Airport Toolbox for ACRP Report 122

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Understanding Airports

Understanding the Airport Environment

Memorandum of Agreement

Understanding the Airport Environment

Airport 101

Understanding the complexities of the airport environment is helpful in recognizing where potential conflicts may occur with threatened and endangered species.

Airports accommodate a wide variety of activities from passenger and cargo transport to business travel, news reporting, law enforcement, medical transport, agricultural and fire fighting support, flight training and recreation. These uses span a range of aircraft types from small single engine piston aircraft to commercial jets to rotorcraft. Each has individual operating characteristics and a resulting series of airfield and airspace design criteria that are used to ensure operational safety.

Basic Airfield Configuration

The number and orientation of runways at a given airport is influenced by several factors, the primary of which is wind speed and direction. Because of their performance requirements, aircraft must take off and land into the wind. As a result, the primary runway is oriented with the prevailing wind. In locations where significant crosswinds exist, a second runway may be required to ensure consistent operating capability. Additional runways oriented parallel to the primary runway may also be required to accommodate operational demand. Terrain and obstructions will also significantly



impact the configuration of an airport as aircraft require considerable clear airspace to ensure safe and stable approaches to, and departures from, an airport.

Safety and Design Standards

The FAA has numerous layers of operational and design guidance to ensure a safe operational environment. These have specific physical design parameters and include Advisory Circulars, FAA Orders, Engineering Briefs and federally codified regulations (i.e. Title 14 of the Code of Federal Regulations), among others.

Advisory Circulars

There are more than 700 active FAA Advisory Circulars including more than 120 that are specific to airport design and operation. Federally obligated airports are required to comply with this guidance or be found in breach of grant assurances. (http://www.faa.gov/regulations_policies/advisory_circulars/)

FAA Orders

The FAA has more than 1200 active Orders and notices that provide guidance to FAA personnel on topics ranging from management of air traffic to facility design to implementation of National Environmental Policy Act (NEPA). (http://www.faa.gov/regulations_policies/orders_notices/)

FAA Engineering Briefs

Engineering briefs provide detail on technical issues related to engineering, design and construction issues to clarify information included in advisory circulars or to address areas of concern. There have been nearly 20 engineering briefs issued since 2005 that are still in effect. (http://www.faa.gov/airports/engineering/engineering_briefs/)

Title 14 of the Code of Federal Regulations - Aeronautics and Space

14 CFR is also known as the Federal Aviation Regulations (FAR). These regulations stipulate regulatory requirements for certification of airports, aircraft and airmen as well as the operation of airspace, identification of obstructions and potential hazards and numerous other aviation related areas. (http://www.faa.gov/regulations_policies/faa_regulations/)

Those design parameters provide for safe movement of aircraft on the ground, and also as they transit airspace and arrive to and depart from the airport. Not only do these require large areas to be cleared and graded, but the airspace must be kept free of existing and future obstructions for a distance of ten miles or more from an

airport. Accommodating a mix of different aircraft types and uses also requires a variety of different operational altitudes and flight paths to ensure that aircraft are properly separated.

Potential for Conflict with the Environment

Because of the numerous layers of safety and design criteria that apply to airport facilities, airports are typically large in land mass and their areas of influence extend well beyond airport boundaries. As a result, development of a new airport, or expansion or improvement of facilities at an existing airport can be very challenging, requiring a balance between operational and environmental factors. Because of the specific operational considerations and regulations governing airport development

which may significantly limit available alternatives, there is often an increased potential for conflict with listed species, or their habitats, on or near airport property.

Airport actions that could be affected by listed species include, but are not limited to:

- · Airport development projects;
- · Airport master planning;
- · Airport expansion or land acquisition;
- · Airport operations;
- · Airport maintenance; and
- Mitigation for other impacts (i.e. wetlands).

Category	Potential Listed	Potential Issue for Airport
	Species Conflict	
Wildlife Hazard Management	Listed avian nesting on or near airport	Direct: strike hazard Indirect: operational restrictions
	Wetland Mitigation on or near airport	Potential attractant for federally listed hazardous wildlife
	Stormwater management systems	Potential attractant for federally listed hazardous wildlife
	Establishment of Preserve or Conservation Areas	Direct: Potential attractant for federally listed hazardous wildlife Indirect: operation and maintenance restrictions
Maintenance and Operations	Onsite breeding / nesting for listed species	Aircraft delays, increased congestion due to species protection buffers or operations limits (i.e. mowing)
	Preservation or management of onsite habitat	Increased potential federally listed wildlife hazard, restricted access to safety systems (i.e. NAVAIDS)
	Onsite preservation of burrowing species	Impacts to paved and non-paved surfaces, refugia for prey species
Airport Development	Construction	Direct: Need to mitigate due to impacts to species or habitat Indirect: i.e. Need for buffers or altered schedule due to construction noise impacts
	Land acquisition	Habitats onsite or required management could be incompatible with operations or safety
	Mitigation	Onsite or near site mitigation may restrict development, maintenance or operations

Memorandum of Agreement Between the Federal Aviation Administration, the U.S. Air Force, the U.S. Army, the U.S. Environmental Protection Agency, the U.S. Fish and Wildlife Service, and the U.S. Department of Agriculture to Address Aircraft-Wildlife Strikes

PURPOSE

The signatory agencies know the risks that aircraft-wildlife strikes pose to safe aviation.

This Memorandum of Agreement (MOA) acknowledges each signatory agency's respective missions. Through this MOA, the agencies establish procedures necessary to coordinate their missions to more effectively address existing and future environmental conditions contributing to aircraft-wildlife strikes throughout the United States. These efforts are intended to minimize wildlife risks to aviation and human safety, while protecting the Nation's valuable environmental resources.

BACKGROUND

Aircraft-wildlife strikes are the second leading causes of aviation-related fatalities. Globally, these strikes have killed over 400 people and destroyed more than 420 aircraft. While these extreme events are rare when compared to the millions of annual aircraft operations, the potential for catastrophic loss of human life resulting from one incident is substantial. The most recent accident demonstrating the grievous nature of these strikes occurred in September 1995, when a U.S. Air Force reconnaissance jet struck a flock of Canada geese during takeoff, killing all 24 people aboard.

The Federal Aviation Administration (FAA) and the United States Air Force (USAF) databases contain information on more than 54,000 United States civilian and military aircraft-wildlife strikes reported to them between 1990 and 1999¹. During that decade, the FAA received reports indicating that aircraft-wildlife strikes, damaged 4,500 civilian U.S. aircraft (1,500 substantially), destroyed 19 aircraft, injured 91 people, and killed 6 people. Additionally, there were 216 incidents where birds struck two or more engines on civilian aircraft, with damage occurring to 26 percent of the 449 engines involved in these incidents. The FAA estimates that during the same decade, civilian U.S. aircraft sustained \$4 billion worth of damages and associated losses and 4.7 million hours of aircraft downtime due to aircraft-wildlife strikes. For the same period,

¹ FAA estimates that the 28,150 aircraft-wildlife strike reports it received represent less than 20% of the actual number of strikes that occurred during the decade.

USAF planes colliding with wildlife resulted in 10 Class A Mishaps², 26 airmen deaths, and over \$217 million in damages.

Approximately 97 percent of the reported civilian aircraft-wildlife strikes involved common, large-bodied birds or large flocks of small birds. Almost 70 percent of these events involved gulls, waterfowl, and raptors (Table 1).

About 90 percent of aircraft-wildlife strikes occur on or near airports, when aircraft are below altitudes of 2,000 feet. Aircraft-wildlife strikes at these elevations are especially dangerous because aircraft are moving at high speeds and are close to or on the ground. Aircrews are intently focused on complex take-off or landing procedures and monitoring the movements of other aircraft in the airport vicinity. Aircrew attention to these activities while at low altitudes often compromises their ability to successfully recover from unexpected collisions with wildlife and to deal with rapidly changing flight procedures. As a result, crews have minimal time and space to recover from aircraft-wildlife strikes.

Increasing bird and wildlife populations in urban and suburban areas near airports contribute to escalating aircraft-wildlife strike rates. FAA, USAF, and Wildlife Services (WS) experts expect the risks, frequencies, and potential severities of aircraft-wildlife strikes to increase during the next decade as the numbers of civilian and military aircraft operations grow to meet expanding transportation and military demands.

SECTION I.

SCOPE OF COOPERATION AND COORDINATION

Based on the preceding information and to achieve this MOA's purpose, the signatory agencies:

- **A.** Agree to strongly encourage their respective regional and local offices, as appropriate, to develop interagency coordination procedures necessary to effectively and efficiently implement this MOA. Local procedures should clarify time frames and other general coordination guidelines.
- **B.** Agree that the term "airport" applies only to those facilities as defined in the attached glossary.
- **C.** Agree that the three major activities of most concern include, but are not limited to:
 - 1. airport siting and expansion;

² See glossary for the definition of a Class A Mishap and similar terms.

- 2. development of conservation/mitigation habitats or other land uses that could attract hazardous wildlife to airports or nearby areas; and
- 3. responses to known wildlife hazards or aircraft-wildlife strikes.
- D. Agree that "hazardous wildlife" are those animals, identified to species and listed in FAA and USAF databases, that are most often involved in aircraft-wildlife strikes. Many of the species frequently inhabit areas on or near airports, cause structural damage to airport facilities, or attract other wildlife that pose an aircraft-wildlife strike hazard. Table 1 lists many of these species. It is included solely to provide information on identified wildlife species that have been involved in aircraft-wildlife strikes. It is not intended to represent the universe of species concerning the signatory agencies, since more than 50 percent of the aircraft-wildlife strikes reported to FAA or the USAF did not identify the species involved.
- **E.** Agree to focus on habitats attractive to the species noted in Table 1, but the signatory agencies realize that it is imperative to recognize that wildlife hazard determinations discussed in Paragraph L of this section may involve other animals.
- **F.** Agree that not all habitat types attract hazardous wildlife. The signatory agencies, during their consultative or decisionmaking activities, will inform regional and local land use authorities of this MOA's purpose. The signatory agencies will consider regional, local, and site-specific factors (e.g., geographic setting and/or ecological concerns) when conducting these activities and will work cooperatively with the authorities as they develop and implement local land use programs under their respective jurisdictions. The signatory agencies will encourage these stakeholders to develop land uses within the siting criteria noted in Section 1-3 of FAA Advisory Circular (AC) 150.5200-33 (Attachment A) that do not attract hazardous wildlife. Conversely, the agencies will promote the establishment of land uses attractive to hazardous wildlife outside those siting criteria. Exceptions to the above siting criteria, as described in Section 2.4.b of the AC, will be considered because they typically involve habitats that provide unique ecological functions or values (e.g., critical habitat for federally-listed endangered or threatened species, ground water recharge).
- **G.** Agree that wetlands provide many important ecological functions and values, including fish and wildlife habitats; flood protection; shoreline erosion control; water quality improvement; and recreational, educational, and research opportunities. To protect jurisdictional wetlands, Section 404 of the Clean Water Act (CWA) establishes a program to regulate dredge and/or fill activities in these wetlands and navigable waters. In recognizing Section 404 requirements and the Clean Water Action Plan's goal to annually increase the Nation's net wetland acreage by 100,000 acres through 2005, the signatory agencies agree to resolve aircraft-wildlife conflicts. They will do so by

avoiding and minimizing wetland impacts to the maximum extent practicable, and will work to compensate for all associated unavoidable wetland impacts. The agencies agree to work with landowners and communities to encourage and support wetland restoration or enhancement efforts that do not increase aircraft-wildlife strike potentials.

- H. Agree that the: U.S. Army Corps of Engineers (ACOE) has expertise in protecting and managing jurisdictional wetlands and their associated wildlife; U.S. Environmental Protection Agency (EPA) has expertise in protecting environmental resources; and the U.S. Fish and Wildlife Service (USFWS) has expertise in protecting and managing wildlife and their habitats, including migratory birds and wetlands. Appropriate signatory agencies will cooperatively review proposals to develop or expand wetland mitigation sites, or wildlife refuges that may attract hazardous wildlife. When planning these sites or refuges, the signatory agencies will diligently consider the siting criteria and land use practice recommendations stated in FAA AC 150/5200-33. The agencies will make every effort to undertake actions that are consistent with those criteria and recommendations, but recognize that exceptions to the siting criteria may be appropriate (see Paragraph F of this section).
- I. Agree to consult with airport proponents during initial airport planning efforts. As appropriate, the FAA or USAF will initiate signatory agency participation in these efforts. When evaluating proposals to build new civilian or military aviation facilities or to expand existing ones, the FAA or the USAF, will work with appropriate signatory agencies to diligently evaluate alternatives that may avoid adverse effects on wetlands, other aquatic resources, and Federal wildlife refuges. If these or other habitats support hazardous wildlife, and there is no practicable alternative location for the proposed aviation project, the appropriate signatory agencies, consistent with applicable laws, regulations, and policies, will develop mutually acceptable measures, to protect aviation safety and mitigate any unavoidable wildlife impacts.
- J. Agree that a variety of other land uses (e.g., storm water management facilities, wastewater treatment systems, landfills, golf courses, parks, agricultural or aquacultural facilities, and landscapes) attract hazardous wildlife and are, therefore, normally incompatible with airports. Accordingly, new, federally-funded airport construction or airport expansion projects near habitats or other land uses that may attract hazardous wildlife must conform to the siting criteria established in the FAA Advisory Circular (AC) 150/5200-33, Section 1-3.
- **K.** Agree to encourage and advise owners and/or operators of non-airport facilities that are known hazardous wildlife attractants (See Paragraph J) to follow the siting criteria in Section 1-3 of AC 150/5200-33. As appropriate, each signatory agency will inform proponents of these or other land uses about the land use's potential to attract hazardous species to airport areas.

The signatory agencies will urge facility owners and/or operators about the critical need to consider the land uses' effects on aviation safety.

- L. Agree that FAA, USAF, and WS personnel have the expertise necessary to determine the aircraft-wildlife strike potentials of various land uses. When there is disagreement among signatory agencies about a particular land use and its potential to attract hazardous wildlife, the FAA, USAF, or WS will prepare a wildlife hazard assessment. Then, the appropriate signatory agencies will meet at the local level to review the assessment. At a minimum, that assessment will:
 - 1. identify each species causing the aviation hazard, its seasonal and daily populations, and the population's local movements;
 - 2. discuss locations and features on and near the airport or land use attractive to hazardous wildlife; and
 - 3. evaluate the extent of the wildlife hazard to aviation.
- M. Agree to cooperate with the airport operator to develop a specific, wildlife hazard management plan for a given location, when a potential wildlife hazard is identified. The plan will meet applicable FAA, USAF, and other relevant requirements. In developing the plan, the appropriate agencies will use their expertise and attempt to integrate their respective programmatic responsibilities, while complying with existing laws, regulations, and policies. The plan should avoid adverse impacts to wildlife populations, wetlands, or other sensitive habitats to the maximum extent practical. Unavoidable impacts resulting from implementing the plan will be fully compensated pursuant to all applicable Federal laws, regulations, and policies.
- **N.** Agree that whenever a significant aircraft-wildlife strike occurs or a potential for one is identified, any signatory agency may initiate actions with other appropriate signatory agencies to evaluate the situation and develop mutually acceptable solutions to reduce the identified strike probability. The agencies will work cooperatively, preferably at the local level, to determine the causes of the strike and what can and should be done at the airport or in its vicinity to reduce potential strikes involving that species.
- O. Agree that information and analyses relating to mitigation that could cause or contribute to aircraft-wildlife strikes should, whenever possible, be included in documents prepared to satisfy the National Environmental Policy Act (NEPA). This should be done in coordination with appropriate signatory agencies to inform the public and Federal decision makers about important ecological factors that may affect aviation. This concurrent review of environmental issues will promote the streamlining of the NEPA review process.
- **P.** Agree to cooperatively develop mutually acceptable and consistent guidance, manuals, or procedures addressing the management of habitats attractive to

hazardous wildlife, when those habitats are or will be within the siting criteria noted in Section 1-3 of FAA AC 5200-33. As appropriate, the signatory agencies will also consult each other when they propose revisions to any regulations or guidance relevant to the purpose of this MOA, and agree to modify this MOA accordingly.

