

**LOS ANGELES INTERNATIONAL AIRPORT (LAX)
WILDLIFE HAZARD MANAGEMENT PLAN**

Developed by:

Los Angeles World Airports
Los Angeles International Airport
7333 World Way West
Los Angeles, CA 90045

In Cooperation with:

U.S. Department of Agriculture
Animal and Plant Health Inspection Service
Wildlife Services
Los Angeles, CA 90045

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EXECUTIVE SUMMARY

Pursuant to 14 CFR Part 139.337(e), the Los Angeles International Airport (LAX) developed this Wildlife Hazard Management Plan (WHMP) in cooperation with the U.S. Department of Agriculture's Wildlife Services program to replace LAX's earlier Wildlife Hazard Management Plan which is already in place and approved by the FAA. This plan will be reviewed periodically by the Wildlife Hazard Working Group and updated if circumstances merit the change. All changes made to the WHMP will be sent to the FAA for approval.

The plan places a particular emphasis on identification and abatement of wildlife hazards within the airfield environment. Additional wildlife attractants (e.g., lakes, ponds, landfills, etc.) within 5 miles of the airfield are also addressed as they could potentially attract wildlife in a manner that could jeopardize safety of air traffic operating into and out of LAX.

LAX will take immediate measures to identify and mitigate wildlife hazards whenever they are detected or whenever airport management has been advised that hazardous conditions exist. The plan outlines steps for monitoring, documenting, and reporting potential wildlife hazards and strikes at LAX. Protocols for responding to hazardous wildlife situations are presented, including roles and responsibilities of airport personnel. Wildlife control procedures for birds and mammals are also discussed.

Habitat on and around the airfield will be managed in a manner that is non-conducive to hazardous wildlife. The plan also outlines priorities for habitat management, including target dates for completion.

Most wildlife is afforded some type of protection under state or federal regulations, therefore, special permits may be required for their control. The plan outlines laws and regulations governing the harassment or lethal take of various types of wildlife. LAX's permit status for each type of wildlife is presented in tabular format, and a copy of the federal migratory bird depredation permit is included as an appendix to the plan (Appendix B).

LAX will maintain an adequate supply of resources for dispersing and controlling wildlife, including frightening devices (e.g., pyrotechnics), wildlife restraint equipment (e.g., traps), and firearms. LAX personnel will be trained to properly identify wildlife and apply wildlife deterrent equipment in a safe and efficient manner as outlined in this plan.

LAX will retain records documenting the qualifications of the airport wildlife biologist(s) conducting the Wildlife Hazard Assessments (WHA) and WHMP. These records will be retained for a minimum of 10 years. In the event another WHA is conducted prior to the ten year expiration, LAX will maintain the qualification records for the previous WHA for one year after the new WHA is completed. The qualifications of the airport wildlife biologist will be included in the contents of the WHA report.

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SIGNATORIES

The following Wildlife Hazard Management Plan for Los Angeles International Airport has been reviewed and accepted by the FAA. It will be become effective with the following signatures:

Keith Wilschetz

Keith Wilschetz
LAWA Deputy Executive Director of Airport Operations & Emergency Management

1/21/18

Date

Jeff Mott

Jeff Mott
LAX Airport Operations -- Airside Manager

1/12/17

Date

Karen Snedden

Karen Snedden
LAX Airport Superintendent of Operations (ASO) Wildlife Coordinator

01/09/2017

Date

Steve Oetzell

Steve Oetzell
FAA Airport Certification / Safety Inspector

01/17/18

Date

Todd Pitlik

Todd Pitlik
USDA - Wildlife Services, Wildlife Biologist

1/12/17

Date

FEDERAL AVIATION ADMINISTRATION
APPROVED

JAN 17 2018

INSPECTOR
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PREFACE

This Wildlife Hazard Management Plan Manual was written to fulfill the requirements of CFR 14 part 139.337(e) for LAX. This manual is intended specifically for the Airport's use to monitor and reduce wildlife hazards.

DISTRIBUTION OF WILDLIFE HAZARD MANAGEMENT PLAN

NAME / POSITION / PHONE	AGENCY / ADDRESS
Keith Wilschetz LAWA Deputy Executive Director of Airport Operations and Emergency Management (424) 646-5060	Los Angeles World Airports One World Way, 2 nd floor Los Angeles, CA 90045
Jeff Mort LAX Airport Operations – Airside Manager (424) 646-7474	Los Angeles World Airports 7333 World Way West, 2 nd floor Los Angeles, CA 90045
Ralph Morones Director of Maintenance Services Division (424) 646-7900	Los Angeles World Airports 7411 World Way West Los Angeles, CA 90045
Russ Lewis Assistant Director of Maintenance Services Division (424) 646-7900	Los Angeles World Airports 7411 World Way West Los Angeles, CA 90045
Robert Falcon, P.E. Chief Airports Engineer (424) 646-5848	Los Angeles World Airports 7301 World Way West Los Angeles, CA 90045
Tammi McCrossen Chief of Airport Planning I (424) 646-6734	Los Angeles World Airports 7301 World Way West, 7 th floor Los Angeles, CA 90045
Alfred Tong Environmental Specialist III (424) 646-6482	Los Angeles World Airports 7301 World Way West, 3 rd floor Los Angeles, CA 90045
Carolyn Lin Environmental Affairs Officer (424) 646-6480	Los Angeles World Airports 7301 World Way West, 3 rd floor Los Angeles, CA 90045
Karen Snedden ASO Wildlife Coordinator (310) 646-4265	Los Angeles World Airports 7333 World Way West Los Angeles, CA 90045
Steve Oetzell Airports Certification / Safety Inspector Western-Pacific Region (310) 725-3611	Federal Aviation Administration P.O. Box 92007 World Way Postal Center Los Angeles, CA 90009
Todd Pitlik Wildlife Biologist (310) 420-7528	U.S. Department of Agriculture - Wildlife Services 7333 World Way West Los Angeles, CA 90045

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LIST OF ACRONYMS

AGL	Above Ground Level
AOA	Air Operating Area
ASO	Airport Superintendent of Operations
ATCT	Air Traffic Control Tower
ATIS	Automated Terminal Information Service
CDFG	California Department of Fish and Game
CFGC	California Fish and Game Codes
CFR	Code of Federal Regulations
EPG	Environmental Programs Group
FAA	Federal Aviation Administration
LAX	Los Angeles International Airport
LAWA	Los Angeles World Airports
NOTAM	Notice to Airmen
SIDA	Security Identification Display Area
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
WHMP	Wildlife Hazard Management Plan
WHWG	Wildlife Hazard Working Group
WS	Wildlife Services

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TABLE OF REVISIONS

Each page of this Wildlife Hazard Management Plan contains a date in the footer, which is the date that the particular page was printed. The latest dated page will be the most current for the policy. The master document is contained in the Los Angeles International Airport, Chief of Operations office. Revisions to this plan will be recorded on the revisions page below.

