) and INRMP Implementation. Actions proposed as part of development of an INRMP generally constitute an action subject to the National Environmental Policy Act, the Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of the NEPA, and the Air Force's EIAP. Consider the effects of implementing the INRMP in support of the decision(s) to implement the INRMP and in furtherance of 40 C.F.R. §1505.25. Alternative means of implementing the proposed INRMP constitute the alternatives considered, and integrated, in the NEPA analysis and should be generally formatted and generally scoped to allow tiering consistent with 40 C.F.R. §1500.4, 40 C.F.R. 1502.4(b), and 40 C.F.R. §1502.20.

3.8. Ecosystem Management. The INRMP implements ecosystem management on AF installations by setting goals for attaining a desired land condition. When preparing or revising an INRMP, follow the ecosystem management principles and guidelines in DoDI 4715.03, *Natural Resources Conservation Program*, and the guidance provided herein. **(T-0).**

3.8.1. Air Force Principles for Ecosystem Management.

3.8.1.1. Maintain or restore native ecosystem types across their natural range where practical and consistent with the military mission.

3.8.1.2. Maintain or restore ecological processes such as fire and other disturbance regimes where practical and consistent with the military mission.

3.8.1.3. Maintain or restore the hydrological processes in streams, floodplains, and wetlands when feasible and practical and consistent with military mission.

3.8.1.4. Use regional approaches to implement ecosystem management on an installation by collaboration with other DoD components as well as other federal, state and local agencies, and adjoining property owners.

3.8.1.5. Provide for outdoor recreation, agricultural production, harvesting of forest products, and other practical utilization of the land and its resources, provided that such use does not inflict long-term ecosystem damage or negatively impact the AF mission.

3.8.2. Biodiversity Conservation. Biodiversity conservation is an integral part of ecosystem management. Maintain or reestablish viable populations of all native species on AF-controlled lands when practical and consistent with the military mission and not in conflict with airfield operations. Consider the effects of climate change in plans to restore native ecosystems.

3.8.3. Climate Change. Changing climate conditions may significantly affect native ecosystems and require the Air Force to adjust natural resources management strategies to support military mission requirements and address the needs of sensitive species. INRMP goals and objectives for ecosystem management and biodiversity conservation must consider projected climate change impacts, and favor an adaptive ecosystem-based management approach that will enhance the resiliency of the ecosystem to adapt to changes in climate. The INRMP will assess climate change risks, vulnerabilities, and adaptation strategies using authoritative region-specific climate science, climate projections, and existing tools. The INRMP should list, or include by reference, installation-specific climate data and region-specific climate projections from the most current quadrennial National Climate Assessment Report, and include other pertinent Federal climate science documents as appropriate. **(T-2).**

3.8.4. Exotic and Invasive Species Control. The INRMP indicates if any exotic and invasive species are present on an installation, and identifies any existing programs to control and/or eradicate those species. Develop and implement management strategies oriented toward the control of exotic and invasive species when practical and consistent with the military mission.

3.9. Staffing. As defined in DoDI 4715.03, installations will use professionally trained natural resources management personnel with a degree in the natural sciences to develop and implement the installation INRMP. **(T-0)**.

3.9.1. Outsourcing Natural Resources Management. As stipulated in the Sikes Act, 16 U.S.C. §670 *et. seq.*, the Office of Management and Budget Circular No. A-76, *Performance of Commercial Activities*, August 4, 1983 (Revised May 29, 2003) does not apply to the development, implementation and enforcement of INRMPs. Activities that require the exercise of discretion in making decisions regarding the management and disposition of government owned natural resources are inherently governmental. When it is not practicable to utilize DoD personnel to perform inherently governmental natural resources management duties, obtain these services from federal agencies having responsibilities for the conservation and management of natural resources.

3.9.2. Use of Non-Appropriated Fund Personnel. Non-Appropriated Fund personnel and resources may be utilized to assist in the implementation of natural resources management programs. In such cases, supervision and control of natural resources management programs remain under the designated natural resources program manager for the installation.

3.9.3. Wildland Fire and Conservation Law Enforcement**.** Title 10, U.S.C., §2465 prohibits contracts for performance of firefighting or security guard functions, with some exceptions.

Contractors may not perform firefighting or conservation law enforcement as a primary task unless an exception to 10 U.S.C. §2465 applies.

3.10. Integration of Natural Resources Management with Other Air Force Programs.

3.10.1. Integration with the Installation Planning Process. The INRMP is a key component plan of the Installation Development Plan as detailed in AFI 32-7062, *Air Force Comprehensive Planning.* The INRMP identifies natural resource features that need to be considered and incorporated into the Installation Development Plan and other component plans and studies regarding future installation development.

3.10.2. Integration with EIAP. Integration with EIAP. The installation or IST natural resources manager will collaborate with the action proponent and the EIAP manager to ensure that activities that may affect natural resources are fully considered in compliance with NEPA**.(T-0).**

3.10.3. Integration with Other Installation Programs. Coordinate draft INRMP revisions through the installation chain of command and the BASH working group. Ensure that the INRMP, Integrated Cultural Resources Management Plan, Bird/Wildlife Strike Hazard (BASH) Plan, Integrated Pest Management Plan (IPMP), and Air Installation Compatible Use Zone studies are mutually supportive and not in conflict.

3.11. Preventing Natural Resources Damage from Air Force Activities.

3.11.1. Prior to initiation of any new construction activity, the installation natural resources manager will coordinate on all Certificates of Compliance for Critical Planning Actions prepared IAW AFI 32-1021, *Planning and Programming Military Construction (MILCON) Projects*.

3.11.2. Ensure Environmental Restoration Program operations conducted IAW AFI 32-7020, *The Environmental Restoration Program* include plans to mitigate potential damage to natural resources from restoration activities.

3.11.3. Real property outleases, easements, or licenses on Air Force property may not negatively impact the ability of an installation to meet statutory requirements for compliance with federal and applicable state laws related to natural resources conservation.

3.12. Assessing Natural Resources Damage by Other Parties. In the event that natural resources under AF control are damaged by another party, such as an accidental spill of a hazardous substance, the installation incurring the damage assesses and claims damages. Refer to Title 43, C.F.R. §11, *Natural Resource Damage Assessments* for guidance on claiming damages. Recovered funds are used to restore, replace, or acquire equivalent natural resources on the installation where the damage occurred. Installations must coordinate with AFCEC/CZ, SAF/IEE and AFLOA/JACE during the claims process. **(T-0).**

3.13. Natural Resources Program Metrics. DoDI 4715.03 identifies the natural resources conservation metrics that must be tracked and reported to DoD as part of the annual Environmental Management Review, and for the Defense Environmental Programs Annual Report to Congress. AF/A4C may develop and track other measures of merit to monitor natural resources program performance and ensure compliance with law. Installations will report required metrics data to AFCEC for integration and upward reporting to AF/A4C and SAF/IE. **(T-0).**

3.14. Recognition of Outstanding Natural Resources Management. The AF General Thomas D. White and the Secretary of Defense environmental awards program recognizes outstanding individual and installation contributions to natural resources management. See AFI 36-2817, *Engineering Awards Program,* for standards and submittal procedures.

Chapter 4

WETLANDS AND WATERS OF THE UNITED

4.1. Protection of Wetlands. In compliance with Executive Order 11990, *Protection of Wetlands*, May 24, 1977, the AF will seek to preserve the natural values of wetlands while carrying out its mission on both AF lands and non-AF lands. To the maximum extent practicable, the AF will avoid actions which would either destroy or adversely modify wetlands. The AF will fully disclose the location of known wetlands, and any land-use restrictions imposed by regulatory authority, on lands that are leased, transferred or sold to non-federal entities.

4.1.1. Baseline Wetlands Inventory**.** Develop a baseline inventory and map that indicates the location of known wetlands, water bodies, and waterways on lands controlled by the AF. The baseline wetlands inventory would include all wetland areas, regardless of regulatory status. Installations are not required to update existing wetland inventory maps unless there exists a change in hydrology or in the wetland delineation methodology.

4.1.2. Finding of No Practicable Alternative (FONPA). DoDI 4715.03, Natural Resources Conservation Program, Clean Water Act Sections 401, 404 and 404(b)(1) Guidelines, and provisions of E.O. 11990, prohibits agencies from undertaking or supporting any new construction or related activities located in wetlands, unless the head of the agency, or the Chief of the National Guard Bureau, or an official duly delegated authority to act on his/her behalf, for ANG, finds that (1) there is no practicable alternative to such new construction or related activities, and (2) that the proposed action includes all practicable measures to minimize harm to the wetlands from such use.

4.1.2.1. The FONPA is a finding contained within a NEPA Finding of No Significant Impact (FONSI) or Record of Decision (ROD) (ref. 32 CFR 989.14(g)), explaining why there are no practicable alternatives to an action affecting a wetland, as established in an appropriate level NEPA analysis (see section 4.4.2.). This finding is made by the Secretary of the Air Force or an official who has been duly delegated the authority to act on the Secretary's behalf or the Chief of the National Guard Bureau, or an official duly delegated authority to act on his/her behalf, for ANG.

4.1.2.2. To support the required FONPA, prior to any new construction or related activities located in wetlands, proponents first prepare an analysis and documentation, in accordance with CWA Sections 401, 404 and 404(b)(1) Guidelines, Dodi 4715.03, *Natural Resources Conservation Program*, and provisions of E.O. 11990, that demonstrates no practicable alternatives to such construction or activities exist, and that the proposed action includes all practicable measures to minimize harm to wetlands. This required assessment of proposed actions potentially affecting wetlands will follow the process outlined in Section 4.4. **(T-0).**

4.1.2.3. When there is no practicable alternative to taking an action in a wetland, a FONPA determination is made by the Secretary of the Air Force, or an official who has been duly delegated the authority to act on the Secretary's behalf or the Chief of the National Guard Bureau, or an official duly delegated authority to act on his/her behalf, for ANG, via signature on the FONSI or ROD (section 4.4.3.).

4.1.3. Coastal Zone Management Act Consistency. Proposed actions in wetlands may require a Coastal Zone Management Act consistency determination. Refer to **Chapter 6** for further guidance.

4.2. Clean Water Act (CWA) Compliance. Activities that may impact waters and wetlands of the United States as defined in Title 40, C.F.R. §110.1, require evaluation for compliance with CWA regulations.

4.2.1. Jurisdictional Wetlands Delineation. Jurisdictional wetlands are those wetlands, water bodies and waterways that fulfill the criteria as jurisdictional waters of the United States subject to the regulatory requirements of the CWA. Site level jurisdictional wetland delineations are mandatory for proposed development activities that may affect wetlands, and are the responsibility of the proponent as part of project costs. The proponent of any activity that may affect known or suspected wetlands should conduct a jurisdictional wetland delineation utilizing the criteria approved by the Environmental Protection Agency and affirmed by the U.S. Army Corps of Engineers (USACE). The AF will refer to and accept as determinative the current USACE definitions for wetlands under USACE jurisdiction. Jurisdictional delineations are valid for a limited period of time, as established by the USACE District Regulatory Office. Installations are not required to update an expired jurisdictional wetland delineation unless there exists a proposed mission activity that necessitates an updated demarcation of jurisdictional wetland boundaries by the proponent activity.

4.2.2. CWA Section 404 Compliance. Section 404 of the CWA establishes a program to regulate the discharge of dredged or fill material into jurisdictional waters and wetlands of the United States. Actions that may impact wetlands, to include dredging, filling, and activities that may displace soil or other materials into a wetland, may require a 404 permit from the USACE. Submit USACE ENG Form 4345, *Application for Department of the Army Permit* to the appropriate USACE District Engineer prior to any land disturbance activity located in or near a regulated wetland area or regulated waters of the United States. Along with the permit application, submit a vicinity map and site development plan that includes a cross-sectional view of the affected area showing limits of jurisdictional waters, the normal water level, volume of fill material to be discharged below ordinary high water, and the area of waters affected. In some states, the authority to issue CWA Section 404 permits has been delegated to the state.

4.2.3. CWA Section 401 Compliance. Section 401 of the CWA directs that any proponent of an action that requires a federal license or permit, such as a Section 404 or National Pollution Discharge Elimination System permit, must obtain a Water Quality Certificate from the state water pollution control agency. The Water Quality Certificate certifies that the action complies with state water quality criteria. State permits to undertake projects within a specified buffer zone surrounding wetlands may also be required. When applying for a permit under state wetland protection laws, certain information not required for an USACE permit, such as a delineation of a regulated buffer area, may also be required. In some cases, permit applications may be submitted concurrently for review by both the state and the USACE.

4.3. Rivers and Harbors Act of 1899 Compliance. The Rivers and Harbors Act of 1899, 33 U.S.C. §401, establishes a program to regulate activities affecting navigable waters of the United

States. Section 10 of the Act (33 U.S.C.§403) directs that proponents must obtain a Section 10 permit administered by the U. S. Army Corps of Engineers (USACE) for construction, excavation, or deposition of materials in, over, or under navigable waters, or for any work which would affect the course, location, condition, or capacity of those waters. Activities requiring Section 10 permits include structures (e.g., piers, wharves, breakwaters, bulkheads, jetties, weirs, transmission lines) and work such as dredging or disposal of dredged material, or excavation, filling, or other modifications to the navigable waters of the United States. Contact the USACE prior to construction or other activities that may affect open water habitats to determine if a Section 10 permit is necessary.

4.4. EIAP for Actions that May Affect Wetlands . Proposed actions (i.e. new construction) that may affect wetlands require full compliance with the EIAP, CWA Sections 401, 404 and 404(b)(1) Guidelines, and E.O. 11990 prior to implementation.

4.4.1. Proponents shall take action to minimize the destruction, loss, or degradation of wetlands and to preserve and enhance the natural and beneficial values of wetlands in carrying out their responsibilities. **(T-0).**

4.4.2. Ensure supporting NEPA documentation includes consideration of alternatives to actions potentially affecting wetlands. For such actions that are being initially evaluated in an Environmental Assessments (EA), an NOI will be prepared per 32 C.F.R. Part 989.17 and a public scoping process will be initiated per 32 C.F.R. Part 989.18 that at a minimum solicits written comments from the public, to ensure early and meaningful public involvement under Section 2(b) of E.O. 11990 and 32 C.F.R. Part 989.14(l). **(T-0)**.

4.4.2.1. A determination as to whether, or not, to conduct a scoping meeting under 32 C.F.R. §989.18 or hold a public meeting or public hearing on the Draft EA will be made based upon public comments received during the written scoping process, the magnitude of the proposed action, and its potential for controversy. **(T-0).**

4.4.2.2. The NOI will include a description of the action, its purpose, and expressly state the proposed action is subject to the Clean Water Act Sections 401, 404 and 404(b)(1) Guidelines, and the requirements and objectives of E.O. 11990, "Protection of Wetlands". The NOI shall identify state and federal regulatory agencies with jurisdiction and or special expertise that have been contacted and request public comment on the proposed action and any practicable alternatives. **(T-0).**

4.4.3. For such actions initially considered for an Environmental Assessment (EA), early public notice will be prepared and made available to the public in accordance with 32 C.F.R. Part 989.24(c). At a minimum, ensure the notice solicits written comments from the public to encourage early and meaningful public involvement. Refer to E.O. 11990, Section 2(b) and 32 C.F.R. Part 989.14(l). Ensure the early public notice includes a description of the action, its purpose and expressly states the proposed action is subject to the requirements and objectives of E.O. 11990 because its new construction in wetlands. Additionally, ensure this notice identifies state and federal regulatory agencies with special expertise that have been contacted and request public comment on the proposed action and any practicable alternatives. Whenever practicable, the notice should provide 30 days for public comment. When the analysis reveals a significant impact that cannot be mitigated to insignificance, an Environmental Impact Statement (EIS) following the procedures of 32 C.F.R. Parts 989.17-989.21 is required. In cases where there is no practicable alternative to the proposed new

construction in the wetland, a FONPA determination is made within the supporting Finding of No Significant Impact (FONSI) or Record of Decision (ROD) by the Secretary of the Air Force, or an official who has been duly delegated the authority to act on the Secretary's behalf of the Secretary of the Air Force or the Chief of the National Guard Bureau, or an official duly delegated authority to act on his/her behalf, for ANG.

4.4.4. Application of a Categorical Exclusion (CATEX) to new construction located in a wetland is normally not appropriate, given the additional analysis requirements under Air Force regulations (See Section A2.2.7 of Appendix B to 32 C.F.R. Part 989) and the level of public involvement required as described above. For the purposes of this section, the Clean Water Act Sections 401, 404 and 404(b)(1) Guidelines, as well as E.O. 11990 Sections 7(c) and 7(b) respectively, define "wetlands" and "new construction". **(T-0).**

4.5. Wetland Mitigation Banks. A wetland mitigation bank is a wetland area that is currently being created, restored, or enhanced, and set aside to compensate for future actions that may negatively impact other wetlands within the same watershed and provide like (in-kind) wetland functions. A wetland bank is established by means of a formal agreement with the Army Corps of Engineers or other appropriate regulatory agency(ies) enacted prior to nomination of a wetland to the program. The value of a bank is determined through cooperation with the regulating agency to quantify the wetland values restored, enhanced, or created in terms of compensatory mitigation credits. Development of off-installation wetland mitigation banks, and purchase of credits from certified third-party mitigation banks, is encouraged when practicable as a cost-effective method to reduce the uncertainty and delays that may be associated with mitigation requirements for future installation development. Costs associated with wetland mitigation banking may be treated as eligible project costs for military construction.

Chapter 5

FLOODPLAINS

5.1. Floodplain Protection. Executive Order 13690, *Establishing a Federal Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input* (30 January 2015), requires all federal agencies to provide leadership and take action to reduce the risk of flood loss, minimize the impacts of floods on human safety, health, and welfare, and restore and preserve the natural and beneficial values of floodplains when acquiring, managing, or disposing of federal lands.

5.2. Floodplain Boundary Determination. Use the National Flood Insurance Program (NFIP) maps distributed by the Federal Emergency Management Agency (FEMA) to determine whether a proposed action occurs in a floodplain. If NFIP maps are not available for the affected area, installations will develop a flood plain map that is certified by a professional engineer, and provide the map data to the NFIP. **(T-1).**

5.3. Assessment of Proposed Actions within a Floodplain.

5.3.1. EIAP for Actions that May Affect Floodplains. Proposed actions that will occur in, or could adversely affect floodplains, require compliance with the EIAP and E.O. 11988 "Floodplain Management" prior to implementing an action. Proponents shall, during initial planning and design, reduce the risk of flood loss; minimize the impact of floods on human safety, health and welfare and the Air Force mission; and restore or preserve the natural and beneficial values served by floodplains. **(T-0).**

5.3.1.1. Ensure NEPA documentation reflects consideration of alternatives to actions proposed in floodplains, which potentially adversely affect floodplains or increase the risk of flood loss, as well as measures necessary to minimize potential harm to the floodplain or reduce the risk of loss in accordance with 40 C.F.R. §1508.20 and 32 C.F.R. Part 989.22(a). For such actions initially considered for an Environmental Assessment (EA), prepare early public notice and make available to the public in accordance with 32 C.F.R. Part 989.24(c). At a minimum, ensure the notice solicits written comments from the public to encourage early and meaningful public involvement. Refer to E.O. 11988, Section 2(a)(4) and 32 C.F.R. Part 989.14(l). Ensure the early public notice includes a description of the action, its purpose and expressly states the proposed action is subject to the requirements and objectives of E.O. 11988 because its intended locations in the floodplain. Additionally, ensure this notice identifies state and federal regulatory agencies with special expertise that have been contacted and request public comment on the proposed action and any practicable alternatives. Whenever practicable, the notice should provide 30 days for public comment.

5.3.1.2. Pursuant to 32 C.F.R. Part 989.14 (l), the EPF reviews the input received from the early public notice process. Based on the magnitude and complexity of the proposed action and the public comments, if any, received during the early public notice process, the EPF determines whether or not to initiate an EIS or EA.

5.3.1.2.1. If an analysis determines that an EA is to be accomplished, the EA and unsigned Finding of No Significant Impact (FONSI) is made available for public review for at least 30 days per 32 C.F.R. Part 989.15(e)(2) and the public notice of

availability should meet the requirements of 32 C.F.R. Part 989.24(c). The EPF may also conduct a public meeting on the Draft EA.

5.3.1.2.2. If the analysis reveals a significant adverse impact, or an Environmental Impact Statement (EIS) is undertaken initially, follow the procedures for EISs in 32 C.F.R. Part 989.17-21. When there is no practicable alternative to taking an action within a floodplain, make a Finding of No Practicable Alternative (FONPA) either in the supporting FONSI or Record of Decision (ROD).

5.3.1.2.3. Application of Categorical Exclusions (CATEXs) to actions located in, or adversely affecting floodplains is normally not appropriate, given the additional analysis requirements under Air Force regulations (See Section A2.2.7 of Appendix B to 32 C.F.R. Part 989) and the level of public involvement required as described above.

5.3.2. Actions that Alter Floodplain Hydrology**.** If an action is taken within a floodplain that permanently alters the flood hazard delineations on a NFIP map, prepare and submit recommended map modification to FEMA.

Chapter 6

COASTAL AND MARINE RESOURCES

6.1. Protection of Coastal and Marine Resources. The AF will conserve and protect all coastal and marine resources whenever feasible as part of the overall natural resources management program.

6.2. Coastal Zone Management Act (CZMA) Compliance. The *Coastal Zone Management Act* (Title 16 U.S.C.§§1451-1462) authorizes coastal states to establish a Coastal Zone Management Program (CZMP) to coordinate state, local, and federal programs for the management of coastal areas. The National Oceanic and Atmospheric Administration's Office of Ocean and Coastal Resource Management administers the program at the federal level. Once a state's program is federally approved, the CZMA allows participating states to set goals and procedures that control the use and development of designated Coastal Zones.

6.2.1. Applicability**.** A Coastal Zone is the area specified or delineated by a state within its federally approved Coastal Zone Management Program. All AF activities, operations, projects, and programs that affect any lands, water use or natural resources of a state's Coastal Zone must be consistent to the maximum extent practicable with the state CZMP. For AF installations within a Coastal Zone management area, the INRMP must specifically address how activities and operations are consistent with the state CZMP. **(T-0).**

6.2.2. Federal Consistency Determination. Installations must prepare a Federal Consistency Determination to assess consistency with the state CZMP for any activity, regardless of location, that is likely to affect any land, water, or natural resource of a Coastal Zone in the reasonably foreseeable future. **(T-0)**. The installation submits a Federal Consistency Determination to the appropriate state agency (e.g. Coastal Zone Coordination Council) at least 90 days before final approval of the proposed action, unless otherwise agreed upon. The state produces a federal consistency review response indicating whether or not the state concurs with the determination. Ensure actions requiring consistency determinations are fully considered and addressed in applicable NEPA documentation. Analysis of the proposed action, and the purpose for the proposed action, are addressed no later than the draft version of the NEPA documentation, and provided to the applicable State office for review and comment. The state response becomes part of the EIAP documentation for the proposed project.