SECTION II. GENERAL RULES AND INFORMATION

- **A.** Development of this MOA fulfills the National Transportation Safety Board's recommendation of November 19, 1999, to form an inter-departmental task force to address aircraft-wildlife strike issues.
- **B.** This MOA does not nullify any obligations of the signatory agencies to enter into separate MOAs with the USFWS addressing the conservation of migratory birds, as outlined in Executive Order 13186, *Responsibilities of Federal Agencies to Protect Migratory Birds*, dated January 10, 2001 (66 *Federal Register*, No. 11, pg. 3853).
- **C.** This MOA in no way restricts a signatory agency's participation in similar activities or arrangements with other public or private agencies, organizations, or individuals.
- D. This MOA does not alter or modify compliance with any Federal law, regulation or guidance (e.g., Clean Water Act; Endangered Species Act; Migratory Bird Treaty Act; National Environmental Policy Act; North American Wetlands Conservation Act; Safe Drinking Water Act; or the "no-net loss" policy for wetland protection). The signatory agencies will employ this MOA in concert with the Federal guidance addressing wetland mitigation banking dated March 6, 1995 (60 Federal Register, No. 43, pg. 12286).
- E. The statutory provisions and regulations mentioned above contain legally binding requirements. However, this MOA does not substitute for those provisions or regulations, nor is it a regulation itself. This MOA does not impose legally binding requirements on the signatory agencies or any other party, and may not apply to a particular situation in certain circumstances. The signatory agencies retain the discretion to adopt approaches on a case-by-case basis that differ from this MOA when they determine it is appropriate to do so. Such decisions will be based on the facts of a particular case and applicable legal requirements. Therefore, interested parties are free to raise questions and objections about the substance of this MOA and the appropriateness of its application to a particular situation.
- **F.** This MOA is based on evolving information and may be revised periodically without public notice. The signatory agencies welcome public comments on this MOA at any time and will consider those comments in any future revision of this MOA.

- **G.** This MOA is intended to improve the internal management of the Executive Branch to address conflicts between aviation safety and wildlife. This MOA does not create any right, benefit, or trust responsibility, either substantively or procedurally. No party, by law or equity, may enforce this MOA against the United States, its agencies, its officers, or any person.
- **H.** This MOA does not obligate any signatory agency to allocate or spend appropriations or enter into any contract or other obligations.
- I. This MOA does not reduce or affect the authority of Federal, State, or local agencies regarding land uses under their respective purviews. When requested, the signatory agencies will provide technical expertise to agencies making decisions regarding land uses within the siting criteria in Section 1-3 of FAA AC 150/5200-33 to minimize or prevent attracting hazardous wildlife to airport areas.
- **J.** Any signatory agency may request changes to this MOA by submitting a written request to any other signatory agency and subsequently obtaining the written concurrence of all signatory agencies.
- **K.** Any signatory agency may terminate its participation in this MOA within 60 days of providing written notice to the other agencies. This MOA will remain in effect until all signatory agencies terminate their participation in it.

SECTION III. PRINCIPAL SIGNATORY AGENCY CONTACTS

The following list identifies contact offices for each signatory agency.

Federal Aviation Administration
Office Airport Safety and Standards
Airport Safety and
Compliance Branch (AAS-310)
800 Independence Ave., S.W.

Washington, D.C. 20591

V: 202-267-1799 F: 202-267-7546

U.S. Army
Directorate of Civil Works
Regulatory Branch (CECW-OR)
441 G St., N.W.
Washington, D.C. 20314

V: 202-761-4750 F: 202-761-4150 U.S. Air Force HQ AFSC/SEFW 9700 Ave., G. SE, Bldg. 24499 Kirtland AFB, NM 87117

V: 505-846-5679 F: 505-846-0684

U.S. Environmental Protection Agy. Office of Water Wetlands Division Ariel Rios Building, MC 4502F 1200 Pennsylvania Ave., SW Washington, D.C. 20460

V: 202-260-1799 F: 202-260-7546 U.S. Fish and Wildlife Service Division of Migratory Bird Management 4401 North Fairfax Drive, Room 634 Arlington, VA 22203

V: 703-358-1714 F: 703-358-2272 U.S. Department of Agriculture Animal and Plant Inspection Service Wildlife Services Operational Support Staff 4700 River Road, Unit 87 Riverdale, MD 20737

V: 301-734-7921 F: 301-734-5157

Signature Page

Original Signed by: Woodie Woodward	12/17/2002
Associate Administrator for Airports, Federal Aviation Administration	Date
Original Signed by:	
Kenneth W. Hess	27 May 2003
Chief of Safety, U. S. Air Force	Date
Original Signed by:	
R.L. Brownlee	December 9, 2002
Assistant Secretary of the Army (Civil Works), U.S. Army	Date
Original Signed by:	
G. Tracy Mehan, III	1/17/03
Assistant Administrator, Office of Water, U.S. Environmental Protection Agency	Date
Original Signed by:	
Paul R. Schmidt	7/29/03
Assistant Director, Migratory Birds and State Programs, U.S. Fish and Wildlife Service	Date
Original Signed by:	
Richard D Curnow	9 January 2003
Acting Deputy Administrator, Wildlife Services U.S. Department of Agriculture	Date

GLOSSARY

This glossary defines terms used in this MOA.

Airport. All USAF airfields or all public use airports in the FAA's National Plan of Integrated Airport Systems (NPIAS). Note: There are over 18,000 civil-use airports in the U.S., but only 3,344 of them are in the NPIAS and, therefore, under FAA's jurisdiction.

Aircraft-wildlife strike. An aircraft-wildlife strike is deemed to have occurred when:

- 1. a pilot reports that an aircraft struck 1 or more birds or other wildlife;
- 2. aircraft maintenance personnel identify aircraft damage as having been caused by an aircraft-wildlife strike;
- 3. personnel on the ground report seeing an aircraft strike 1 or more birds or other wildlife;
- 4. bird or other wildlife remains, whether in whole or in part, are found within 200 feet of a runway centerline, unless another reason for the animal's death is identified; or
- 5. the animal's presence on the airport had a significant, negative effect on a flight (i.e., aborted takeoff, aborted landing, high-speed emergency stop, aircraft left pavement area to avoid collision with animal)

(Source: Wildlife Control Procedures Manual, Technical Publication 11500E, 1994).

Aircraft-wildlife strike hazard. A potential for a damaging aircraft collision with wildlife on or near an airport (14 CFR 139.3).

Bird Sizes. Title 40, Code of Federal Regulations, Part 33.76 classifies birds according to weight:

small birds weigh less than 3 ounces (oz). medium birds weigh more than 3 oz and less than 2.5 lbs. large birds weigh greater than 2.5 lbs.

Civil aircraft damage classifications. The following damage descriptions are based on the *Manual on the International Civil Aviation Organization Bird Strike Information System*:

Minor: The aircraft is deemed airworthy upon completing simple repairs or replacing minor parts and an extensive inspection is not necessary.

Substantial: Damage or structural failure adversely affects an aircraft's structural integrity, performance, or flight characteristics. The damage normally requires major repairs or the replacement of the entire affected component. Bent fairings or cowlings; small dents; skin punctures; damage to wing tips, antenna, tires or brakes, or engine blade damage not requiring blade replacement are specifically excluded.

Destroyed: The damage sustained makes it inadvisable to restore the aircraft to an airworthy condition.

Significant Aircraft-Wildlife Strikes. A significant aircraft-wildlife strike is deemed to have occurred when any of the following applies:

- 1. a civilian, U.S. air carrier aircraft experiences a multiple aircraft-bird strike or engine ingestion;
- 2. a civilian, U.S. air carrier aircraft experiences a damaging collision with wildlife other than birds; or
- 3. a USAF aircraft experiences a Class A, B, or C mishap as described below:
 - A. Class A Mishap: Occurs when at least one of the following applies:
 - 1. total mishap cost is \$1,000,000 or more;
 - 2. a fatality or permanent total disability occurs; and/or
 - 3. an Air Force aircraft is destroyed.
 - **B. Class B Mishap:** Occurs when at least one of the following applies:
 - 1. total mishap cost is \$200,000 or more and less than \$1,000,000; and/or
 - 2. a permanent partial disability occurs and/or 3 or more people are hospitalized;
 - **C. Class C Mishap:** Occurs when at least one of the following applies:
 - 1. cost of reported damage is between \$20,000 and \$200,000;
 - 2. an injury causes a lost workday (i.e., duration of absence is at least 8 hours beyond the day or shift during which mishap occurred); and/or
 - 3. an occupational illness causing absence from work at any time.

Wetlands. An ecosystem requiring constant or recurrent, shallow inundation or saturation at or near the surface of the substrate. The minimum essential characteristics of a wetland are recurrent, sustained inundation or saturation at or

near the surface and the presence of physical, chemical, and biological features indicating recurrent, sustained inundation, or saturation. Common diagnostic wetland features are hydric soils and hydrophytic vegetation. These features will be present, except where specific physiochemical, biotic, or anthropogenic factors have removed them or prevented their development.

(Source the 1987 Delineation Manual; 40 CFR 230.3(t)).

Wildlife. Any wild animal, including without limitation any wild mammal, bird, reptile, fish, amphibian, mollusk, crustacean, arthropod, coelenterate, or other invertebrate, including any part, product, egg, or offspring there of (50 CFR 10.12, *Taking, Possession, Transportation, Sale, Purchase, Barter, Exportation, and Importation of Wildlife and Plants*). As used in this MOA, "wildlife" includes feral animals and domestic animals while out of their owner's control (14 CFR 139.3, *Certification and Operations: Land Airports Serving CAB-Certificated Scheduled Air Carriers Operating Large Aircraft (Other Than Helicopters*))

Table 1. Identified wildlife species, or groups, that were involved in two or more aircraft-wildlife strikes, that caused damage to one or more aircraft components, or that had an adverse effect on an aircraft's flight. Data are for 1990-1999 and involve only civilian, U.S. aircraft.

Birds	No. reported strikes
Gulls (all spp.)	874
Geese (primarily, Canada geese)	458
Hawks (primarily, Red-tailed hawks)	182
Ducks (primarily Mallards.)	166
Vultures (primarily, Turkey vulture)	142
Rock doves	122
Doves (primarily, mourning doves)	109
Blackbirds	81
European starlings	55
Sparrows	52
Egrets	41
Shore birds (primarily, Killdeer & Sandpipers)	40
Crows	31
Owls	24
Sandhill cranes	22
American kestrels	15
Great blue herons	15
Pelicans	14
Swallows	14
Eagles (Bald and Golden)	14
Ospreys	13
Ring-necked pheasants	11
Herons	11
Barn-owls	9
American robins	8
Meadowlarks	8
Buntings (snow)	7
Cormorants	6
Snow buntings	6
Brants	5
Terns (all spp.)	5
Great horned owls	5
Horned larks	4
Turkeys	4
Swans	3
Mockingbirds	3
Quails	3
Homing pigeons	3
Snowy owls	3
Anhingas	2

Birds	No. reported strikes
Ravens	2
Kites	2
Falcons	2
Peregrine falcons	2
Merlins	2
Grouse	2
Hungarian partridges	2
Spotted doves	2
Thrushes	2
Mynas	2
Finches	2
Total known birds	2,612

Mammals	No. reported strikes
Deer (primarily, White-tailed deer)	285
Coyotes	16
Dogs	10
Elk	6
Cattle	5
Bats	4
Horses	3
Pronghorn antelopes	3
Foxes	2
Raccoons	2
Rabbits	2
Moose	2
Total known mammals	340

Ring-billed gulls were the most commonly struck gulls. The U.S. ring-billed gull population increased steadily at about 6% annually from 1966-1988. Canada geese were involved in about 90% of the aircraft-goose strikes involving civilian, U.S. aircraft from 1990-1998. Resident (non-migratory) Canada goose populations increased annually at 13% from 1966-1998. Red-tailed hawks accounted for 90% of the identified aircraft-hawk strikes for the 10-year period. Red-tailed hawk populations increased annually at 3% from 1966 to 1998. Turkey vultures were involved in 93% of he identified aircraftvulture strikes. The U.S. Turkey vulture populations increased at annually at 1% between 1966 and 1998. Deer, primarily white-tailed deer, have also adapted to urban and airport areas and their populations have increased dramatically. In the early 1900's, there were about 100,000 white-tailed deer in the U.S. Current estimates are that the U.S. population is about 24 million.

Endangered Species Act Information for Airports

ESA Basics: 40 Years of Conserving Endangered Species (USFWS factsheet)

Endangered Species and Airports: An Overview of Endangered Species Issues for Airports Under the National Environmental Policy Act (NEPA) and Endangered Species Act (ESA)

Endangered Species Act (ESA) Section 7 Consultations: An Overview of Endangered Species Issues for Airports

The Endangered Species Act (ESA): Section 10 Incidental Take Options for Airports

Habitat Conservation Plans Under the Endangered Species Act (USFWS factsheet)

Candidate Conservation Agreements (USFWS factsheet)

U.S. Fish & Wildlife Service Native Endangered & Threatened Species Permit Contacts







ESA Basics

40 Years of Conserving Endangered Species

When Congress passed the Endangered Species Act (ESA) in 1973, it recognized that our rich natural heritage is of "esthetic, ecological, educational, recreational, and scientific value to our Nation and its people." It further expressed concern that many of our nation's native plants and animals were in danger of becoming extinct.

The purpose of the ESA is to protect and recover imperiled species and the ecosystems upon which they depend. The Interior Department's U.S. Fish and Wildlife Service (FWS) and the Commerce Department's National Marine Fisheries Service (NMFS) administer the ESA. The FWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife such as whales and anadromous fish such as salmon.

Under the ESA, species may be listed as either endangered or threatened. "Endangered" means a species is in danger of extinction throughout all or a significant portion of its range. "Threatened" means a species is likely to become endangered within the foreseeable future. All species of plants and animals, except pest insects, are eligible for listing as endangered or threatened. For the purposes of the ESA, Congress defined species to include subspecies, varieties, and, for vertebrates, distinct population segments.

As of January 2013, the FWS has listed 2,054 species worldwide as endangered or threatened, of which 1,436 occur in the United States.

How are Species Listed?