DATE	PAGE	REVISION
11/02/10	337 i and iii	Changed to Cover Page and Appendices
11/02/10	337-iv	Changed Appendix I to B
11/02/10	337-v-viii	Updated Signatories, Distribution List, Table of Revisions, List of Acronyms
11/02/10	337-1	Added Appendix A-3, Deleted Appendix B, Added egrets and herons on 1.2
11/02/10	337-2	Deleted Appendix F on 1.3
11/02/10	337-3	Title changes on 2.1 WHWG and 2.2
11/02/10	337-4	Several changes on Airport Biologist and Maintenance Supervisor
11/02/10	337-5-7	Several changes on USDA WS, and Table 1
11/02/10	337-8-9	Changed to LAWA on 3.2.1, Appendix G to A-4, Changed phraseology on 3.3.1, Deleted "small or" on 3.4.2.1
11/02/10	337-13-14	Changed Appendix H to A-2 on Table 2
11/02/10	337-14-15	Changed Appendix D to B on 4.6.1 and 4.6.3.1, Added "brown pelicans" on 4.6.3, Changed Appendix I to A-7 on 4.6.3.1, Changed Appendix H to A-2 on 4.6.3.1, Added phraseology on 4.6.3.2
11/02/10	337-16-17	Added "and raccoons" on 4.7.1, Changed Appendix H to A-2 on 4.9.1 and 4.9.5, Changed phraseology on 4.9.2,
11/02/10	337-19	Changed phraseology on 5.2,
11/02/10	337-21	Changed Appendix E to A-5
11/02/10	337-23-24	Changed phraseology on 7.2 and 7.3, Deleted 8.3
11/02/10	337-25-26	Updated Contacts
11/02/10	337-27-28	Deleted Attachment C-H, New Appendices
11/08/11	337-i	Updated Revision Date and Cover
11/08/11	337-vi	Updated Distribution List
12/04/12	337-i	Updated Revision Date and Cover
12/04/12	337-vi	Updated Distribution List
12/04/12	337-Appendix B	USFWS Depredation Permit
01/27/14	337-iv	Updated Executive Summary

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LAX

Los Angeles World Airports

AIRPORT CERTIFICATION MANUAL

01/27/14	337-vii – 337-viii	Switched List of Acronyms and Table of Revisions page
12/07/16	337-vi	Updated WHP distribution list.
12/07/16	337-vii	Changed 'Acronyms'; added "ASO" and "EPG", removed "ESD"

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1 - INTRODUCTION

1.1 OVERVIEW

Wildlife hazard management plans (WHMPs) address the responsibilities, policies, and procedures necessary to reduce wildlife hazards at airports. Recognizing the potential hazards wildlife pose to aircraft and human lives, the Federal Aviation Administration (FAA) requires airports that incur bird-aircraft strikes implement a WHMP according to Code of Federal Regulations (CFR) 14 - Part 139.337(e) (a complete copy of Part 139.337 is attached as Appendix A-3). The WHMP must include 7 required components according to 14 CFR 139.337(e). Each of these components is sequentially represented as a separate chapter in this document. These required categories are as follows:

1. The persons who have the authority and responsibility for implementing the plan.
2. Priorities for needed habitat modification and changes in land use identified in the ecological study, with target dates for completion.
3. Requirements for and, where applicable, copies of local, state, and Federal wildlife control permits.
4. Identification of resources to be provided by the certificate holder for implementation of the plan.
5. Procedures to be followed during air carrier operations, including at least-
 - (i) Assignment of personnel responsibilities for implementing the procedures;
 - (ii) Conduct of physical inspections of the movement area and other areas critical to wildlife hazard management sufficiently in advance of air carrier operations to allow time for wildlife controls to be effective;
 - (iii) Wildlife control measures; and
 - (iv) Communication between the wildlife control personnel and any air traffic control tower in operation at the airport.
6. Periodic evaluation and review of the wildlife hazard management plan for-
 - (i) Effectiveness in dealing with the wildlife hazard; and
 - (ii) Indications that the existence of the wildlife hazard, as previously described in the ecological study, should be reevaluated.
7. A training program to provide airport personnel with the knowledge and skills needed to carry out the wildlife hazard management plan required by (d) of this section.

In addition to the requirements stated above, CFR 14 - Part 139.337(f) outlines procedures and personnel responsibilities for notification regarding new or immediate hazards, and describes the rapid response procedures for addressing new or immediate wildlife hazards. Section (f) is extremely important because it allows the WHMP to be promptly modified and updated to address new situations or changing circumstances. To augment compliance with Part 139.337(e), the FAA issued a Certalert (No. 97-09) to provide guidance to airports in developing their plans. This Certalert contains a sample outline that was followed in the development of this plan.

1.2 PROBLEM SPECIES

The species generally considered to present the greatest threats to aviation at Los Angeles International Airport (LAX) are birds with flocking tendencies or of relatively large size, such as pigeons, starlings, western meadowlarks, crows, mourning doves, egrets, herons and raptors. Juvenile mammals and migratory species of wildlife may also pose higher risks for aviation because of their general unfamiliarity with the airport environment.



1.3 PURPOSE AND SCOPE

Enhancing safe air carrier operations is a primary objective of LAX. Accomplishing this objective entails careful monitoring of all aspects of arriving and departing aircraft in the vicinity of LAX, including potential wildlife hazards on and around the airport. As part of its safety efforts, LAX intends to implement and maintain a WHMP according to CFR 14 - Part 139.337(e) to address potential wildlife hazards at LAX and surrounding areas, with a particular emphasis on hazards within approximately 2 miles of the airfield

It is important to note that Part 139.337(f) underscores the need for a flexible plan that can be quickly adapted to changing circumstances. In some rare cases, however, immediate actions may be necessary that are not addressed in this plan to ensure the safety of airport patrons. This plan provides LAX with the discretion and capability to respond to these situations, while providing guidance for compliance with applicable Federal, state, and municipal laws or regulations. The latitude afforded LAX management when administering this plan is discussed in CFR 14 - Part 139.113, which states that:

“In emergency conditions requiring immediate action for the protection of life or property, involving the transportation of persons by air carriers, the certificate holder may deviate from any requirement of Subpart D of this part to the extent required to meet that emergency. Each certificate holder who deviates from a requirement under this paragraph shall, as soon as practicable, but no later than 14 days after the emergency, report in writing to the Regional Airports Division Manger stating the nature, extent, and duration of the deviation.”

This plan will be valid until LAX management or FAA determines that the plan should be updated due to changed conditions or new needs for action. The plan will be reviewed at least annually to ensure it still pertains to conditions at the time of review, but it may also be revisited more often if situations arise or existing hazards that merit evaluation.