6.3. Coastal Barrier Resources Act of 1982 Compliance. The *Coastal Barrier Resources Act* (Title 16 U.S.C. §§3501-3510) regulates the expenditure of federal funds to discourage development within boundaries of undeveloped, unprotected coastal barriers (such as a bay barrier, barrier spit, or barrier island) on the Atlantic and Gulf Coasts, as identified in the Coastal Barriers Resources System maps established by the Act. Federal funds may be used for permissible activities listed in 16 U.S.C. §3505, which include national security related military actions and the management, protection and enhancement of natural resources, and maintenance of existing structures for navigation and shoreline stabilization. Proponents consult with the USFWS when planning activities and operations that may impact lands identified in the Coastal Barriers Resources System.

6.4. Marine Mammal Protection Act of 1972 Compliance. The Marine Mammal Protection Act of 1972 (16 U.S.C. §§1361 - 1421(h)) protects marine mammals, their critical habitat, and migratory routes. Installations with marine resources must address the protection of marine mammals in the INRMP and submit the INRMP to the National Oceanic and Atmospheric Administration, National Marine Fisheries Service for review. **(T-0)**. Any action undertaken by the AF in a marine or coastal environment, to include activities that generate noise, requires an assessment of the potential impact on marine mammals before they begin. Proponents whose activities may impact marine mammals coordinate the proposed actions with NOAA Fisheries.

6.5. Coral Reef Protection. Executive Order 13089, *Coral Reef Protection*, June 11, 1998 directs the protection of all coral reef ecosystems, to include those species, habitats, and other natural resources associated with coral reefs within all maritime areas and zones subject to the jurisdiction or control of the United States (e.g., federal, state, territorial, or commonwealth waters). Installations identify all coral reefs and related endemic mangrove and sea grass ecosystems in the INRMP. Installations with these protected ecosystems must address the conservation and management of these habitats in the INRMP. **(T-0).**

6.6. Coastal America Partnership. The Department of Defense and other federal agencies with statutory responsibilities for coastal resources formed the Coastal America Partnership by Memorandums of Understanding in 1992, 1994, and 2002. The purpose of the Coastal America Partnership is to (1) protect, preserve, and restore the Nation's coastal ecosystems through existing federal capabilities and authorities; (2) collaborate and cooperate in the stewardship of coastal living marine resources; and (3) provide a framework for action that effectively focuses expertise and resources on jointly identified problems to produce demonstrable environmental and programmatic results that may serve as models for effective management of coastal resources. In support of the Coastal America Partnership, AF installations are encouraged to coordinate and cooperate with partners in support of regional programs for the protection and restoration of coastal ecosystems, and to incorporate Coastal America goals within the installation Integrated Natural Resources Management Plan when compatible with statutory authorities and military mission activities. Collaborative projects that protect or restore coastal resources on Air Force installations may be submitted for consideration to the Coastal America Awards Program.

Chapter 7

FISH AND WILDLIFE MANAGEMENT

7.1. Wildlife Management Programs on Air Force Lands. The INRMP should address the management of game and non-game fish and wildlife on AF installations, to include any requirement to inventory and monitor fish and wildlife resources. Prepare the INRMP in cooperation with the USFWS, state fish and wildlife agency, and NOAA Fisheries for installations that include or are adjacent to marine environments. Installations will ensure the resulting plan reflects the mutual agreement of the installation and the cooperating agencies for the conservation, protection, and management of wildlife resources (see 3.3). **(T-0).**

7.2. Hunting, Fishing, Trapping and Outdoor Recreation Programs.

7.2.1. Program Management. The Sikes Act, 16 U.S.C. §670a(a)(3)(A), requires that, consistent with the use of a military installations to ensure the preparedness of the Armed Forces, military installations provide for the sustainable multipurpose use of the resources, to include hunting, fishing, trapping, and non-consumptive recreational access. Hunting, fishing, trapping and dispersed outdoor recreation programs are appropriate on AF installations when they are consistent with INRMP goals for natural resources management, and are in accordance with installation security and safety requirements. Ensure fish and game harvests comply with all federal and state laws and regulations, and are consistent with DoD principles for ecosystem management and biodiversity conservation. The designated installation or IST natural resources manager is responsible for direction and oversight of hunting and fishing programs. Administrative and management costs associated with hunting, fishing, trapping and the management of outdoor recreation access should be fully reimbursed by user fees. Installations may utilize the voluntary assistance of others to help manage hunting and fishing programs, to include units of the Air Force Personnel Center Directorate of Services, Force Support Squadrons, and non-AF affiliated clubs (e.g. Rod and Gun Club); but these organizations may not direct activities related to hunting, fishing, trapping and outdoor recreation that are outside the scope and direction of the installation INRMP. Program support provided by a Force Support Squadron may be reimbursed from user fees.

7.2.2. Fee Collection. Hunting, fishing, trapping and outdoor recreation access fees are collected by the installation and deposited into the AF account for fish and wildlife management (57 5095). The INRMP should address the installation procedures for the collection of fees for hunting, fishing, trapping and access to outdoor recreation areas. Use DoD Form 1131, *Cash Collection Voucher* to report cash collections to 57 5095. If the Air Force Personnel Center Directorate of Services, Force, or other organization assists the natural resources management program office with the collection of user fees, account for any administrative fees charged separately from fees collected into the 57 5095 account. In such case, the permit issued identifies the portion of the fee payment that represents the seller's administrative charge. Upon termination of a fee collection program for hunting, fishing, trapping, or outdoor recreation, installations must notify AFCEC/CZ and close the collection account. **(T-0).**

7.2.3. Access and Participation. The INRMP should address the specific rules and procedures for authorized participation and access to AF installations for hunting, fishing, trapping and dispersed outdoor recreation. The INRMP should identify access areas by category, and the authorized participants for each access area category, using the criteria established below. A commander may restrict or exclude hunting, fishing and trapping if such activity is not compatible with the military mission. When access is denied to the general public, include the rationale for that determination in the INRMP

7.2.3.1. Access Categories. Installations with unimproved lands will identify in the INRMP the availability of lands, by access category, for hunting, fishing, trapping and other dispersed outdoor recreation activities. **(T-3)**. The INRMP establishes the criteria used to designate lands into each access category, and identifies how access category designations may change with each Force Protection Condition (Normal, Alpha, Bravo, Charlie, Delta) imposed on the installation. Refer to AFI 13-212, Volume 1, *Range Planning and Operations* for guidance on access to military ranges. There are three basic access area categories.

7.2.3.1.1. Open Areas. Unrestricted areas on the installation where hunting, fishing, trapping and outdoor recreation are permitted to all participants.

7.2.3.1.2. Restricted Areas**.** Areas designated by the commander where hunting, fishing, trapping and outdoor recreation are permitted to certain categories of participants or under special arrangements as defined by the commander. The INRMP should state the rationale by which access to an area is limited to certain categories of participants.

7.2.3.1.3. Off Limits Areas. Areas designated by the commander as being off limits to recreational hunting, fishing, trapping and dispersed outdoor recreation by any person at any time. These are areas where mission security and safety concerns do not allow such use. The INRMP should state the rationale by which access to an area is designated to be off limits due to safety considerations.

7.2.3.2. Participant Categories. The INRMP should establish criteria and protocols addressing user access and conduct for open and restricted areas by Participant Category. Do not confuse these Participant Categories with the Eligibility Categories described in AFI 34-101 *Air Force Morale, Welfare, and Recreation (MWR) Program and Use Eligibility*. Base installation policy for hunting, fishing, trapping, and non-consumptive recreational access indicated in the Sikes Act (16 U.S.C. §670a(a)(3)(A)) upon safety, mission requirements, and the ability of the natural ecosystem to sustain these activities. For open and restricted areas, ensure the INRMP identifies access privileges for the following categories of participants:

7.2.3.2.1. Active Duty Military (includes Reserve and National Guard on active duty or full time manning)

7.2.3.2.2. Department of Defense Civilians

7.2.3.2.3. Active Duty Military Dependents and Family Members

7.2.3.2.4. Military Retirees

7.2.3.2.5. Department of Defense Civilian Retirees

7.2.3.2.6. Employees of Installation Prime Contractors (defined as a contractor with a five or more year term contract).

7.2.3.2.7. General Public.

7.3. Conservation Law Enforcement. Commanders are responsible for the enforcement of state and federal fish and game laws on AF installations. In accordance with the Sikes Act (16 U.S.C. §670a(b)(1)(H), installations must address the enforcement of applicable natural resources laws in the INRMP. **(T-0)**. DoDI 5525.17, *Conservation Law Enforcement Programs (CLEP)* provides guidance for conservation law enforcement on Department of Defense installations.

7.3.1. Cooperative Law Enforcement. Commanders should provide reasonable access to federal and state conservation officers for the purpose of fish and wildlife law enforcement on AF installations. Commanders are authorized to enter into law enforcement support agreements on a reimbursable basis with federal and state agencies having responsibility and jurisdiction for conservation law enforcement.

7.3.2. Fish and Wildlife Law Enforcement by Air Force Personnel. The Sikes Act, Section 106 (16 U.S.C. §670e-1) authorizes the Department of Defense to enforce all federal natural resources laws on military installations. The commander may designate military and civilian personnel as fish and wildlife law enforcement officers only if those persons have been certified in conservation law enforcement through successful completion of the Land Management Police Training course at the Federal Law Enforcement Training Center or, alternatively, have been commissioned as a fish and wildlife conservation officer in the state where the installation is located. Law enforcement personnel who do not possess either federal or state fish and wildlife enforcement certification can be used to supplement fish and wildlife law enforcement under the direct supervision of certified personnel.

7.4. Protection of Migratory Birds. In accordance with the Migratory Bird Treaty Act of 1918 (Title 16 U.S.C. §§703-712) and Executive Order No. 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*, January 10, 2001, avoid or minimize the negative impact of AF actions on migratory birds. This includes preventing or abating pollution or detrimental alteration of the environment, and incorporating migratory bird conservation into the installation INRMP as practicable. Installations will notify the USFWS if unintentional take of migratory birds reasonably attributable to AF actions is having, or is likely to have, a measurable negative effect on migratory bird populations; and implement conservation measures as specified in E.O. 13186, Section 3(e)(9). **(T-0)**.

7.4.1. Intentional Takes of Migratory Birds**.** Any proposal to intentionally kill, wound, capture, or collect a migratory bird requires a migratory bird depredation permit issued by the USFWS IAW Title 50, C.F.R. § 21.41. Depredation of migratory birds is also subject to NEPA (42 U.S.C.§4321 *et seq*.) and the Air Force EIAP at 32 C.F.R. § 989. Once a depredation permit is issued, installations will maintain records and submit reports as mandated under the terms of the permit. **(T-0).**

7.4.2. Incidental Takes of Migratory Birds During Military Readiness Activity**.** In accordance with Section 315 of the Bob Stump National Defense Authorization Act of 2003 (P.L. 107-314), Migratory Bird Treaty Act requirements indicated in 16 U.S.C. §703 do not apply to the incidental taking of a migratory bird by a member of the Armed Forces during a

military readiness activity. A military readiness activity, as defined at 50 C.F.R. § 21.3, includes all training and operations that relate to combat. It does not include routine operation of support functions, operation of industrial activities, or construction or demolition of support or industrial facilities. Ensure incidental takes during military readiness activities conform to the regulations in 50 C.F.R. §21.15, which authorizes incidental take of migratory birds for military readiness activities provided that a determination is made by means of the National Environmental Policy Act process (32 C.F.R. Part 989) that the proposed readiness action does not have significant negative effects on a population of migratory birds. If it is determined that the readiness action has significant negative effects on a population of migratory birds, the installation confers with the USFWS to develop and implement appropriate conservation measures to minimize and mitigate, to the extent practicable, adverse impacts of military readiness activities on migratory birds; and to monitor the impacts of such activities on affected migratory bird species. Not all operations and maintenance activities on an installation qualify as a military readiness activity. Seek legal advice if uncertain whether an activity qualifies as a military readiness activity consistent with 50 C.F.R. §21.15. Vegetation management within the airfield Clear Zones and Primary Surface, as defined in UFC 3-260-01, *Airfield and Heliport Planning and Design*, is a military readiness activity covered under 50 C.F.R. §21.15.

7.5. Bald and Golden Eagle Protection Act. The Bald and Golden Eagle Protection Act (16 U.S.C. 668-668c) prohibits harm or harassment to bald and golden eagles. This includes removal of inactive nests as well as active nests. In accordance with 50 C.F.R. §22, installations must obtain a permit from the USFWS if an activity may result in "take" of a bald or golden eagle as defined in the regulations. **(T-0)**. Eagle permits authorize take only in circumstances where the take cannot be practicably avoided in the course of an otherwise lawful activity. Conditions of the permit may include mitigative actions to minimize impacts.

7.6. Wildlife Damage Control.

7.6.1. Nuisance Wildlife Control. Installation pest management personnel have primary responsibility for the control of nuisance wildlife species, although the program can receive substantial support from natural resources management personnel for control of wildlife that requires specialized training and permits.

7.6.1.1. Contact the state fish and wildlife agency prior to killing or trapping nuisance wildlife. Wildlife control activities may require a state depredation permit. Activities that affect migratory birds may require a federal permit (see 7.4.1.). Any action that may affect a species listed for protection under the auspices of the ESA requires consultation with the USFWS (see **Chapter 8**).

7.6.1.2. The INRMP should address nuisance wildlife control objectives, appropriate control techniques, and the installation organizations responsible for each aspect of nuisance wildlife control. The installation INRMP, Integrated Pest Management Plan, Solid Waste Management Plan, and Bird/Wildlife Aircraft Strike Hazard Plan should be mutually supportive, and adequately differentiate the responsibilities for natural resources, pest management, flight safety, public health, and veterinary services personnel for the control of nuisance wildlife. Include procedures for animal carcass disposal.

7.6.2. Wildlife Control in Support of Bird/Wildlife Aircraft Strike Hazard Reduction**.** The INRMP and Bird/wildlife Aircraft Strike Hazard Plan and incorporate the guidance within AFI 91-202, *USAF Mishap Prevention Program* and Air Force Pamphlet (AFPAM) 91-212, *BASH Management Techniques.* Coordinate draft INRMPs and updates with airfield operations and flight safety personnel to ensure conformance with airfield safety criteria. Request assistance for BASH related wildlife control issues from personnel at Headquarters Air Force Safety Center (AFSEC/SEFW). See **Chapter 15** for additional BASH program requirements.

7.6.3. Emergency Wildlife Control. Emergency wildlife control measures may be warranted if unanticipated wildlife problems endanger installation operations or threaten public health. Ensure the installation INRMP, consistent with the Integrated Pest Management Plan and BASH Plan, identifies the protocols and notification requirements for emergency wildlife control consistent with the terms of federal and state depredation permits.

7.7. Participation in Conservation Banking Programs . An installation may enter into agreements for, and make payments to, an off-installation conservation banking program or other "in-lieu-fee" mitigation sponsor, to satisfy a mitigation responsibility necessary for new construction or other military activity that has the potential to adversely impact species protected under the ESA or Migratory Bird Treaty Act. Payments made to a conservation banking program or "in-lieu-fee" mitigation sponsor for the purpose of facilitating military construction may be treated as eligible costs of the military construction project.

Chapter 8

THREATENED AND ENDANGERED SPECIES MANAGEMENT

8.1. ESA Compliance. The ESA, (Title 16 U.S.C. §§1531-1544), requires protection and conservation of federally listed threatened and endangered (T&E) plants and animals and their habitats. Section 7(a)(1) of the ESA states that all federal departments and agencies shall utilize their respective authorities to conserve threatened and endangered species. Conservation includes the use of all methods and procedures which are necessary to bring any T&E species to the point where the measures pursuant to the ESA are no longer necessary.

8.1.1. Federally Listed Species. Installations known to sustain federally listed T&E species or their habitats must address T&E species conservation in the INRMP. **(T-0)**. Ensure the INRMP goals and objectives provide an overall ecosystem management strategy for the protection and recovery of T&E species. When practical, provide similar protection to plants and animals that are candidate species for protection by federal listing. Ensure the INRMP includes provisions addressing the requisite "benefit to the species" criteria to support a critical habitat exemption (see 8.4).

8.1.2. State Listed Species. INRMPs provide for the protection and conservation of state listed protected species when practicable. Although not required by the ESA, provide similar conservation measures for species protected by state law when such protection is not in direct conflict with the military mission. When conflicts occur, consult with the appropriate state authority to determine if any conservation measures can be feasibly implemented to mitigate impacts.

8.1.3. Host Nation Protected Species**.** For installations and AF operations outside the United States and its territories, responsibility for protection of host nation protected species is as specified in the Final Governing Standards for the host country (refer to AFI 32-7091, *Environmental Management Outside the United State*).

8.2. Inventory and Monitoring. All installations will conduct a basic reconnaissance survey to determine the presence of any federally listed Threatened, Endangered or Candidate species on an installation. **(T-1)**. Determine the survey methodology, scope, and species considered in the inventory after consultation with the USFWS or NOAA Fisheries, depending upon jurisdiction. Follow-up reconnaissance surveys are necessary if the USFWS or NOAA Fisheries determines that a new federally listed species may occur on the installation. Periodic resurveys and monitoring of known listed species are necessary if they are stipulated in: (1) the ‘Terms and Conditions’ that implement the ‘Reasonable and Prudent’ conservation measures rendered in a Biological Opinion from the USFWS or NOAA Fisheries, (2) a USFWS or NOAA Fisheries Species Recovery Plan, or (3) an INRMP, coordinated and approved in accordance with the Sikes Act (16 U.S.C. §670a-f). Share all information collected on military lands and waters that pertains to a federally listed Threatened, Endangered, and Candidate species with the USFWS and/or NOAA Fisheries. If practical, share known information on state listed species with the relevant state agency (e.g. state Department of Natural Resources or Natural Heritage Program) for inclusion in their biological and conservation database.

8.3. Interagency Consultation and Coordination.

8.3.1. Endangered Species Act Section 7 Consultation. Section 7(a)(2) of the ESA requires agencies to consult with the USFWS or NOAA Fisheries when proposed or ongoing actions, including the implementation of an INRMP, may affect a listed species or its habitat, action may affect a listed species. Consult with the USFWS for terrestrial species and freshwater aquatic species, and with NOAA Fisheries for saltwater fish and marine mammals. Attachment 4 outlines standard consultation procedures. Installations must notify the AFCEC Installation Support Team when entering into formal consultations under the auspices of the ESA. **(T-0).**

8.3.2. Marine Mammal Protection Act Consultation. Consult with NOAA Fisheries or the USFWS when an ongoing or proposed activity, including the preparation and implementation of an INRMP, has the potential to impact marine mammals protected under the authority of the Marine Mammal Protection Act as specified in Title16, U.S.C. §§ 1361-1421h. This requirement may be in addition to ESA consultation requirements.

8.3.3. INRMP Coordination. Send all INRMPs and draft revisions to the USFWS, NOAA Fisheries (if applicable), and to the appropriate state fish and wildlife agency for review, comment, and coordination as specified in Attachment 3. Installations harboring federally listed species should address ESA Section 7 consultation early in the INRMP preparation and review process. Identify if the plan submitted for review covers the protection and conservation of a federally listed species. The INRMP should include an evaluation of the potential effects of INRMP implementation on listed species and their habitats, and indicate the conservation measures that are employed to manage those effects. If a Biological Opinion has been issued as a result of ESA Section 7 consultations, the INRMP becomes the document by which the AF uses to describe the specific programs and activities that are implemented to satisfy the required terms and conditions.

8.3.4. EIAP Coordination. The National Environmental Policy Act of 1969 (Public Law 91–190), Council on Environmental Quality implementing regulations at 40 C.F.R. §§ 1500-1508, and Air Force implementing regulations at 32 C.F.R. Part 989 require proponents to fully consider possible impacts to federally listed threatened and endangered species early in the NEPA planning process (NEPA, §102(H)), including scoping.

8.3.4.1. ESA §7 requires proponents of actions that may affect a federally listed threatened and endangered species or its habitat to consult with USFWS and/or NOAA Fisheries, as applicable. Submit draft EIAP documents to the USFWS and/or NOAA Fisheries for review and comment. Do not apply an Air Force CATEX to a proposed action (Appendix B to Part 989, Additional Analysis §A2.2.6) unless consultation is complete and USFWS and/or NOAA Fisheries has concurred in writing that the action is not likely to adversely affect a federally listed threatened and endangered species.

8.3.4.2. Include in the Final EA or EIS, all written correspondence with the USFWS or NOAA Fisheries documenting the completion of consultation (NEPA, §102(C)). Forward copies of the final decision documents (e.g. Finding of No Significant Impact or Record of Decision) to the USFWS and / or NOAA Fisheries when federally listed species are involved. **(T-0).**

8.4. The INRMP as a Substitute for Critical Habitat Designation. Pursuant to Section 4(a)(3)(B)(i) of the Endangered Species Act (16 U.S.C. §1533(a)(3)(B)(i)), the Secretary of Interior "shall not designate as critical habitat any lands or other geographical areas owned or

controlled by the DoD, or designated for its use, that are subject to an integrated natural resources management plan prepared under section 101 of the Sikes Act (16 U.S.C. § 670a), if the Secretary determines in writing that such plan provides a benefit to the species for which critical habitat is proposed for designation." In accordance with 50 C.F.R. § 424, an INRMP is considered sufficient for critical habitat exemption if it meets the following criteria:

8.4.1. The INRMP provides a conservation benefit to the species. The cumulative benefits of the management activities identified in the INRMP, for the period covered by the INRMP, should maintain or provide for an increase in a species' population, or the protection, maintenance, enhancement or restoration of its habitat within the area covered by the INRMP (i.e., those areas deemed essential to the conservation of the species). A conservation benefit may result from reducing fragmentation of habitat, maintaining or increasing populations, insuring against catastrophic events, enhancing and restoring habitats, buffering protected areas, or testing and implementing new conservation strategies. Any restrictions on land use, whether contained in an INRMP or other agreements, should be temporary to allow flexibility in meeting future mission requirements, and must be approved by SAF/IE before the INRMP or agreement is signed.