Section 4 of the ESA requires species to be listed as endangered or threatened solely on the basis of their biological status and threats to their existence. When evaluating a species for listing, the FWS considers five factors: 1) damage to, or destruction of, a species' habitat; 2) overutilization of the species for commercial, recreational, scientific, or educational purposes; 3) disease or





At home in streams and lakes in Washington, Oregon, Idaho, Montana, and Nevada, the threatened bull trout needs clean, cold water with deep pools, logs for hiding, connected habitat across the landscape and, for spawning and rearing, clean streambed gravel.

predation; 4) inadequacy of existing protection; and 5) other natural or manmade factors that affect the continued existence of the species. When one or more of these factors imperils the survival of a species, the FWS takes action to protect it. The Fish and Wildlife Service is required to base its listing decisions on the best scientific information available.

Candidates for Listing

The FWS also maintains a list of "candidate" species. These are species for which the FWS has enough information to warrant proposing them for listing but is precluded from doing so by higher listing priorities. While listing actions of higher priority go forward, the FWS works with States, Tribes, private landowners, private partners, and other Federal agencies to carry out conservation actions for these species to prevent further decline and possibly eliminate the need for listing.

Protection

The ESA protects endangered and threatened species and their habitats by prohibiting the "take" of listed animals and the interstate or international trade in listed plants and animals, including their parts and products, except under Federal permit. Such permits generally are available for conservation and scientific purposes.

What is "Take"?

The ESA makes it unlawful for a person to take a listed animal without a permit. Take is defined as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." Through regulations, the term "harm" is defined as "an act which actually kills or injures wildlife. Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering." Listed plants are not protected from take, although it is illegal to collect or maliciously harm them on Federal land. Protection from commercial trade and the effects of Federal actions do apply for plants. In addtion, States may have their own laws restricting activity involving listed species.

Recovery

The law's ultimate goal is to "recover" species so they no longer need protection under the ESA. Recovery plans describe the steps needed to restore a species to ecological health. FWS biologists write and implement these plans with the assistance of species experts; other Federal, State, and local agencies; Tribes; nongovernmental organizations; academia; and other stakeholders.

Federal Agency Cooperation

Section 7 of the ESA requires Federal agencies to use their legal authorities to promote the conservation purposes of the ESA and to consult with the FWS and NMFS, as appropriate, to ensure that effects of actions they authorize, fund, or

carry out are not likely to jeopardize the continued existence of listed species. During consultation the "action" agency receives a "biological opinion" or concurrence letter addressing the proposed action. In the relatively few cases in which the FWS or NMFS makes a jeopardy determination, the agency offers "reasonable and prudent alternatives" about how the proposed action could be modified to avoid jeopardy. It is extremely rare that a project ends up being withdrawn or terminated because of jeopardy to a listed species.

The ESA also requires the designation of "critical habitat" for listed species when "prudent and determinable." Critical habitat includes geographic areas that contain the physical or biological features that are essential to the conservation of the species and that may need special management or protection. Critical habitat designations affect only Federal agency actions or federally funded or permitted activities. Federal agencies are required to avoid "destruction" or "adverse modification" of designated critical habitat.

Critical habitat may include areas that are not occupied by the species at the time of listing but are essential to its conservation. An area can be excluded from critical habitat designation if an economic analysis determines that the benefits of excluding it outweigh the benefits of including it, unless failure to designate the area as critical habitat may lead to extinction of the listed species.

The ESA provides a process for exempting development projects from the restrictions if a Cabinet-level "Endangered Species Committee" decides the benefits of the project clearly outweigh the benefits of conserving a species. Since its creation in 1978, the Committee has only been convened three times to make this decision.

Working with States

Partnerships with States are critical to our efforts to conserve listed species. Section 6 of the ESA encourages States to develop and maintain conservation programs for threatened and endangered species. Federal funding is available to promote State participation. Some State laws and regulations are more restrictive than the ESA in granting exceptions or permits.

Working with Landowners

Two-thirds of federally listed species have at least some habitat on private

land, and some species have most of their remaining habitat on private land. The FWS has developed an array of tools and incentives to protect the interests of private landowners while encouraging management activities that benefit listed and other at-risk species.

Habitat Conservation Plans

Section 10 of the ESA may be used by landowners including private citizens, corporations, Tribes, States, and counties who want to develop property inhabited by listed species. Landowners may receive a permit to take such species incidental to otherwise legal activities, provided they have developed an approved habitat conservation plan (HCP). HCPs include an assessment of the likely impacts on the species from the proposed action, the steps that the permit holder will take to avoid, minimize, and mitigate the impacts, and the funding available to carry out the steps.

HCPs may benefit not only landowners but also species by securing and managing important habitat and by addressing economic development with a focus on species conservation.

Safe Harbor Agreements

Safe Harbor Agreements (SHAs) provide regulatory assurance for non-Federal landowners who voluntarily aid in the recovery of listed species by improving or maintaining wildlife habitat. Under SHAs, landowners manage the enrolled property and may return it to originally agreed-upon "baseline" conditions for the species and its habitat at the end of the agreement, even if this means incidentally taking the species.

Candidate Conservation Agreements

It is easier to conserve species before they need to be listed as endangered or threatened than to try to recover them when they are in danger of extinction or likely to become so. Candidate Conservation agreements (CCAs) are voluntary agreements between landowners—including Federal land management Agencies— and one or more other parties to reduce or remove threats to candidate or other at-risk species. Parties to the CCA work with the FWS to design conservation measures and monitor the effectiveness of plan implementation.

Candidate Conservation Agreements with Assurances

Under Candidate Conservation Agreements with Assurances (CCAA), non-Federal landowners volunteer to work with the FWS on plans to conserve candidate and other at-risk species so that protection of the ESA is not needed. In return, landowners receive regulatory assurances that, if a species covered by the CCAA is listed, they will not be required to do anything beyond what is specified in the agreement, and they will receive an enhancement of survival permit, allowing incidental take in reference to the management activities identified in the agreement.

Conservation Banks

Conservation banks are lands that are permanently protected and managed as mitigation for the loss elsewhere of listed and other at-risk species and their habitat. Conservation banking is a freemarket enterprise based on supply and demand of mitigation credits. Credits are supplied by landowners who enter into a Conservation Bank Agreement with the FWS agreeing to protect and manage their lands for one or more species. Others who need to mitigate for adverse impacts to those same species may purchase conservation bank credits to meet their mitigation requirements. Conservation banking benefits species by reducing the piecemeal approach to mitigation that often results in many small, isolated and unsustainable preserves that lose their habitat functions and values over time.

International Species

The ESA also implements U.S. participation in the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), a 175-nation agreement designed to prevent species from becoming endangered or extinct due to international trade. Except as allowed by permit, CITES prohibits importing or exporting species listed on its three appendices. A species may require a permit under the ESA, CITES, or both.

For More Information

For more information, contact the U.S. Fish and Wildlife Service at the address below, or visit http://www.fivs.gov/endangered/.

U. S. Fish and Wildlife Service Endangered Species Program 4401 N. Fairfax Drive, Room 420 Arlington, VA 22203 703-358-2171 http://www.fws.gov/endangered/

January 2013

Endangered Species and Airports

An Overview of Endangered Species issues for Airports under the National Environmental Policy Act (NEPA) and Endangered Species Act (ESA)

NEPA

The National Environmental Policy Act (NEPA) was signed into law on January 1, 1970, and established a national framework with goals and processes for federal agencies to protect the environment.

Oversight and direction for implementation of NEPA is provided by the Council of Environmental Quality (CEQ). The regulations of NEPA are binding on all federal agencies, including the Federal Aviation Administration (FAA). FAA Order 1050.1E: Environmental Impacts: Policies and Procedures, establishes guidance for the FAA for complying with NEPA and includes compliance with the Endangered Species Act (ESA). In accordance with this guidance, the FAA is responsible for the environmental review for all proposed actions (at and related to Airports) under NEPA.

Under the NEPA process, for an undertaking that involves a federal agency, an evaluation of the environmental effects of proposed activities must be performed. Depending on the anticipated level of environmental impact, the NEPA analysis can be performed at one of three levels:

- Categorical Exclusion;
- Environmental Assessment (EA); or
- Environmental Impact Statement (EIS).

Categorical Exclusion

This is essentially an exemption from a full analysis, due to known actions that have been previously determined to have no significant impact. Many agencies have a list of such exempt actions.



EA

This is the second level of analysis, when a federal agency prepares an assessment to determine if the proposed action(s) would significantly impact the environment. The EA may result in a finding of no significant impact (FONSI), indicating that no further analysis is required. The FONSI may also list measures to implement, avoid, or offset (mitigate) potentially significant impacts.

EIS

If the EA does not result in a FONSI, or if the agency anticipates that the proposed action(s) may significantly impact the environment, an EIS is prepared. The EIS represents the third highest level of environmental impact analysis under NEPA. It is a detailed evaluation of the proposed action(s) and alternatives and includes input from the public, other agencies, and outside parties.

At airports, the NEPA process is typically triggered during planning, design, and development of proposed improvements or expansions, and design or implementation of operations and management plans.

NEPA & ESA

Whether the NEPA process is triggered by planning, proposed construction, or operations/management plans, due to an airport's large footprint, extensive green space, and typical location near natural habitat, a key component of the analysis at any level is consideration for endangered species under the ESA. Under NEPA, coordination with agencies outside of the FAA is required when an action involves resources protected by special purpose laws or administrative directives, which includes the ESA.

Passed by Congress in 1973, the ESA's purpose is to protect and recover imperiled species and the ecosystems on which they depend. The ESA is administered by the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS). The FWS primarily oversees terrestrial and freshwater animal species, while the NMFS is concerned with marine wildlife.

Listed Species

Under the ESA, a species can either be listed as endangered or threatened. In addition, a species may be a candidate for listing.



Endangered

A species in danger of extinction throughout all or a significant portion of its range. Protected under the ESA.



Threatened

A species likely to become endangered within the foreseeable future. Protected under the ESA.

Candidate

Candidate species are plants and animals for which the USFWS or NMFS has sufficient information to propose them as endangered or threatened, but for which development of the regulation is precluded by other higher priority listing activities. No protection under the ESA.

Under the NEPA process and the ESA, the FAA must determine whether a proposed action by an airport would affect a federally listed species (endangered or threatened) or habitat that is critical to that species.

Critical Habitat

Areas with physical and biological features essential to a listed species' survival. Such areas can include nesting and breeding grounds, migration routes, essential foraging areas, and other areas needed for a species to fulfill its life history.

BIOLOGICAL OPINIONS

Section 7 of the ESA requires federal agencies, such as the FAA, to coordinate with the USFWS and NMFS to ensure that the actions they authorize or fund do not jeopardize the continued existence of listed species. As part of this coordination, the FAA or its consultant will prepare a Biological Assessment (BA) of the potential effect of the proposed action on listed species or critical habitat. In response to the BA the USFWS or NMFS issues a Biological Opinion, in which the agency makes a "jeopardy" determination regarding the action on listed species.

No Jeopardy

If the USFWS/NMFS Biological Opinion finds no jeopardy, the FAA may proceed with the proposed action with respect to the ESA.

Jeopardy

If the service determines that the action places a species in jeopardy, the FAA may not authorize or support the action. The agency will however offer reasonable and prudent alternatives to modify the proposed action to avoid placing a species in jeopardy.

The Biological Opinion is a key aspect of FAA project planning and implementation to ensure the provisions of the ESA and NEPA are met.

State-Listed Species

State-listed species have no protection under the ESA. However, under NEPA, the FAA must ensure that the environmental documents for proposed actions address state-protected species and habitats.

Alternatives & Mitigation

If an action has the potential to place a listed species in jeopardy, alternatives and options to airports include, but are not limited to:

- Project location, size, and scope modifications;
- Habitat Conservation Plans (HCP);
- Safe Harbor Agreements;
- · Candidate Conservation Agreements;
- · On or Off-Site Mitigation; and
- Conservation and Mitigation Banks.

NEPA Information:

http://www.faa.gov/airports/environmental/

Find Your Regional EPA Office:

http://www.epa.gov/compliance/ whereyoulive/nepa.html

USFWS and the ESA:

http://www.fws.gov/endangered/laws-policies/index.html

NMFS and the ESA:

http://www.nmfs.noaa.gov/pr/laws/esa/

Endangered Species Act (ESA) Section 7 Consultations

An Overview of Endangered Species Issues for Airports

The ESA

The Endangered Species Act (ESA) was passed by Congress in 1973, with the purpose to protect and recover listed (threatened and endangered) species and the ecosystems on which they depend. The ESA is administered by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS). The USFWS primarily oversees terrestrial and freshwater animal species, while the NMFS is concerned with marine wildlife and anadromous (ocean to river migrating) fish, such as salmon.

Section 7 Consultation

Section 7 of the ESA directs all federal agencies, including the Federal Aviation Administration (FAA), to participate in the conservation of listed species. It specifically directs federal agencies to ensure actions they authorize, support, or fund do not jeopardize the continued existence of listed species or impact their critical habitat.

A section 7 consultation is indicated for any federal agency prior to <u>undertaking</u>, <u>authorizing</u>, <u>permitting</u>, or <u>funding actions</u> likely to jeopardize the continued existence of listed species, or destroy or adversely modify the species critical habitat.

Who Is Involved in Section 7 Consultations?

The participants in Section 7 consultations generally include:

- Action agency (FAA); a
- Designated non-federal representative;
- · Applicant (usually the airport);
- Consultant(s) working for any of the above; and
- · Review agency/USFWS or NMFS.

Informal Consultations

Section 7 consultation is meant to be conducted cooperatively between the lead and consulting agencies, and most consultation processes begin informally. The purpose of an informal consultation is to:

- Clarify which listed species or critical habitat may be in the action area;
- Determine the potential effect of the action;
- Explore ways to modify the action to reduce or eliminate adverse effects;
- Determine the need for a formal consultation; and
- Explore modifications that may benefit the species.

Informal consultations generally involve telephone contacts, meetings, letters, and other information exchanges as outlined below:

 FAA and Service concur on species list and whether critical habitat is present (30-60 days).





- If listed species and/or critical habitat present, FAA prepares a Biological Assessment (BA); if not, consultation ends (180 days).
- Service responds to BA to determine if action is likely to adversely affect species or critical habitat. If yes, a formal consultation is required; if no, consultation ends (30 days).

Depending on the findings, the informal consultation can be expected to take between 60 and 270 days.

Formal Consultations

If the informal consultation process indicates the need for a formal consultation, such a consultation will be initiated between the FAA and the

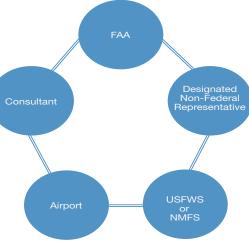
Service. Alternatively, the FAA may opt to directly proceed to formal consultation, if the actions are known or can reasonably be expected to impact listed species or critical habitat. A formal consultation accomplishes the following:

- · Determines whether proposed actions are likely to jeopardize a listed species or adversely modify critical habitat;
- · Determines extent of anticipated incidental take (see section 10);
- · Identifies nature and extent of effects of actions on the listed species and critical habitat;
- · Identifies reasonable and prudent alternatives to reduce or eliminate the actions' effects:
- Identifies ways the FAA can help conserve listed species or critical habitat;
- Provides an administrative record.

The steps and timeframes involved in the formal consultation process are briefly summarized below:

- FAA submits formal consultation initiation package to Service for review;
- 2. Service determines if information is complete, and notifies FAA of any deficiencies (30 days);
- 3. Once information is complete, Service formulates a Biological Opinion and Incidental Take Statement (90 days):
- 4. FAA reviews draft Biological Opinion and coordinates with Service on revisions (45 days);
- Final Biological Opinion and Incidental Take Statement are delivered to FAA.