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2 - AUTHORITY

FAR 139.337(e)(1) The persons who have authority and responsibility for implementing the plan.

LAX's Airport Manager has the authority and responsibility of designating a Wildlife Coordinator to implement the WHMP. Each department and associated agencies have responsibilities outlined in the WHMP and must incorporate them into their programs. Clear communication among airport personnel is essential for the WHMP to succeed. Personnel working at the airport will communicate resource needs, recommendations, and progress to the designated Wildlife Coordinator. The Airport Manager will ensure that the WHMP is approved by the FAA and that the WHMP and amendments comply with Federal, state and local laws and regulations.

2.1 WILDLIFE HAZARD WORKING GROUP (WHWG)

The Wildlife Hazard Working Group is responsible for reviewing the WHMP, as it relates to each member's respective departmental duties on an annual basis. In addition, the group will monitor activities, status, and make recommendations to the Wildlife Coordinator who will review and grant approval if satisfied with the progress of the WHMP. The working group will meet once a year, with intermittent meetings when necessary.

The Wildlife Hazard Working Group will be represented by:

- Deputy Executive Director of Airport Operations & Emergency Management
- Airport Operations Airside Manager
- ASO Wildlife Coordinator
- Engineering Supervisor
- Construction and Maintenance Supervisor
- FAA Airport Certification Inspector
- Wildlife Services Biologist (USDA)
- Airport Environmental Manager

2.2 PERSONS RESPONSIBLE FOR IMPLEMENTING THE PLAN

LAX AIRPORT OPERATIONS AIRSIDE MANAGER

- Establish a Wildlife Hazard Working Group for LAX.
- Supervise, coordinate, and monitor wildlife control activities as outlined in the WHMP.
- Update the WHMP as necessary.
- Disseminate information and assignments through the Wildlife Hazard Working Group.
- Pre-approve and coordinate landscape changes beforehand with the Wildlife Coordinator and/or Biologist to ensure wildlife attractants are prevented.
- Provide public relations support for wildlife control activities as necessary.



WILDLIFE COORDINATOR

- Alleviate all attractants deemed an imminent hazard and, if necessary, coordinate a runway closure to remedy wildlife hazards.
- Coordinate the issuance of Notices to Airmen (NOTAM). In addition, have the Airport Traffic Control Tower (ATCT) advise pilots on ATIS.
- Ensure that only properly trained and badged wildlife control personnel operate on the AOA in accordance with FAA regulations (e.g., SIDA). Such training includes radio communications, driving on the AOA, and safe use of firearms and pyrotechnics.
- Provide public relations support for wildlife control activities as necessary.
- Conduct daily inspections of areas critical to wildlife hazard management.

AIRPORT (USDA) BIOLOGISTS

- Provide training in mitigating wildlife hazards on airports and overview of laws associated with wildlife control.
- Provide public relations support for wildlife control activities as necessary.
- Monitor facilities and tenant concerns for wildlife problems.
- Keep a log of all wildlife strikes and control actions; forward reports to FAA as necessary.
- Have wildlife strike report forms (FAA form 5200-7 <http://wildlife-mitigation.tc.faa.gov/wildlife/> [Appendix A-5]) readily available to airfield operations and pilots, and encourage submission of the forms to the appropriate governmental agencies and wildlife control personnel.
- Ensure wildlife attractants are reduced through habitat modifications. Work with airport maintenance to alter wildlife habitat as needed.
- Review all plans involving changes in land use or new airport structures/facilities to avoid inadvertently attracting wildlife to the area, and consult with a wildlife damage biologist if necessary.
- Conduct daily inspections of areas critical to wildlife hazard management.
- Assist the Environmental Programs Group (EPG) obtain depredation permits for migratory birds and mammals from wildlife regulatory agencies (Appendix B).

MAINTENANCE SUPERVISORS

- Log all known wildlife strikes on form FAA 5200-7 <http://wildlife-mitigation.tc.faa.gov/wildlife/> (Appendix A-5) and forward the forms to the Wildlife Coordinator and/or Biologist.
- Inform Airport Operations – Airside Section of known wildlife hazards.
- Ensure that wildlife-attracting refuse does not accumulate in between runways and in ditches on the airport.
- Maintain ditches and fields to ensure that water flows thereby avoiding pooling and accumulation of refuse on the airport.
- Assist with, or contract out, habitat modifications addressed in the WHMP such as vegetation maintenance along ditches, brush removal, and tree pruning.

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- Pick up all trash and debris on the airfield.
- Minimize pooling formed by rain on tarmac and infield areas; grading work required if necessary.
- Assist with wildlife control activities involving field rodents, bird abatement, and other programs.
- Inform Wildlife Coordinator of rodents and other wildlife found in and around buildings.
- Rodent-proof buildings, dumpsters, and other refuse containers to the extent feasible.

ENGINEERING SUPERVISORS

- Review designs of new structures/facilities with a wildlife biologist during the planning stages for input on designs that are unattractive to wildlife.
- Involve a wildlife biologist with land use planning and mitigation efforts.

FEDERAL AVIATION ADMINISTRATION (FAA)

- Assist LAX in reviewing proposed land use changes, construction plans, and mitigation projects for potential wildlife hazards to aircraft.
- Review changes or edits to the WHMP.

USDA - WILDLIFE SERVICES (WS)

- Assist LAX personnel in monitoring the airport environment for wildlife hazards, taking corrective action if necessary, and record and submit all findings to the Wildlife Coordinator.
- Inform and advise the ASO Wildlife Coordinator of wildlife management activities, habitat modification needs, and imminent wildlife hazards that require the issuance of a NOTAM or runway closure.
- Train airport personnel on wildlife identification and reporting bird / wildlife strikes.
- Coordinate wildlife control activities with state and Federal wildlife agencies.
- Assist LAX in reviewing proposed land use changes, construction plans, and mitigation projects for potential wildlife hazards to aircraft.
- Provide operational assistance to LAX to control wildlife, e.g., rock pigeons and red-tailed hawks, deemed hazardous by LAX and WS.

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3 - HABITAT MANAGEMENT

FAR 139.337(e)(2) Priorities for needed habitat modification and changes in land use identified in the ecological study with target dates for completion.

3.1 OVERVIEW

Habitat management provides the most effective long-term remedial measure for reducing wildlife hazards on, or near, airports. Habitat management includes the physical removal, exclusion, or manipulation of areas that are attractive to wildlife. The ultimate goal is to make the environment fairly uniform and unattractive to the species that are considered the greatest hazard to aviation. Habitat modifications will be monitored carefully to ensure that they reduce wildlife hazards and do not create new attractions for various wildlife. Table 1 lists a series of both habitat and non-habitat based action items/priorities, with target dates for completion.