8.4.2. The INRMP provides assurance that the management activities necessary to implement the goals and objectives of the plan are implemented. Persons charged with INRMP implementation should be capable of accomplishing the objectives of the INRMP, have adequate funding to implement the INRMP, have the authority to implement the INRMP, and have obtained all the necessary authorizations or approvals. Installations must ensure the INRMP provides an implementation schedule (including projected completion dates) to achieve the goals and objectives identified in the plan. **(T-2).**

8.4.3. The INRMP provides assurance that the conservation effort is effective. Use the following criteria to determine if an INRMP provides an effective conservation effort:

8.4.3.1. The INRMP includes biological goals (broad guiding principles for the program) and objectives (measurable targets for achieving the goals);

8.4.3.2. The INRMP provides quantifiable, scientifically valid parameters that demonstrate achievement of objectives, and standards for these parameters by which progress is measured;

8.4.3.3. The INRMP includes provisions for monitoring and, where appropriate, adaptive management;

8.4.3.4. The INRMP includes provisions for reporting progress on implementation (based on compliance with the implementation schedule) and effectiveness (based on evaluation of quantifiable parameters) of the conservation effort.

8.5. Exclusion of Critical Habitat Designation Due to Economic Impacts or National Security Issues. In accordance with ESA Section 4(b)(2) (16 U.S.C. §1533(b)(2)), the Secretary of Interior may exclude areas owned or controlled by the DoD from critical habitat designation if the Secretary determines that the benefits of such exclusion outweighs the benefits of specifying the area as critical habitat; and that the exclusion of such area from critical habitat will not result in the extinction of the species concerned. In order to support the ESA 4(b)(2) exclusion, the installation shall provide the USFWS or NOAA Fisheries with evidence of how a critical habitat designation would impact national security. **(T-0).**

Chapter 9

FOREST MANAGEMENT

9.1. Forest Management Practices on Air Force Lands. The principal objective of forest management on AF installations is to maintain and enhance the ecological integrity of forested landscapes while supporting the military mission. Under the principles of ecosystem management (see 2.8), forest treatments, to include the harvesting of forest products, may be used to achieve installation goals for forest enhancement and restoration, wildlife habitat improvement, wildfire protection, recreational development, military training requirements, airfield safety compliance, and wood production.

9.1.1. Commercial Activities. Commercial harvesting of forest products on AF lands is authorized, provided that such use is compatible with the military mission and consistent with the goals stated in the INRMP. Never harvest forest products for short-term profit at the expense of long-term sustainability of other ecosystem functions. The Range Operating Agency will determine the availability of lands for commercial forestry activities on military training and testing ranges IAW AFI 13-212, Volume 1, *Range Planning and Operations*.

9.1.2. Timber Harvesting Methods. Use appropriate silvicultural practices to maintain the forest ecosystem in a healthy condition and to achieve the goals stated in the installation INRMP. Ensure the INRMP outlines the acceptable timber harvesting practices for the installation and explains, in terms of current and desired future condition, how the chosen management practices achieve the INRMP goals.

9.1.3. Best Management Practices. Implement Best Management Practices (BMPs) in forest management operations to minimize environmental impacts. Utilize applicable state BMPs for forest management operations.

9.1.4. Reforestation**.** Conduct reforestation activities as detailed in the INRMP. The INRMP should state the acceptable reforestation practices to meet the stated goals and objectives and minimize soil disturbance and ecological impacts.

9.1.5. Forest Road Construction and Maintenance. Installations with a commercial forest resource must evaluate the existing network of forest access roads and trails in the INRMP. **(T-3)**. Forest road construction and management should be consistent with the ecosystem management objectives stated in the INRMP. Design and maintain forest access roads in accordance with applicable state BMPs. Construct new single-purpose forest access roads only when absolutely necessary. Close temporary roads and trails constructed solely for timber harvesting operations to vehicular traffic after the timber removal is completed.

9.1.6. Forest Inventory. Installations with commercial forest land capable of producing more than 20 cubic feet/acre/year in wood biomass must maintain a forest inventory. **(T-3)**. Update forest inventories at least once every 10 years. Utilize a geographic information system to record and access forest inventory data.

9.1.7. Airfield Safety. Installations with active airfields manage forest areas so that trees do not pose a hazard to air operations. Refer to Uniform Facilities Criteria (UFC) 3-260-01, *Airfield and Heliport Planning and Design* for specifications on airfield flight surfaces and safety zones.

9.2. Forest Product Sale Procedures. Do not give away, abandon or destroy forest products with marketable value. In accordance with Financial Management Regulation, 7000.14-R, Volume 11A, **Chapter 16**, collect payment for all forest products with economic value that are removed from AF lands. Forest products may not be traded for goods or services nor used to offset contract costs associated with construction, land clearing, or other contracted activity. Lessees of government property may not remove or destroy commercial timber unless the forest products have specifically been conveyed in the lease and fair market value has been paid to the government. Make an attempt to offer for sale any forest products that require removal prior to initiation of construction or other land clearing operation. Prior to any land clearing or construction activity, contact at least three buyers of forest products within the region to determine if they are willing to make an offer on the forest products requiring disposal. These restrictions do not apply to materials determined to have no commercial value, as determined by the AFCEC/CZ Natural Resources SME or Forester employed by the federal government. Refer to 16.3.1.1 for guidance on forest product sale revenue collection.

9.2.1. Small-Lot Sales. Forest products with an appraised value at $25,000 or less may be sold by means of an installation small-lot sales permit. Do not split larger timber disposal sales into small lots to avoid formal bids. Installations may use a small-lot sales permit to remove timber appraised at greater than $25,000 when immediate tree removals are necessary to clear timber downfall resulting from a natural disaster, or to meet airfield safety requirements as defined by an impending downgrade of airfield operability status. Solicit informal bids from at least three potential buyers. Document all contacts made and bids received, including contacts that respond with no bid. Upon official request from the installation, the AFCEC/CZ Natural Resources SME may conduct appraisals and small-lot sales on behalf of the installation.

9.2.2. Large Sales. Dispose of forest products with an appraised value at greater than $25,000 by contract sale utilizing competitive bidding procedures and the following guidelines.

9.2.2.1. Sale Preparation. For all large forest product sales, prepare contract specifications that describe in detail the forest products offered, sale areas, allowable harvest methods and restricted activities. Include maps or drawings of the gross sale area and net removal area. Ensure a professional Forester or trained Forest Technician supervises the marking and harvest of forest products within the sale area. Prior to removal of forest products, evaluate and document the effects of the proposed action in accordance with the EIAP process defined in 32 C.F.R. Part 989.

9.2.2.2. Sale Appraisal. Obtain an appraisal of the fair market value of forest products offered for sale. Do not sell forest products for less than their appraised value without first preparing a written justification approved by a Contracting Officer. Use regionally accepted standards for scaling, measuring, or weighing forest products. Mark appraisal documents for identified sales areas with "FOR OFFICIAL USE ONLY," and release appraisal documents only on a need-to-know basis.

9.2.2.3. Sale Marketing. For each forest product sale contract, prepare a solicitation for bid describing the forest products offered for sale and required harvesting specifications. Solicit bids either by means of lump-sum value or by scaled value per unit volume for

each product class. Advertise forest products for sale to as many potential buyers as possible within the region specified by the servicing contracting office.

9.2.2.4. Sale Contract Term. Require removal of forest products within one year or less from the date of contract award unless a longer term is deemed to be in the best interest of the government. For sales extending longer than three years, include a rate predetermination clause to reflect changes in market value. Collect security deposits when appropriate to encourage buyers to honor payment and harvesting terms identified in the contract.

9.2.2.5. Sale Inspection. Regularly inspect ongoing forest harvesting activities. The forest products buyer is responsible for executing all the terms and conditions of the contract. The contracting office makes a determination on contract completion based upon a final inspection report indicating that all contractual obligations have been met. Document discrepancies and report them to the contracting office. Make a final inspection at the conclusion of the contract. Allow buyers of forest products the opportunity to repair any site damage in violation of contract terms prior to withholding security deposits.

9.2.3. Protection of Sensitive Natural and Cultural Resources. In contracts for commercial harvesting of forest products, specify safeguards for protection of sensitive natural and cultural resources. Include clauses that identify penalties for damages incurred. Also include clauses that identify penalties for removal or damage or forest products not designated for disposal. (**T-2).**

9.3. Procuring Forest Management Services

9.3.1. Federal Assistance. The United States Forest Service (USFS) is the lead federal agency responsible for forest management in the United States. Under the authority of the Sikes Act, Air Force installations may enter into Interagency Agreements that provide for the transfer of funds to the USFS for assistance in the form of personnel, agency services, or assistance with contracting actions that implement forest management practices, including forest product sales. Installations may access the services of the USFS by means of an agreement between AFCEC and the USFS for AF-wide forest management support. The U.S. Army Corps of Engineers, under authority of the Economy Act, may also be used as a contracting agent for the disposal of forest products or for other forest management assistance on AF lands. For installations on lands withdrawn from the public domain, the installation must confer with the Bureau of Land Management to determine the appropriate management and disposition of forest resources. **(T-0).**

9.3.2. State Assistance. Under the authority of the Sikes Act (16 U.S.C. §670a-f), installations may enter into cooperative agreements with states to execute forest management activities that implement the goals and objectives of the INRMP. Such agreements should provide a means by which the state is reimbursed for obligations incurred in support of the forest management practices authorized by that agreement.

9.3.3. Service Contracts. Use service contracts or cooperative agreements for forest management support when federal, state, or in-house assistance is not available. Ensure a professional Forester employed by the government reviews all service contracts that implement forest management practices.

9.4. Financial Management. 10 U.S.C. §2665 authorizes refunding forest management obligations with proceeds derived from the sale of forest products. DoD Financial Management Regulation 7000.14-R, Volume 11A, **Chapter 16**, *Accounting for Production and Sale of Forest Products,* lists the appropriate expenditures that can be reimbursed from forestry program funds. Refer to **Chapter 16** for additional guidance on financial management procedures for Reimbursable Conservation Programs.

9.5. Forest Protection.

9.5.1. Protection from Insects and Disease. To the extent practicable, and within budget limits, support federal, state, and local programs for the detection, control and eradication of epidemic forest insects and diseases. Refer to AFI 32-1053, *Integrated Pest Management* for guidance on the use of pesticides for forest health protection. Public Law 95-313, *Cooperative Forestry Assistance Act of 1978* and Title 16 U.S.C. § 2104 provide for United States Department of Agriculture (USDA), Forest Service assistance for forest health problems on all federal lands. To obtain USDA Forest Health Protection funds, contact the appropriate United States Forest Service State and Private Forestry office to obtain the required biological evaluation and endorsements. If a USFS biological evaluation indicates the need for insect or disease control, submit a copy of the USFS funding request application along with a copy of the biological evaluation to the AFCEC/CZ Natural Resources Subject Matter Expert. AFCEC/CZ will review and consolidate AF funding requests and submit them to the Forest Service for consideration; with copy to the Armed Forces Pest Management Board. **(T-0).**

9.5.2. Forest Fire Protection. Refer to **Chapter 12** for guidance on wildland fire protection.

Chapter 10

AGRICULTURAL OUTGRANTS

10.1. Agriculture Outgrant Programs on Air Force Lands. Air Force lands may be outgranted in the form of lease, license, or permit for agricultural purposes IAW AFI 32-9003, *Granting Temporary Use of Air Force Real Property*, and the additional guidelines contained herein.

10.1.1. Compatibility with the Military Mission. All agricultural outgrants should be compatible with the military mission of the installation, as determined by the Installation Commander. The Range Operating Agency will determine the availability of outgrant lands on military training and testing ranges IAW guidelines in AFI 13-212.

10.1.2. Compatibility with the INRMP**.** Agricultural outgrants should be consistent with the goals and objectives of the installation INRMP. Agricultural outgrants for crop production, livestock grazing, equestrian operations, commercial seed harvesting, apiary placement, maple sugar collection and any other agricultural product may be conducted where feasible and compatible with the INRMP. The overriding principles of ecosystem management (see 2.8) also apply to any outgrant of AF lands for agricultural uses.

10.2. Agricultural Outgrant Program Management.

10.2.1. Administration**.** The installation Real Estate Office and/or the Real Estate Division of the local U.S Army Corps of Engineers District are responsible for administrating agricultural outgrants on AF lands. Natural resources managers and real estate personnel should collaborate in developing agricultural outgrant documents. Outgrant renewal actions should begin at least nine months prior to expiration. The supporting Air Force or U.S. Army Corps of Engineers real property office will bill outgrantees in accordance with the terms of the outgrant. **(T-2)**

10.2.2. Outgrant Instruments**.** Agricultural use of AF property requires a lease, license, or permit prepared, awarded, and executed IAW AFI 32-9003. Ensure all agricultural leases require the outgrantee to pay cash, provide services, and/or make improvements to the extent that the government is receiving a fair market value for use of the land. Government-owned livestock are exempt from the fee collection requirement. Licenses and permits for agricultural uses at less than fair market value are not allowed unless the licensee or permittee is eligible for an exception from the consideration requirements under AFI 32-9003.

10.2.3. Outgrant Revenue Collection. Record revenues collected from agricultural outgrants on a DoD Form 1131, *Cash Collection Voucher*. Deposit proceeds from agricultural outgrants to Deposit Fund Account 57 F 3875.00AG 31FA 667100.

10.2.4. Land Use Rules. All agriculture outgrants, to include grazing/cropland leases, licenses, and permits, require written land use rules as requirements in the outgrant to ensure the compatibility of outgrant activities with the military mission as well as to conserve the soil, water, and other sensitive natural resources within the areas included in the outgrant. Installations will draft land use rules that implement the appropriate Best Management Practices for erosion and sedimentation control as established by the USDA Natural

Resources Conservation Service (NRCS) and state guidelines. **(T-0)**. Land use rules should also be written to support the natural resources management goals and objectives in the INRMP. Installations will develop a compliance checklist from the land use rules that can be used to perform objective inspections of outgrant operations to monitor compliance. **(T-2)**.

10.2.5. Technical Oversight. Agricultural outgrant documents and their associated land use rules must be reviewed and approved by the designated installation or IST natural resources management specialist, installation Flight Safety office, and Range Operating Agency, as applicable. **(T-3)**. When practicable, seek technical assistance from an agricultural specialist from the NRCS, USFS, BLM, state cooperative extension service, local soil and water conservation district, or other agency experienced in the management of agricultural and grazing lands.

10.2.6. Compliance Inspection**.** The installation natural resources manager and supporting real property management office jointly share responsibility for outgrant compliance inspection. Schedule inspections of agricultural outgrant operations in accordance with guidelines stated in AFI 32-9003. A qualified agronomist, livestock grazing specialist, or natural resources management specialist inspects outgrant sites semiannually to ensure that the outgrantee complies with the technical terms of the outgrant and associated land use rules. Cooperating agency personnel can make semiannually on-site reviews of the outgrant program to assess crop and grazing land conditions and outgrant compliance on behalf of the AF. The inspector completes the land use rules compliance checklist at each review. The installation natural resource manager will ensure all inspection reports are delivered to the administering real estate office for further action. **(T-2)**.

10.2.7. Improvements and Services. Agricultural outgrants may require the outgrantee to provide agricultural land improvements, services and other in-kind consideration in lieu of a portion or all of the cash payment due the United States Government for the grant of the interest in the land. The administering real property office calculates the fair market value of any such improvements and services and deducts the amount calculated from the cash rent or payment due the United States Government. Ensure outgrant instruments provide that all such improvements become the property of the United States Government. Installations with outgrants that allow improvements, services and other in-kind consideration in lieu of a portion or all of the cash payment must provide a justification for the substitution of in-kind consideration for the cash payment in the INRMP. **(T-2)**. The INRMP justification should evaluate the impact of improvements, services, and other in-kind consideration to the economic sustainability of the program, to the military mission, and to the achievement of INRMP goals and objectives.

10.3. Guidelines for Livestock Grazing. Installations will ensure livestock grazing programs adhere to the following guidelines: **(T-2)**.

10.3.1. Livestock grazing programs should be consistent with the use of the installation to support military readiness.

10.3.2. Livestock grazing programs should support the goals and objectives of the installation INRMP. Grazing may not be authorized unless such use is documented in the INRMP as appropriate to achieve land management goals.

10.3.3. Livestock grazing programs may not degrade the natural ecological integrity of the landscape. Do not allow grazing within native plant communities where it has been determined that such use is inappropriate for the plant community type. Suspend grazing on lands where historic overgrazing and other abusive grazing practices have limited the ability of the plant community to recover.

10.4. Guidelines for Agricultural Crop Production. Crop production programs should support the goals and objectives of the installation INRMP and Bird/Wildlife Aircraft Strike Hazard Plan. Installations with active runways must coordinate any new cropland outgrant proposals with the installation Safety Office and Airfield Manager. **(T-2).**

10.5. Monitoring Outgrant Lands for Compliance with the INRMP. Monitor outgranted lands to ensure that land use is in compliance with the applicable land use rules and the land stewardship goals, objectives, and implementing guidelines stated in the INRMP. Installations with agricultural outgrants should include a description of the monitoring program in the INRMP. Installations will ensure monitoring programs adhere to the following guidelines: **(T-2).**

10.5.1. Monitor cropland outgrants annually, or when environmental conditions warrant, to ensure that they do not create unacceptable soil losses from erosion or cause point-source or non-point pollution to any natural water body. Also monitor other direct and indirect impacts of agriculture outgrant activities on surrounding land and water resources.

10.5.2. Monitor water runoff from cropland outgrants for levels of pesticides or fertilizer that exceed state regulatory requirements. Determine the location, method and frequency of water samples through consultation with the appropriate state agency.

10.5.3. Monitor livestock grazing outgrants using sample plots, photo points, permanent grazing enclosures, and other acceptable means to evaluate forage condition, trend, and utilization, and determine if the overall health of the rangeland resources are being sustained. Also note the presence and extent of invasive plant species (see **Chapter 14**).

10.6. Pest Management on Outgranted Lands.

10.6.1. Use of Pesticides by Outgrantee. Ensure any application of pesticides on AF lands complies with AFI 32-1053, *Pest Management Program*. Ensure outgrantees performing pesticide application on AF lands maintain the certification requirements of the state, territory, or host nation in which the installation lies. Outgrant instruments require that the outgrantee obtain the approval of the installation pest management point of contact prior to any pesticide application, and report all actual pesticide usage (in pounds of active ingredient) to the pest management point of contact.

10.6.2. Control of Noxious, Exotic, and Invasive Species. Air Force agricultural outgrant programs must comply with the requirements of the Federal Noxious Weed Act 7 U.S.C. 2801. Outgrant programs should, to the extent practicable and within the limits of available funds, support state and federal programs for the control of noxious, exotic, and invasive plant species. Installations may enter into cooperative agreements with local area government entities that establish integrated pest management principles for the control of undesirable plant species. Expenditure of agricultural program funds to control noxious, exotic and invasive species should be consistent with the level of effort exhibited on similar federal, state or private agriculture and grazing lands in the vicinity of the installation.

10.7. Financial Management. 10 U.S.C. §2667 authorizes the use of revenues from agricultural outgrants for agriculture program operating expenses as well as to support other AF natural resources program initiatives. Refer to **Chapter 15** for guidance on financial management procedures for AF Reimbursable Conservation Programs.

Chapter 11

OUTDOOR RECREATION

11.1. Outdoor Recreation Planning. Ensure the installation Integrated Natural Resources Management Plan addresses outdoor recreation management. Natural resources managers should collaborate with the installation Community Planner, installation Services Directorate, and other stakeholders in the planning and development of outdoor recreation on an AF installation; and with the Range Operating Agency for AF ranges. The INRMP identifies the areas on the installation where outdoor recreation activities are appropriate, and discusses the compatibility of outdoor recreation programs with the military mission. Natural resource managers will ensure installation recreation areas are categorized in the INRMP as follows: **(T-1).**

11.1.1. Developed recreation areas contain facilities designed to accommodate intensive recreational activities such as sports fields, campgrounds, picnic areas, paved walking/jogging/cycling trails, winter sports areas, marinas, developed swimming beaches, and other outdoor recreation facilities managed by the Air Force Personnel Center Directorate of Services.

11.1.2. Dispersed recreation areas are areas that are suitable to support dispersed recreational activities such as hunting, fishing, primitive camping, bird watching, boating, hiking, and sightseeing.

11.1.3. Special interest areas are recreation areas that contain valuable archeological, botanical, ecological, geological, historic, zoological, scenic, or other features that warrant special protection and access control. Public use, to include interpretive displays and education programs, may be permitted as specified in the INRMP. Collection of plants, plant material, animals, rock, soil, or fossils on Air Force property is prohibited, unless authorized in the installation INRMP.

11.2. Public Access for Outdoor Recreation. Ensure all developed and dispersed outdoor recreation activities are consistent with the INRMP. Allow use of outdoor recreation resources by the general public when such use is deemed by the commander to be compatible with the military mission and does not exceed the recreational carrying capacity of the land. See 6.2.3 for guidelines on establishing access and participant criteria in the INRMP. The INRMP should address the specific rules and procedures for outdoor recreation access on recreation areas that are not under the direct control of Air Force Services Directorate.

11.3. Off-Road Vehicle (ORV) Use. Ensure the INRMP includes installation policy on the use of off-road vehicles, to include mountain bikes. Allow use of off-road vehicles only after thoroughly analyzing the impact of such use on soils, archeological sites, wildlife, water quality, and other ecosystem attributes. Periodically monitor and evaluate for damage any areas designated for ORV use. Refer to Executive Order No. 11989, *Off-road Vehicles on Public Lands*, May 24, 1977, for federal policy on ORV use.

11.3.1. Restrict use of off-road vehicles, including mountain bikes and other all terrain vehicles, to areas that can sustain their use without damage to natural or cultural resources. Require that all motorized off-road vehicles are licensed and insured.

11.3.2. Close areas that are damaged from off-road vehicle use to prevent further damage. Undertake rehabilitation projects to restore the damage.

11.4. Watchable Wildlife Programs. The Air Force is signatory to a Memorandum of Understanding that allows for cooperation with other agencies and non-governmental organizations to develop and maintain a Watchable Wildlife Program on public and private lands. The purpose of the program is to increase opportunities for people to observe native wildlife in their natural habitats and to support wildlife habitat preservation. When compatible with the installation mission, installations may designate Watchable Wildlife Areas in the INRMP planning process. If access by the general public is permissible, submit information on the Watchable Wildlife Area to Watchable Wildlife Incorporated for inclusion in publications.

Chapter 12

LAND MANAGEMENT

12.1. Land Management Programs. Air Force land management activities are intended to protect and enhance desirable natural and man-made features on the installation. AF land management programs include landscape design, grounds maintenance, urban forest management, golf course maintenance, Bird/wildlife Aircraft Strike Hazard reduction, irrigation and water management, pest management, invasive species management, control of non-point source pollution, and soil erosion control.

12.2. Grounds Maintenance Categories. For purposes of designating the intensity of grounds maintenance, ensure the INRMP identifies and maps installation grounds into categories of 'improved', 'semi-improved', and 'unimproved' as defined in Attachment 1. The INRMP should describe the scope of grounds maintenance activities that planned to take place within each category.