Section 7 Consultations Statement, the actions must:



The Biological Opinion will conclude whether the proposed action(s) will result in jeopardy to the species or adverse modification of critical habitat.

If the opinion finds no jeopardy or adverse modification, the action(s) are deemed consistent with the ESA. If the opinion does find jeopardy to species or adverse modification of critical habitat, the document will include reasonable and prudent alternatives to avoid jeopardy or adverse modification of habitat. The FAA is directed to coordinate with the Service to achieve a project outcome that meets the requirements of section 7 of the ESA.

Section 10 Incidental Take

The Biological Opinion rendered in response to a formal consultation is normally accompanied by an Incidental Take Statement, Section 9 of the ESA defines the "take" of a listed species, which includes just about anything that would harass, harm, or kill the animal, and establishes "take" as an unlawful act. However, section 10 of the ESA provides for take exemptions, such as the aforementioned Incidental Take Statement. In order to qualify for an Incidental Take

- be unlikely to jeopardize the continued existence of listed species or destroy or modify critical habitat;
- result from an otherwise lawful activity; and
- be incidental to the purpose of the action.

Such an Incidental Take Statement will document the expected extent of the take and include reasonable and prudent measures for the FAA to minimize the impact of incidental take.

For more information:

Section 7 Handbook:

http://www.fws.gov/endangered/ esalibrary/pdf/esa section7 handbook.pdf

Section 7 Guidance:

http://www.fws.gov/endangered/whatwe-do/consultations-overview.html

USFWS and the ESA:

http://www.fws.gov/endangered/lawspolicies/index.html

U.S. Fish and Wildlife Service Endangered Species Program 4401 N. Fairfax Drive, Room 420 Arlington VA 22203 703-358-2171

Or to find your Regional Office

http://www.fws.gov/endangered/regions/ index.html

NMFS and the ESA:

http://www.nmfs.noaa.gov/pr/laws/esa/

The Endangered Species Act (ESA)

Section 10 Incidental Take Options for Airports





What this means is that as long as the impact on the listed species is the result of incidental side effects from a proposed legal action authorized or supported by the FAA, and such impact is of sufficiently limited nature to not jeopardize the continued existence of the species, the "take" can be authorized under section 10 of the ESA.



Incidental Take Conditions An Incidental Take Statement will provide

An Incidental Take Statement will provide the FAA and the airport with specific conditions and guidelines to follow. Such conditions will specify:

- the allowable extent of impact on the species;
- actions or measures necessary to minimize impact on the species;
- reporting and management procedures, including handling and disposal of taken individuals.

The National Environmental Policy Act (NEPA) and the Endangered Species Act (ESA) direct coordination between federal agencies to ensure their actions do not jeopardize the continued existence of listed (threatened or endangered) species or adversely modify (degrade or destroy) the species' critical habitat. Such coordination is usually accomplished through an informal or formal section 7 consultation. This consultation, which involves the Federal Aviation Administration (FAA) as the Action Agency, its representatives and/or consultants, the airport, and the Service (either the U.S. Fish and Wildlife Service or the National Marine Fisheries Service, yields a Biological Opinion. The Biological Opinion, given by the Service, determines whether the proposed action will likely cause jeopardy to the listed species and whether critical habitat for the species is likely to

be adversely modified. Along with the

an Incidental Take Statement.

Biological Opinion, the Service may issue

What is a "Take"?

According to section 9 of the ESA it is unlawful for a person to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect a listed animal species." The definition of a take also includes significant modification or degradation to the species habitat.

Section 10 Incidental Take

Incidental Take Statements exempt action agencies (FAA) and their permittees (airports) from the section 9 take prohibitions. In effect, an Incidental Take Statement allows a proposed action to have a limited adverse impact on listed species, provided the taking:

- will not likely jeopardize the continued existence of listed species or adversely modify critical habitat;
- · results from a lawful activity, and
- is incidental for the purpose of the action.

Incidental Take Tips

The following tips may help to minimize the delay and costs associated with ESA consultations or minimize the potential that a proposed action cannot be authorized due to impacts to the species (i.e., jeopardy finding):

- Consider and discuss with the Service options to minimize or mitigate the effects an action may have on species during the section 7 consultation;
- Incorporate into the proposed action plan any feasible minimization and mitigation options based on specifics of the action, airport site, operations, FAA requirements, and affected species;
- Include an endangered species management plan in the documents prepared for the section 7 consultation.

Potential options under Section 10 to minimize or mitigate impacts to endangered species:

- Exclude the species from the airport operations area (AOA) (e.g., fence modifications and maintenance);
- Utilize landscaping and site management to minimize foraging, perching, and nesting habitat or opportunities for the species in the AOA and surrounding areas;
 - Relocate the on-site species population to an appropriate off-site recipient site;
 - If feasible, realign, relocate, or revise the proposed action(s) to avoid or minimize encroachment into habitat for the species;
 - If feasible, time or schedule (e.g., time of day, season, etc.) actions to minimize interference with endangered species behavior;
- Develop and implement a Habitat Conservation Plan in coordination with the USFWS or NMFS;
 - Acquire, protect, enhance, or restore offsite habitat for the impacted species;
- Contribute to funding for the acquisition, protection, restoration, and/or management of offsite habitat for the impacted species;
- If available, purchase credits in a Conservation Bank established to provide habitat for the impacted species;
- Closely abide by all monitoring, reporting, and management guidelines set forth in the Incidental Take Statement.

For more information:

Section 10 Issuance Criteria

http://www.fws.gov/midwest/endangered/ permits/documents/ITPermitsCriteria.pdf

Section 7 Handbook:

http://www.fws.gov/endangered/ esalibrary/pdf/esa_section7_handbook.pdf

Section 7 Guidance:

http://www.fws.gov/endangered/whatwe-do/consultations-overview.html

USFWS and the ESA:

http://www.fws.gov/endangered/laws-policies/index.html

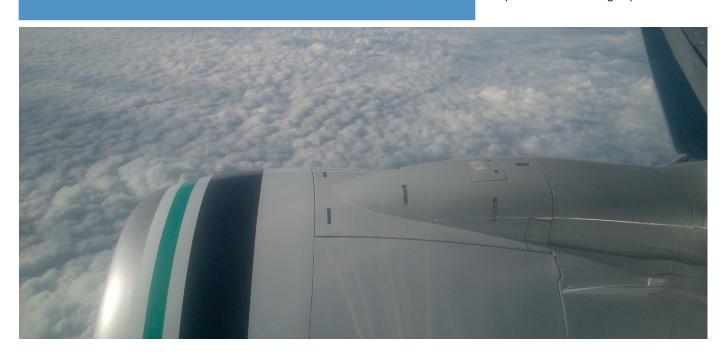
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Or to find your Regional Office:

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NMFS and the ESA:

http://www.nmfs.noaa.gov/pr/laws/esa/









Habitat Conservation Plans Under the Endangered Species Act

Introduction

Why should we save endangered species? Congress answered this question in the introduction to the Endangered Species Act of 1973 (Act), recognizing that endangered and threatened species of wildlife and plants "are of esthetic, ecological, educational, historical, recreational, and scientific value to the Nation and its people."

After this finding, Congress said that the purposes of the Act are ". . . . to provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved [and] to provide a program for the conservation of such . . . species. . . . " Habitat Conservation Plans (HCPs) under section 10(a)(1)(B) of the Act provide for partnerships with non-Federal parties to conserve the ecosystems upon which listed species depend, ultimately contributing to their recovery.

What are HCPs?

HCPs are planning documents required as part of an application for an incidental take permit. They describe the anticipated effects of the proposed taking; how those impacts will be minimized, or mitigated; and how the HCP is to be funded.

HCPs can apply to both listed and nonlisted species, including those that are candidates or have been proposed for listing. Conserving species before they are in danger of extinction or are likely to become so can also provide early benefits and prevent the need for listing.

Who needs an incidental take permit?

Anyone whose otherwise-lawful activities will result in the "incidental take" of a listed wildlife species needs a permit. The U.S. Fish and Wildlife Service (FWS) can help determine whether a proposed project or action is likely to result in "take" and whether



The endangered California tiger salamander is among the listed species included in the East Contra Costa County Habitat Conservation Plan.

an HCP is needed. FWS staff can also provide technical assistance to help design a project to avoid take. For example, the project could be designed with seasonal restrictions on construction to minimize disturbance to a species.

What is the benefit of an incidental take permit and habitat conservation plan to a private landowner?

The permit allows the permit-holder to legally proceed with an activity that would otherwise result in the unlawful take of a listed species. The permit-holder also has assurances from the FWS through the "No Surprises" regulation.

What is "take"?

The Act defines "take" as "... to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." "Harm" includes significant habitat modification that actually kills or injures a listed species through impairing essential behavior such as breeding, feeding, or sheltering.

Section 9 of the Act prohibits the take of endangered and threatened species. The purpose of the incidental take permit is to exempt non-Federal permit-holders—such as States and private landowners— from the prohibitions of section 9, not to authorize the activities that result in take.

What do habitat conservation plans do?

In developing habitat conservation plans, people applying for incidental take permits describe measures designed to minimize and mitigate the effects of their actions— to ensure that species will be conserved and to contribute to their recovery.

Habitat conservation plans are required to meet the permit issuance criteria of section 10(a)(2)(B) of the Act:

- (i) taking will be incidental;
- (ii) the applicant will, to the maximum extent practicable, minimize and mitigate the impacts of the taking;

- (iii) the applicant will ensure that adequate funding for the plan will be provided;
- (iv) taking will not appreciably reduce the likelihood of the survival and recovery of the species in the wild; and
- (v) other measures, as required by the Secretary, will be met.

What needs to be in HCPs?

Section 10 of the Act and its implementing regulations define the contents of HCPs. They include:

- an assessment of impacts likely to result from the proposed taking of one or more federally listed species.
- measures that the permit applicant will undertake to monitor, minimize, and mitigate for such impacts, the funding available to implement such measures, and the procedures to deal with unforeseen or extraordinary circumstances.
- alternative actions to the taking that the applicant analyzed, and the reasons why the applicant did not adopt such alternatives.
- additional measures that the Fish and Wildlife Service may require.

HCPs are also required to comply with the Five Points Policy by including:

- biological goals and objectives, which define the expected biological outcome for each species covered by the HCP;
- adaptive management, which includes methods for addressing uncertainty and also monitoring and feedback to biological goals and objectives;
- 3. monitoring for compliance, effectiveness, and effects;
- 4. permit duration which is determined by the time-span of the project and designed to provide the time needed to achieve biological goals and address biological uncertainty; and
- 5. public participation according to the National Environmental Policy Act.

What are "No Surprises" assurances?

The FWS provides "No Surprises" assurances to non-Federal landowners through the section 10(a)(1)(B)

process. Essentially, State and private landowners are assured that if "unforeseen circumstances" arise, the FWS will not require the commitment of additional land, water, or financial compensation or additional restrictions on the use of land, water, or other natural resources beyond the level otherwise agreed to in the HCP without the consent of the permitholder. The government will honor these assurances as long as permitholders are implementing the terms and conditions of the HCPs, permits, and other associated documents in good faith. In effect, the government and permit-holders pledge to honor their conservation commitments.

Are incidental take permits needed for listed plants?

There are no Federal prohibitions under the Act for the take of listed plants on non-Federal lands, unless taking those plants is in violation of State law. However, the FWS analyzes the effects of the permit on listed plant species because section 7 of the Act requires that issuing an incidental take permit may not jeopardize any listed species, including plants. In general, it is a good idea to include conservation measures for listed plant species in developing an HCP.

What is the process for getting an incidental take permit?

The applicant decides whether to seek an incidental take permit. While FWS staff members provide detailed guidance and technical assistance throughout the process, the applicant develops an HCP and applies for a permit. The components of a completed permit application are a standard application form, an HCP, an Implementation Agreement (if applicable), the application fee, and a draft National Environmental Policy Act (NEPA) analysis. A NEPA analysis may result in a categorical exclusion, an environmental assessment, or an environmental impact statement.

While processing the permit application, the FWS prepares the incidental take permit and a biological opinion under section 7 of the Act and finalizes the NEPA analysis documents. Consequently, incidental take permits have a number of associated documents.

How do we know if we have listed species on our project site?

For assistance, check with the appropriate State fish and wildlife

agency, the nearest FWS field office, or the National Marine Fisheries Service (NMFS), for anadromous fish such as salmon.

What kinds of actions are considered mitigation?

Mitigation measures are actions that reduce or address potential adverse effects of a proposed activity on species included in an HCP. They should address specific conservation needs of the species and be manageable and enforceable. Mitigation measures may take many forms, including, but not limited to, payment into an established conservation fund or bank; preservation (via acquisition or conservation easement) of existing habitat; enhancement or restoration of degraded or a former habitat; establishment of buffer areas around existing habitats; modifications of land use practices, and restrictions on access. Which type of mitigation measure used for a specific HCP is determined on a case by case basis, and is based upon the needs of the species and type of impacts anticipated.

What is the legal commitment of a HCP?

Incidental take permits make binding the elements of HCPs. While incidental take permits have expiration dates, the identified mitigation may be in perpetuity. Violating the terms of an incidental take permit may constitute unlawful take under section 9 of the Act.

Who approves an HCP?

The FWS Regional Director decides whether to issue an incidental take permit, based on whether the HCP meets the criteria mentioned above. If the HCP addresses all of the requirements listed above, as well as those of other applicable laws, the FWS issues the permit.

What other laws besides the Endangered Species Act are involved?

In issuing incidental take permits, the FWS complies with the requirements of NEPA and all other statutes and regulations, including State and local environmental/planning laws.

Who is responsible for NEPA compliance during the HCP process?

The FWS is responsible for ensuring NEPA compliance during the HCP process. However, if the Service does not have sufficient staff resources, an applicant may, within certain limitations, prepare the draft NEPA

analysis. Doing so can benefit the applicant and the government by expediting the application process and permit issuance. In cases like this, the FWS provides guidance, reviews the document, and takes responsibility for its scope, adequacy, and content.

Does the public get to comment on our HCP? How do public comments affect our HCP?

The Act requires a 30-day period for public comments on applications for incidental take permits. In addition, because NEPA requires public comment on certain documents, the FWS operates the two comment periods concurrently. Generally, the comment period is 30 days for a Low Effect HCP, 60 days for an HCP that requires an environmental assessment, and 90 days for an HCP that requires an environmental impact statement. The FWS considers public comments in permit decisions.

What kind of monitoring is required for a HCP, and who performs it?

Three types of monitoring may be required: compliance, effectiveness, and effects. In general, the permit-holder is responsible for ensuring that all the required monitoring occurs. The FWS reviews the monitoring reports and coordinates with the permit-holder if any action is needed.

Does the Fish and Wildlife Service try to accommodate the needs of HCP participants who are not professionally involved in the issues?

Because applicants develop HCPs, the actions are considered private and, therefore, not subject to public participation or review until the FWS receives an official application. The FWS is committed to working with people applying for permits and providing technical assistance throughout the process to accommodate their needs.