Table 1. Management priorities for projects to reduce wildlife hazards at Los Angeles International Airport are listed along with the target dates for completion and date that each project was completed. Note that some of the projects may have already been implemented or completed but because they require a continued effort (e.g., brush removal from drainage ditches), they are listed as "ongoing".

LAX WILDLIFE MANAGEMENT PRIORITIES	TARGET DATE	DATE COMPLETED
Exclude all current and potential bird perching areas, (e.g., terminals, walkways, signs)		Ongoing
Clear and maintain ditches throughout airfield to enhance drainage		Ongoing
Evaluate potential wildlife hazards associated with new construction		Ongoing
Maintain updated migratory bird depredation permit		Ongoing
Stock and maintain wildlife control supplies		Ongoing
Maintain a zero-tolerance wildlife control program on airfield		Ongoing
Maintain bird trapping program		Ongoing
Maintain rodent control program (squirrels and gophers)		Ongoing
Designate a Wildlife Coordinator		2000 - Ongoing
Develop and maintain a Wildlife Hazard Management Plan		2000 - Ongoing

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LAX WILDLIFE MANAGEMENT PRIORITIES	TARGET DATE	DATE COMPLETED
Evaluate potential wildlife hazards associated with new construction		Ongoing
Train employees on effective applications of wildlife dispersal measures		Ongoing

3.2 ATTRACTANTS

3.2.1 General Zone and Critical Zone

The General Zone for LAX Airport is defined as the area within a five-mile radius of the runway centerline. Wildlife attractants in this area could potentially impact air traffic safety operating out of LAX, particularly those attractants that lie within the approach and departure patterns. The objective of this plan is to actively reduce attractive wildlife habitat on property under the control of LAWA while working cooperatively with adjacent property owners to discourage land-use practices that might increase wildlife hazards. Some of the most prominent attractants on the LAWA property include terminals, Argo Ditch, and grass between runways.

The area within a 10,000-foot radius of the runway centerline is delineated as the Critical Zone. Control efforts will be primarily concentrated within this area because within 10,000 feet of the runway centerline is the area where arriving and departing aircraft are typically operating at, or below, 500 feet AGL (above ground level) which is an altitude that also corresponds with the most bird activity. Approximately 75% of all civil bird-aircraft strikes occur within 10,000 feet of the airfield from which they depart or arrive.

3.2.2 Airport Building Projects

The Wildlife Coordinator and/or Biologist should participate in the initial phases of all airport building projects to avoid any inadvertent increase in wildlife hazards resulting from architectural or landscape changes. Participation will be especially important during construction of the beautification project of LAX. Additional efforts will be required to ensure that new projects and construction activities are designed in a manner that minimizes wildlife attractants.

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3.2.3 Non-airport Land-use Projects

Whenever possible, the Airfield Manager or Biologist will actively participate in land-use decisions and landscape changes to avoid inadvertent wildlife hazards to aircraft. The FAA's Los Angeles Office (refer to directory in Chapter 9) will provide technical guidance to LAX in addressing land-use compatibility issues. If LAX or the FAA requests assistance from Wildlife Services (as per a Memorandum of Understanding between FAA and Wildlife Services [Appendix A-4]), then Wildlife Services will provide technical and/or operational assistance in addressing issues or concerns associated with the proposed project or land-use change. Proposed projects that will likely increase bird numbers within flight zones will be discouraged or mitigated to a safe level. Incompatible land uses may include developments such as water reservoirs, parks with artificial ponds, wetlands, and wildlife refuges/sanctuaries. These types of land-use changes will be monitored for compatibility by working with the local planning authorities.

3.3 WATER MANAGEMENT

3.3.1 Overview

LAX's Argo Ditch, located on the north side of the airport, attracts several species of waterfowl and wading birds. Birds are mainly observed in the Argo Ditch after periods of rainfall. Open water on LAX property will be removed or covered wherever possible and monitored closely to ensure hazardous species do not acclimate to these sites. LAX does not have a vernal pool / ephemerally wetted area. Temporary open water areas will be monitored by the LAX Biologist and covered or removed if deemed necessary. Water sources outside of LAX property, but within the critical area of LAX, will be monitored, and LAX will work with local agencies and landowners to help deter hazardous wildlife.

3.3.2 Temporary Pools and Ditches

During the winter and spring seasons, the Argo Ditch fills with water for short periods of time and attracts a variety of water birds, e.g., ducks, grebes, egrets, and herons. Ditches should be appropriately sloped so that water does not pool and leaves the airfield in a reasonably short amount of time. Ditches that pool and attract hazardous wildlife can be covered, in whole or part, using a wire grid system or other barrier (e.g., polyester netting).

3.4 VEGETATION MANAGEMENT

3.4.1 Overview

LAX contains diverse vegetation types, some of which are attractive to wildlife. The most effective approach to reducing this attraction in the critical zone is to remove all unnecessary trees, shrubs, weeds and plants, and establish non-seeding or small-seeded grass, especially within 200 feet of the runway. The LAX Biologist should review all plantings on LAX property and exclude those species that produce edible fruits, nuts or berries if these plants create an attraction to hazardous wildlife.

3.4.2 Grass Management

Other than paved areas, grass will be the primary cover inside the perimeter security fence. FAA Certalert No. 98-05 advises that "airport operators should ensure that grass species and other varieties of plants attractive to hazardous wildlife are not used on the airport". In addition, grasses that produce seeds and are known to be attractive to wildlife will be avoided when planting new areas.

3.4.2.1 Grass Type

The type of grass used within the perimeter fence and between the runways should produce no seeds but still be able to generate new growth or re-seed itself to provide a thick, monotypic stand to reduce the attractiveness to wildlife. The selected ground cover should withstand drought, flooding, and other adverse

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climatic conditions, and be somewhat unpalatable to grazers such as geese. The grasses should also harbor relatively few insects and rodents that may attract crows, kestrels, hawks, owls, starlings, and other hazardous wildlife species. Whenever possible, grass mixtures indigenous to the Pacific Southwest will be used at LAX when replanting as part of a construction or mitigation project provided it can be demonstrated the seed mixture poses no significant wildlife attraction.

3.4.2.2 Mowing

When possible, grass will be mowed at night when birds are most inactive and air traffic is reduced. Mowing is quite attractive to several species of birds and mammals because it exposes food sources such as rodents, insects, and seeds. If cutting is being conducted during the day and birds are attracted to the activity, the mowing will stop until the birds have been successfully hazed from the area. Mowing activities will be coordinated with the wildlife dispersal team (contact the Wildlife Coordinator).