12.3. Designing and Maintaining Landscapes. Landscape design and maintenance activities should comply with the land management goals of the INRMP and the BASH Plan.

12.3.1. Landscape Design. To the maximum extent possible, utilize regionally native plants in landscape designs for improved and semi-improved grounds. Do not utilize non-native species that tend to be invasive (reproduce outside the intended growing area). Design landscapes that reduce maintenance inputs in terms of energy, water, manpower, and equipment. Choose plant materials adapted to local environmental conditions that have the potential to reduce the need for irrigation, fertilization or pesticides to maintain a healthy condition. Do not establish or maintain vegetative species on or adjacent to the airfield that provide food, cover, roosting or nesting habitat to wildlife.

12.3.2. Grounds Maintenance. Establish grounds maintenance practices according to grounds maintenance category delineations. Where practicable, convert improved grounds to semi-improved or unimproved grounds, and convert semi-improved grounds to unimproved grounds. When feasible, convert landscapes dominated by non-native plants to native trees, shrubs, or grasses. Irrigate installation grounds only when necessary to fulfill a justified user requirement.

12.4. Golf Course Environmental Management (GEM). The goals of a GEM program are to minimize or eliminate potential negative impacts to the environment and the surrounding community, and ensure compliance with all appropriate environmental regulations. Installations are encouraged to develop a Golf Course Environmental Management Plan (GEM Plan) as a component plan associated with the INRMP. Installations will ensure the GEM Plan addresses all environmental aspects related to golf course management, and provide the appropriate goals and objectives for managing the environmental aspects. **(T-3).**

12.5. Urban Forestry. Urban Forest Management. The INRMP should state long-term goals and objectives to achieve a desired future condition for installation landscape trees (i.e. urban forest). The INRMP should include a list of recommended landscape trees and shrubs that is based upon site compatibility, life expectancy, maintenance requirements, and compatibility with BASH safety guidelines. Replacement plantings should favor native trees and shrubs or other species that are able to survive with minimal maintenance requirements. Do not plant trees or

shrubs that require irrigation for survival beyond an initial two-year establishment period. Ensure that tree plantings do not create a future hazard for aircraft and flight operations. An Urban Forest Management Plan may be developed as a component plan of the INRMP.

12.6. Pest Management. In accordance with AFI 32-1053, *Pest Management Program*, ensure the installation Integrated Pest Management Plan (IPMP) addresses all strategies for managing pests. Natural resources managers will coordinate with pest management personnel to ensure that the IPMP and INRMP are mutually supportive and not in conflict. **(T-1).**

12.7. Non-point Source Pollution Prevention.

12.7.1. Use applicable Best Management Practices to minimize non-point sources of water pollution. To determine appropriate BMPs, consult the USDA Natural Resource Conservation Service, local soil and water conservation district, state agricultural extension office, or state water quality office.

12.7.2. The non-point source pollution control program and BMPs for specific projects should be consistent with the state non-point source pollution management program as well as any enforceable requirements of the state Coastal Zone Management Programs.

12.7.3. Before using treated sewage effluent in irrigation systems, coordinate with the Air Force Civil Engineer Center to determine whether federal or state water quality requirements exist.

12.8. Mineral Leasing. The Bureau of Land Management is responsible for mineral leasing on federal lands. The Air Force Civil Engineer Center, Installations Center of Excellence (AFCEC/ICE) is the point of contact for coordination on all proposed mineral exploration and mining on land controlled by the AF, and for negotiation of reclamation requirements. The Air Force will ensure leases include provisions for it to be reimbursed for any damage to natural resources or removal of commercial timber resulting from oil and gas leasing and mineral exploration and mining.

Chapter 13

WILDLAND FIRE MANAGEMENT

13.1. Wildland Fire Management Policy. The *Review and Update of the 1995 Federal Wildland Fire Management Policy (January 2001)* is the primary wildland fire policy document for federal agencies, and establishes the Guiding Principles, Policies and Implementation Actions for wildland fire management on Department of Defense lands. The National Wildland Fire Coordinating Group (NWCG) *Wildland Fire Qualification Subsystem Guide* (PMS 310-1/NFES 1414), National Fire Protection Association (NFPA) Standard 295 – *Standard for Wildfire Control*, NFPA Standard 1051 – *Standard for Wildland Firefighter Professional Qualifications*, NFPA Standard 1143 – *Standard for Wildland Fire Management*, and NFPA Standard 1144 – *Standard for Protection of Life and Property from Wildfire* establish the accepted professional standards for AF wildland fire management policy. Installations with unimproved lands that present a wildfire hazard, and installations which utilize prescribed burns as a land management tool, will develop and implement a Wildland Fire Management Plan (WRMP). **(T-0)**. Ensure the WFMP is incorporated into, and consistent with, the INRMP. For the purposes of this instruction, the term "wildland fire" refers to both wildfire and prescribed fire.

13.2. Program Authority.

13.2.1. Air Force Wildland Fire Center (AFWFC). The Air Force Wildland Fire Center is responsible for providing oversight, technical direction and coordination of wildland fire management planning and implementation for Air Force.

13.2.2. The Installation Commander, or appropriate designee, approves the installation Wildland Fire Management Plan. The WFMP designates a Wildland Fire Program Manager and define the roles and responsibilities for wildland fire management on the installation. Prior to approval, installations must submit the WFMP for review and comment to a qualified wildland fire expert having at least NWCG Type 4 Incident Commander (ICT4) or Type 2 Burn Boss (RXB2) qualifications as defined in PMS 310-1/NFES 1414. **(T-1)**.

13.2.3. The installation Wildland Fire Program Manager is responsible for the development, update, and implementation of the WFMP. The Wildland Fire Program Manager may approve plans for prescribed burns if minimally qualified as a RXB2 Type 2 Burn Boss.

13.3. Wildland Fire Management Plan Components. The purpose of the installation Wildland Fire Management Plan is to reduce wildfire potential, protect and enhance valuable infrastructure and natural resources, and implement ecosystem management goals and objectives on AF managed properties. The WFMP should directly support the AF mission and be consistent with installation emergency operations plans. As a minimum, installations will ensure the WFMP includes the following components: **(T-1).**

13.3.1. Goals and Objectives. The WFMP establishes the goals and objectives for the wildland fire management program on the installation.

13.3.2. Organizational Structure. The WFMP describes the wildland fire management organizational structure, and indicates its position within the installation command structure. The organizational structure for wildland fire events should be consistent with NWCG

Incident Command System standards in order to accommodate cooperation and integration with other federal and state wildland fire organizations across jurisdictional boundaries.

13.3.3. Interagency Cooperation and Mutual Aid Agreements. Installations are encouraged to develop regional partnerships for wildland fire management support by means of reciprocal agreements with other federal, state, local and private entities to share human, logistical, and operational resources. Emergency assistance and mutual aid agreements should conform to the guidelines stated in DoDI 6055.6 – *DoD Fire and Emergency Services Program*, and AFI 32-2001, *The Fire Protection Operations and Fire Prevention Program.* Include interagency agreements and mutual assistance agreements in the WFMP as references or appendices.

13.3.4. Smoke Management and Air Quality. The WFMP should describe the mission, environmental, human health and safety factors specific to the installation and region that affect smoke management and identify necessary mitigation practices. Refer to NWCG publication PMS 420-2/NFES 1279 - *Prescribed Fire Smoke Management Guide* for guidance on factors to consider.

13.3.5. Safety and Emergency Operations. The WFMP should reflect that firefighter and public safety is the first priority in every wildland fire management activity. The WFMP identifies installation-specific safety protocols and personal protective equipment required for wildland fire operations. NFPA 1977 – *Standard on Protective Clothing and Equipment for Wildland Fire Fighting* establishes the requirements for personal protection clothing and equipment.

13.3.6. Risk Assessment/Decision Analysis Processes. Sound operational risk management is the foundation of the Wildland Fire Management Plan. Identify the indices and/or fire danger rating system used to assess wildfire risk and potential fire behavior. The indices and/or fire danger rating system should adequately describe fire hazard, severity, intensity, and other significant factors affecting the protection of life and property. Identify the environmental factors that are measured prior to ignition of a prescribed fire. Identify normal and unique weather patterns that affect fire behavior on the installation.

13.3.7. Wildland Fire History. Include in the WFMP an analysis of both recent and long-term wildland fire history on the installation and in the region.

13.3.8. Natural and Cultural Resources Considerations Checklist. Provide a checklist in the WFMP that can be used to identify sensitive natural and cultural resources that should be given consideration before conducting any wildland fire management activity.

13.3.9. Mission Impact Considerations. Identify the potential impacts to the installation mission (positive and negative) that may occur as a result of implementation of the WFMP.

13.3.10. Wildland Fuel Factors. Identify the effects of installation fuel types and fuel loads on fire behavior. Display data on fuel types and fuel loading by maps or other means. Conduct fuel surveys to collect wildland fire fuels data if necessary.

13.3.11. Monitoring Requirements. Identify the environmental factors that are monitored and the frequency of monitoring required for both a wildfire and prescribed fire. Identify post-fire assessment protocols for both wildfires and prescribed fires.

13.3.12. Public Notification. Identify a protocol for notifying the media and affected persons for wildfire incidents and prescribed burning activities.

13.3.13. Funding Requirements. Identify the funding requirements to train and equip wildland fire management personnel to ensure safe, effective, and cost-efficient operations in support of the Wildland Fire Management Plan. Identify the appropriate sources of funding for wildland fire activities.

13.3.14. Personnel Training and Certification Standards and Records. The WFMP identifies the staffing requirements, according to specific certification and training requirements, for the tasks associated with wildland fire management activities on the installation.

13.3.15. EIAP for WFMP Implementation. Actions proposed in a WFMP may constitute a major federal action as defined in 40 C.F.R. §1508.18 (b) (2). Evaluate major federal actions for potential environmental effects IAW 32 C.F.R. Part 989.

13.4. Wildland Fire Operations. Air Force wildland fire policy and guidance applies to operations on undeveloped lands that does not involve facilities and infrastructure. A wildland fire is any non-structure fire that occurs on wildland and includes both: (1) wildfires, to include unplanned natural fires (e.g. lightning), munitions caused fires, unauthorized human-caused fires, and escaped prescribed fire projects, and all other unplanned wildland fires, and (2) prescribed fires purposely ignited by natural resource managers to meet specific land management objectives. A primary objective for any wildland fire operations is firefighter and public safety. The *Interagency Standards for Fire and Fire Aviation Operations* (NFES 2724), may be used as a reference for wildland fire operations.

13.4.1. Wildfire Incident Management. Wildfires occurring on AF managed lands should have a response consistent with firefighter safety, known and potential hazards, and resource values at risk. Acceptable response to a wildfire incident should be consistent with the direction specified in the installation Wildland Fire Management Plan, and may incorporate the full range of suppression options ranging from containment and monitoring to direct attack and full suppression. In accordance with Homeland Security Presidential Directive/HSPD-5 – *Management of Domestic Incidents*, February 28, 2003, Air Force wildfire response will incorporate the National Incident Management System (NIMS) standards into the organizational structure to facilitate cooperation and integration with other federal and state wildland fire organizations across jurisdictional boundaries. **(T-1).**

13.4.2. Prescribed Fire Operations. Prescribed fire on Air Force installations can be used as a management tool to attain the goals and objectives of the INRMP and to support other AF mission requirements.

13.4.2.1. Site-Specific Burn Plans. Develop a site-specific burn plan for each prescribed burn conducted on AF property. The installation Wildland Fire Management Plan should identify the required components for site-specific burn plans. At a minimum, burn plans include the following components:

13.4.2.1.1. Burn objectives

13.4.2.1.2. Prescription for acceptable weather and fuel moisture parameters

13.4.2.1.3. Required personnel and equipment resources

13.4.2.1.4. Description of burn area including boundary, map, size, topography and vegetation/fuels

13.4.2.1.5. Smoke management plan including air quality considerations

13.4.2.1.6. Safety considerations including a medical plan

13.4.2.1.7. Pre-burn authorization/notification checklist

13.4.2.1.8. Escape/Contingency plan

13.4.2.1.9. Communications plan

13.4.2.1.10. Description of features that require protection

13.4.2.1.11. Pre-ignition briefing checklist

13.4.2.1.12. Ignition and holding plan

13.4.2.1.13. Pre-ignition Go/No Go checklist

13.4.2.2. Burn Plan Approval. Ensure each burn plan for a prescribed fire is approved and signed by a designated authority prior to ignition. The installation Wildland Fire Management Plan should designate the appropriate authority for burn plan approval, and identify the required coordination process for draft burn plans. Installations may utilize qualified personnel from the Air Force Wildland Fire Center to review, approve, and execute an installation burn plan if qualified personnel are not present on the installation. Installations are encouraged to seek AFWFC review of any burn plan to assure that adequate safeguards are in place prior to burning. Burn plans for a prescribed fire in the controlled airfield area must be approved in advance by AFSEC/SEFW. **(T-1).**

13.4.3. Use of Fire Breaks. When planning for prescribed fires, and when suppressing wildfire, utilize natural and existing man-made features whenever possible. Fire breaks, if required, should be constructed, maintained, or rehabilitated to prevent erosion.

13.5. Wildland Fire Reporting.

13.5.1. Wildfire Reports. As soon as practical, the installation Wildland Fire Program Manager reports to the Air Force Wildland Fire Center any wildfire incident that occurs on or threatens lands under Air Force jurisdiction. At a minimum, post-fire reports include the fire name (not to exceed 80 characters), fire location (latitude and longitude), total area of fire, fire injuries, and infrastructure damage. Provide geospatial data on fire extent if available. For uncontrolled wildfires lasting more than 24 hours, provide the AFWFC a daily report on the potential for fire growth, current and expected weather, resource values at risk, multi-jurisdictional agency involvement, and information on additional resources needed. Additionally, report wildfires greater in size than 100 acres in timber fuel types or 300 acres in grass fuel types to the local/state Interagency Coordination Center.

13.5.2. Prescribed Fire Reporting. Report prescribed fire treatments conducted on an installation to the AFWFC within 10 days of the event. Minimum reporting requirements are treatment name, burn location (latitude and longitude), and total area treated. Provide geospatial data on treatment area extent if available.

13.6. Qualifications, Certification, Training, Fitness and Medical Surveillance Standards for Wildland Fire Personnel.

13.6.1. Wildland Fire Personnel Certification Standards. All military, civilian, contractor and emergency services personnel involved in wildland fire management require certifications appropriate for their expected level of involvement in the wildland fire organization. All AF personnel must meet the applicable NFPA or NWCG Standards for wildland fire activities. **(T-1).**

13.6.1.1. The Air Force Wildland Fire Center is responsible for issuing, maintaining and tracking the National Wildfire Coordinating Group (NWCG) certifications and qualifications for AF personnel, to include contractors and volunteers where appropriate. AF personnel whose Job Series is in the 0400 Natural Resources Management and Biological Sciences, or 0300 General Administrative, Clerical, and Office Service Occupational Groups that support wildland fire operations, as well as contactors and volunteers that assist them, must meet the training and qualification standards specified in the NWCG *Wildland Fire Qualification Subsystem Guide* (PMS 310-1/NFES 1414). **(T-1)**. The installation Wildland Fire Program Manager will annually provide the AFWFC with updates of NWCG certifications, training and experience for applicable personnel. **(T-1).**

13.6.1.2. AFCEC/CXF is responsible for tracking National Fire Protection Association certifications IAW DoDI 6055.06-M, *DoD Fire & Emergency Services Certification System, (FESCS)*. Personnel in the GS-0081 Job Series, 3E7X1 career paths, and contractors working with Fire and Emergency Services on AF-managed lands must meet the certification standards specified in NFPA 1051 – *Standard for Wildland Fire Fighter Professional Qualifications* and NFPA 1002 – *Standard for Fire Apparatus Driver/Operator Professional Qualifications*. **(T-1)**. National Fire Protection Association certifications documented in the FESCS database may be used to grant commensurate National Wildfire Coordinating Group wildland fire certifications in accordance with the National Fire Protection Association to National Wildfire Coordinating Group crosswalk at **http://ww.usfa.fema.gov/downloads/pdf/wildland_training_crosswalk.pdf**.

13.6.1.3. AF personnel who participate in wildland fire activities will be certified, as a minimum requirement, in Cardio-Pulmonary Resuscitation and Standard First Aid by the American Red Cross or comparable certification authority. **(T-1).**

13.6.1.4. Ensure position descriptions for Air Force employees that are expected to participate in wildland fire activities reflect the expected level of involvement and required certifications. Ensure position descriptions for civilian personnel with wildland fire management duties state if the position qualifies the position holder as a primary or secondary wildland firefighter, as described in **Chapter 46** of the Office of Personnel Management CRCS and FERS Handbook for Personnel and Payroll Offices. Natural resources management personnel not classified as a primary or secondary wildland firefighter may perform collateral duty in wildland fire management activities as qualified**.**

13.6.2. Wildland Fire Personnel Physical Fitness Standards.

13.6.2.1. The installation WFMP outlines the physical fitness standards required for personnel that participate in wildland fire management activities based upon their expected level of participation. NWCG publications PMS 310-1/NFES 1414 – *Wildland Fire Qualification Subsystem Guide*, NFES 1596 – *Fitness and Work Capacity*, and

NFES 2071 – *Fit to Work, Fatigue and the Firefighter* provide guidance for establishing physical fitness standards for various wildland fire management activities.

13.6.2.2. NWCG Publication PMS 307/NFES 1109 – *Work Capacity Test Administrator's Guide* is the AF standard for assessing fitness for personnel that participate in wildland fire activities. Utilize the Work Capacity Test to assess three levels of fitness for personnel involved in wildland fire activities: (1) Arduous, (2) Moderate, and (3) Light.

13.6.2.2.1. Personnel in the natural resources Job Series whose job descriptions state that they are Primary or Secondary Wildland Firefighters are required to meet the Arduous fitness criteria annually. **(T-1)**.

13.6.2.2.2. Air Force civilian personnel, contractors and volunteers that serve as collateral duty wildland fire personnel, must meet the Moderate fitness test annually in order to perform wildland fire activities on AF managed lands. **(T-1)**.

13.6.3. Medical Surveillance for Wildland Fire Personnel**.** AF personnel whose job description requires participation in wildland fire management activities as a primary or secondary firefighter on AF installations must meet the pre-employment medical and physical examination criteria contained in the most recent version of NFPA 1582 – *Standard on Comprehensive Occupational Medical Program for Fire Departments* and associated TIG. **(T-0).**

13.7. Programming for Wildland Fire Management Activities.

13.7.1. Wildland fire management activities that are conducted for the purpose of compliance with environmental laws and regulations can be supported by operations and maintenance conservation funds.

13.7.2. Wildfire suppression, prescribed burning and other wildland fire management activities to support training, range use, munitions testing and evaluation, or other mission activity are supported by the responsible activity through direct funding or reimbursement.

13.7.3. Funding for wildfire prevention and fuels management for hazard reduction is an installation operations and maintenance responsibility.

13.7.4. In accordance with 10 U.S.C. §2665, expenditures for the protection and maintenance of commercial forests can be reimbursed by proceeds derived from the sale of forest products. Refer to 15.3.1.2 for guidance on allowable reimbursements from forestry proceeds.

Chapter 14

INVASIVE SPECIES MANAGEMENT

14.1. Invasive Species Management Policy. Executive Order 13112, *Invasive Species*, February 3, 1999 requires all federal agencies to prevent the introduction of invasive species, provide for their control and minimize their economic, ecological, and human health impacts. Under Executive Order 13112, installations will, to the extent practicable and permitted by law, not authorize, fund, or carry out management actions that are likely to cause the introduction or spread of invasive species. Furthermore, Title 7 U.S.C. §2814 requires that each federal agency establish and adequately fund an undesirable plants management program through the agency's budgetary process.

14.2. Invasive Species Management Program. Address invasive species management in the installation INRMP. Formulate and implement INRMP goals and objectives to detect, respond to, and control populations of invasive species in a cost-effective and environmentally sound manner whenever and wherever practical. INRMP goals should be consistent with the Federal Invasive Species Management Plan and other guidelines promulgated by the Federal Invasive Species Council. The invasive species management element of the INRMP should provide specific information on species to be controlled, recommended control methods, and appropriate level of control effort in consideration of available resources. Promote native habitats and the restoration of native species in ecosystems that have been invaded.

14.3. Invasive Species Detection and Monitoring. The INRMP should include a current assessment of the presence and extent of exotic and invasive species on the installation. Conduct surveys to detect and map invasive species. Monitor invasive species populations and update inventory information as new species are discovered and known populations are controlled or eliminated.

14.4. Invasive Species Control on Agricultural Outgrants. Cropland and grazing outgrants on AF properties should include requirements for the outgrantee to prevent the introduction and spread of invasive species. Ensure outgrant agreements include requirements to implement and report control measures for invasive species that are identified in the INRMP.

14.5. Control of Feral Animals. Installations may not, to the extent practicable and permitted by law, authorize, fund, or carry out activities that are likely to cause the introduction or spread of feral dogs, cats, pigs, goats or other non-native domesticated animals on AF-controlled lands. The INRMP should address the specific policies, programs and methods used to control feral animals on AF installations. Feeding or harboring of feral domesticated species is prohibited unless justified in the INRMP as necessary to achieve a specified natural resources management objective.

14.6. Interagency Cooperation. Title 7 U.S.C. §2814 authorizes cooperative agreements with state agencies for the control of undesirable plant species on federal lands. Partner with other federal, state, and local agencies and adjacent landowners in joint control strategies to collaborate efforts for the control of undesirable species and increase the effectiveness of control measures. Installations are encouraged to participate in state or regional Exotic Pest Plant Councils and Cooperative Invasive Species Management Areas at a level of effort that is commensurate with efforts by the partners and within the legal authority of the AF.

Chapter 15

BIRD/WILDLIFE AIRCRAFT STRIKE HAZARD

15.1. Bird/Wildlife Aircraft Strike Hazard (BASH) Program. The focus of the BASH program is to prevent wildlife-related aircraft mishaps and reduce the potential for wildlife hazards to aircraft operations. Accomplishing this goal requires knowledgeable natural resources management on and adjacent to installation airfields. Installation natural resources management activities must comply with the requirements of AFI 91-202, *The US Air Force Mishap Prevention Program*, AFI 91-204, *Safety Investigations and Reports*, and AFPAM 91-212, *BASH Management Techniques*. AFCEC/CO and the Air Force Safety Center (AFSEC/SEFW) provide technical assistance to installations on BASH issues.

15.1.1. The installation Integrated Natural Resources Management Plan should support the BASH Plan. The INRMP should address habitat management techniques that can reduce the potential for wildlife hazards to aircraft operations. Reference the BASH Plan in the INRMP. A BASH Plan designated For Official Use Only (FOUO) is exempted from public review, but is available to the USFWS and state wildlife agency upon request.