However, the FWS does encourage applicants to involve a range of parties, a practice that is especially valuable for complex and controversial projects. Applicants for most large-scale, regional HCPs choose to provide extensive opportunities for public involvement during the planning process. Issuing permits is, however, a Federal action that is subject to public review and comment. There is time for such review during the period when the FWS reviews the information. In addition, the FWS solicits public involvement and review, as well as requests for additional information during the scoping process when an EIS is required.

Are independent scientists involved in developing an HCP?

The views of independent scientists are important in developing mitigation and minimization measures in nearly all HCPs. In many cases, applicants contact experts who are directly involved in discussions on the adequacy of possible mitigation and minimization measures. In other cases, the FWS incorporates the views of independent scientists indirectly through their participation in listing documents, recovery plans, and conservation agreements that applicants reference in developing their HCPs.

How does the FWS ensure that species are adequately protected in HCPs?

The FWS has strengthened the HCP process by incorporating adaptive management when there are species for which additional scientific information may be useful during the implementation of the HCP. These provisions allow FWS and NMFS to work with landowners to reach agreement on changes in mitigation strategies within the HCP area, if new information about the species indicates this is needed. During the development of HCPs, the FWS and NMFS discuss any changes in strategy with landowners, so that they are aware of any uncertainty in management strategies and have concurred with the adaptive approaches outlined.

What will the FWS do in the event of unforeseen circumstances that may jeopardize the species?

The FWS will use its authority to manage any unforeseen circumstances that may arise to ensure that species are not jeopardized as a result of approved HCPs. In the rare event that jeopardy to the species cannot be avoided, the FWS may be required to revoke the permit.

How can I obtain information on numbers and types of HCPs?

Our national HCP database displaying basic statistics on HCPs is available online from our Habitat Conservation Planning page at http://ecos.fws.gov/conserv_plans/servlet/gov.doi.hcp.servlets.PlanReportSelect?region=9&type=HCP.

U. S. Fish and Wildlife Service Endangered Species Program 4401 N. Fairfax Drive, Room 420 Arlington, VA 22203 703-358-2171 http://www.fws.gov/endangered/whatwe-do/hcp-overview.html

April 2011





Candidate Conservation Agreements

What Are Candidate Species?

What the U.S. Fish and Wildlife Service (FWS) considers candidate species are those plants and animals that are candidates for listing under the Endangered Species Act (ESA). These are species for which the FWS has enough information regarding their biological status and threats to propose them as threatened or endangered, but listing is currently precluded by higher priority listing activities. Candidate species are not subject to the legal protections of the ESA. Proactive conservation efforts for these species can, in some cases, eliminate the need to list them under the ESA.

What Are the Benefits of Conserving Candidate Species?

Implementing conservation efforts before species are listed and their habitats become highly imperiled increases the likelihood that simpler, more cost-effective conservation options are available, and that conservation efforts will succeed. In addition, through early conservation efforts before species are listed, resource managers and property owners have more flexibility to manage their resources and use their land.

What Is a Candidate Conservation Agreement (CCA)?

Early conservation efforts for declining species can be greatly expanded through collaborative approaches that foster cooperation and exchange of ideas among multiple parties. One of the principal ways of identifying appropriate conservation efforts is through the development of a Candidate Conservation Agreement (CCA). CCAs are formal, voluntary agreements between the FWS and one or more parties to address the conservation needs of one or more candidate species or species likely to become candidates in the near future. Participants voluntarily commit to implement specific actions designed to remove or reduce threats to the covered species, so that listing may not be necessary. The degree of detail in



In New Hampshire, efforts are underway to help conserve the New England cottontail through a CCAA.

CCAs can vary widely, and there are no specific permits or assurances associated with them. The FWS has entered into many CCAs over the years, primarily with other Federal agencies and States. Local governments, Tribes, private property owners, and other entities may also participate. Some CCAs have been so successful that listing the covered species was not necessary.

What Is a Candidate Conservation Agreement with Assurances (CCAA)?

Conservation of animal and plant resources on non-Federal lands is important because many species rely heavily – or even entirely – on such lands. However, due to concern about potential land use restrictions that could occur if a species becomes listed under the ESA, some property owners have been reluctant to engage in conservation activities that encourage use of their land or water by such species. A Candidate Conservation Agreement

with Assurances addresses this concern by providing incentives for non-Federal property owners to engage in voluntary conservation activities that can help make listing a species unnecessary.

More specifically, a CCAA provides participating property owners with a permit containing assurances that if they engage in certain conservation actions for species included in the agreement, they will not be required to implement additional conservation measures beyond those in the CCAA. Also, additional land, water, or resource use limitations will not be imposed on them should the species become listed in the future, unless they consent to such changes.

What Species Can Be Included in a CCA or CCAA?

A CCA and CCAA may include plant and animal species that have been proposed for listing or are candidates for listing, and at-risk species, which are species that are likely to become candidates in the near future. These agreements can apply to a single species or multiple species. Agreements may vary widely in size, scope, structure, and complexity, and in the activities they address.

How Does a CCA and CCAA Help Species?

These voluntary agreements reduce or remove identified threats to a species. Examples of beneficial activities include measures for reducing habitat fragmentation rates, restoring or enhancing habitat, expanding or establishing habitat connectivity, reestablishing populations or augmenting existing populations, control of competitive, invasive plants or animals, and reducing potential effects of significant disturbance events, such as extreme wildfires that could result from unnatural buildup of fuels.

How Do CCAs and CCAAs Differ?

Both CCAs and CCAAs can eliminate the need for listing candidate and at-risk species under the ESA. A CCA can be between the FWS and other Federal, State, or local agencies, or with private sector parties, and may include both Federal and non-Federal lands and waters. Under a CCA, no Enhancement of Survival Permit is issued. This means there is no permit that authorizes incidental take of the covered species in the event listing occurs, and no assurances are provided by the Service.

A CCAA is only between non-Federal property owners and the FWS, and covers the actions of those entities on non-Federal lands. The FWS, through an Enhancement of Survival Permit issued in conjunction with a CCAA, provides assurances that, if the species is subsequently listed and no other changes have occurred, the FWS will not require the permittee to conduct any additional conservation measures without consent. Additionally, the permit authorizes a specific level of incidental take of the covered species, should listing occur.

In situations where a candidate or at-risk species is found on both non-Federal and Federal land, a CCA and a CCAA can be used in a complementary fashion to address threats and management needs on both, with the result that listing is less likely.

How Does the CCAA Process Work?

Property owners agree to undertake activities on their non-Federal lands to remove threats and otherwise improve

the status of candidate and at-risk species. A variety of actions may qualify, such as:

- protecting and enhancing existing populations and habitats;
- restoring degraded habitat;
- creating new habitat;
- augmenting existing populations;
- restoring historic populations; and
- not undertaking a specific, potentially impacting/damaging activity.

In return for the participant's voluntary conservation action(s), the FWS provides an Enhancement of Survival Permit under section 10(a)(1)(A) of the ESA. The permit, which goes into effect if the covered species becomes listed, provides the participant with a prescribed amount of "take" of the species, and/or habitat modification when such take is incidental to activities specified in the CCAA. Such take might occur as the landowner implements agreed upon conservation actions or other ongoing management activities on the property enrolled in the CCAA.

The FWS recognizes that a single CCAA by itself may not be sufficient to reduce or remove all threats so that listing is unnecessary. In developing a CCAA, a non-Federal property owner needs only to address those threats, or the proportion of those threats, that he or she can control on the property enrolled. The standard that must be met for the FWS to enter into a CCAA and issue the related permit is that the duration of the CCAA must be sufficient for the FWS to determine that the benefits of the conservation measures in the agreement, when combined with those benefits that would be achieved if it is assumed that the measures would also be implemented on other necessary properties, would preclude or remove any need to list the covered species.

How Long Does It Take to Develop a CCAA?

Many agreements can be developed within 6 to 9 months, although more complex agreements may take longer. A variety of factors influence the timeline, such as the number and characteristics of the species involved, the size of the area involved, the size of the project(s) or other activities to be conducted, the number of parties to the agreement, and other relevant factors.

Can a Property Owner Sell or Transfer Property Enrolled with a CCAA?

If a property owner sells or gives away lands enrolled in a CCAA, the FWS will honor the agreement and associated permit, providing the new owner agrees to become a party to the original CCAA and permit.

What Happens When a CCAA Expires?

The CCAA can be renewed for as long as the property landowner and FWS mutually agree. If the landowner does not renew the agreement, the assurances tied to the Enhancement of Survival Permit end when the permit expires. At that time, the owner becomes accountable to the provisions of the ESA if the species has been listed while the CCAA was in effect.

What Is a Programmatic CCAA?

A programmatic CCAA and its associated permits authorize State, local, Tribal governments and other entities to enter into an agreement and hold the associated permit. This entity then enrolls individual property owners within a specific area or region, and conveys the permit authorization and assurances to them through a "certificate of inclusion." This programmatic approach is an efficient mechanism to encourage multiple non-Federal property owners to voluntarily take management actions to remove threats to candidate and potential candidate species.

Who Should I Contact to Initiate a CCA or CCAA?

Contact the nearest FWS Field Office in your State to discuss potential cooperative opportunities. For information and examples of Candidate Conservation Agreements and the final CCAA policy and regulations, please visit the candidate conservation section of http://www.fws.gov/endangered/candidates/index.html. A 12-minute video on Candidate Conservation Agreements is also posted at this site.

U.S. Fish & Wildlife Service Endangered Species Program 4401 North Fairfax Drive, Room 420B Arlington, VA 22203 703/358-2390 http://www.fws.gov/endangered/

March 2011

U.S. Fish & Wildlife Service Native Endangered & Threatened Species Permit Contacts







FWS Pacific Region (1): HI, ID, WA, OR, American Samoa, Commonwealth of the Northern Mariana Islands, Guam, and the Pacific Trust Territories

U.S. Fish and Wildlife Service Endangered Species Permit Office 911 NE 11th Avenue Portland, Oregon 97232-4181

http://www.fws.gov/pacific/ecoservices/endangered/index.html

Phone: 503/231-2071

email: permitsR1ES@fws.gov

Fax: 503/231-6131

FWS Southwest Region (2): AZ, NM, OK, TX

U.S. Fish and Wildlife Service Endangered Species Permit Office 500 Gold Avenue S.W. (street address) P.O. Box 1306 (mailing address) Albuquerque, New Mexico 87103-1306

http://www.fws.gov/southwest/es/

EndangeredSpecies/ Phone: 505/248-6649

email: permitsR2ES@fws.gov

Fax: 505/248-6788

FWS Midwest Region (3): IA, IL, IN, MI, MN, MO, OH, WI

U.S. Fish and Wildlife Service Endangered Species Permit Office 5600 American Boulevard West, Suite 990 Bloomington, Minnesota 55437-1458

http://www.fws.gov/midwest/Endangered/

Phone: 612/713-5343

email: permitsR3ES@fws.gov

Fax: 612/713-5292

FWS Southeast Region (4): AL, AR, FL, GA, KY, LA, MS, NC, SC, TN, Puerto Rico, U.S. Virgin Islands

U.S. Fish and Wildlife Service Endangered Species Permit Office 1875 Century Blvd., Suite 200 Atlanta, Georgia 30345

http://www.fws.gov/southeast/es/#

Phone: 404/679-7313

email: permitsR4ES@fws.gov

Fax: 404/679-7081

FWS Northeast Region (5): CT, DC, DE, MA, MD, ME, NH, NJ, NY, PA, RI, VA, VT, WV

U.S. Fish and Wildlife Service Endangered Species Permit Office 300 Westgate Center Drive Hadley, Massachusetts 01035-9589

http://www.fws.gov/northeast/endangered/

Phone: 413/253-8615

email: permitsR5ES@fws.gov

Fax: 413/253-8482

FWS Mountain-Prairie Region (6): CO, KS, MT, NE, ND, SD, UT, WY

U.S. Fish and Wildlife Service Endangered Species Permit Office Denver Federal Center P.O. Box 25486 Denver, Colorado 80225-0486

http://www.fws.gov/mountain-prairie/

endspp/

Phone: 303/236-4256

email: permitsR6ES@fws.gov

Fax: 303/236-0027

FWS Alaska Region (7): AK

U.S. Fish and Wildlife Service Endangered Species Permit Office 1011 E. Tudor Rd. Anchorage, Alaska 99503-6199

http://alaska.fws.gov/fisheries/ endangered/index.htm Phone: 907/786-3323

email: permitsR7ES@fws.gov

Fax: 907/786-3350

FWS Pacific Southwest Region (8): CA and NV

U.S. Fish and Wildlife Service Endangered Species Permit Office 2800 Cottage Way, Suite W-2606 Sacramento, California 95825-1846

http://www.fws.gov/cno/es/recovery.html

Phone: 916/414-6464

email: permitsR8ES@fws.gov

Fax: 916/414-6486

Flora http://www.fws.gov/international/DMA_DSA/CITES/pdf/cpc.pdf, the Migratory Bird Treaty Act http://www.fws.gov/migratorybirds/mbpermits.html, the Bald and Golden Eagle Protection Act http://www.fws.gov/pacific/lawenforcement/eaglelaws/eaglelaws.html, the Wild Bird Conservation Act, the Marine Mammal Protection Act, the Lacey Act, and State, tribal, or local law.

How do I apply for a permit?

Applications and instructions for native endangered and threatened species permits can be found on our Permits website at: http://www.fws. gov/endangered/permits/index.html, or by contacting your closest Regional Endangered Species office.

A fee is required to apply for a permit, and to amend an existing permit. Please see the instructions in each permit application form for further information. Applicants should allow at least 90 days for processing the completed application.

What about other types of permits?

For information on ESA permits issued by NMFS, go to: http://www.nmfs.noaa.gov/pr/permits/.

The FWS Division of Management

Authority issues import/export permits for native species and all permits for foreign species. Visit the Web site at: http://www.fws.gov/international/DMA_DSA/DMA_Who_We_Are.html.

For information on other types of FWS permits, visit our main permit Web site at http://www.fws.gov/permits/.

U. S. Fish and Wildlife Service Endangered Species Program 4401 N. Fairfax Drive, Room 420 Arlington, VA 22203 703-358-2171 http://www.fws.gov/endangered/ March 2013

Tools for Airports: Assessing and Documenting Listed Species

Environmental Resources Inventory Methodology and Checklist

Airport Wildlife Incident Report (form)

Sample Template for Listed Species Identification Cards

Construction Project Environmental Awareness Brochure Template

ENVIRONMENTAL RESOURCES INVENTORY METHODOLOGY AND CHECKLIST

Purpose of Inventory

What is the intended purpose?

- to provide information for airport development and planning
- to guide strategies for resource conservation and management
- to evaluate current natural resource management practices
- to support safety and operational requirements

Inventory Content

Natural resources to be inventoried may include:

- existing land cover, including the types of forests, wetlands, other types of vegetation, agricultural lands, impervious surface, etc.
- significant or sensitive native plant communities@cological landscapes
- species that are endangered, threatenedÊor of special concern
- game and non-game wildlife and wildlife habitat
- listed species and/or critical habitat
- forest resources (native forests vs. ornamentals)
- wetlands, rivers, streams, and lakes
- greenways and habitat connections between sensitive areas
- status of land conservation (e.g., conservation easement, etc.)

Why Inventory?