3.4.3 Argo Ditch Vegetation (north side)

Herbaceous vegetation growing on the edge of a drainage system or other wetland may provide preferred habitat for species considered most hazardous to aircraft. The vegetation that grows alongside and in the Argo Ditch on LAX property should be removed and maintained so that habitat is not provided for waterfowl, herons, blackbirds, and other wildlife that could present a direct or indirect hazard to aviation.

3.4.4 Ornamental Landscaping

Landscaping at the airport can affect tourism, business, and the overall impression of the LAX vicinity to visitors, therefore, landscaping needs to be aesthetically pleasing. It must, however, coincide with the airport's greater responsibility of air safety. Trees and bushes that offer hunting perches, roosting and loafing sites, nesting cover, and food for birds and other wildlife will be removed. Ornamental trees and bushes used to enhance airport aesthetics will be kept to a minimum, and varieties that are unattractive to wildlife will be selected. Species which produce edible fruits, nuts, or berries will not be used on LAX property if they might attract hazardous wildlife. LAX will monitor ornamental trees to prevent communal roosting by starlings and crows, and the trees will be thinned or removed if necessary.

3.5 STRUCTURE MANAGEMENT

3.5.1 Overview

Structures provide cover and hunting perches for wildlife. If wildlife is considered when a building is being designed, costly control measures can be avoided. Buildings should not provide nesting, perching, or roosting sites for birds and should inhibit access by mammals such as rodents and cats.

3.5.2 Airfield Structures

Airfield structures such as runway lights, ramp and taxiway signs, ILS towers, and light poles are used as hunting and loafing perches for birds such as hawks and gulls. Structures found to routinely attract birds in a hazardous manner may be fitted with wire coils or porcupine wire (e.g., Nixalite).

3.5.3 Abandoned Structures

Structures not pertinent to air operations and not in use should be removed, including sheds, machinery, and light poles. Such structures are attractive to rodents and small birds which, in turn, attract hawks, owls, and other predators that can become a significant air hazard. Structures used for crash-fire training are considered to be pertinent to air operations and are generally compatible with safe air operations.

3.6 FOOD/PREY-BASE MANAGEMENT

3.6.1 Overview

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Rodents, insects, earthworms, and other invertebrates are highly attractive to many species of birds and mammals and should be controlled where feasible. Handouts, trash, and scattered debris also provide food for wildlife. The modification or management of a wide variety of habitats such as wildlife-attracting vegetation and removal of abandoned structures will reduce populations of potentially hazardous wildlife by limiting shelter, food, and prey availability.

3.6.2 Rodents

Mice, voles, and pocket gophers at LAX attract red-tailed hawks and red fox but will also occasionally attract great blue herons and other raptors. Rodent populations at LAX have been kept under control through the use of toxicants by L.A. County Vector Control.

3.6.3 Insects and Other Invertebrates

Insects and other invertebrates, e.g., grasshoppers, may attract many species of wildlife at LAX, particularly kestrels, western meadowlarks, starlings, and crows. Insect populations will be monitored periodically by LAX to determine if they are present in sufficient numbers to attract wildlife. If control is deemed necessary, the California Agricultural Agent (Chapter 9) can help select the best control method. Habitat management will keep much of the prey population in check but the airport will continue to monitor these populations for outbreaks.

3.6.4 Trash, Debris, and Handouts

Trash and debris are often responsible for attracting species such as gulls, pigeons, and crows. LAX's Maintenance Services Division will continue to remove trash and FOD (foreign object debris) from the airfield, especially after high winds and mowing. The general public and airport employees should not be allowed to feed birds or mammals around the airport. When people are observed feeding birds, LAX will discuss with them the problems caused by feeding wildlife, and if necessary, signs will be posted to educate the general public.



4 - LAWS AND REGULATIONS

FAR 139.337(e)(3) Requirements for, and where applicable copies of, local, state, and Federal wildlife control permits.

4.1 OVERVIEW

Federal, state and local governments administer laws and regulations that protect wildlife and their habitat. A number of these laws affect wildlife control at airports. LAX and wildlife control personnel should be educated about these regulations to ensure compliance. In general, harassing and/or lethal taking of most types of wildlife is regulated through a permit process overseen by Federal or state agencies. Permits are necessary for a successful control program and will be obtained on a regular basis, or as required, by the wildlife coordinator.

4.2 CALIFORNIA WILDLIFE REGULATIONS

Several California State government agencies have regulations that affect wildlife control at airports. Pertinent regulations can be found in the Fish and Game Code of California. State wildlife laws involving resident birds, mammals, reptiles, and amphibians as well as state threatened and endangered species generally are administered by California Department of Fish and Game (CDFG).

4.3 FEDERAL REGULATIONS

Several Federal regulations, including the Migratory Bird Treaty Act, the Lacey Act, the Endangered Species Act, the Eagle Protection Act, the National Environmental Policy Act, and the Federal Insecticide, Fungicide, and Rodenticide Act regulate various aspects of LAX's wildlife management activities. Additional regulations that may affect wildlife control activities at LAX are found in the Code of Federal Regulations (CFR), and several Federal agencies may be responsible for their implementation. Federal wildlife laws are typically administered by the U.S. Fish and Wildlife Service (USFWS) and involve primarily migratory birds and threatened and endangered species.

4.4 WILDLIFE CATEGORIES

CFR Title 50, CCR Title 14, and CFGC define the categories of wildlife and regulations for them. For the purposes of this document, feral and free roaming dogs, cats and other domestic animals are considered "wildlife" because of the hazards they may pose to aircraft but they are mostly regulated under other municipal laws. Wildlife categories (Table 2) include migratory and resident, game and non-game, and threatened and endangered species. Wildlife control personnel should know the category for the species that they intend to control so that they can determine the relevant laws and obtain necessary permits.

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Table 2. Wildlife Categories in Los Angeles County, and permits necessary for lethal control as required by Federal and state wildlife agencies. The table also shows whether LAX has current Federal or state permits for each category.

Category	Species	State Permit Required ¹	State Permit Obtained	Federal Permit Required	Federal Permit Obtained
Resident Game Birds	Quail, ring-necked pheasant, grouse, partridge, and turkey	Yes	No	No	N/A
Resident Nongame Birds	Starlings, house sparrows	No	N/A	No	N/A
Migratory Game Birds	Ducks, geese, coots, and mourning doves	No	N/A	Yes	Yes
Migratory Nongame Birds	All species except game birds, resident nongame birds, and domestic and exotic birds	No	N/A	Yes	Yes
Depredation Order Birds²	Crows, blackbirds, and cowbirds	No	N/A	No	N/A
Domestic Birds	Rock doves (feral pigeons)	No	N/A	No	N/A
Game Mammals	Deer, elk, jackrabbits, and other rabbits	Yes	No	No	N/A
Furbearers	Fox and raccoon	Yes	No	No	N/A
Nongame Mammals	All species of mammals, including coyotes, except game, furbearers, domestic mammals, and fully protected wildlife listed in Appendix A-2	No	N/A	No	N/A
Feral Domestic Mammals	Dogs, cats, livestock	No - Call local animal control	N/A	No	N/A
Reptiles And Amphibians	All reptiles and amphibians except those listed as threatened or endangered in Appendix A-2	Yes	No	No	N/A
Fully Protected Wildlife	Threatened and Endangered species listed in Appendix A-2	Yes	No	Yes	No

¹ Control actions requiring a state permit should be coordinated through the Regional Biologist with the California Department of Fish and Game.