15.1.2. Natural resources personnel will assist the installation flight safety office and others in the development and implementation of the BASH Plan. Natural resource personnel will assist the flight safety office in providing oversight to external agencies or contractors involved in the implementation of the BASH program on Air Force property. **(T-1).**

15.1.3. The installation natural resources manager must be an active member of the installation Bird/wildlife Hazard Working Group (BHWG). **(T-1).**

15.1.4. Installations will establish procedures for coordination and review of construction and infrastructure improvement projects (e.g. landscaping, waste water treatment, golf courses etc.) to ensure that any BASH related impacts are considered. **(T-1).**

15.2. Natural Resources Management in the Airfield Environment. Review all aspects of installation natural resources management for potential wildlife hazards to aircraft operations. Manage the land adjacent to aircraft operations areas to minimize attractions to wildlife. Refer to Federal Aviation Administration Advisory Circular 50/5200-33B, *Hazardous Wildlife Attractants on or Near Airports* for guidance on identifying land uses near airfields that have the potential to attract hazardous wildlife.

15.2.1. Airfield Vegetation Management**.** Manage vegetation within and around an active airfield to satisfy wildlife abatement objectives. Promote the establishment of a vegetative cover that reduces the attractiveness of the airfield to wildlife within a minimum distance of 500 feet from any aircraft movement area IAW AFI 91-202 grass height requirements. Vegetation management on and adjacent to the managed airfield to support BASH Plan objectives is a military readiness activity covered under 50 C.F.R. §21.15. Additionally, avoid using landscape plants around airfield infrastructure that could attracts birds or animals, and remove any landscape plants known to attract birds or wildlife in the vicinity of the airfield.

15.2.2. Managing Wetlands in the Airfield Environment. Wetland areas near an airfield may create potential hazards to aircraft operations. Innovative techniques to manage wildlife in

wetlands should be explored and implemented. Explore and pursue legally defensible actions to reduce the amount of wetlands on the airfield to the maximum extent possible when their presence conflicts with the flight mission. While "no net loss" of wetlands is an important AF goal, give priority to flight safety.

15.2.3. Airfield Drainage Ditches. Manage drainage ditches to reduce their attractiveness to wildlife. Do not locate storm water runoff retention ponds beneath the airfield approach-departure clearance surfaces as defined in UFC 3-260-01. Coordinate with the appropriate regulatory authority to determine if maintenance of airfield drainage requires a permit IAW Section 404 of the CWA, or qualifies under a Corps of Engineers nationwide permit issued IAW Title 33, C.F.R. Part 330, *Nationwide Permit Program*.

15.2.4. Landscaping. Avoid using landscape plant material that could attracts birds or animals on and around the airfield. Remove any landscape plants in the vicinity of the airfield that are known to attract birds or wildlife.

15.2.5. Managing Agricultural Outgrants in the Airfield Environment**.** Agricultural and grazing outgrants (see **Chapter 10**) should be compatible with the installation BASH plan and INRMP. Coordinate proposals for outgrants with the BHWG to ensure that the crops grown and the agricultural methods used do not negatively impact flight safety.

15.2.5.1. Agricultural activities are not permitted within an aircraft movement area or within the boundaries of the airfield security fence.

15.2.5.2. Grain crops are highly attractive to wildlife and should never be grown near the airfield as part of an agricultural outgrant program.

15.2.5.3. Grazing animals can be a serious hazard if uncontrolled within the airfield. Ensure strict livestock control and proper fencing.

15.3. Management of Wildlife in Support of the BASH Plan. The INRMP should evaluate both existing and potential wildlife hazards to aircraft operations. Although the Air Force Safety Center is responsible for the overall AF BASH program, natural resources and pest management personnel are an integral part of every installation BASH program. Natural resources managers must share information on biological resources and habitat conditions with the installation safety office to facilitate the development of a comprehensive BASH program. **(T-1).**

15.3.1. The INRMP should identify wildlife species that may pose a hazard to aircraft operations, mission readiness or capability, and discuss habitat management techniques that can be used to mitigate the threat. Utilize Air Force Safety Center and Federal Aviation Administration data on wildlife-related aircraft mishaps to identify those species that are most often involved in aircraft mishap incidents. Perform local wildlife surveys to identify wildlife activity that may pose a risk to aircraft operations.

15.3.2. Migratory Birds. Share information on migratory bird activity with flight safety in order to enhance the installation's BASH program. Coordinate with other installations within the same flyway to obtain information on current migratory bird populations. Refer to 7.2. for guidance on activities that may affect migratory birds.

15.3.3. Watchable Wildlife Programs. Consider wildlife hazards to aircraft operations when developing any Watchable Wildlife programs. Coordinate all Watchable Wildlife programs through the Bird/wildlife Hazard Working Group prior to implementation.

15.3.4. Airfield Wildlife Damage Control. The installation BASH plan details responsibilities for control of nuisance wildlife on the airfield. Lethal control is authorized only after all practical non-lethal control measures have been exhausted, provided that the proposed actions are reviewed in EIAP procedures as stipulated in 32 C.F.R. Part989. Obtain depredation permits from the USFWS pursuant to the Migratory Bird Treaty Act for intentional takes of migratory birds in support of the BASH program (also see 6.4). The installation BASH Plan designates the office responsible for maintaining all applicable federal and state depredation permits or Migratory Bird Treaty Act permits when those permits are in support of the BASH program. Ensure wildlife control methods specified in a BASH plan, as well as the permits required, are referenced in the installation INRMP and coordinated with the USFWS and state fish and wildlife agency as part of the annual INRMP review and update process (see 3.5). If a federally protected species is present or suspected to be present an active airfield, notify AFSEC/SEFW to identify risks to flight safety and mission capability and to determine acceptable mitigative actions.

Chapter 16

NATURAL RESOURCES BUDGETING

16.1. Funding Sources. This chapter outlines the appropriate funding sources, funding priorities, and level of effort for AF conservation programs. Funding sources include the Operations and Maintenance (O&M) appropriation, reimbursable conservation program accounts for forestry, agriculture, fish and wildlife and outdoor recreation management, the DoD Legacy Resource Management Program, and other sources such as those that may be obtained through grants or cooperative agreements executed under authority of the Sikes Act.

16.2. Air Force Conservation Program Funding. Conservation program requirements eligible for O&M funding are programmed as part of the Environmental Quality (EQ) Programming and Budget process as described in AFI 32-7001, *Environmental Management.* Program natural resources requirements for current year and outyears within the Automated Civil Engineer System - Project Management (ACES-PM) system, or an approved successor database. Headquarters United States Air Force (USAF), Director of Air Force Civil Engineers (A4C) will annually provide additional information on programming and budgeting for environmental quality O&M requirements in the form of the EQ Programming Matrix, EQ Standard Titles Guidance, and EQ Scoring Model. Use the EQ Programming Matrix to determine if the requirement is valid or not valid for EQ funding. Categorize conservation requirements as recurring or non-recurring, and designate funding priority as Level 0, 1, 2, or 3 in accordance with the guidance in AFI 32-7001.

16.2.1. Level 0 Natural Resources Requirements – Maintain Compliance (Operations and Services). Level 0 includes recurring natural resources management requirements. Ongoing natural resources management activities identified in an approved INRMP are Level 0 requirements if they are essential for the successful implementation of the goals and objectives stated in the plan. Level 0 requirements include funding for personnel, travel, training, and supply costs, as well as recurring inventories, surveys, sampling, monitoring, reporting and record keeping, payments, and fees required by a specific public law or compliance agreement (e.g. Biological Opinion for T&E species management). Always utilize the EQ Standard Titles list for Level 0 project titles.

16.2.2. Level 1 Requirements – Fix Noncompliance. A Level 1 natural resources requirement is a non-recurring action needed to correct a non-conformance or out-of-compliance condition with a supported driver in the programmed year. Valid drivers include federal laws, regulatory mandates, and state laws applicable to federal activities. The principal legal drivers for natural resources requirements are the Sikes Act, Endangered Species Act, Clean Water Act, and National Environmental Policy Act. Level 1 includes projects that implement an approved INRMP if they are essential for the successful implementation of the goals and objectives stated in the plan, to include requirements to manage species and habitats to prevent the listing of a candidate species for listing under the auspices of the Endangered Species Act. Natural resources surveys and mitigation measures (e.g. T&E species surveys, jurisdictional wetland delineations) required as a prerequisite for regulatory approval of proposed projects must be funded as part of the proponent's project cost and are not valid Level 1 environmental requirements. Refer to the EQ Programming Matrix for additional guidance regarding supported and non-supported Level 1 requirements.

16.2.3. Level 2 Requirements – Prevent Noncompliance. A non-recurring natural resources requirement for activities and projects programmed in a fiscal year which is in advance of the year in which compliance is mandatory and necessary to prevent non-compliance beyond the program year. Legal drivers are the same as for Level 1.

16.2.4. Level 3 Requirements – Enhance Environment. Level 3 natural resources requirements are activities and projects that are not explicitly required by an applicable legal driver, but are needed to enhance the environment beyond statutory compliance to achieve overall INRMP goals and objectives.

16.3. Reimbursable Conservation Program Funds. Funds generated from the sale of forest products, agricultural products, grazing and cropland outgrants, and the collection of fees for hunting, fishing, trapping and other outdoor recreation activities may be reimbursed to Field Operating Agencies and installations for support of natural resources programs under certain conditions set forth by law. AFCEC/CZ is responsible for the administration and management of Reimbursable Conservation Program funds.

16.3.1. Forest Management Program.

16.3.1.1. Forest Management Revenue Collection. Record revenues collected from forest product sales on a DoD Form 1131, *Cash Collection Voucher*. Deposit proceeds from forest product sales to Deposit Fund Account 57 F 3875.000* (* refers to the last digit of the fiscal year, e.g. 57 F 3875.0005 31FF for FY 2015). Sale contracts may provide for scheduled payments by the buyer. If sales are made on a unit weight basis, use the weight tickets from certified government or commercial scales as a basis for collection. Do not deposit refundable security deposits received from a buyer with forest product sale collections. Instead, hold security deposit payments in a temporary suspense account or deposit into 57X6501.SDEP until funds are either disbursed back to the buyer or converted to revenue collections.

16.3.1.2. Forest Management Reimbursements. 10 U.S.C. §2665 authorizes reimbursement of costs directly related to the production of forest products with proceeds derived from the sale of the forest products. Eligible forestry program reimbursements include obligations funded by O&M (appropriation 3400) or Other Procurement (appropriation 3080) that are directly related to the economic production and sale of timber, logs, pulpwood, Christmas trees, posts and poles, pine straw, stump wood, bark and other mulch, cones, seeds, mistletoe, firewood, and wood chips. Reimbursement of forest management obligations may not exceed the limit set by funding authorization documents. AFCEC/CZ must monitor forestry proceeds and obligations within each fiscal year, and reduce the forestry program funding authorizations and reimbursements when necessary to avoid a program deficit. **(T-1)**. Additional budget guidance and procedures for the forest management program are located in AFI 65-601, Volume 1, *Budget Guidance and Procedures*. Forest management expenses authorized for reimbursement from forestry proceeds are:

16.3.1.2.1. Forest Improvement. Obligations incurred for the improvement of forest land, to include pre-commercial tree thinning, pruning, and the control of undesirable vegetation.

16.3.1.2.2. Reforestation. Obligations incurred for establishment and regeneration of forest stands, to include preparing sites, planting trees, and controlling insects, disease, and unwanted vegetation during the establishment period.

16.3.1.2.3. Forest Protection. Obligations incurred for the protection of forest land capable of the economic production of forest products, to include protection from fire, insects, diseases, animals, and erosion. Forest management program funds may only be used to reimburse costs of forest protection measures that are specifically conducted to protect and enhance a commercial forest resource. Obtain reimbursement from proponent activities for costs incurred in mission-related fire protection and suppression that supports military training, installation operations, range use, munitions testing and evaluation.

16.3.1.2.4. Forest Access Roads. Obligations incurred for construction, reconstruction, repair, and maintenance of forest access roads and trails used primarily for forest improvement operations and the harvest of forest products.

16.3.1.2.5. Sales of Forest Products. Obligations incurred in the preparation for sales of forest products, to include marking, surveying, mapping, appraisal, marketing, contract preparation, contract advertising, escorting prospective bidders, contract administration, and enforcing compliance of forest product sales contracts.

16.3.1.2.6. Administrative Expenses. Obligations incurred for administration of a commercial forest management program, to include supervising, planning, programming, conducting field surveys, inventories, training, and attending professional forestry meetings.

16.3.1.2.7. Forest Management Vehicles and Equipment. Obligations incurred for the procurement of vehicles and equipment used exclusively in support of forest management on AF installations. See 15.3.6 for further guidance on procurement of vehicles and equipment.

16.3.2. Department of Defense Forest Reserve Account. 10 U.S.C. §2665 provides for the distribution of net proceeds (gross collections less the obligations incurred) from installation forest product sales between the state government and the DoD Forest Reserve Account. States in which the revenue was generated receive forty percent of net proceeds for each installation that registers a net gain. The remaining net proceeds are deposited to the DoD Forest Reserve Account and managed by the Office of the Deputy Under Secretary of Defense (Installations and Environment), (DUSD(I&E)), according to the guidelines in DoD Financial Management Regulation 7000.14-R, Volume 11A, **Chapter 16**, *Accounting for Production and Sale of Forest Products.* Forest Reserve Account funds can be used to fund forestry programs as well as other conservation programs and projects that implement the goals and objectives of an approved INRMP. AFCEC/CZ reviews proposals for Forest Reserve Account funding and recommends projects for approval to DUSD(I&E). The AFCEC/CZ Natural Resources Subject Matter Expert serves as the AF representative on the Forestry Subcommittee of the DoD Conservation Committee (see 1.2.2.3) Forest Reserve account funds for approved AF projects are issued through AFCEC/CZ for further distribution and program oversight.

16.3.3. Agriculture Outgrant Program.

16.3.3.1. Agriculture Outgrant Program Revenue Collection. Record revenues collected from agricultural outgrants on a DD Form 1131, *Cash Collection Voucher*. Deposit proceeds from agricultural outgrants to Deposit Fund Account 57 F 3875.00AG 31FA.

16.3.3.2. Agriculture Outgrant Program Reimbursements. 10 U.S.C. §2667(e)(3) authorizes the use of proceeds from agricultural outgrants and sales of agricultural products to cover the administrative expenses of agricultural leasing, and to finance natural resources management activities that implement an approved INRMP. These obligations include costs of normal operations (appropriation 3400) or investment equipment (appropriation 3080). Authorized uses of cropland and grazing funds include:

16.3.3.2.1. Civilian Pay - limited to persons providing direct support of agriculture programs and natural resources management programs on AF installations.

16.3.3.2.2. Administrative Expenses – travel, training, attendance at professional and scientific meetings, administrative oversight, and supplies that are directly related to the management of natural resources on AF installations.

16.3.3.2.3. Land Improvements – limited to improvements that increase the productivity or value of the land for outgrant purposes.

16.3.3.2.4. Vehicles and Equipment – vehicles and equipment purchased with agricultural funds may only be used in support of agriculture outgrant management and in support of implementation of the INRMP. See 15.3.6 for further guidance on procurement of vehicles and equipment.

16.3.4. Fish and Wildlife Management Reimbursements. The Sikes Act, 16 U.S.C. §670a(b)(3)(B), allows hunting, fishing, trapping and other outdoor recreation fees to be reimbursed back to the installation where they were generated. Fish and wildlife management fees are collected into the 57 5095 accounting classification. AFCEC/CZ monitors collections and facilitates disbursement of collections back to the installation in the 57X5095 (Fund Code 74) appropriation. Only use these fees on the installation where they were collected, and used only for the protection, conservation, and management of fish and wildlife, to include habitat improvement and related activities. Authorized uses of 57X5095 funds include civilian pay, vehicle and equipment procurement, and other administrative expense directly related to the management of the fish and wildlife program on the installation. Vehicles and equipment procured with 57X5095 funds may only be used to support fish and wildlife management activities that implement the INRMP. See 16.3.6 for further guidance on procurement of vehicles and equipment. Installations must notify AFCEC/CZ if they terminate hunting, fishing, or trapping programs; so that the 57X5095 account can be closed. **(T-0).**

16.3.5. Reimbursable Conservation Program Budget Process. AFCEC/CZ manages reimbursable conservation program budgets. The annual reimbursable conservation program budget process is as follows:

16.3.5.1. Installations prepare annual budget submissions for Reimbursable Conservation Program funding by 31 July each year for the upcoming fiscal year. Ensure installation budgets identify projected revenue and requested reimbursements.

16.3.5.2. AFCEC/CZ reviews installation budgets, and approves the final budget by 30 September.

16.3.5.3. AFCEC/CZ transmits the approved budget to the servicing Defense Finance and Accounting Service center.

16.3.5.4. AFCEC/CZ obtains program funds and issues an operating budget authority document (OBAD) to installations in accordance with the approved final budget, but limited by the availability of program proceeds. The OBAD document imposes ceiling limitations on the maximum amount of obligations that can be reimbursed from program proceeds.

16.3.5.5. AFCEC/CZ monitors expenditures to ensure that total obligations for a fiscal year do not exceed program proceeds, and reduces operating budget authority as needed to prevent program deficits.

16.3.6. Procurement of Vehicles and Equipment with Reimbursable Conservation Program Funds**.** Appropriation 3080 may be reimbursed with funds generated from the sale of forest products, agricultural products, and income from livestock grazing and cropland outgrants for the purpose of procuring vehicles and equipment. Additionally, fish and wildlife program vehicles are procured under appropriation 5095 with funds generated from the collection of hunting, fishing, trapping and other outdoor recreation fees. Vehicles and equipment purchased using the 5095 appropriation, and vehicles purchased with 3080 appropriation funds that were reimbursed from agricultural or forestry proceeds, are reimbursable program assets and may not be used for other purposes.

16.3.6.1. Installations identify Reimbursable Conservation Program vehicle and equipment requirements, and will submit requests to AFCEC/CZ for replacement or new procurement by 31 July each year for the upcoming fiscal year. **(T-2).**

16.3.6.2. AFCEC/CZ reviews vehicle and equipment requests for technical sufficiency, determines whether excess equipment from another installation may be available to meet the need, and includes vehicle and equipment procurement requests in the consolidated program budget for the upcoming fiscal year.

16.3.6.3. AFCEC moves sufficient funds from the forestry and agriculture collection accounts into the 3080 appropriation as reimbursement for planned vehicle and equipment procurements.

16.3.6.4. SAF/FMBI issues an OBAD for reimbursable authority for the 3080 funds to AFCEC equal to the amount transferred to 3080 from the forestry and agriculture collection accounts.

16.3.6.5. AFCEC/CZ oversees the procurement of Reimbursable Conservation Program vehicles for delivery to the installations.

16.3.7. Reimbursable Conservation Program Vehicle and Equipment Management and Maintenance Procedures. The responsible installation natural resources program manager accounts for, inventories, and documents all equipment maintenance costs for vehicles purchased with Reimbursable Conservation Program funds. Vehicles and equipment purchased with Reimbursable Conservation Program funds are not accounted for on the Civil Engineer Vehicle Master Listing.

16.3.7.1. Account for Reimbursable Conservation Program vehicles using the Services Agency Information System Vehicle Management application. Log vehicle maintenance operations and update vehicle mileage quarterly.

16.3.7.2. The installation natural resource manager will update inventory of vehicles and equipment during the first month of each fiscal year. **(T-2).**

16.3.7.3. Notify AFCEC/CZ of any excess vehicles and equipment available for redistribution. Excess vehicles and equipment that were purchased with Reimbursable Conservation Program funds are redistributed to other installations at the direction of AFCEC/CZ.

16.3.7.4. Turn in irreparable excess equipment to the nearest Defense Marketing and Reutilization Office.

16.4. Legacy Resources Management Program. DoD Legacy Resources Management Program funds are managed by the DUSD(I&E). Submit pre-proposals and proposals for Legacy funds via the Legacy website at **http://www.dodlegacy.org**, which provides full instructions, schedules, criteria, and other guidance.

16.5. Strategic Environmental Research and Development Program (SERDP). SERDP is a joint program of the Departments of Defense and Energy, and the U.S. Environmental Protection Agency. The DoD SERDP program can be used to fund conservation research on DoD installations. SERDP can fund certain research and development projects that involve the development of new technologies for natural and cultural resources management. Details for submitting conservation proposals to the SERDP can be found at **http://www.serdp-estcp.org/Funding-Opportunities/SERDP-Solicitations**.

16.6. Environmental Security Technology Certification Program (ESTCP) . ESTCP is a counterpart to SERDP. The ESTCP program funds demonstrations and applied application of new technologies for natural and cultural resources management. Details for submitting proposals to ESTCP can be found at **http://www.serdp-estcp.org/Funding-Opportunities/ESTCP-Solicitations**.

Chapter 17

PUBLIC AWARENESS AND INVOLVEMENT IN NATURAL RESOURCES PROGRAMS

17.1. Public Awareness and Involvement in Natural Resources Program. The installation or AFCEC works with the installation Public Affairs office to establish an ongoing natural resources Public Affairs program.

17.1.1. In collaboration with the installation Public Affairs office, establish the appropriate venues to satisfy public notice requirements for Integrated Natural Resources Management Plans or other environmental documents made available for public review, and the appropriate timelines for receiving public comments.

17.1.2. The INRMP should identify appropriate public awareness programs necessary to achieve INRMP goals and objectives, such as the need to protect sensitive species or avoid dangerous human-wildlife conflicts. Incorporate essential environmental and natural resources awareness into newcomer's orientation briefings and other appropriate information forums. The INRMP may also identify the programs and events that would be used to heighten public awareness of natural resources conservation, such as National Hunting and Fishing Day, Earth Day, or National Arbor Day.

17.1.3. Submit news information through the installation Public Affairs office using appropriate traditional and social media platforms to publicize installation efforts in integrated natural resources management, and outdoor recreation opportunities such as hunting, fishing, or a designated Watchable Wildlife Area.

17.1.4. Installations may develop environmental education programs in cooperation with the Services Directorate Outdoor Recreation program, local educational institutions, conservation organizations, and other public service agencies.

17.2. Public Access to Air Force Land and Water Areas.

17.2.1. Public Access for Outdoor Recreation. The Installation Commander, in consultation with Security Forces, Safety Office, and Judge Advocate, determines the extent of access on all areas designated in the INRMP as suitable for outdoor recreation. Allow use of outdoor recreation resources by the general public when such use is deemed by the commander to be compatible with the military mission. Access determinations should address the permissible types of activities, season of access, mission sensitivities, and permissible category of user (see 7.2.3). **(T-1).**

17.2.2. Public Access to Support Natural Resources Program Goals. The Installation Commander, or designated representative, may grant access to federal and state officials and academic researchers to provide technical assistance to the AF, or to conduct academic research on installation natural resources. Access related to partnering efforts with other federal agencies, state agencies, conservation organizations, and individuals can be permitted under conditions where such activities adhere to pertinent mission, security, safety, and legal restrictions. Researchers may collect plants, animals, mineral, or fossils on installation lands for valid scientific purposes when compatible with the INRMP, military operations requirements, and with the required federal or state permits.