This Ás Ántended Áo Áprovide Ás framework Áror Ás valuation Ás airport Áproperty Ás nd Ápotential acquisition Áproperty (s) Áwhich encompass Áarge Áand Ás reas. This kind of inventory is useful in Áproviding Ápreliminary information Áwhich Ás an Ásid Án development Ás onsiderations, Á land Ás e Áslecisions, Ás nd identification Ás fás reas Áror natural Ás reas Áror Ás onservation and/or management

Inventory Methodology

The methods used should be based on a standard protocol suitable for the scale and purpose of the inventory.

- Review the available geographic information system (GIS) based data. Much of this is available through public sources and many have searchable and interactive tools that can be used to elicit data for specific locations
- Ground truth the GIS data and verify that the anticipated site conditions match the current and actual site conditions
- Complete a preliminary checklist (sample below) and attach supporting documentation as required

The airport may utilize trained natural resource professional s and ecologists fam iliar with the particular natural resources to be inventoried to generate the most accurate and thorough data.

Some web resources for habitat inventory:

- National Wetlands Inventory Wetlands Mapper http://www.fws.gov/wetlands/
- USDA Natural Resources Conservation Service (NRCS)
 Web Soil Survey
 - http://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm
- US Geological Survey (USGS) topographic mapping <u>http://nationalmap.gov/</u>
- Aerial photography (i.e. Google Earth, Bing Maps, etc.)
- US Fish and Wildlife Service listed species http://www.fws.gov/endangered/map/index.html



Analysis of the Data

Once the inventory data is collected, it may be used for conducting various analyses based upon the intended purpose. Analysis could be done on the following:

- existing habitat for particular wildlife, including listed species
- opportunities for site development or expansion
- · areas requiring vegetation management
- wildfire or hazard risk assessment
- identification of areas come are more suitable to protect from development
- preliminary Ámanagement Ágoals, Áobjectives, Áand/or Á recommendations for natural areas

Inventory Products

Typically, the most useful products of a natural resource inventory and analysis are coordinated sets of field data and GIS map layers come are compatible with the tools used by the airport for planning and management purposes. This allows for the natural resource information (data layers) to be easily accessed, frequently used, and updated by staff, as needed. Additional uses could include:

Management Plan
Once a site is identified for
a/specific/Aise,/Ai/Anore
detailed/Anventory/Aind
management plan/Aspecific
to that/Aproposed/Aise/Anay
be developed. A good
management plan identifies
management goals and
implementation strategies
appropriate to the site, and
enhances the likelihood that
management activities will
succeed.

- identification of priorities for natural resource conservation and/or protection
 - o this could involve rating or ranking conservation of areas or features with consideration given to factors such as how imminent the loss or destruction of the resource.
- identification of potential maintenance priorities, including potential safety or operational concerns
- evaluation of current development patterns and practices
- support for local policy development (comprehensive planning, development review, recommendations for future growth, etc.)
- development of goals and strategies for resource conservation and management
- documentation for permitting, agency coordination, NEPA complianceÊ and other regulatory requirements

Natural Resources Checklist Sample:

	ce or resource characteristic identified and provide supporting material (examples ategory). Check "N/A" for each resource or resource characteristic not present or ration.
	ers (ponds, lakes, streams, springs, stormwater pond, ditches, etc.) on the location and type of surface waters (natural, man made, etc.)
Yes □ N/A □ Wetlands • provide information r	elated to the location and type of wetlands
O	abitat (biologically diverse natural areas) and location of any specially designated habitat
•	s/Listed Species Habitats (FNAI S1, S2, & S3; State or Federally E, T, SSC) and location of any identified listed species or their habitat
Yes □ N/A □ Listed Specie • provide information a	s Critical Habitats and location of any identified listed species critical habitat designation
	onservation/Preservation Lands on the location and type of any conservation or preservation areas (including
Yes □ N/A □ Significant Ge • provide information of	eological Features on any features such as caves, springs, sinkholes, etc.
Yes □ N/A □ High Aquifer	Recharge Areas
Yes □ N/A □ Wells or Well	ield Protection Areas
Yes □ N/A □ Soils and Mir	eral Resource Areas
Yes □ N/A □ Topography/S	Steep Slopes
Yes □ N/A □ Historical and	Paleontological Resources
Yes □ N/A □ Hazardous M	aterials Storage Facilities
Yes □ N/A □ Contaminatio	n (soil-surface water-ground water)

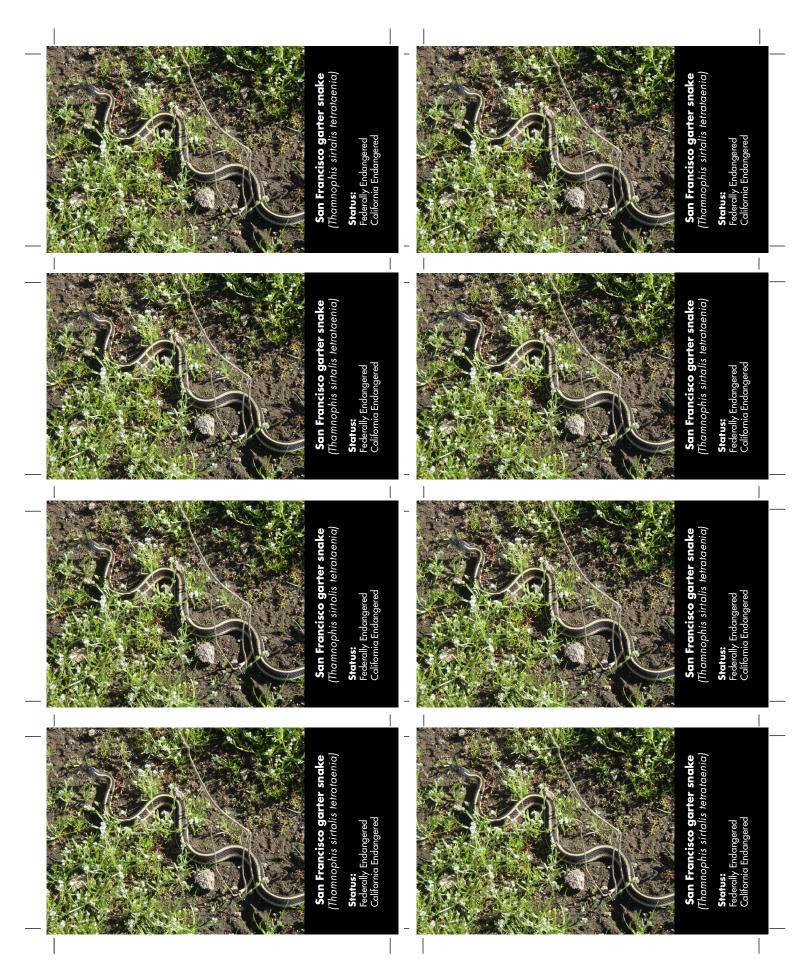
Airport Wildlife Incident Report

Airport:	Location:					
Incident Date:			AM PM			
Person Reporting:						
Affiliation:	Airport	Other (write in)				
Phone #: ()	Alt. Phone #: ()				
Email Address:						
K] X]ZY Species Inform	ation (Continue on an addi	tional page if necessary)				
Species	Number	±b V ¶XYbhHmdY	Final Disposition (buried, incinerated, other)			
Provide a summary of t	t he]bW]Xent (Continue on a	an additional page if necessary)				
@ghYX'Species Informa	tion (if applicable)					
Species UbX @ghYX (GhUhi gł Number	Method of Take	Final Disposition (buried, incinerated, other)			
ndicato whother enecies is state =	ad for fodorally listed and lovel of list	ing (i.e., endangered, threatened, etc.).				
			A- 7,- 7,0,70, 14,111 /4,			
indicate vmvv vv <u></u> jbį	Uddfedfjuny vei yg k \ yn \	Yf``]ghYX`gdYV¶Yg`HU_Y`k Ug`UWW¶XYbHU`cf`	Yadcmyx Yn Unu_Y			
1. Accidental tal	ke, follow up will include:					
2. Employed let	Employed lethal take (if you marked box 2, please complete boxes 3, 4Êand 5 below)					
3. Wildlife posed	an imminent threat to aircr	aft and human safety				
	Wildlife posed an imminent threat to aircraft and human safety Emergency response which did not allow time for persistent harassment					
4. Emergency re	soponios willon dia not allow	tame for persistent narassiment				
5. Attempts usin	Attempts using harassment have been unsuccessful and documented in writing, and					
If you marked	If you marked box 5, please complete A and B below.					
A.	' ' ' ' '					
B. Yes No	The airport has made ha hazardous wildlife attract	bitat management alteration that has eliminants to the property.	nated or significantly reduced			

Sample Template for Listed Species Identification Cards



Front of Card



If observed in the work area, immediately notify the onsite monitor at (XXX) XXX-XXXX.

Do not approach, pick up, attempt to move, or harm this species. Do not enter into buffer zones or restricted areas. Take or harassment of this species is illegal with penalties up to \$100,000 in fines and/or 1 year in jail.



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Construction Project Environmental Awareness Brochure Template

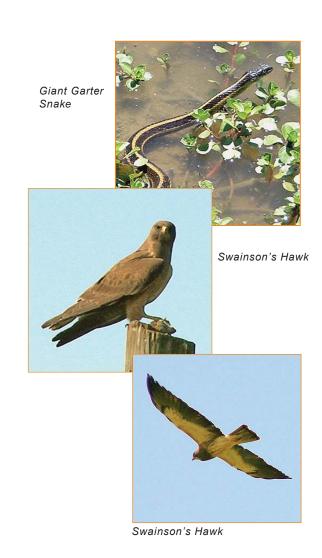
CONSEQUENCES OF NONCOMPLIANCE

- Any person who knowingly violates any provision of the Endangered Species
 Act or any permit issued under the Act can be assessed up to \$50,000 or up to
 1 year imprisonment upon conviction
- Non compliance with provisions of the Clean Water Act may involve severe fines and work stoppage
- Disregard of project compliance policies can result in disciplinary action including termination

If a special-status species or sensitive habitat is encountered or impacted on the project site, immediately notify your foreman and the onsite biological monitor.

If a biological monitor is not onsite, call:

[name here] – [title here](phone here) or [name here] – [title here](phone here)



Terminal Modernization Project, Phase I

ENVIROMENTAL

AWARENESS

PROGRAM





WILDLIFE SPECIES, SENSITIVE HABITATS, AND CULTURAL OR HISTORICAL RESOURCES

There are several wildlife species, sensitive habitats and cultural or historical resources that are federally or state listed or otherwise protected by federal and/or state laws that may be encountered during construction of this project.

The wildlife species include Western

burrowing owl (BUOW), Swainson's hawk (SWH), and giant garter snake (GGS). Sensitive habitats may include wetlands, vernal pools, swales, and ditches/waterways.



Western Burrowing Owl

Cultural resources are defined as archaeological sites, objects, or districts that are



at least 50 years old, sacred or religious sites important to ethnic groups and architectural resources.

Paleontological resources include fossils, generally consisting of prehistoric animal and plant life. Human remains may also be found buried at a project site, which may have archaeological significance.

s and architectural roes.

COMPLIANCE MEASURES

The Airport, in consultation with the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (RWQCB), Department of Fish and Game (DFG), U.S. Fish and Wildlife Service (USFWS), and State Historic Preservation Officer (SHPO), has developed the measures listed below to protect valuable natural, cultural and paleontological resources and achieve compliance with federal and state environmental laws.

- All employees must attend a training session before starting work on the project.
- No pets or firearms will be allowed on the project site.
- All food-related trash will be properly disposed of in a receptacle with a lid.
- There will be no feeding or attracting of wildlife to the project area.
- Report any injured, dead, or trapped wildlife to a biological monitor.
- Dewatering within ditches identified as GGS habitat must occur after April 15th and ditches must be dewatered (dry) for at least 15 days prior to work.
- Work within GGS habitat is restricted to between May 1st and October 1st.
- Preconstruction surveys for SWH must be conducted 14 days prior to work and BUOW prior to construction.
- Cars are restricted to 20 miles per hour.
- •BMPs must be installed so that they are effective in controlling erosion.
- Erosion control mats CANNOT be made of plastic mono-filament matting and the edges must be buried in the ground. Use of coconut coir matting is permitted.
- Implement all measures of the project Stormwater Pollution Prevention Plan (SWPPP).
- Do not discharge directly to a discharge inlet, ditch, gutter, or canal.
- Keep permits and SWPPP onsite and available to all personnel at all times.

Additional Information

Delisting a Species: Section 4 of the Endangered Species Act (USFWS factsheet)

Migratory Bird Permits: Authorized Activities Involving Migratory Birds (USFWS factsheet)

Midwest Region Division of Migratory Birds: Authorized Activities Involving Unintentional Eagle Disturbance (USFWS factsheet)

Federal Fish and Wildlife Permit Application Form (Take of Depredating Eagles & Eagles that Pose a Risk to Human or Eagle Health or Safety) (USFWS permit application)





Delisting a Species

Section 4 of the Endangered Species Act

The goal of the Endangered Species Act (ESA) is to conserve endangered and threatened species. Species are added to the Federal List of Endangered and Threatened Wildlife and Plants in order to regulate activities that may impact them. When a species is able to survive on its own in the wild, the species is considered to be "recovered," and protection of the ESA is no longer necessary.

Endangered species are in danger of extinction throughout all or a significant portion of their range. Threatened species are likely to become endangered in the foreseeable future.

When the U.S. Fish and Wildlife Service (FWS) removes species from the Federal Lists of Endangered and Threatened Wildlife and Plants, we "delist" them. To delist species, we are required to determine that threats have been eliminated or controlled, based on several factors including population sizes and trends and the stability of habitat quality and quantity. When we reclassify species from endangered to threatened, a less dire status, we "downlist" them. If some of the threats have been controlled and the population has met recovery objectives for downlisting, we may consider changing the status of the species to threatened.

What is recovery, and how does it relate to delisting?

Working with partners, we develop recovery plans for endangered and threatened species, outlining current threats and ways we might control them through beneficial activities. We also identify benchmarks for downlisting and delisting, such as number of individuals and quality of habitat. Then we devote our shared resources to make the goals a reality. Our partners include species experts; Federal, State, and local agencies; Tribes; nongovernmental organizations; the academic community; and other stakeholders.



step is publishing a proposed rule in the *Federal Register* and seeking review and comment by other Federal agencies, State biologists, and the public, as well as the advice of independent species experts. After analyzing the comments, we respond to them and announce our final decision in the *Federal Register*, either completing the final rule or withdrawing the action and maintaining the current species' status.

Species are removed from the endangered and threatened species list for a variety of reasons, including recovery, extinction, or new evidence of additional populations.

Recovery is not always a fast process; it takes time to address threats that were years in the making. The first milestone in recovery is halting the decline of the species. Next is stabilizing the species, followed by increasing its numbers and distribution with the ultimate goal of making the species secure in the wild. One measure of the success of the Endangered Species Act is its rate of preventing extinctions: 99 percent.

What happens after a species is delisted?

For delistings that result from recovery, the ESA requires the Service, in cooperation with the States, to monitor species for at least five years in order to assess their ability to sustain themselves without the protective measures of the ESA. The draft post-delisting monitoring strategy is generally available at the time the Service publishes the delisting proposal in the Federal Register. We seek peer-review and public comment of this document. Once the final delisting monitoring plan is approved, it is put into action. If, within the designated monitoring period, threats to the species change or unforeseen events change the stability of the population, the Service may extend the monitoring period or re-list the species.