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² May be taken without permits "when concentrated in such numbers and manner as to constitute a health hazard or other nuisance" (50 CFR §21.43).

4.5 GENERAL REGULATIONS FOR WILDLIFE CONTROL

Several regulations and permits apply to wildlife management activities at airports in Los Angeles County. Many of these regulations relate to safety, methods, and special considerations or restrictions which are usually specified on the depredation permits.

4.6 BIRDS

4.6.1 Resident Nongame Birds

Starlings, pigeons, and house sparrows are non-game birds that are classified as non-migratory and no permit is required to take them. A USFWS depredation permit (Appendix B) allows control of migratory non-game birds, provided that the species are not listed as Federal or state threatened or endangered and are listed on the depredation permit.

4.6.2 Feral Birds

Feral pigeons (rock doves) are typically the only species of concern in this category. Currently, State and Federal laws do not regulate this species and no permit is required to lethally take them.

4.6.3 Migratory Birds

Migratory birds are regulated under Federal law by USFWS. These regulations permit hazing of migratory birds when the birds are damaging property but a permit is required for lethal take. Migratory bird permits are not valid for eagles, and threatened or endangered species (brown pelicans) which require separate permits for lethal take and harassment. Although states can impose more restrictive regulations than Federal law on migratory birds, California currently does not require additional permits for non-protected migratory birds that are already regulated under Federal law.

4.6.3.1 Migratory Bird Depredation Permit for LAX (CFR 50, Part 13)

A depredation permit to lethally take federally protected migratory birds can be obtained by completing a Federal Fish and Wildlife License/Permit Application (Appendix A-7) and submitting it to the U.S. Fish and Wildlife Service, Permits - Law Enforcement Division, 911 NE 11th Ave., Portland, OR 97232-4181. The USFWS may also require that a Migratory Bird Damage Project Report completed by Wildlife Services accompany the permit application. LAX has a current Federal permit (Appendix B) to lethally take all migratory birds except eagles and threatened or endangered species. California Department of Fish and Game allows the take of these species under the Federal permit without obtaining an additional state permit. Migratory birds that occur in Los Angeles County include all birds except house sparrows, starlings, feral pigeons (rock doves), domestic ducks, geese and other exotic birds. The Wildlife Coordinator will be responsible for the required annual renewal of the depredation permit, and will submit a report to the USFWS within 10 days of the expiration date detailing the species and number of animals taken under the permit. Details for the permit uses are given below. Federally listed threatened and endangered migratory birds include bald eagles, California brown pelican, and western snowy plover (Appendix A-2). Peregrine falcons were removed from the federal list in 1999 but are still listed as state endangered.

4.6.3.2 Reporting Control Actions to USFWS

LAX should submit a report of the animals taken each calendar year to the USFWS to fulfill the requirements of this section. The report should be collaborated with WS data base or monthly reports.

CFR 50 Part 21.41

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Part 21.43

CONTROL OF DEPREDATING BIRDS - Depredation permits

(a) Permit requirement. Except as provided in 21.42 through 21.46, a depredation permit is required before any person may lethally take, possess, or transport migratory birds for depredation control purposes. No permit is required merely to scare or herd depredating migratory birds other than endangered or threatened species and bald or golden eagles.

(b) Application procedures. Applications for depredation permits shall be submitted to the appropriate Special Agent in Charge (see 13.11 (b) of this Subchapter). Each such application must contain the general information and certification by 13.12 (a) of this Subchapter plus the following additional information:

- (1) A description of the area where depredations are occurring;
- (2) The nature of the crops or other interests being injured;
- (3) The extent of such injury; and
- (4) The particular species of migratory birds committing the injury.

(c) Additional permit conditions. In addition to the general conditions set forth in Part 13 of this Subchapter B, depredation permits shall be subject to the following conditions:

- (1) Permittees may not kill migratory birds unless specifically authorized on the permit.
- (2) Unless otherwise specifically authorized, when permittees are authorized to kill migratory birds they may do so only with a shotgun not larger than No. 10 gauge fired from the shoulder, and only on or over the threatened area or area described on the permit.
- (3) Permittees may not use blinds, pits, or other means of concealment, decoys, duck calls, or other devices to lure or entice birds within gun range.
- (4) All migratory birds killed shall be retrieved by the permittee and turned over to a Bureau representative or his designee for disposition to charitable or worthy institutions for use as food, or otherwise disposed of as provided by law.
- (5) Only persons named on the permit are authorized to act as agents of the permittee under authority of the permit.

(d) Tenure of permits. The tenure of depredation permits shall be limited to the dates which appear on its face, but in no case shall be longer than one year.

Depredation order for blackbirds, cowbirds, grackles, crows and magpies

A Federal permit shall not be required to control yellow-headed, red-winged, and Brewer's blackbirds, cowbirds ... crows, and magpies, ... when concentrated in such numbers and manner as to constitute a health hazard or other nuisance: **Provided**

- (a) That none of the birds killed pursuant to this section, nor their plumage, shall be sold or offered for sale, but may be possessed, transported, and otherwise disposed of or utilized.
- (b) That any person exercising any of the privileges granted by this section shall permit at all reasonable times including during actual operations, any Federal or State game or deputy game agent, warden, protector, or other game law enforcement officer free and unrestricted access over the premises on which such operations have been or are being conducted; and shall furnish promptly to such officer whatever information he may require, concerning said operations.
- (c) That nothing in this section shall be construed to authorize the killing of such birds contrary to any State laws or regulations; and that none of the privileges granted under this section shall be exercised unless the person possesses whatever permits as may be required for such activities by the State concerned.

4.7 MAMMALS

4.7.1 Furbearers

Red fox and raccoons are furbearers observed at LAX. If these animals ever pose a hazard that warrants direct control, a permit is required from the California Department of Fish and Game.