17.3. Special Natural Areas. Areas on AF installations that contain natural resources that warrant special protection efforts may, where consistent with the military mission, be designated in the INRMP as a Special Natural Area. Special Natural Areas may include botanical areas, ecological reserves, geological areas, riparian zones, scenic areas, and zoological reserves. The INRMP should identify applicable access and land-use restrictions for each designated area. A Special Natural area designation in an INRMP is a temporary status that is applicable for the period covered by the INRMP, and can be rescinded by order of the Installation Commander at any time. Reassess such areas if the military mission requirements of the installation change, during any installation realignment or closure action involving the property, or if the property becomes excess and requires disposal.

17.4. Special Restrictions for Disclosing Natural Resources Information. An installation may determine that the disclosure of information on the location or character of sensitive natural resources may create a substantial risk of harm, theft, or destruction of such resources, an invasion of privacy, trespass on Government property, or interfere with the military mission. In such cases, the installation ensures that documents and other data voluntarily provided to the public do not disclose this information. Denial of requests for information under the Freedom of Information Act, Title 5, U.S.C. §552, as amended by P.L. 104-231, should meet the criteria for appropriate exemptions stated in DoD Regulation 5400.7-R, *DoD Freedom of Information Act Program, 4 September1998*, and the Air Force supplement to DoD Regulation 5400.7, *Department of Defense Freedom of Information Act Program.*

Chapter 18

NATURAL RESOURCES MANAGEMENT TRAINING

18.1. Natural Resources Training. The INRMP should identify the appropriate natural resources training requirements for the installation conservation staff and other supporting staff. Natural resources program managers at Category I installations (see 3.2.1.) must take the course, *DoD Natural Resources Compliance*, endorsed by the DoD Interservice Environmental Education Review Board and offered for all DoD Components by the Naval School, Civil Engineer Corps Officers School (CECOS). **(T-0)**. See **http://www.netc.navy.mil/centers/csfe/cecos/** for CECOS course schedules and registration information. Other applicable environmental management courses are offered by the Air Force Institute of Technology (**http://www.afit.edu**), The National Conservation Training Center managed by the USFWS (**http://www.training.fws.gov**), and the Bureau of Land Management Training Center (**http://training.fws.gov**).

18.1.1. Encourage natural resource management personnel to attain professional registration, certification, or licensing for their related fields, and allow them to attend appropriate national, regional, and state conferences and training courses, when feasible.

18.1.2. All individuals enforcing fish, wildlife and natural resources laws on AF lands require specialized, professional training on the enforcement of fish, wildlife and natural resources in compliance with the Sikes Act. This training may be obtained by successfully completing the Land Management Police Training course at the Federal Law Enforcement Training Center (**http://www.fletc.gov/**).

18.1.3. Individuals participating in the capture and handling of sick, injured, or nuisance wildlife should receive appropriate training, to include training that is mandatory to attain any required permits.

18.1.4. Personnel supporting the BASH program should receive flight line drivers training, training in identification of bird species occurring on airfields, and specialized training in the use of firearms and pyrotechnics as appropriate for their expected level of involvement.

18.1.5. The DoD supported publication *Conserving Biodiversity on Military Lands -- A Handbook for Natural Resources Managers* (**http://dodbiodiversity.org**) provides guidance, case studies and other information regarding the management of natural resources on DoD installations.

18.2. Guidance for Installation Commanders. The DoD publication *Conserving Biodiversity on Military Lands: A Guide for Natural Resources Managers - The Commander's Guide* (**http://www.dodnaturalresources.net/files/Conserving_Biodiversity_on_Military_Lands_The_Commanders_Guide.pdf**) provides basic natural resources management guidance for

Installation Commanders. Additionally, the Executive Summary of the installation INRMP provides the installation and wing commander, installation civil engineers, and other senior officers aware of installation natural resources, and informs them of how the natural resources management program supports mission objectives.

JOHN B. COOPER, Lieutenant General, USAF
DCS/Logistics, Engineering & Force Protection

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

32 C.F.R. Part 989, *Environmental Impact Analysis Process (EIAP)*

AFI 13-212, Volume 1, *Range Planning and Operations*

AFI 32-1021, *Planning and Programming of Military Construction (MILCON) Projects*

AFI 32-1053, *Pest Management Program*

AFI 32-2001, *The Fire Protection Operations and Fire Prevention Program*

AFI 32-7001, *Environmental Management*

AFI 32-7020, *The Environmental Restoration Program*

AFI 32-7062, *Comprehensive Planning*

AFI 32-9003, *Granting Temporary Use of Air Force Real Property*

AFI 32-9004, *Disposal of Real Property*

AFI 32-9005, *Real Property Accountability and Reporting*

AFI 34-101, *Air Force Morale, Welfare, and Recreation (MWR) Program and Use Eligibility*

AFI 36-2817, *Civil Engineer Awards Program*

AFI 65-106, *Appropriated Fund Support of Morale, Welfare, and Recreation (MWR) and Nonappropraited Fund Instrumentalities (NAFIS)*

AFI 65-601, *Budget Guidance and Procedures*, Volume 1

AFI 91-202, *The US Air Force Mishap Prevention Program*

AFI 91-204, *Safety Investigations and Reports*

AFMAN 33-363, *Management of Records*

AFPAM 91-212, *Bird/Wildlife Aircraft Strike Hazard (BASH) Management Techniques*

AFPD 32-70, *Environmental Quality*

Animal Damage Control Act (7 U.S.C. §§426-426b)

Bald and Golden Eagle Protection Act (16 U.S.C. §§668-668d)

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

Coastal Barrier Resources Act of 1982 (16 U.S.C. §3509)

Coastal Zone Management Act, as amended (16 U.S.C. §1451 *et. seq.*)

CEQ Regulations - Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of the NEPA (40 C.F.R. Parts 1500 through 1508)

DoD 6055.06-M, *Department of Defense Fire and Emergency Services Certification Program*, February 23, 2006

DoDI 4715.03, *Natural Resources Conservation Program*, March 18, 2011

DoDI 5525.17, *Conservation Law Enforcement Program (CLEP)*, October 17, 2013

DoDI 6055.06, *DoD Fire and Emergency Services Program*, December 21, 2006

DoD Financial Management Regulation 7000.14-R, Volume 11A, , *Accounting for Production and Sale of Forest Products*, August, 2002.

DoD 5400.7-R, *DoD Freedom of Information Act Program*, September 4, 1998

Endangered Species Act of 1973, as amended (16 U.S.C. §§1531-1543)

EIAP – Environmental Impact Analysis Process, 32 C.F.R. Part 989

Estuary Protection Act (16 U.S.C. §§1221-1226)

Executive Order 11514, *Protection and Enhancement of Environmental Quality*, March 5, 1970, as amended by Executive Order 13514

EO 13690, *Establishing a Federal Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input* (30 January 2015)Executive Order 11989, *Off-Road Vehicles on Public Lands*, May 24, 1977

Executive Order 11990, *Protection of Wetlands*, May 24, 1977

Executive Order 12962, *Recreational Fisheries*, June 7, 1995

Executive Order 13089, *Coral Reef Protection*, June 11, 1998

Executive Order 13112, *Invasive Species*, February 3, 1999

Executive Order 13148, *Greening the Government through Leadership in Environmental Management*, April 21, 2000

Executive Order 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*, January 10, 2001

Executive Order 13423, *Strengthening Federal Environmental, Energy, and Transportation Management*, January 24, 2007

Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance*, October 5, 2009

Farmland Protection Act (7 U.S.C. §§4201 *et. seq.*)

Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended (7 U.S.C. §136 *et. seq.*)

Federal Land Policy and Management Act of 1976 (43 U.S.C. §1701)

Federal Noxious Weed Act of 1974 (7 U.S.C. § 2801)

Federal Water Pollution Control Act of 1977 (Clean Water Act), as amended (33 U.S.C. §§ 1251-1376)

Fish and Wildlife Conservation Act of 1980 (16 U.S.C. §§ 2901 - 2911)

Fish and Wildlife Coordination Act, as amended (16 U.S.C. § 661 *et. seq.*)

Forest and Rangeland Renewable Resources Planning Act of 1974 (16 U.S.C. § 1601 *et. seq.*)

Hunting, Fishing and Trapping on Military Lands [An update of the Military Construction Authorization Act] (10 U.S.C. § 2671)

Lacey Act of 1900 (16 U.S.C. §§ 701, 702)

Benton, N., J.D. Ripley, and F. Powledge. 2008. *Conserving Biodiversity on Military Lands: A Guide for Natural Resources Managers*. NatureServe, Arlington, VA

Marine Mammal Protection Act of 1972 (16 U.S.C. § 1361 *et. seq.*)

Magnuson-Stevens Fishery Conservation and Management Act (P.L. 94-265, as amended at P.L. 109-479)

Migratory Bird Treaty Act, as amended (16 U.S.C. § 703 *et. seq.*)

National Defense Authorization Act for Fiscal Year 2003 (P.L. 107-314)

National Defense Authorization Act for Fiscal Year 2004 (P.L. 108-136)

National Environmental Policy Act (NEPA) of 1969, as amended (Public Law 91-190, 42 U.S.C. §§ 4321-4347)

National Trails Systems Act of 1986 (16 U.S.C. §§ 1241-1249)

NFES 1109 – *Work Capacity Test Administrator's Guide*

NFES 1279 – *Prescribed Fire Smoke Management Guide*

NFES 1414 – *Wildland Fire Qualification Subsystem Guide*

NFES 1596 – *Fitness and Work Capacity*

NFES 2071 – *Fit to Work, Fatigue and the Firefighter*

NFES 2724 – *Interagency Standards for Fire and Fire Aviation Operations*

NFPA 295 – *Standard for Wildfire Control*

NFPA 299 - *Protection of Life and Property from Wildfire*

NFPA 1002 – *Standard for Fire Apparatus Driver/Operator Professional Qualifications*

NFPA 1051 – *Standard for Wildland Fire Fighter Professional Qualifications*

NFPA 1500 – *Standard on Fire Department Occupational Safety and Health Program*

NFPA 1582 – *Standard on Medical Requirements for Fire Fighters*

NFPA 1977 – *Protective Clothing and Equipment for Wildland Fire Fighting*

Outdoor Recreation on Federal Lands (16 U.S.C. §460l)

Outleasing for Grazing and Agriculture on Military Lands (10 U.S.C. §2667(d)(4))

Protection of Fossils on Federal Lands (43 U.S.C. § 1701 et. seq., 18 U.S.C. § 641, and 18 U.S.C. § 1361).

Rivers and Harbors Act of 1899 (33 U.S.C. § 401 *et. seq.*)

Sikes Act (16 U.S.C. §§ 670a-f), as amended

Soil and Water Conservation Act (16 U.S.C. § 2001)

Taylor Grazing Act (43 U.S.C. § 315 *et. seq.*)

Timber Sales on Military Lands [An update of the Military Construction Authorization Act] (10 U.S.C. § 2665)

UFC 3-260-01, *Airfield and Heliport Planning and Design*

Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§ 1271-1287)

Wild Horses and Burros Act (16 U.S.C. §§ 1331-1340)

Abbreviations and Acronyms

AF—Air Force

AFCEC—Air Force Civil Engineer Center

AFCEC/CZ—Air Force Civil Engineer Center, Environmental Directorate

AFI—Air Force Instruction

AFMAN—Air Force Manual

AFPAM—Air Force Pamphlet

AFPD—Air Force Policy Directive

AFWFC—Air Force Wildland Fire Center

ANG—Air National Guard

BASH—Bird/Wildlife Aircraft Strike Hazard

BHWG—Bird/Wildlife Hazard Working Group

BLM—Bureau of Land Management

BMPs—Best Management Practices

CATEX—Categorical Exclusion

CECOS—Civil Engineer Corps Officers School

CERCLA—Comprehensive Environmental Response, Compensation, and Liability Act

C.F.R—Code of Federal Regulations

CLEP—Conservation Law Enforcement Program

CWA—Clean Water Act

CZMA—Coastal Zone Management Act

CZMP—Coastal Zone Management Program

DoD—Department of Defense

DODD—Department of Defense Directive

DoDI—Department of Defense Instruction

EIAP—Environmental Impact Analysis Process

EMS—Environmental Management System

E.O—Executive Order

EPA—Environmental Protection Agency

EQ—Environmental Quality

ESA—Endangered Species Act

ESTCP—Environmental Security Technology Certification Program

FEMA—Federal Emergency Management Agency

FFCP—Fire Fighter Certification Program

FONPA—Finding of No Practicable Alternative

FONSI—Finding of No Significant Impact

GEM—Golf Environmental Management

GIS—Geographic Information Systems

HQ USAF—Headquarters United States Air Force

HQ USAF/A4C—Air Force Civil Engineer

IAW—In Accordance With

INRMP—Integrated Natural Resources Management Plan

IPM—Integrated Pest Management

IPMP—Integrated Pest Management Plan

IST—Installation Support Team

NEPA—National Environmental Policy Act

NFIP—National Flood Insurance Program

NFPA—National Fire Protection Association

NOAA Fisheries—National Oceanic and Atmospheric Administration, National Marine Fisheries Service

NRCS—Natural Resources Conservation Service

NWCG—National Wildfire Coordinating Group

NWI—National Wetlands Inventory

OBAD—Operating Budget Authority Document

OCONUS—Outside Continental United States

O&M—Operations and Maintenance

OPR—Office of Primary Responsibility

OSD—Office of the Secretary of Defense

P.L—Public Law

SAF/IE—Assistant Secretary of the Air Force (Installations, Environment and Energy)

SAF/IEE—Deputy Assistant Secretary of the Air Force (Environment, Safety and Infrastructure)

SERDP—Strategic Environmental Research and Development Program

SME—Subject Matter Expert

T&E—Threatened and Endangered

USACE—United States Army Corps of Engineers

USC—United States Code

USDA—United States Department of Agriculture

USFS—United States Forest Service

USFWS—United States Fish and Wildlife Service

WFMP—Wildland Fire Management Plan

Terms

Adaptive Ecosystem Management—A systematic process for continually improving natural resources management policy and practices by continually monitoring current operations and applying lessons learned to modify these programs as warranted.

Agricultural Outgrant—The use of DoD lands under a lease, license or permit to an agency, organization, or person for growing crops or grazing animals.

Agricultural Land Improvements—Improvements that add potential value to an agricultural outgrant such as irrigation features, fences, cattle guards, water developments, livestock enclosures and other structural improvements, as well as non-structural improvements such as seeding, fertilizing, and vegetation management.

Airfield—The area comprised of runways, taxiways, aprons and other adjacent land areas of an airport which are dedicated to aircraft operations.

Alien Species—Any species, including its seeds, eggs, spores, or other biological material capable of propagating that species, that is not native to a respective ecosystem [E.O. 13112].

Biodiversity—Also stated as 'Biological Diversity'. The variety of life forms, the ecological roles they perform, the genetic variability among them, and their interactions in the communities and ecosystems in which they live. Biodiversity Conservation is a land management practice whereby maintaining and establishing viable populations of all native species is a primary goal.

Candidate Species—Any species where there is sufficient information on the biological status and threats to propose them as endangered or threatened under the ESA, but for which development of a proposed listing regulation is precluded by other higher priority listing activities.

Commercial Forest Land—Land under management capable of producing at least 20 cubic feet of merchantable timber per acre a year.

Compliant INRMP—An INRMP that has been both reviewed and approved by signature or written correspondence within the past five years by authorized officials of the Department of Defense, Department of Interior, and appropriate state fish and wildlife agency.

Conservation Law Enforcement Program—Department of Defense program as described in DoDI 5525.17, *Conservation Law Enforcement Program (CLEP)*, which provides for the enforcement of laws for the protection of natural and cultural resources on military installations.

Cooperating Agency—In accordance with the Sikes Act, and for the purpose of INRMP coordination, the cooperating agencies are the United States Fish and Wildlife Service, state fish and wildlife management agency, and the National Oceanic and Atmospheric Administration, National Marine Fisheries Service (a.k.a. NOAA Fisheries) for installations that include or border marine environments.

Cooperative Agreement—A written agreement between an AF organization and one or more outside agencies (federal, state, or local), conservation organizations, or individual for the planning and implementation of natural resources program requirements.

Critical Habitat—Any air, land, or water area and constituents thereof that the USFWS or NOA Fisheries has designated as critical habitat in accordance with the ESA. The ESA, Section 3, defines critical habitat as: (i) the specific area within the geographical area occupied by the species, at the time it is listed in accordance with the provisions of section 4 of this Act, on which are found those physical or biological features (I) essential to the conservation of the species and (II) which may require special management considerations or protection; and (ii) specific areas outside the geographical area occupied by the species at the time it is listed in accordance with the provisions of section 4 of this Act, upon a determination by the Secretary that such areas are essential for the conservation of the species.

Cropland—Land primarily suitable for producing farm crops, including grain, hay, and truck crops.

Dispersed Outdoor Recreation—Outdoor recreation activities not related to a sports facility and conducted outside of a designated recreation area that provides built recreation facilities and services such as restrooms, potable water, camping pads, tables, fire pits, and garbage removal.

Ecosystem Management—An approach to natural resources management that focuses on the interrelationships of ecological processes linking soils, plants, animals, minerals, climate, water, and topography.

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 Insecta determined by the Secretary to constitute a pest whose protection under the provisions of this Act would present an overwhelming and overriding risk to man [ESA, Section 3]. For the purposes of this instruction, the term "endangered species" refers to a species that has been designated for special protection and management by the federal government pursuant to the ESA.

Exotic Species—Any plant or animal not native or indigenous to a region, state, or country.

Floodplains—Lowland and relatively flat areas adjoining inland and coastal waters including flood prone areas of offshore islands, including at a minimum, that area subject to a one percent or greater chance of flooding in any given year [E.O. 11988].

Forest Land—Land on which forest trees of various sizes constitute at least 10 percent of the area. This category includes open land that is capable of supporting trees and is planned for forest regeneration and management.

Forest Products—Plant materials in wooded areas that have commercial value, such as sawlogs, veneer (peeler) logs, poles, pilings, pine needles, cordwood (for pulp, paper, or firewood), fence posts, mine timber, Christmas trees (from unsheared trees cut during intermediate harvests), and similar wood or chemical products.

Game—Any species of fish or wildlife for which state or federal laws and regulations prescribe hunting seasons and bag or creel limits.

Geographically Separated Unit—Air Force real property under the command and control of a parent installation that is geographically separated and non-contiguous with the supporting installation.

Habitat—An area that provides the environmental elements of air, water, food, cover, and space necessary for a given species to survive and reproduce.

Improved Grounds—A grounds maintenance land use category used to indicate scope and intensity of land management (see). Includes land occupied by buildings and other permanent structures as well as lawns and landscape plantings on which personnel annually plan and perform intensive maintenance activities. Improved Grounds include the cantonment area, parade grounds, drill fields, athletic areas, golf courses (excluding roughs), cemeteries, and housing areas. Grass in these areas is normally maintained by regular mowing during the growing season.

Integrated Natural Resources Management Plan (INRMP)—A plan based on ecosystem management that describes and delineates the interrelationships of the individual natural resources elements in concert with the mission and land use activities affecting the basic land management plans. Defines the natural resources elements and the activities required to implement stated goals and objectives for those resources.

Integrated Pest Management (IPM)—A planned program incorporating continuous monitoring, education, record-keeping, and communication to prevent pests and disease vectors from causing unacceptable damage to operations, people, property, materiel, or the environment. IPM includes methods such as habitat modification, biological control, genetic control, cultural methods, mechanical control, physical control, regulatory control, and the judicious use of least-hazardous pesticides.

Invasive Species—An alien animal or plant species whose introduction does, or is likely to cause, economic or environmental harm, or harm to human health [E.O. 13112].

Land Management Unit—The smallest land management division that natural resources managers use in developing specific strategies to accomplish natural resources management goals. Land management units may correspond to grazing units on agricultural outgranted lands, stands or compartments on commercial forest lands, various types of improved grounds (for example, athletic fields, parks, yards in family housing, or landscaped areas around administrative buildings), or identifiable semi-improved grounds (for example, airfield areas, utility rights-of-way, or roadside areas).

Livestock—Domestic animals kept or raised for food, by-products, work, transportation, or recreation.

Natural Resources Management Professional—A person with a bachelor's, master's, or doctoral degree in the natural sciences from an accredited college or university who manages natural resources and receives periodic training to maintain proficiency in that job.

Natural Resources Manager—The natural resources management professional who is delegated responsibility for the management of the natural resources program on an installation.

Noxious Weed—Any plant or plant product that can directly or indirectly injure or cause damage to crops (including nursery stock or plant products), livestock, poultry, or other interests of agriculture, irrigation, navigation, the natural resources of the United States, the public health, or the environment.

Nuisance Wildlife—Wildlife that damages property, impedes installation operations, or endangers public health and safety to the point where control measures are necessary. This category excludes wildlife species protected under the auspice of the ESA or Migratory Bird Treaty Act.

Outdoor Recreation—Recreation that relates directly to and occurs in natural, outdoor environments.

Outdoor Recreation Resources—Land and water areas and associated natural resources that provide, or have the potential to provide, opportunities for outdoor recreation for present and future generations.

Reforestation—The renewal or regeneration of a forest by natural or artificial means.

Semi—Improved Grounds-A grounds maintenance category used to indicate scope and intensity of land management (see). Grounds where periodic maintenance is performed primarily for operational reasons (such as erosion and dust control, bird control, and visual clear zones). This land use classification includes areas adjacent to runways, taxiways, aprons, runway clear zones, lateral safety zones, rifle and pistol ranges, weapons firing and bombing ranges, picnic areas, ammunition storage areas, antenna facilities, and golf course roughs. Semi-improved grounds areas are mowed less often than the maintained turf grass on improved grounds.

Stewardship—The management of a resources base with the goal of maintaining or increasing the resources' value indefinitely into the future.

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 [ESA, Section 3]. For the purposes of this instruction, the term threatened species refers to a species that has been designated for special protection and management by the federal government pursuant to the ESA.

Unimproved Grounds—A grounds maintenance land use category used to indicate scope and intensity of land management (see). Unimproved grounds are areas not classified as 'improved' or 'semi-improved'. Unimproved grounds include forest lands, croplands and grazing lands, lakes, ponds, and wetlands, and any areas where natural vegetation is allowed to grow unimpeded by maintenance activities.