For more information about species that have been delisted or downlisted, visit our Web site at http://www.fws.gov/endangered/wildlife.html.

U. S. Fish and Wildlife Service Endangered Species Program 4401 N. Fairfax Drive, Room 420 Arlington, VA 22203 703-358-2171 http://www.fws.gov/endangered/ Steps in the Delisting and Downlisting Process Species reaches recovery goals Assess whether species still needs protection under the ESA [5-factor analysis] o Is there a present or threatened destruction, modification, or curtailment of species' habitat or range? o Is the species subject to overutilization for commercial, recreational, scientific, or educational purposes? • Is disease or predation a factor? o Are there inadequate existing regulatory mechanisms in place outside the ESA (taking into account the efforts by the States and other organizations to protect the species or habitat)? o Are other natural or manmade factors affecting its continued existence? Based on the 5-factor analysis, The species has improved the species still meets the since the time of listing based on the 5-factor analysis. current status (Threatened Publish proposed rule to delist or Endangered). No change or downlist in the in status warranted; species Federal Register remains on the list Solicit expert opinions of 3 appropriate and independent species specialists (peer review). Seek input from public, scientific community, Federal and State agencies **New information gained during** Information and reviews from the comment period indicates the comment period further that the species should retain its support the decision to delist or current status. Announce decision downlist. Publish final rule to not to delist or downlist in the delist or downlist in the Federal Register Federal Register Species removed from (or reclassified in) the Lists of Endangered and Threatened Wildlife and Plants Monitor the species according to a post-

delisting monitoring plan





Migratory Bird Permits

Authorized Activities Involving Migratory Birds

Migratory Bird Management

Mission

To conserve migratory bird populations and their habitats for future generations, through careful monitoring and effective management.



What Is the Migratory Bird Treaty Act?

The Migratory Bird Treaty Act (MBTA) is the primary legislation in the U.S. established to conserve migratory birds. Under the MBTA, no one may take, possess, import, export, transport, sell. purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to Federal regulations. The MBTA covers migratory bird species protected under four international treaties between the U.S. and Canada, Mexico, Japan, and Russia. All but a few of the bird species naturally occuring in the U.S. are protected under the Act.

What Are Migratory Bird Permits?

The MBTA greatly restricts what activities may be undertaken involving migratory birds. However, the Act also provides that the U.S. Fish and Wildlife Service may issue permits authorizing otherwise prohibited activities for scientific, educational, cultural, and other purposes. Pursuant to this provision, the Service issues permits to qualified applicants for the followng activities involving migratory birds:

Import/Export. Permits are issued to authorize the import and export of migratory birds and their parts, nests and eggs. (Certain permit exceptions apply to lawfully taken game birds.)

Scientific Collecting. Permits are issued to individuals collecting migratory birds on behalf of scientific institutions and agencies for educational and/or scientific purposes.

Taxidermy. Permits are issued to qualified individuals to mount or otherwise perform taxidermy services on migratory birds, their parts, nests or eggs, belonging to someone else.

Waterfowl Sale and Disposal. Although a permit is not required to possess properly marked captive-bred waterfowl or their eggs, a permit is necessary to engage in the sale or transfer of such birds. Properly marked captive-bred mallard ducks are an exception, requiring no permit to sell, buy or keep.

Falconry. Permits are issued to individuals engaging in falconry, which is the art of training raptors for pursuit of game and the sport of hunting with raptors.

Raptor Propagation. Permits are issued to qualified individuals and institutions breeding raptors for falconry and conservation purposes.

Depredation permits. Permits are issued to take, possess or transport migratory birds for damage control purposes, such as protection of personal or public property or for human health or safety reasons.

Special Purpose. Permits are issued where the applicant demonstrates a legitimate purpose not otherwise provided for by any standard permit.



Eagle Permits

Eagles are covered by the MBTA, but have additional protection under the Bald and Golden Eagle Protection Act (BGEPA). The BGEPA is more restrictive than the MBTA, prohibiting the Service from authorizing the sale, purchase, barter, trade, importation, or exportation of eagles, or their parts or feathers. Activities which can be authorized by permit include:

Eagle Scientific Collecting/Research.

Permits are issued to researchers affiliated with public museums, scientific institutions, or zoological parks for scientific purposes.

Eagle Exhibition. The permit authorizes the holder to possess and transport eagles or their parts and feathers for the sole purpose of educating the public about the biology, ecology, and conservation needs of eagles.

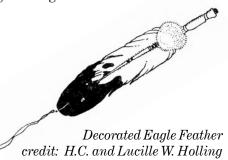
Eagle Falconry. A permit is required to possess and transport golden eagles for falconry purposes.

Eagle Indian Religious. Permits are issued to enrolled members of a federally recognized tribe to obtain eagles, or their parts or feathers, for Native American religious and cultural practices.

Eagle Depredation. This permit authorizes the holder to take or disturb bald or golden eagles that have become injurious to wildlife, agriculture, personal property, or human health or safety.

Eagle Transport. This permit authorizes the temporary transport of lawfully possessed eagle specimens and parts out of and into the United States for either Native American religious use, or for scientific or exhibition purposes.

Take of Golden Eagle Nest. This permit is available only to parties engaged in a resource development or recovery operation, and it only applies to inactive golden eagle nests.



Regional Migratory Bird Permit Offices

Migratory bird permit policy is developed by the Division of Migratory Bird Management and the permits themselves are issued by the Regional Migratory Bird Permit Offices.

Region 1 (CA, HI, ID, NV, OR, WA) U.S. Fish and Wildlife Service Migratory Bird Permit Office 911 N.E. 11th Avenue Portland, OR 97232-4181 Tel. (503) 872-2715

Region 2 (AZ, NM, OK, TX) U.S. Fish and Wildlife Service Migratory Bird Permit Office P.O. Box 709 Albuquerque, NM 87103 Tel. (505) 248-7882

Region 3 (IA, IL, IN, MN, MO, MI, OH, WI) U.S. Fish and Wildlife Service Migratory Bird Permit Office One Federal Drive Fort Snelling, MN 55111 Tel. (612) 713-5436

Region 4 (AR, FL, GA, KY, LA, MS, NC, PR)
U.S. Fish and Wildlife Service
Migratory Bird Permit Office
P.O. Box 49208
Atlanta, GA 30359
Tel. (404) 679-7070

Region 5 (CT, DC, DE, ME, MD, MA, NH, NJ, NY, PA, RI, VA, VT, WV)
U.S. Fish and Wildlife Service
Migratory Bird Permit Office
PO. Box 779
Hadley, MA 01035-0779
Tel. (413) 253-8643

Region 6 (CO, KS, MT, ND, NE, SD, UT, WY) U.S. Fish and Wildlife Service Migratory Bird Permit Office P.O. Box 25486 DFC(60130) Denver, CO 80225-0486 Tel. (303) 236-8171

Region 7 (AK)
U.S. Fish and Wildlife Service
Migratory Bird Permit Office
1011 E. Tudor Road
Anchorage, AK 99503
Tel. (907) 786-3693



Bird Nest credit: Barbara Counseller

Applying for a Migratory Bird Permit

What form do I use to apply for a migratory bird permit? An application (Form 3-200) specifically tailored to the proposed activity must be used. The information collected through permit applications is used to determine whether or not the individual meets the requirements of the law for the type of permit requested. Applications and regulations can be found at http://permits.fws.gov.

Where do I mail my application?
Prospective permittees must apply to the
Regional Migratory Bird Permit Office
that covers their state of residence.

Is there an application fee when I apply for a migratory bird permit? For most non-eagle migratory bird permits, the Service charges a standard fee per application to help offset the costs of processing the application.

How long will it take to process my permit? You should allow at least 60 days for processing a complete application.

Do I need any other permits?

Most States require a State permit for activities involving migratory birds. In addition, some migratory birds are protected by other federal laws with permit requirements, including the Endangered Species Act, Wild Bird Conservation Act, and Convention on International Trade in Endangered Species. See the Service website for more information.

For More Information: U.S. Fish and Wildife Service Division of Migratory Bird Management 4401 N. Fairfax Drive, Room 634 Arlington, VA 22203 703 358 1714 http://permits.fws.gov

January 2002





Midwest Region Division of Migratory Birds

April 2012

Authorized Activities Involving Unintentional Eagle Disturbance

Bald and Golden Eagles

Forty years ago, our national symbol was in danger of extinction throughout most of its range. Habitat destruction and degradation, illegal shooting, and the contamination of its food source, largely as a consequence of DDT, decimated the bald eagle population. Habitat protection afforded by the Endangered Species Act, the federal government's banning of DDT, and conservation actions taken by the American public have helped bald eagles make a remarkable recovery.

To ensure eagle populations remain at sustainable levels, eagles continue to be protected under the Migratory Bird Treaty Act, Bald and Golden Eagle Protection Act and Lacey Act.

The U.S. Fish and Wildlife Service (Service) developed National Bald Eagle Management Guidelines to help people minimize impacts to bald eagles, particularly where they may constitute "disturbance," which is prohibited by federal law. A variety of human activities can potentially interfere with bald eagles, affecting their ability to forage, nest, roost, breed or raise young.

However, there may be activities such as construction of a road, development of renewable energy facilities and other lawful activities that may disturb or result in the injury or mortality of eagles.

A permit from the U.S. Fish and Wildlife Service Division of Migratory Birds Permits Office (under 50 CFR 22.26 or 22.27) is recommended if you are unable to minimize or prevent disturbance, injury or potential mortality of bald or golden eagles as a result of an otherwise lawful activity.

The Service authorizes the issuance of these permits to help protect both the eagle population through mitigation and



Bald and golden eagles are protected under three federal laws, however, permits may be issued when projects could result in the unintended disturbance, injury or mortality of eagles. Service photo.

monitoring and individuals' or companies from prosecution due to possible violation of federal law from eagle disturbance, injury or take.

Federal regulations for eagle permits

Federal regulations set forth in 50 CFR § 22.26 provide for issuance of permits to take bald eagles and golden eagles where the taking is associated with but not the purpose of the activity and cannot practicably be avoided. Permits authorize take of bald and golden eagles. However, currently no permits are available for golden eagles east of the 100th meridian.

Most take authorized under this section will be in the form of disturbance; however, permits may authorize nonpurposeful take that may result in injury or mortality.

Eagle permits authorize take only in circumstances where the take cannot be practicably avoided in the course of an otherwise lawful activity.

Take and disturbance

Under the Bald and Golden Eagle Protection Act, "take" is defined as pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest or disturb. Most take authorized under the permit program is in the form of disturbance.

"Disturb" is defined as to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause injury to an eagle, decrease in productivity, or nest abandonment.

Nest removal

The regulation at 50 CFR § 22.27 also establishes permits for removing eagle nests where:

- (1) necessary to alleviate a safety emergency to people or eagles;
- (2) necessary to ensure public health and safety;
- (3) the nest prevents the use of a humanengineered structure; or

(4) the activity or mitigation for the activity will provide a net benefit to eagles.

Only inactive nests may be removed, except in the case of safety emergencies. Inactive nests are defined by the continuous absence of any adult, egg, or dependent young at the nest for at least 10 consecutive days leading up to the time of take.

All of these permits must be compatible with the Bald and Golden Eagle Protection Act goal of maintaining a stable or increasing population.

The Service can also issue programmatic take permits which authorize take that is recurring, but not caused solely by indirect effects, and occurs over the long term and/or in a location or locations that cannot be specifically identified.

Habitat Conservation Plans
Unintentional take of an eagle may also be authorized via completion of a Habitat Conservation Plan under Section 10 of the Endangered Species Act of 1973, which can apply to incidental take of both listed and nonlisted species. For more information about Habitat Conservation Plans, visit: http://www.fws.gov/endangered/what-we-do/hcp-overview.html

Mitigation and monitoring
Eagle take permits may require
monitoring (pre, during, and post
construction), avoidance and minimization
to the fullest extent practicable, as well
as mitigation. The Service does not
issue permits for the intentional killing
or injury of eagles. All permittees must
avoid and minimize take to the maximum
degree practicable.

Mitigation can be in the form of avoidance and minimization, and is generally proportionate with the level of disturbance and take. Compensatory mitigation measures may be a permit condition for multiple take authorizations, disturbance associated with the loss of a breeding territory or roost site, or as necessary to off-set impacts to the local area population.

Permittees may be required to provide basic post-activity monitoring for up

to three years following the activity. Basic monitoring includes determining whether eagles returned to a disturbed site the following seasons, and if chicks successfully fledged.

Permits vs. licenses

Eagle permits are not akin to waterfowl hunting licenses. With a waterfowl hunting license, the permit holder is granted the right to purposefully seek out and kill specific kinds of waterfowl - this is an intentional take. For an eagle take permit, the take of the eagle (disturbance, injury, or mortality) may be a non-intentional side effect of an otherwise lawful activity (operation of a wind facility).

If a federal permit is issued, but the project proponent has other state, local, or tribal permits it must obtain, the federal eagle permit is not valid until the applicant is in compliance with all permitting authorities.

The Service can not require a federal eagle take permit, but will recommend a permit when take seems likely. This permit will help protect both the eagle population through mitigation and monitoring and the project proponent from prosecution of an illegal eagle take.

Federal Laws Protecting Eagles

Bald and Golden Eagle Protection Act Passed in 1940, this law provides for the protection of bald eagles and golden eagles by prohibiting the take, possession, sale, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit.

Migratory Bird Treaty Act
The Migratory Bird Treaty Act is a
federal law that carries out the United
States' commitment to four international
conventions with Canada, Japan, Mexico
and Russia. Those conventions protect
birds that migrate across international
borders. The take of all migratory birds,
including bald and golden eagles, is
governed by MBTA regulations. This act
prohibits the taking, killing, possession,
transportation, and importation of
migratory birds, their eggs, parts, and
nests except as authorized under a valid
permit.

Lacey Act

Passed in 1900, the Lacey Act protects bald eagles by making it a federal offense to take, possess, transport, sell, import, or export their nests, eggs and parts that are taken in violation of any state, tribal or U.S. law.