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4.9 PROTECTED WILDLIFE

4.9.1 Federal And State Threatened And Endangered Species

The Federal Endangered Species Act (Sec. 2 [16 U.S.C. 1531]) and California Endangered Species Act (RCW 77.12.020; WAC 232-12-297) both protect animal and plant species potentially threatened with extinction. These acts classify species as endangered or threatened. An "Endangered Species" is defined as "any species or subspecies which is in danger of extinction throughout all or a significant portion of its range." A "Threatened Species" is defined as "any species or subspecies which is in danger of becoming an endangered species within the foreseeable future throughout or over a significant portion of its range." Once listed, a threatened or endangered species cannot be taken or harassed without a special permit. Eagles are also afforded protection under the U.S. Eagle Protection Act. If a significant hazard exists with a listed species that jeopardizes air safety, either the USFWS or CDFG, depending on the species involved, should be contacted for assistance. Only personnel from these agencies or their agents (e.g., Wildlife Services) may obtain a permit to take individuals of a specially protected species. Appendix A-2 lists the protected species for Los Angeles County.

4.9.2 Eagle Permits

Eagles are protected under the Eagle Protection Act and require their own permit and are, therefore, not included under the Migratory Bird Permit. They are scheduled to be removed from the most current Federal list.

CFR 50 PART 22.23

EAGLE PERMITS - Permits to take depredating eagles.

The Director may, upon receipt of an application and in accordance with the issuance criteria of this section, issue a permit authorizing the taking of depredating bald or golden eagles.

(a) Application procedure. Applications for permits to take depredating bald or golden eagles shall be submitted to the appropriate Special Agent in Charge (See Part 13). Each application must contain the general information and certification required by Part 13.12(a) plus the following additional information:

- (1) Species and number of eagles proposed to be taken;
- (2) Location and description of property where taking is proposed;
- (3) Inclusive dates for which permit is requested;
- (4) Method of taking proposed;
- (5) Kind and number of livestock or domestic animals owned by the applicant;
- (6) Kind and amount of alleged damaged; and
- (7) Name, address, age, and business relationship with applicant of any person the applicant proposes to act for him as his agent in the taking of such eagles.

(b) Additional permit conditions. In addition to the general permits set forth in Part 13, permits to take depredating bald and golden eagles shall be subject to the following conditions:

- (1) Bald and golden eagles may be taken under permit by firearms, traps, or other suitable means except by poison or from aircraft;
- (2) The taking of eagles under permit may be done only by the permittee or his agents named in the permit;
- (3) Any eagle taken under authority of such permit will be promptly turned over to a Service agent or other game law enforcement officer designated in the permit; and
- (4) In addition to any reporting requirement set forth in the permit, the permittee shall submit a report of activities conducted under the permit to the Special Agent in Charge within 10 days following the completion of the taking operations or the expiration of the permit whichever occurs first.

(c) Issuance criteria. The Director shall conduct an investigation and not issue a permit to take depredating bald or golden eagles unless he has determined that such taking is compatible with the preservation of the bald or golden eagle. In making such determination the Director shall consider the following:

- (1) The direct or indirect effect which issuing such permit would be likely to have upon the wild population of bald or golden eagles;

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(2) Whether there is evidence to show that bald or golden eagles have in fact become seriously injurious to wildlife or to agriculture or other interests in the particular locality to be covered by the permit, and the injury complained of is substantial; and

(3) Whether the only way to abate the damage caused by the bald or golden eagle is to take some or all of the offending birds.

(d) **Tenure of permits.** The tenure of any permit to take bald or golden eagles for depredation control purposes shall be that shown on the face thereof, and shall in no case be longer than 90 days from date of issue.

4.9.3 Habitat Conservation

USFWS and CDFG are responsible for species conservation and recovery plans. These plans require the identification of critical habitat when it is associated with the decline of a species. Habitat alterations and developments may be prohibited in areas where critical habitat has been designated or where such changes could result in the inadvertent take of an endangered species. Consultation with USFWS or CDFG biologists will help determine on a case-by-case basis whether critical habitat is affected by airport projects and, if so, the necessary mitigation.

4.9.4 Wetlands Mitigation

Wetland modifications may require permits from various agencies including the USFWS, U.S. Army Corps of Engineers (USACE), and/or Los Angeles County. Pre-development mitigation may be required for issuance of a permit. The FAA has outlined a series of procedures (refer to the publication on wetland mitigation banking in the FAA's wildlife section homepage [www.faa.gov/arp/hazard.htm]) for mitigating wetland impacts resulting from project development. See 40 CFR 1505.3.

4.9.5 Endangered Species List

USFWS and CDFG maintain updated lists of endangered and threatened species. CDFG's current listing of state and federally endangered, threatened, and sensitive species can be accessed on the Internet at www.dfg.ca.gov/endangered/t_e_animal.pdf. Wildlife control personnel at LAX should familiarize themselves with these listed species and their potential occurrence at the airport (Appendix A-2). In most cases, permits will not be granted to lethally remove members of a threatened and endangered species. LAX wildlife control personnel should learn to identify these species and understand the regulatory permitting processes required for their effective management. Habitat critical to listed species is regulated by the USFWS or CDFG and these regulations should be reviewed to determine their potential effect on LAX's habitat modification plans to reduce wildlife hazards.

4.9.6 Avoiding Impacts to Threatened and Endangered Species

The WHMP examines resolutions to detect and alleviate wildlife hazards that threaten human health and safety or aircraft operations operating out of LAX. Birds are generally considered the most hazardous form of wildlife at LAX, particularly starlings, raptors, western meadowlarks, pigeons, and crows. Domestic dogs occasionally gain access to the airfield where they pose a strike hazard to aircraft but this is a relatively infrequent occurrence.

The proposed actions outlined in the WHMP would involve application of the most appropriate, effective, and biologically sound wildlife control methods available. This approach is known as Integrated Wildlife Damage Management, and includes both habitat management and direct control.

Habitat management provides the most long term remedial measure for reducing wildlife attractions on an airfield. Habitat management measures are discussed in Chapter 3 of the WHMP, and includes elimination of standing water, removal of fruit and berry producing vegetation, thinning roost trees, structural exclusion (e.g., bird barrier), and incorporating wildlife considerations in the early planning stages of new construction projects. Direct control efforts generally provide a more immediate response.

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to hazardous situations, but the desired effects are often not as long lasting. Wildlife control and dispersal procedures employed at LAX are discussed in Chapter 6 of the WHMP, and include, pyrotechnic hazing, mylar flash tape, recorded distress calls, vehicular harassment, nest removal, selective trapping, and shooting with air rifles or shotguns.

Control methods at LAX would not have an effect on listed endangered or threatened species because capture and removal methods that are used at LAX are selective and would allow for positive identification of target animals.