Urban Forests—Planted or remnant native tree species existing within urbanized areas such as parks, tree-lined residential streets, scattered tracts of undisturbed woodlands, and cantonment areas.

Watchable Wildlife Areas—Areas identified under the Watchable Wildlife Program as suitable for passive recreational uses such as bird watching, nature study, and other nonconsumptive uses of wildlife resources.

Waters of the United States—Waters subject to the regulatory jurisdiction of the United States under the Clean Water Act, and defined as traditional navigable waters, impoundments of traditional navigable waters, interstate waters, territorial seas, and adjacent waters; including adjacent wetlands.

Wetlands—Areas that are inundated by surface or ground water with a frequency sufficient to support and under normal circumstances does or would support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, and similar areas such as sloughs, potholes, wet meadows, river overflows, mud flats, and natural ponds [E.O. 11990].

Wildland Fire—Any non-structure fire that occurs in the wildland. Three distinct types of wildland fire have been defined and include wildfire, wildland fire use, and prescribed fire.

Attachment 2

INRMP FORMAT AND CONTENT

A2.1. Application. This attachment serves as a guideline for developing an installation Integrated Natural Resources Management Plan (INRMP).

A2.2. Format and Content. The standard format and content for AF INRMP documents is presented below. Installations may add subchapters to the INRMP format and content as needed to better represent unique installation natural resources issues and mission requirements.

Cover Page. The INRMP cover page includes the INRMP title and name of the installation.
Signature Page. This section includes a page (or pages) with the signature lines for those people who approve the INRMP and subsequent revisions to the INRMP. At a minimum, signature blocks should be included for the Installation Commander (or delegated authority as per Section2.7.1.), the designated authority of the U.S. Fish and Wildlife Service (USFWS), and the authorized signatory of the state natural resources management agency. The effective date of the INRMP begins on the date of the last required signature. The compliance due date is calculated from the oldest of the cooperating agency signatures. Renew INRMP approval signatures when an INRMP is revised.
Annual Review and Coordination Documentation. Following the Signature Page, the INRMP includes documentation of annual review and coordination. Annual review documentation includes Annual Review Summary findings, as indicated in Section 3.5., for each annual review conducted. An Annual Review Summary shall include signature blocks to document signatures and dates by the designated installation and cooperating agency representatives. By signature to the Annual INRMP Review Summary, a cooperating agency representative asserts concurrence with the findings that the INRMP is current and compliant with the Sikes Act or, alternatively, that the INRMP requires revision as indicated in AFI 32-7064, Section 3.6.2.
Table of Contents.
–Chapter and major section headings with page locations.
–List of Appendices
–List of Figures with page locations.
–List of Tables with page locations.
Chapter 1 - Executive Summary. The Executive Summary should be as brief as practical, but able to answer the following questions:
–What is the purpose of the INRMP?
–Explain the purpose and scope of the INRMP.
–Describe how the INRMP supports the AF mission.
–Summarize the benefits of INRMP implementation.

–What will implementation of the INRMP do?
–List the primary natural resources management goals stated in the INRMP.
–Indicate if the implementation of INRMP goals will be a significant change in management direction for the installation.
Chapter 2- General Information.
2.1. Purpose and Scope.
–Discuss how the INRMP will be used to guide natural resources management on the installation.
–State the scope of the INRMP in terms of area and resources covered.
–State the function of the INRMP for installation management. Explain how the INRMP ensures that natural resource conservation and other AF mission activities are integrated and consistent with federal mandates for land stewardship.
2.2. Management Philosophy.
–Describe how the INRMP supports the AF military mission.
–Explain how the INRMP was developed in an interdisciplinary and cooperative manner.
–State how the INRMP implements the AF principles for ecosystem management.
2.3. Authority. Explain the laws, regulations, and directives that authorize the development and implementation of an INRMP. At a minimum, include the following citations:
–The Sikes Act, 16 U.S.C. §§ 670 *et. seq.*
–Department of Defense Instruction DoDI 4715.03, *Natural Resources Conservation Program*.
–Air Force Instruction AFI 32-7064, *Integrated Natural Resources Management.*
2.4. Integration with Other Plans.
–Discuss how the INRMP integrates into the Installation Development Plan (see AFI 32-7062, *Comprehensive Planning*).
–Discuss how the INRMP integrates with and supports the installation Air Installation Compatible Use Zone (AICUZ) program.
–Discuss how the INRMP and the Bird/Wildlife Aircraft Strike Hazard (BASH) Plan are mutually supportive.
– Discuss how the INRMP and the Integrated Pest Management Plan are mutually supportive.
–Discuss how the INRMP integrates with and support other relevant plans, such as Range Management Plans, Landscape Plans, etc.
Chapter 3 - Installation Overview.
3.1. Location and Area. Describe basic information about the location and size of the installation and all geographically separated units covered by the plan. Address all real property managed by the installation, even if just a reference to the document within which management of natural resources is addressed. Identify and describe the region that encompasses the installation in terms of political, socio-economic, and eco-regional boundaries. Reference and incorporate the installation AICUZ as applicable.
3.2. Installation History. Describe the origin of the installation, previous missions, and developmental history with an emphasis on providing context for the status of the natural resources present. Review historic land uses and management practices. Installation history may be presented by a brief summary with references to more comprehensive documents that cover installation history.

3.3. Military Missions. Briefly describe the current military mission, major units, and command structure, as appropriate. Include information regarding important tenant units on the installation. Provide references to official publications that address the mission when available.

3.4. Surrounding Communities. Identify nearby cities and towns. Provide a demographic overview of communities in the vicinity of the installation. Describe the land uses directly adjacent to the installation boundaries. Identify trends in land use surrounding the installation that may jeopardize the military mission of the installation (i.e. encroachment issues).

3.5. Local and Regional Natural Areas. Discuss the local area and region in terms of the condition of the land and its natural resources. Identify the presence of any parks, preserves, refuges, greenways, river corridors, or other natural areas with ecologically unique and significant natural resources within five miles of the installation, and indicate if they contain any unique habitats similar to that found on the installation.

Chapter 4 - Physical Environment.

4.1. Generally describe the climate. Portray the climate in terms that illustrate how the weather affects the local ecosystems. Of importance is annual rainfall, seasonality of rainfall, the average and extremes of temperature, the length of the growing season, and any unique factors affecting the ecosystem such as a frequency of hurricanes, ice storms, etc. Attach a climate table showing average/maximum/minimum temperatures, precipitation, and other installation climatic statistics.

4.2. Landforms. Describe in general terms the physiographic region and topography.

4.3. Geology and Soils. Describe the geology of the installation and surrounding region. Briefly describe the soil associations found on the installation in broad terms. Do not give detailed physical descriptions of each soil series. Instead, focus on the general qualities of the installation's soils that may limit management options or affect the potential flora and fauna on the installation. Reference the appropriate USDA Soil Survey reports and geospatial map data available from the USDA or other sources, and any other studies where an interested reader can obtain more detailed soil information.

4.4. Hydrology. Describe the installation drainage patterns with respect to the watershed boundaries. Provide basic facts on installation groundwater, surface water, impoundments, wetlands, floodplains, and natural and artificial drainage ways. Discuss water quantity, quality, use, and other characteristics such as droughts and flood frequency. Reference applicable reports, studies and geospatial map data available from the United States Geological Survey and other sources that describes installation hydrologic features.

Chapter 5 – Ecosystems and the Biotic Environment.

5.1. Ecosystem Classification. Provide an ecosystem based land classification description for the installation and adjacent areas. Recommend using the National Hierarchical Framework of Ecological Units (also known as Bailey's Ecoregions). The National Hierarchical Framework is a regionalization classification and mapping system that links soils, physiography, and habitat types to stratify the landscape into progressively smaller areas (i.e. Ecoregion-Domain-Division-Province-Subregion-Section-Subsection-Landtype Association-Landtype). Reference available installation geospatial data characterizing ecological units for the installation and surrounding area to the lowest level feasible.

5.2. Vegetation. Describe the historic and current vegetation associations for the ecological units within and surrounding the installation.

5.2.1. Historic Vegetative Cover. Portray the historic vegetative cover for the installation and vicinity prior to European settlement and afterward. If available, include historical photographs

and references to written excerpts from historical accounts of the vegetation cover during early settlement times.

5.2.2. Current Vegetative Cover. Describe the current vegetation communities for the ecological units found on the installation. Reference installation geospatial map data showing the current distribution of vegetation associations.

5.2.3. Turf and Landscaped Areas. Discuss the predominate varieties of turf grass, ground cover, tree and shrub species found in the developed areas of the installation.

5.3. Fish and Wildlife. Provide a general description of the diversity of fish and wildlife found on the installation. Do not include a comprehensive species list in the main text of the INRMP. You may reference a species list as an appendix if such a list is deemed important to the INRMP. Also reference useful documents and information available regarding the distribution and quality of fish and wildlife habitats on the installation or in the region.

5.4. Threatened and Endangered Species and Species of Concern. Indicate if there are any known or candidate threatened or endangered species listed by the USFWS or state. Reference important management information and data on any known or potential threatened or endangered species, including potential seasonal migrants. Delineate by mapping geospatial map data for any species or habitats of concern on the installation or near the installation. Identify gaps in data regarding the occurrence of a listed species.

5.5. Wetlands and Floodplains. Identify the presence of wetlands and floodplains on the installation. Provide information on wetland surveys or jurisdictional delineations that have been performed. Reference available information on floodplain delineation(s).

5.6. Other Natural Resource Information. Describe, summarize, and reference any other biological inventories and surveys conducted on the installation that provide information applicable to natural resources program management.

Chapter 6 - Mission Impacts on Natural Resources.

6.1. Natural Resources Constraints to Missions and Mission Planning. Identify all natural resource protection issues that have the potential to pose a constraint to future development and mission expansion. Include natural resources constraints to missions and mission planning associated with land uses in the immediate vicinity outside the installation boundary. Identify available geospatial data layers that indicate major constraints to development such as critical habitat for T&E species, wetlands, flood plains, sensitive plant communities, highly erodible soils, and steep slopes. Refer to AFI 32-7062, *Comprehensive Planning* for additional guidance on geospatial data to illustrate potential constraints to future development and mission expansion.

6.2. Land Use. Provide the total installation acreage and the general distribution of land uses. Show the land use distribution on an installation map.

6.3. Current Major Impacts. Describe current mission operations that affect or may potentially affect natural resources, such as:

–Identified sources of air and water pollution.

–Vegetation management required to support airfield operations or ranges.

–Ground water contamination sites and environmental restoration activities.

–Locations of erosion or erosion-sensitive soils that may impact mission operations.

6.4. Potential Future Impacts. Describe known future mission impacts on installation natural resources. Describe potential mission impacts on local and regional natural areas and federally designated critical habitats near the installation. Summarize the potential impacts of projected changes in missions, Base Realignment and Closure, and other mission elements. Provide a reference to the Installation Development Plan (IDP) or other IDP component plans that detail proposed future development activities.

6.5. Natural Resources Needed to Support the Military Mission. Describe the natural resources that are necessary to support the military mission (e.g. stable soils, vegetation for concealment, open areas for testing, etc.).

Chapter 7 - Natural Resources Program Management. Use this chapter to describe the current status of the installation natural resources management programs. For each program area listed below, describe the current management practices used to manage these resources. Include descriptions of common day-to-day management practices (i.e. prescribed burning, monitoring, etc.) as well as ongoing special initiatives to address a particular resource problem. Do not simply refer to a component plan. Discuss the origin and status of significant management issues, such as those related to installation missions, compliance with regulatory requirements, or sensitive public affairs issues. If a program element in this outline does not exist on the installation, provide a sentence stating that the element is not applicable.

7.1. Natural Resources Program Management. In this section, describe the organization necessary to implement the INRMP. Note that the installation, as a whole, is responsible for implementation of the INRMP, but that there are certain offices of primary responsibility for portions of the INRMP. Indicate the responsibility of each of the installation command elements for oversight and implementation of the INRMP. Identify:

–Organizations on the installation that are important for the implementation of the INRMP. Identify the roles and responsibilities of each organization. Provide an organizational chart if helpful.

–Other Defense organizations that should assist with the implementation of the INRMP (e.g. AFCEC, tenant units, etc.).

–Other federal agencies that contribute to implementation of the INRMP.

–State agencies that contribute to the implementation of the INRMP. Identify the appropriate INRMP signatory agency for the state.

–Universities or non-governmental organizations involved in the implementation of the INRMP. Identify existing cooperative agreements outside organizations.

–Contractors that have a role in the implementation of the INRMP. You may mention a support contractor by name if the contract has been awarded and is still active.

7.2. Fish and Wildlife Management. Discuss the current fish and wildlife management activities, to include:
–Fish and wildlife program management.
–Enforcement of fish and wildlife laws.
–Hunting, fishing, trapping program organization and management.
–Hunting and fishing policy, regulations, and fee structures.
–Permitted access for hunting, fishing, trapping, and wildlife-related outdoor recreation.
–Demand for hunting, fishing, and non-consumptive resource uses.
–Wildlife education and interpretation programs.
–Nuisance wildlife problems and techniques used for wildlife control.
–Policies, programs and methods used to control feral animals.
–Requirements for fish and wildlife habitat improvement.
–Measures to protect significant fossil resources.
7.3. Outdoor Recreation and Public Access to Natural Resources. Discuss:
–Areas suitable for outdoor recreation activities by access category (e.g. Open, Restricted, Off Limits). Identify rationale for Restricted and Off Limits areas.
–Current use of installation unimproved lands for dispersed outdoor recreation.
–Demand for outdoor recreation opportunity on the installation.
–Interface with Air Force Personnel Center, Directorate of Services, Outdoor Recreation programs.
–Outdoor recreation policy, regulations, and fee structures.
–Policy on off-road vehicle and mountain bike use on installation lands.
–Issues related to public access for outdoor recreation and access restrictions by participant category (e.g. Active Duty Military, DoD Civilian, Military Dependents, Military Retirees, DoD Civilian Retirees, Contractor Employees, and General Public).
7.4. Conservation Law Enforcement. Discuss:
–Source of authority for natural resources law enforcement.
–Organization and history of conservation law enforcement on the installation.
–Jurisdiction (exclusive, concurrent, proprietary) established on installation lands for enforcement of civil laws.
–Current conservation law enforcement activities and program emphasis.
–Training and certification requirements for conservation law enforcement personnel.
7.5. Management of Threatened and Endangered Species and Habitats. Reference and discuss:
–The status of T&E species inventories.
–Ongoing T&E monitoring programs.
–Current Biological Opinions for T&E species, and their Terms and Conditions.
–Current consultations under ESA Section 7.
–Other ongoing programs to manage T&E species.
–Health of existing on-installation habitats of concern.
–Relationship of any on-installation habitats of concern with similar local and regional critical habitat.

7.6. Water Resource Protection. Discuss:
–Regional issues related to watersheds affected by the installation.
–Waste water or storm water management issues.
–Regional programs (e.g. Chesapeake Bay Protection Act).
–Non-point source pollution issues.
–Water quality monitoring programs and sampling points.
–Cooperative programs with other governmental or private organizations.
7.7. Wetland Protection. Discuss:
–Health of existing wetlands.
–The status of wetland inventories and delineations.
–Programs for long-term monitoring of wetlands
–Existing and pending Section 404 and 401 permits.
–Current programs and plans for wetland restoration and enhancement
–Any involvement with local or regional wetlands banking.
7.8. Grounds Maintenance. Discuss:
–General maintenance issues associated with turf areas and ornamental planting areas, such as disease, insect, or invasive species.
–Non-point source pollution issues associated with landscape pesticides and fertilizers.
–Programs handling solid wastes associated with grounds maintenance activities.
–Urban forestry program management and issues.
–Provide lists of prohibited and recommended plants for various areas of the installation (or reference their location) – The existing grounds maintenance contract and other relevant documents.
7.9. Forest Management. Discuss:
–The current forest management program and initiatives.
–Forest types found on the installation. If available, show the distribution of forest types by table, graph or map.
–The current status and scope of commercial forestry operations.
–The existing network of forest access roads and trails.
–The acceptable timber harvesting practices for the installation.
–Forest management issues and concerns.
–How forest management practices are used to support the military mission and achieve INRMP goals.
7.10. Wildland Fire Management. Refer to the installation Wildland Fire Management Plan (if applicable). Briefly Discuss:
–The history and frequency of wildfires on the installation.
–The threat of wildfire to the mission and natural resources.
–The organizational structure for wildland fire protection and wildfire response protocols.
–The use of prescribed fire on the installation, and program objectives.

7.11. Agricultural Outleasing. Discuss current cropland or grazing outgrants, and include the following elements:
–A description of how cropland and grazing outgrants support the installation mission and INRMP goals.
–The location of lands outgranted for crop production or grazing leases.
–Identity of prime and unique farmlands, as determined through consultation with the Natural Resources Conservation Service.
–A discussion of soil fertility and crop production suitability for cropland areas.
–A discussion of the principal forage species being grazed by livestock, and how these plants are being monitored and managed.
–A discussion of expected livestock utilization patterns.
–A discussion of appropriate livestock stocking rates.
–A protocol for outgrant management that identifies the parameters that will be used to determine when livestock can graze various pastures and when to remove or reduce grazing pressure in order to sustain overall ecosystem health and integrity.
–A discussion of the outgrant land use regulations for outgrantees, and how compliance with the land use regulations is monitored.
–A description of existing and proposed improvements within outgrants, and a description an outgrantee services rendered in lieu of a portion or all of the cash payment due the United States Government.
7.12. Integrated Pest Management Program. Reference the installation Integrated Pest Management Plan. Discuss:
–Pest species that inter-relate to and potentially affect natural resources management on the installation, to include forest pests.
–Exotic and invasive species and ongoing control initiatives.
–Species designated as 'noxious weeds' by a government entity.
–How the natural resources management program supports the Integrated Pest Management Plan.
7.13. Bird/Wildlife Aircraft Strike Hazard (BASH). Reference the installation BASH plan. Discuss:
–Existing and potential hazards to aircraft operations posed by wildlife.
–Issues of the BASH program that relate to natural resources management on the installation.
–Identify any federal or state permits issued to the installation to support the BASH program, and the office(s) responsible for executing the permits.
–How the natural resources management program supports the BASH Plan.
7.14. Coastal Zone and Marine Resources Management. Discuss:
–Consistency with state Coastal Zone Management Program.
–Coastal Zone protection program.
–Coastal Barrier Resources.
–Presence of coral reefs, endemic mangrove and sea grass ecosystems.
–Marine animal protection programs.
–Coastal America program involvement.

7.15. Cultural Resources Protection. Reference the installation Integrated Cultural Resources Management Plan. Describe those elements of the natural resources program that inter-relate to and may potentially affect cultural resources on the installation.
7.16. Public Outreach. Discuss:
–Organizations involved in Public Affairs and outreach for natural resources programs.
–Natural resources awareness programs on the installation.
–Brochures, posters, videos and other natural resources program educational materials.
7.17. Geographic Information Systems (GIS). Identify and define standardized data models and minimum required attributes for the geospatial data required for natural resources management.
Chapter 8 - Management Goals and Objectives. The emphasis of an INRMP is on the achievement of certain goals for the maintenance and improvement of the natural environment at the installation. Chapter 8 lists the goals and objectives for future natural resources management on the installation. Also, in cases where off-installation land uses may jeopardize AF missions, Chapter 8 may list specific goals and objectives aimed at eliminating, reducing or mitigating the effects of encroachment on military missions. Previous chapters present the important background information from which the goals and objectives are formed. Chapter 8 states the natural resources management goals for the future that have been formulated by the preparers of the INRMP from an assessment of the natural resources, current condition of those resources, mission requirements, and management issues identified in the previous chapters. Chapter 8 includes the integrated goals for the entire natural resources program. Consecutively numbered goals are accompanied by supporting objectives and projects in a tiered format as shown in the example below. The relationship between goals, objectives, and projects is as follows:
Goals. Goals are the primary focal points for the implementation of the INRMP. A goal should reflect the values of the installation by expressing a vision of a desired condition for the installation's natural resources in the foreseeable future. The intent is determination of approximately 4-5 over-arching programmatic goals for the entire natural resources program. Each goal is supported by one or more objectives.
Objectives. Each goal is supported by objectives which indicate a management initiative or strategy that is used to achieve the stated goal. An objective specifically states what is to be done and a target date for completion.
Projects. Projects (or Tasks) are the individual component actions required to achieve an objective. Project statements describe the specific methods and procedures to be used (i.e., scopes of work) to achieve the objective supported. The project statement, therefore, should include quantifiable units for measuring results (e.g. acres treated, recurring projects should include the specific increment within the Chapter 10 work plan for the year in which the work is to occur). Projects are actions that become line item requirements in proposed budgets for INRMP implementation. Projects should be achievable within the period covered by the INRMP.

Example – Goal with Supporting Objectives and Projects. In the example shown below, note how the format (goal>objective>project) facilitates an integrated approach to natural resource management. By using this approach, it can be shown how measurable objectives can be used to assess the attainment of goals, and how individual work tasks support INRMP objectives. The projects are key elements of the annual work plans and are programmed into the conservation budget.

GOAL 1: MAXIMIZE FUNCTIONALITY OF NATIVE ECOSYSTEMS ON BASE.

OBJECTIVE 1.1: Improve and expand existing nesting habitat for deep woods and interior neotropical migrant bird species.

PROJECT 1.1.1: Conduct avian surveys on all contiguous forested tracts greater than 500 acres.

PROJECT 1.1.2: Utilize HEP models for the pileated woodpecker and wood thrush to evaluate habitat quality for all contiguous forest tracts greater than 500 acres.

PROJECT 1.1.3: Prepare a summary report of data collected from avian surveys and modeling, and incorporate resulting recommendations for future management into INRMP.

OBJECTIVE 1.2: Decrease forest fragmentation by developing travel corridors between unconnected tracts of forest greater than 500 acres in size. Reforest a minimum of 200 acres.

PROJECT 1.2.1: Plant white pine in Agriculture tract 101.

PROJECT 1.2.2: Plant white oak, red oak, and black oak in Agriculture tract 25.

PROJECT 1.2.3: Apply herbicide release treatments for trees planted in the past three years to improve establishment.

PROJECT 1.2.4: Plant 50 acres annually IAW the recommendations developed in project 1.1.3. (etc.)

GOAL 2: REMAIN IN COMPLIANCE WITH FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS GOVERNING NATURAL RESOURCES

OBJECTIVE 2.1: Cooperatively support USFWS and state protection goals

PROJECT 2.1.1: Annually review and update the INRMP, incorporating management changes as necessary IAW adaptive management and any newly identified information.

PROJECT 2.1.2: Maintain correspondence with USFWS, state and Natural Heritage Inventory regarding updates to federal and state threatened, endangered, and species of concern lists.