Department of the Interior U.S. Fish and Wildlife Service

OMB Control No. 1018 - 0022 Expires 02/28/2014

Date of signature (mm/dd/yyyy)

Federal Fish and Wildlife Permit Application Form

Type of Activity: Take of Depredating Eagles & Eagles Return to: U.S. Fish and Wildlife Service (USFWS) that Pose a Risk to Human or Eagle Health or Safety New Application Requesting Renewal or Amendment of Permit # Complete Sections A or B, and C, D, and E of this application. U.S. address may be required in Section C, see instructions for details. See attached instruction pages for information on how to make your application complete and help avoid unnecessary delays. Complete if applying as an individual 1.a. Last name 1.c. Middle name or initial 1.d. Suffix 2. Date of birth (mm/dd/yyyy) Social Security No. Occupation 5. Affiliation/ Doing business as (see instructions) 6.a. Telephone number 6.b. Alternate telephone number 6.d. E-mail address 6.c. Fax number В. Complete if applying on behalf of a business, corporation, public agency, tribe, or institution 1.a. Name of business, agency, tribe, or institution 1.b. Doing business as (dba) 2. Tax identification no. 3. Description of business, agency, or institution 4.a. Principal officer Last name 4.b. Principal officer First name 4.c. Principal officer Middle name/initial 4.d. Suffix 5. Principal officer title 6. Primary contact 7.a. Business telephone number 7.d. Business e-mail address 7.b. Alternate telephone number 7.c. Business fax number All applicants complete address information 1.a. Physical address (Street address; Apartment #, Suite #, or Room #; no P.O. Boxes) 1.b. City 1.c. State 1.d. Zip code/Postal code: 1.e. County/Province 1.f. Country 2.a. Mailing Address (include if different than physical address; include name of contact person if applicable) 2.b. City 2.d. Zip code/Postal code: 2.c. State 2.e. County/Province 2.f. Country D. All applicants MUST complete Attach check or money order payable to the U.S. FISH AND WILDLIFE SERVICE in the amount \$100.00 if you are applying for a new permit or \$50.00 if you are requesting a substantive amendment of your existing valid permit. Federal, tribal, State, and local government agencies, and those acting on behalf of such agencies, are exempt from the processing fee - attach documentation of fee exempt status as outlined in instructions. (50 CFR 13.11(d)) Do you currently have or have you ever had any Federal Fish and Wildlife permits? If yes, list the number of the most current permit you have held or that you are applying to renew/re-issue: _ Certification: I hereby certify that I have read and am familiar with the regulations contained in Title 50, Part 13 of the Code of Federal Regulations and the other applicable parts in subchapter B of Chapter I of Title 50, and I certify that the information submitted in this application for a permit is complete and accurate to the best of my knowledge and belief. I understand that any false statement herein may subject me to the criminal penalties of 18 U.S.C. 1001. Signature (in blue ink) of applicant/person responsible for permit (No photocopied or stamped signatures)

Please continue to next page

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E. TAKE OF DEPREDATING EAGLES & EAGLES THAT POSE A RISK TO HUMAN OR EAGLE HEALTH OR SAFETY (Bald and Golden Eagle Protection Act, 50 CFR 22.23)

<u>Note</u>: A Federal Eagle Depredation Permit is required to intentionally take or disturb (haze) bald eagles or golden eagles that have become injurious to wildlife, agriculture or other personal property, or human health and safety. A depredation permit is intended to provide short-term relief from depredation damage until long-term measures can be implemented to reduce or eliminate the depredation problem through nonlethal control techniques.

Please provide the following information numbered accordingly to the questions below on a separate sheet of paper. You should be as specific as possible in your responses.

- 1. Describe the problem involving eagles for which you are requesting a permit, including the species of eagle (bald or golden) involved, the number of eagles you are proposing to take or disturb (haze), and how long the problem has been occurring. Also provide information about the extent of the damage as a result of the eagle depredation (i.e., injurious to wildlife, agriculture or other personal property) with an estimate of the economic loss suffered or the risk to human or eagle health or safety.
- 2. Describe how you propose to remedy the problem you have described with specific details of proposed take or disturb (haze) including methods, location, and frequency of activity.
- 3. Provide the exact location and a description of the area where the activities will be conducted.
- Describe the measures you have taken to prevent the problem from occurring, including how long and how often they have been conducted.
- 5. Provide the names of all individuals who will be directly involved in the depredation control activity, including the name of any party that may be contracted to conduct the actual depredation control activities, and describe their expertise.
- **6.** You must obtain a Wildlife Services Permit Review Form 37 prepared by the U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Wildlife Services, providing their recommendation regarding your depredation or health and safety problem. Attach a copy of the completed form with your application.

7.	You must retain records relating to the activities conducted under your permit for at least 5 years after the date of expiration of your permit. Is the physical address you provided in Section C on page 1 of this application the address where your records will be kept? Yes No _ If "no", provide the physical address.					
8.	Any permit issued as a result of this application is not valid unless you also have any required State or tribal permits or approvals associated with the activity. Have you obtained all required State or tribal permits or approvals to conduct this activity?					
	Yes If "yes", attach a copy of the approval(s) Have applied (Send copy when issued) None required					

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PERMIT APPLICATION FORM INSTRUCTIONS

The following instructions pertain to an application for a U.S. Fish and Wildlife Service or CITES permit. The General Permit Procedures in 50 CFR 13 address the permitting process. For simplicity, all licenses, permits, registrations, and certificates are referred to as a permit.

GENERAL INSTRUCTIONS:

- Complete all blocks/lines/questions in Sections A or B, and C, D, and E.
- An incomplete application may cause delays in processing or may be returned to the applicant. Be sure you are filling in the appropriate application form for the proposed activity.
- Print clearly or type in the information. Illegible applications may cause delays.
- Sign the application in <u>blue</u> ink. Faxes or copies of the original signature will not be accepted.
- Mail the original application to the address at the top of page one of the application or if applicable on the attached address list.
- Keep a copy of your completed application.
- Please plan ahead. Allow at least 60 days for your application to be processed. Some applications may take longer than 90 days to process. (50 CFR 13.11)
- Applications are processed in the order they are received.
- Additional forms and instructions are available from http://permits.fws.gov/.

COMPLETE EITHER SECTION A OR SECTION B:

Section A. Complete if applying as an individual:

- Enter the complete name of the responsible individual who will be the permittee if a permit is issued. Enter personal information that identifies the applicant. *Fax and e-mail are not required if not available.*
- If you are applying on behalf of a client, the personal information must pertain to the client, and a document evidencing power of attorney must be included with the application.
- Affiliation/ Doing business as (dba): business, agency, organizational, or institutional affiliation *directly* related to the activity requested in the application (e.g., a taxidermist is an individual whose business can *directly* relate to the requested activity). The Division of Management Authority (DMA) will **not** accept *doing business as* affiliations for individuals.

Section B. Complete if applying as a business, corporation, public agency, tribe, or institution:

- Enter the complete name of the business, agency, tribe, or institution that will be the permittee if a permit is issued. Give a brief description of the type of business the applicant is engaged in. Provide contact phone number(s) of the business.
- **Principal Officer** is the person in charge of the listed business, corporation, public agency, tribe, or institution. The principal officer is the person responsible for the application and any permitted activities. Often the principal officer is a Director or President. **Primary Contact** is the person at the business, corporation, public agency, tribe, or institution who will be available to answer questions about the application or permitted activities. Often this is the preparer of the application.

ALL APPLICANTS COMPLETE SECTION C:

- For all applications submitted to the Division of Management Authority (DMA) a physical U.S. address is **required**. Province and Country blocks are provided for those USFWS programs which use foreign addresses and are not required by DMA.
- Mailing address is address where communications from USFWS should be mailed if different than applicant's physical address.

ALL APPLICANTS COMPLETE SECTION D:

Section D.1 Application processing fee:

- An application processing fee is required at the time of application; unless exempted under 50 CFR13.11(d)(3). The application processing fee is assessed to partially cover the cost of processing a request. The fee does not guarantee the issuance of a permit. Fees will not be refunded for applications that are approved, abandoned, or denied. We may return fees for withdrawn applications prior to any significant processing occurring.
- Documentation of fee exempt status is not required for Federal, tribal, State, or local government agencies; but must be supplied by those applicants acting on behalf of such agencies. Those applicants acting on behalf of such agencies must submit a letter on agency letterhead and signed by the head of the unit of government for which the applicant is acting on behalf, confirming that the applicant will be carrying out the permitted activity for the agency.

Section D.2 Federal Fish and Wildlife permits:

• List the number(s) of your most current FWS or CITES permit or the number of the most recent permit if none are currently valid. If applying for re-issuance of a CITES permit, the original permit must be returned with this application.

Section D.3 CERTIFICATION:

The individual identified in Section A, the principal officer named in Section B, or person with a valid power of attorney (documentation must be included in the application) must sign and date the application in blue ink. This signature binds the applicant to the statement of certification. This means that you certify that you have read and understand the regulations that apply to the permit. You also certify that everything included in the application is true to the best of your knowledge. Be sure to read the statement and re-read the application and your answers before signing.

ALL APPLICANTS COMPLETE SECTION E.

Please continue to next page

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APPLICATION FOR A FEDERAL FISH AND WILDLIFE PERMIT

Paperwork Reduction Act, Privacy Act, and Freedom of Information Act – Notices

In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3501, et seq.) and the Privacy Act of 1974 (5 U.S.C. 552a), please be advised:

1. The gathering of information on fish and wildlife is authorized by:

(Authorizing statutes can be found at: http://www.gpoaccess.gov/cfr/index.html and http://www.fws.gov/permits/ltr/ltr.html.)

- a. Bald and Golden Eagle Protection Act (16 U.S.C. 668), 50 CFR 22;
- b. Endangered Species Act of 1973 (16 U.S.C. 1531-1544), 50CFR 17:
- c. Migratory Bird Treaty Act (16 U.S.C. 703-712), 50 CFR 21;
- d. Marine Mammal Protection Act of 1972 (16 U.S.C. 1361, et. seq.), 50 CFR 18;
- e. Wild Bird Conservation Act (16 U.S.C. 4901-4916), 50 CFR 15;
- f. Lacey Act: Injurious Wildlife (18 U.S.C. 42), 50 CFR 16;
- g. Convention on International Trade in Endangered Species of Wild Fauna and Flora (TIAS 8249), http://www.cites.org/, 50 CFR 23;
- h. General Provisions, 50 CFR 10;
- i. General Permit Procedures, 50 CFR 13; and
- j. Wildlife Provisions (Import/export/transport), 50 CFR 14.
- 2. Information requested in this form is purely voluntary. However, submission of requested information is required in order to process applications for permits authorized under the above laws. Failure to provide all requested information may be sufficient cause for the U.S. Fish and Wildlife Service to deny the request. We may not conduct or sponsor and you are not required to respond to a collection of information unless it displays a currently valid OMB control number.
- 3. Certain applications for permits authorized under the Endangered Species Act of 1973 (16 U.S.C. 1539) and the Marine Mammal Protection Act of 1972 (16 U.S.C. 1374) will be published in the **Federal Register** as required by the two laws.
- 4. Disclosures outside the Department of the Interior may be made without the consent of an individual under the routine uses listed below, if the disclosure is compatible with the purposes for which the record was collected. (Ref. 68 FR 52611, September 4, 2003)
 - a. Routine disclosure to subject matter experts, and Federal, tribal, State, local, and foreign agencies, for the purpose of obtaining advice relevant to making a decision on an application for a permit or when necessary to accomplish a FWS function related to this system of records.
 - b. Routine disclosure to the public as a result of publishing **Federal Register** notices announcing the receipt of permit applications for public comment or notice of the decision on a permit application.
 - c. Routine disclosure to Federal, tribal, State, local, or foreign wildlife and plant agencies for the exchange of information on permits granted or denied to assure compliance with all applicable permitting requirements.
 - d. Routine disclosure to Captive-bred Wildlife registrants under the Endangered Species Act for the exchange of authorized species, and to share information on the captive breeding of these species.
 - e. Routine disclosure to Federal, tribal, State, and local authorities who need to know who is permitted to receive and rehabilitate sick, orphaned, and injured birds under the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act; federally permitted rehabilitators; individuals seeking a permitted rehabilitator with whom to place a bird in need of care; and licensed veterinarians who receive, treat, or diagnose sick, orphaned, and injured birds.
 - f. Routine disclosure to the Department of Justice, or a court, adjudicative, or other administrative body or to a party in litigation before a court or adjudicative or administrative body, under certain circumstances.
 - g. Routine disclosure to the appropriate Federal, tribal, State, local, or foreign governmental agency responsible for investigating, prosecuting, enforcing, or implementing statutes, rules, or licenses, when we become aware of a violation or potential violation of such statutes, rules, or licenses, or when we need to monitor activities associated with a permit or regulated use.
 - h. Routine disclosure to a congressional office in response to an inquiry to the office by the individual to whom the record pertains.
 - i. Routine disclosure to the General Accounting Office or Congress when the information is required for the evaluation of the permit programs.
 - j. Routine disclosure to provide addresses obtained from the Internal Revenue Service to debt collection agencies for purposes of locating a debtor to collect or compromise a Federal claim against the debtor or to consumer reporting agencies to prepare a commercial credit report for use by the FWS.
- 5. For individuals, personal information such as home address and telephone number, financial data, and personal identifiers (social security number, birth date, etc.) will be removed prior to any release of the application.
- 6. The public reporting burden on the applicant for information collection varies depending on the activity for which a permit is requested. The relevant burden for an Eagle Depredation permit application is 3 hours and 30 minutes for recordkeeping. This burden estimate includes time for reviewing instructions, gathering and maintaining data and completing and reviewing the form. You may direct comments regarding the burden estimate or any other aspect of the form to the Service Information Clearance Officer, U.S. Fish and Wildlife Service, Mail Stop 222, Arlington Square, U.S. Department of the Interior, 1849 C Street, NW, Washington D.C. 20240.

Freedom of Information Act - Notice

For organizations, businesses, or individuals operating as a business (i.e., permittees not covered by the Privacy Act), we request that you identify any information that should be considered privileged and confidential business information to allow the Service to meet its responsibilities under FOIA. Confidential business information must be clearly marked "Business Confidential" at the top of the letter or page and each succeeding page and must be accompanied by a non-confidential summary of the confidential information. The non-confidential summary and remaining documents may be made available to the public under FOIA [43 CFR 2.13(c)(4), 43 CFR 2.15(d)(1)(i)].

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U.S. Fish & Wildlife Service

Migratory Bird Regional Permit Offices

FWS REGION	AREA OF RESPONSIBILITY	MAILING ADDRESS	CONTACT INFORMATION
Region 1	Hawaii, Idaho, Oregon, Washington	911 N.E. 11th Avenue Portland, OR 97232-4181	Tel. (503) 872-2715 Fax (503) 231-2019 Email permitsR1MB@fws.gov
Region 2	Arizona, New Mexico, Oklahoma, Texas	P.O. Box 709 Albuquerque, NM 87103	Tel. (505) 248-7882 Fax (505) 248-7885 Email <i>permitsR2MB@fws.gov</i>
Region 3	Iowa, Illinois, Indiana, Minnesota, Missouri, Michigan, Ohio, Wisconsin	5600 America Blvd. West Suite 990 Bloomington, MN 55437-1458 (Effective 5/31/2011)	Tel. (612) 713-5436 Fax (612) 713-5393 Email <i>permitsR3MB@fws.gov</i>
Region 4	Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virgin Islands, Puerto Rico	P.O. Box 49208 Atlanta, GA 30359	Tel. (404) 679-7070 Fax (404) 679-4180 Email <i>permitsR4MB@fws.gov</i>
Region 5	Connecticut, District of Columbia, Delaware, Maine, Maryland, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Virginia, Vermont, West Virginia	P.O. Box 779 Hadley, MA 01035-0779	Tel. (413) 253-8643 Fax (413) 253-8424 Email <i>permitsR5MB@fws.gov</i>
Region 6	Colorado, Kansas, Montana, North Dakota, Nebraska, South Dakota, Utah, Wyoming	P.O. Box 25486 DFC(60154) Denver, CO 80225-0486	Tel. (303) 236-8171 Fax (303) 236-8017 Email <u>permitsR6MB@fws.gov</u>
Region 7	Alaska	1011 E. Tudor Road (MS-201) Anchorage, AK 99503	Tel. (907) 786-3693 Fax (907) 786-3641 Email <i>permitsR7MB@fws.gov</i>
Region 8	California, Nevada	2800 Cottage Way Sacramento, CA 95825	Tel. (916) 978-6183 Fax (916) 414-6486 Email <i>permitsR8MB@fws.gov</i>