OBJECTIVE 2.2: Maintain appropriate state and federal permits to enable necessary wildlife control

PROJECT 2.2.1: Maintain Depredation at Airports Permit under the Migratory Bird Treaty Act. Assess BASH-related populations annually and apply for depredation permit for appropriate species.

PROJECT 2.2.2: Maintain Falcon Permit to enable use of a falcon by base BASH contractor.

PROJECT 2.2.3: Accomplish Airport Resident Goose Depredation Order reporting. (etc.)

Chapter 9 – INRMP Implementation, Update, and Revision Process. Responsibility for implementation of an INRMP may involve several installation organizations. Each responsible organization and their associated planning, programming, budgeting and execution programs implement the INRMP. The Annual Work Plan developed in Chapter 10 of an INRMP elaborates more fully on exactly what needs to be done to implement the goals, objectives and projects listed in Chapter 8. This chapter discusses administrative procedures.

9.1. INRMP Implementation.

9.1.1. Implementation. Indicate the organizations responsible for implementation of the INRMP, and what organization conducts the annual review of the INRMP.

9.1.2. Natural Resources Management Staffing. Identify the staffing requirements (internal and external) for implementing the INRMP. Additionally, identify any current staffing deficiencies and training needs that may hinder INRMP implementation.

9.1.3. Monitoring INRMP Implementation. Identify the metrics used to measure the extent of INRMP implementation, taking into account relative priority of individual projects. Outline any procedures used by the AF for monitoring INRMP implementation, analyzing the results, and any adaptive management strategies that may be used. Briefly explain the performance measures used to monitor the success or failure in achieving each objective.

9.2. Annual INRMP Review and Coordination Requirements. In this section, provide information on how the annual INRMP review and coordination takes place on the installation, and identify the appropriate agency offices for annual review and coordination. The Annual Work Plan for the past year should be evaluated to determine if all projects were completed. If not, add un-implemented projects to current or out-year work plans.

9.3. INRMP Update, and Revision Process. Explain how the annual INRMP review is used to identify and validate required INRMP updates, and the conditions under which a major INRMP revision would be required.

10. Annual Work Plans. The INRMP Annual Work Plans are included in this section. List INRMP implementation projects (i.e. tasks) by fiscal year. Ideally, include the next fiscal year and at least four succeeding years. For each project and activity, provide a specific timeframe for implementation (as applicable), identify appropriate funding source, and specify priority for implementation. The work plans should be able to provide all the necessary information for building a budget within the AF framework. Priorities are defined as follows:

–High: Project is essential for achieving INRMP goals and objectives in the year it is programmed. Sikes Act cooperating agencies would consider the INRMP to not be implemented if the project is not accomplished.

–Medium: Sikes Act cooperating agencies agree project is important to achieve INRMP goals and objectives, but project may be deferred if not completed in programmed year.

–Low: Project enhances the natural resources program and supports INRMP, but cooperating agency partners would agree that the activity is not deemed essential to implement INRMP goals and objectives.

Figure 10. 1: Example Annual Work Plans (from example Goals and Objectives), FY 2014 Annual Work Plan.

Project	OPR	Funding Source	Priority Level
8.2.1.1: Complete update of INRMP and obtain Sikes Act partner signatures by 30 Jan.	CEI	In-house	high
8.2.1.2: Maintain correspondence with USFWS,	CEI	In house	medium

Project	OPR	Funding Source	Priority Level
state and Natural Heritage Inventory regarding updates to federal and state threatened, endangered, and species of concern lists.			
8.2.2.2: Maintain Falcon Permit	CEI	In house	medium
8.2.2.3: Accomplish Airport Resident Goose Depredation Order reporting	CEI	In house	high
8.1.1.1: Conduct avian surveys on 2000 acres of contiguous forested tracts.	CEI	EQ Project # ABCD147104	medium
8.1.2.1: Plant white pine in agricultural tract 101 (250 acres)	CEI	EQ Project # ABCD147105	high

Figure 10. 2: Example Annual Work Plans, FY 2015 Annual Work Plan.

Project	OPR	Funding Source	Priority Level
8.2.1.1: Complete update of INRMP and obtain Sikes Act partner signatures by 30 Jan.	CEI	In-house	high
8.2.1.2: Maintain correspondence with USFWS, state and Natural Heritage Inventory regarding updates to federal and state threatened, endangered, and species of concern lists.	CEI	In house	medium
8.2.2.2: Maintain Falcon Permit	CEI	In house	medium
8.2.2.3: Accomplish Airport Resident Goose Depredation Order reporting	CEI	In house	high
8.1.1.2: Utilize HEP models for the pileated woodpecker and wood thrush to evaluate habitat quality on 2000 acres of contiguous forested tracts.	CEI	EQ Project # ABCD157104	medium
8.1.2.1: Plant white oak, red oak, and black oak in agricultural tract 25 (175 acres)	CEI	EQ Project # ABCD157105	Medium
8.1.2.4: Apply herbicide release treatments over 250 acres (Ag tract 101)	CEI	EQ Project # ABCD157106	Medium

Figure 10. 3: Example Annual Work Plans, Plans FY 2016 Annual Work Plan.

Project	OPR	Funding Source	Priority Level
8.2.1.1: Complete update of INRMP and obtain Sikes Act partner signatures by 30 Jan.	CEI	In-house	high
8.2.1.2: Maintain correspondence with USFWS, state and Natural Heritage Inventory regarding updates to federal and state threatened, endangered, and species of concern lists.	CEI	In house	medium
8.2.2.2: Maintain Falcon Permit	CEI	In house	medium
8.2.2.3: Accomplish Airport Resident Goose Depredation Order reporting	CEI	In house	High

Project	OPR	Funding Source	Priority Level
8.1.1.3: Prepare summary report with recommendations from avian surveys and modeling	CEI	EQ Project # ABCD167104	medium
8.1.2.4: Apply herbicide release treatments over 425 acres (Ag tracts 101 and 25)	CEI	EQ Project # ABCD167106	medium

Figure 10. 4: Example Annual Work Plans, FY 2017 Annual Work Plan.

Project	OPR	Funding Source	Priority Level
8.2.1.1: Complete update of INRMP and obtain Sikes Act partner signatures by 30 Jan.	CEI	In-house	high
8.2.1.2: Maintain correspondence with USFWS, state and Natural Heritage Inventory regarding updates to federal and state threatened, endangered, and species of concern lists.	CEI	In house	medium
8.2.2.2: Maintain Falcon Permit	CEI	In house	medium
8.2.2.3: Accomplish Airport Resident Goose Depredation Order reporting	CEI	In house	high
8.1.2.4: Apply herbicide release treatments over 425 acres (Ag tracts 101 and 25)	CEI	EQ Project # ABCD177106	medium
8.1.2.1: Plant 50 acres IAW avian survey and modeling report recommendations	CEI	EQ Project # ABCD177107	medium

Figure 10. 5: Example Annual Work Plans, FY 2018 Annual Work Plan.

Project	OPR	Funding Source	Priority Level
8.2.1.1: Complete update of INRMP and obtain Sikes Act partner signatures by 30 Jan.	CEI	In-house	high
8.2.1.2: Maintain correspondence with USFWS, state and Natural Heritage Inventory regarding updates to federal and state threatened, endangered, and species of concern lists.	CEI	In house	medium
8.2.2.2: Maintain Falcon Permit	CEI	In house	medium
8.2.2.3: Accomplish Airport Resident Goose Depredation Order reporting	CEI	In house	high
8.1.2.4: Apply herbicide release treatments over 225 acres (Ag tract 25, and avian planting)	CEI	EQ Project # ABCD187104	medium
8.1.2.1: Plant 50 acres IAW avian survey and modeling report recommendations	CEI	EQ Project # ABCD177107	medium

11. Appendix. Include as Appendices information and documents that support the INRMP. The amount of information that can be presented in the Appendix is limitless, however, include as attachments only those items that are pertinent to the resources, management issues, and goals described within the INRMP. If associated plans and reference documents are in electronic

format, link them as hyperlinks to the host web server. Common Appendix items are listed as examples below.
–Agricultural Outgrant Area Map.
–Agricultural Outgrant Land Use Rules.
–Biological Assessments for ESA Consultations.
–Biological Opinions from ESA Consultations.
–Cooperating Agency Points of Contact.
–Cooperative Agreements for Natural Resource Management.
–DoD Conservation Measures of Merit Report.
–Environmental Impact Analysis Documents.
–Federal Permits Required for Wildlife Management Activities
–Floodplain Map.
–Forest Inventory Map and Data Summary.
–Glossary of Terms.
–Installation Best Management Practices for Erosion Control, Forestry Operations, etc.
–Installation Procedures and Protocols for Emergency Wildlife Damage Control and Exercising Wildlife Depredation Permits.
–Installation Regulations for Hunting, Fishing, Trapping and other Outdoor Recreation Access.
–List of Federal and State Threatened and Endangered Species on the Installation.
–List of Flora and Fauna Species Known to Occur on the Installation.
–List of Invasive and Exotic Species and Noxious Weeds.
–List of Recommended Plants for Installation Landscapes.
–References Cited in the INRMP.
–Soil Maps.
–State Coastal Zone Consistency Determinations
–State Coastal Zone Permits
–State Permits Required for Wildlife Management Activities
–Watchable Wildlife Area Maps.
–Wetland Inventory Maps
–Wetland Permits
12. Associated and Component Plans. As the INRMP is an integrated plan, there is often no need to develop component Plans. If a component plan is deemed necessary, ensure that the goals, objectives and projects indicated in a component plan are also included in the main text of the INRMP. Attach INRMP component plans as part of the INRMP. Associated plans and documents that are not considered component plans to the INRMP may be attached or references by hyperlink to the host internet server for that plan.
Tab 1 – Wildland Fire Management Plan
Tab 2 – Fish and Wildlife Management Component Plan
Tab 3– Threatened and Endangered Species Management Component Plans
Tab 4 – Invasive Species Management Component Plan
Tab 5 – Forest Management Component Plan
Tab 6 – Grazing and Cropland Management Component Plan
Tab 7 – Outdoor Recreation Component Plan
Tab 8 – Grounds Maintenance Component Plan
Tab 9 – Coastal Zone and Marine Resources Management Component Plan
Tab 10 – Wetlands Management Component Plans

Tab 11 – Watershed Management Component Plan
Tab 12 - Environmental Assessment for the INRMP (or Environmental Impact Statement).
Tab 13 - Finding of No Significant Impact for Implementation of the INRMP (or Record of Decision).
Tab 14 – Conservation Law Enforcement Program (CLEP) Operations Plan
Tab 15 – Bird/Wildlife Aircraft Strike Hazard (BASH) Plan
Tab 16 - Golf Environmental Management (GEM) Plan.
Tab 17 – Integrated Cultural Resources Management Plan
Tab 18 – Integrated Pest Management Plan (IPMP)

Attachment 3

COORDINATION AND APPROVAL PROCESS FOR INRMP DEVELOPMENT AND REVISION

The following table provides the required steps for the preparation, coordination, and approval of an Integrated Natural Resources Management Plan on Air Force installations. Refer to Chapter 3 and Attachment 2 for additional guidance on INRMP development and implementation.

Table 1: **Preparation, coordination, and approval of an Integrated Natural Resources Management Plan on Air Force installations.**

STEP	ACTION
1	Notification – Intent to Prepare/Revise an INRMP. Notify the USFWS Ecological Services Field Office, USFWS Regional Office, local state fish and wildlife (F&W) agency office, office of the state F&W agency Director, and all appropriate internal and external stakeholders of the intent to prepare or revise an INRMP within 30 days of starting such an action. Also notify the National Oceanic and Atmospheric Administration, National Marine Fisheries Service (NOAA Fisheries) if the installation includes or is adjacent to marine environments. Develop a time schedule for INRMP review and coordination by cooperating agencies and the public. If formal consultation under Section 7 of the ESA is necessary, the time frames for that process applies.
2	Preliminary Draft INRMP – Internal AF Review. Distribute a Preliminary Draft INRMP for internal Air Force review and comment. Air Force internal review includes a review by the installation chain of command and by the AFCEC Installation Support Team. The Preliminary Draft INRMP includes the first iteration of goal and objective statements for the INRMP.
3	Preliminary Draft INRMP – External Agency Review. After incorporation of internal AF review comments on the Preliminary Draft INRMP, send the Preliminary Draft INRMP with cover letter to the appropriate USFWS Ecological Services Field Office (and NOAA Fisheries when appropriate), and state fish and wildlife agency for review and comment. In the cover letter, designate an installation point of contact, and request receipt of comments by a specified date (as determined in Step 1). Send a copy of the forwarding cover letter to the appointed Sikes Act Coordinator at the USFWS Regional Office (and NOAA Fisheries Regional Office when appropriate), and state clearing house if available, to inform them that the review process has begun. Ensure that copies of any external agency comments are distributed to all cooperating agencies.
4	Draft INRMP. Prepare a Draft INRMP that incorporates accepted recommendations for improvement to the Preliminary Draft INRMP review.
5	Draft INRMP – Public Review. New and revised INRMPs require that the public be given the opportunity of review and comment. Simple annual updates do not require a public comment period. In collaboration with the installation Public Affairs office, post a public notification when the draft INRMP is available for review and comment. In the public notice, provide an address for public response, and allow the public a minimum of 30 days to provide comments.

6	Final Draft INRMP. Consider all comments received and incorporate them, as appropriate, into a Final Draft INRMP. Submit the Final Draft INRMP concurrently to the local USFWS Ecological Services and to the USFWS Regional Office Sikes Act Coordinator. Also send to the Director of the state fish and wildlife agency Regional Director of NOAA Fisheries when appropriate. In the submittal letter, document the actions taken on comments received on previous drafts. Request that the USFWS Regional Director and state agency Director provide consolidated written comments from all appropriate offices and divisions within 60 days of receipt of the final draft INRMP.
7	Final Coordination Comments. The USFWS Regional Office (and NOAA Fisheries Regional Office when appropriate) and the Director of the state fish and wildlife office provides written comments on the Final Draft INRMP to the installation point of contact within the agreed upon timeline.
8	Final INRMP. Consider all comments received from coordinating agencies and incorporate them into the Final INRMP as appropriate. If no final comments are received from the USFWS, NOAA Fisheries, and state after a period of 120 days, the installation may request expedited review of its INRMP. In such cases, the AFCEC Installation Support Team Office submits a written request for expedited review to the USFWS Regional Director (and NOAA Fisheries Regional Director when appropriate) and Director of the state fish and wildlife agency, with copy furnished to HQ USAF/A4CF. HQ USAF/A4CF makes arrangements for representatives from these offices to meet within 30 days of receipt of such a request to resolve any outstanding coordination issues.
9	Signatures. The Installation Commander, and the designated signatory authorities of the USFWS and state fish and wildlife agency sign the Final INRMP. The Regional Director of NOAA Fisheries also signs the document when appropriate.
10	Publishing. Make unclassified portions of the final INRMP available electronically via the internet or other similar means. All draft and final INRMP documents should undergo appropriate security review prior to being made available to the public.

Attachment 4

ENDANGERED SPECIES ACT COORDINATION

Figure A4.1. Informal Consultation Process [50 C.F.R. 402.10].

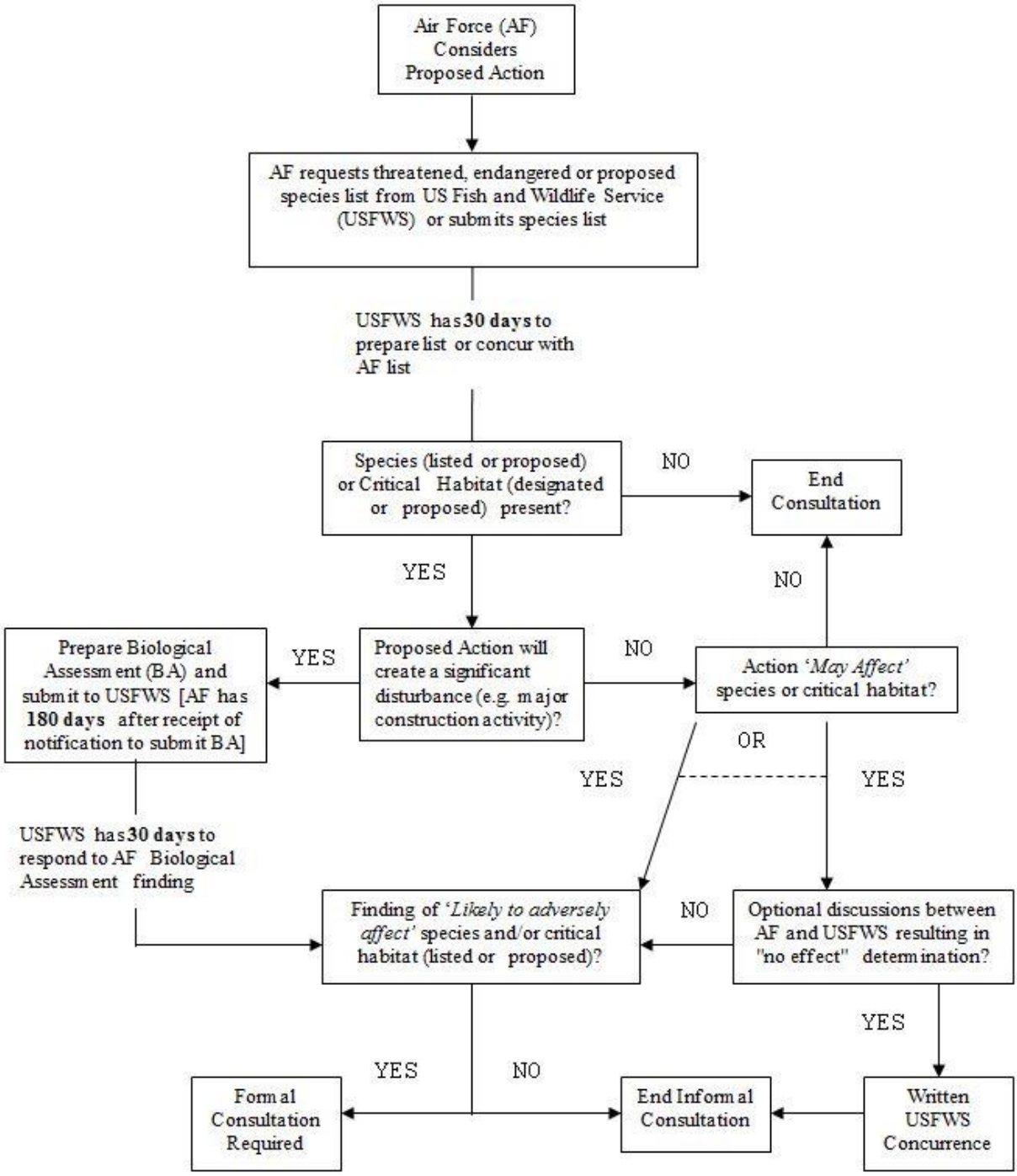
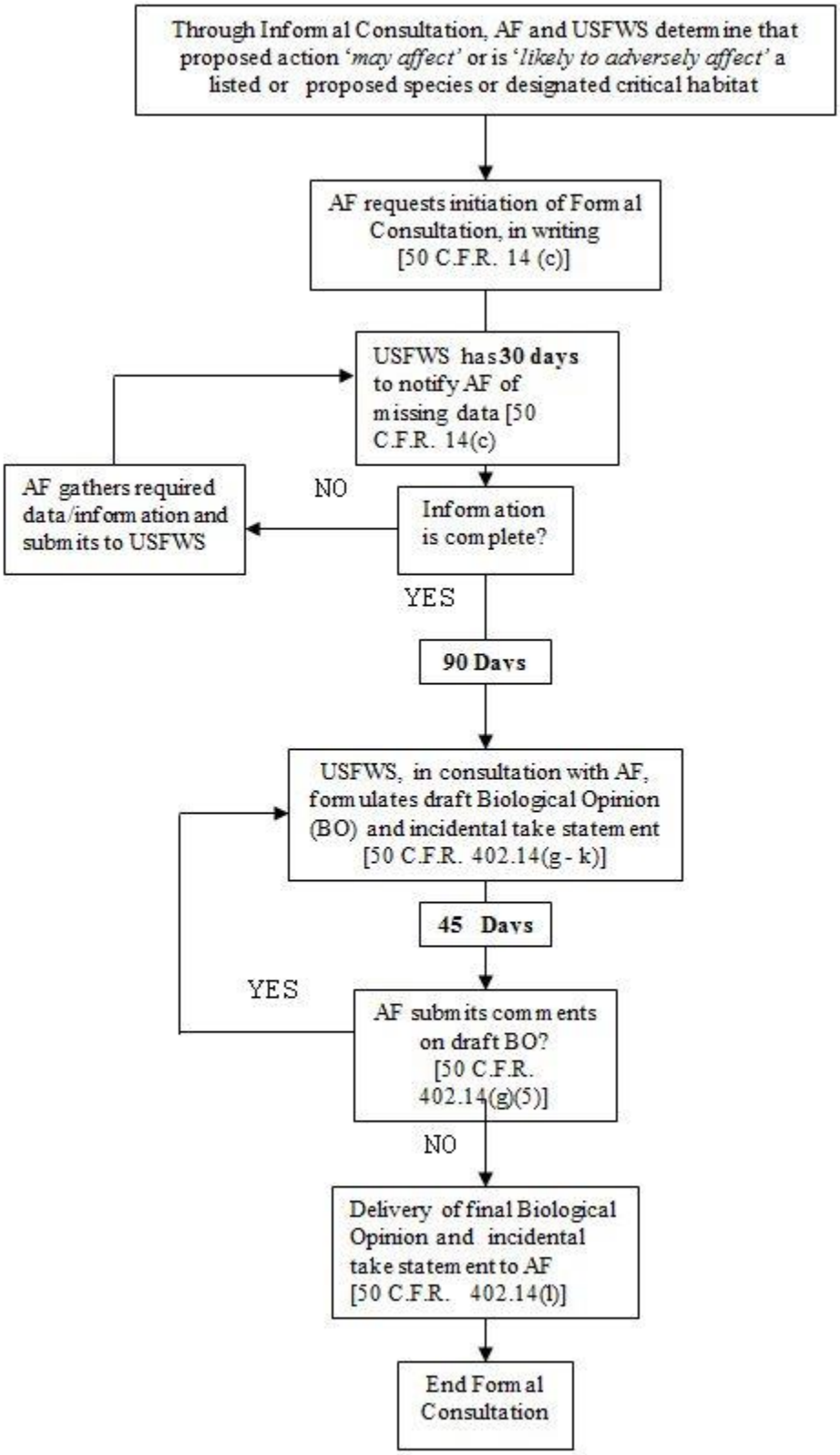
Figure A4.2. Formal Consultation Process [50 C.F.R. 402.14].