4.10 PESTICIDE APPLICATOR LICENSE

Authorization to use restricted-use pesticides for the removal of hazardous wildlife or prey-base (e.g., blackbirds, starlings, rodents, insects, earthworms, and weeds) should be limited to Certified Pesticide Operators or persons under their direct supervision. To obtain the necessary license to apply restricted-use pesticides, a person must pass an exam administered by the California Department of Pesticide Regulation (Chapter 9). All LAX personnel that use restricted-use chemicals must first obtain a pesticide applicator's license or be under the direct supervision of an applicator. Use of all pesticides should strictly adhere to the pesticide label and should follow U.S. EPA, USFWS, and Los Angeles County guidelines.

4.11 FAA REGULATIONS, ADVISORY CIRCULARS, AND CERTALERTS

The FAA is the federal agency responsible for developing and enforcing air transportation safety regulations. Many of these regulations are codified in the Federal Aviation Regulations (FARs). The FAA also publishes a series of guidelines for airport operators to follow called Advisory Circulars (ACs). Advisory Circulars in the 150 series deal with airport safety issues including wildlife hazards. In addition to FARs and ACs, the FAA periodically issues Certalerts for internal distribution and to provide recommendations on specific issues for inspectors and airport personnel. All of the above-mentioned regulations, Advisory Circulars, and Certalerts are frequently changed or updated, and their current status should be verified on a regular basis. This may be accomplished by contacting the FAA directly (Chapter 9) or by visiting their website at www.faa.gov/arp/hazard.htm or www.faa.gov/faadocs.htm for the most current revision.

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5 – RESOURCES

FAR 139.337(e)(4) Identification of resources to be provided by the certificate holder for implementation of the plan.

5.1 OVERVIEW

Habitat Management and wildlife control supplies can be purchased from several companies. An adequate supply of equipment will be kept on hand at LAX for use by trained personnel.

5.2 AIRPORT SUPPLIES

Supplies that will be kept stocked at the airport include:

- 15 mm pyrotechnic pistol launchers
- Bangers and screamers
- Cleaning kits for all firearms
- Field guide for local bird identification
- Mylar tape
- Binoculars
- Latex gloves
- Garbage bags
- Gallon-size re-sealable sandwich bags
- "Prevention and Control of Wildlife Damage" reference manual
- Freezer to preserve bird carcasses found on runways

AIRPORT SUPERINTENDENT OF OPERATIONS VEHICLES

The ASO vehicles should be stocked with the supplies listed below to facilitate an immediate response to wildlife hazards. They will be responsible for responding to emergency calls from the LAX tower to disperse animals from the runways. They should maintain radio communications with the tower if there is a situation within the AOA, and the patrols must operate within the air movement areas according to FAA guidelines. At a minimum, the following supplies will be available:

- 15 mm pyrotechnic pistol launchers
- An adequate supply of 15 mm pyrotechnics (bangers and screamers)
- Bird identification field guide
- Binoculars
- Latex gloves
- Garbage bags
- Gallon-size re-sealable sandwich bags
- Several daily wildlife control log sheets

5.3 USDA-WILDLIFE SERVICES ASSISTANCE

Some supplies such as pigeon traps may be available through Wildlife Services for conducting specific control operations. Some control methods, such as alpha chloralose for waterfowl, are restricted to certified Wildlife Services personnel only, but Wildlife Services can provide assistance if a unique situation arises. The Department of Airports - LAX currently has a Cooperative Service Agreement with Wildlife Services to assist LAX personnel in removing pigeons and raptors from the airfield but WS may also provide assistance in dispersing other hazardous wildlife from the airfield and adjacent areas if hazards are identified.

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6 - WILDLIFE CONTROL PROCEDURES

FAR 139.337(e)(5) Procedures to be followed during air carrier operations including at least ...

139.337(e)(5)(i) Assignment of personnel responsibilities for implementing the procedures;

Personnel responsibilities are described and delineated in Chapter 2.

139.337(e)(5)(ii) Conduct of physical inspections of the movement areas and other areas critical to wildlife hazard management sufficiently in advance of air carrier operations to allow time for wildlife controls to be effective;

Airfield Superintendents and Coordinators should frequently conduct physical inspections of movement areas and other areas critical to wildlife hazard management as part of the daily protocol. The Airfield Superintendents and Coordinators should document all observed wildlife and record the data on a Daily Wildlife Activity Report. In cases where no animals are seen, a record indicating that an inspection was conducted and that no animals were observed should be made. A copy of the Daily Wildlife Activity Report for each day should be submitted to the LAX Biologist. The LAX Biologist should also conduct physical inspections of critical areas and report wildlife activity on the Daily Wildlife Activity Report. During periods of exceptionally heavy wildlife activity (e.g., migratory periods, outbreaks of insects, etc.), the Airfield Supervisors should work with the Airfield Biologist to issue a Notice to Airmen (NOTAM).

139.337(e)(5)(iii) Wildlife control measures;

6.1 OVERVIEW

Wildlife that is identified as hazardous during and after the completion of the recommended habitat modifications should be controlled using accepted direct control techniques. Wildlife hazards at airports are extremely variable and complex, therefore, it is essential to adopt a flexible, innovative, and adaptive approach to managing such hazards. Wildlife identification guides and handbooks will be available for use by wildlife control personnel at LAX. Of particular note is wildlife damage techniques manual jointly produced by the University of Nebraska, Wildlife Services, and the Great Plains Agricultural Council titled "Prevention and Control of Wildlife Damage". This 2-volume set details species-specific damage assessment, and includes an in-depth discussion of methods of dispersal for each species. In addition, Transport Canada (Canada's governmental agency responsible for reducing wildlife hazards) has also produced a valuable reference manual on wildlife control procedures at airports. This manual is available via Internet at www.tc.gc.ca/aviation/aerodrome/birdstrike/manual/index.htm. Airfield personnel should be trained to identify hazardous wildlife at LAX (refer to Chapter 8), and should select dispersal methods that are appropriate to the type of animal causing the hazard.

6.2 WILDLIFE PATROL

LAX's wildlife patrol crew should consist of the Airfield Biologist, Airfield Superintendents and Coordinators. The patrol should monitor and respond to wildlife hazards on the airfield and should coordinate their activities through the LAX Biologist. The crew should be trained in wildlife identification, proper control techniques, and safe operations as outlined in Chapter 8. The crew should have a radio-equipped vehicle and adequate wildlife control supplies (Chapter 5). The patrol should maintain clear communications with Airfield Superintendents and tower, in accordance with FAA radio protocols.

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The crew should also report all observations of wildlife activity on the Daily Wildlife Activity Report. Completed forms should be forwarded to LAX Biologist daily for review. Routine runway sweeps should be conducted at least once per day, and the presence of any dead animals found from strikes should be recorded on Form 5200-7 (Appendix A-5). Other wildlife-related activities (e.g., notable hazards, animals killed or dispersed, unusual wildlife behavior, etc.) should be documented on the Daily Wildlife Activity Report. All dead birds found on runways will be considered the result of a strike unless the death was obviously due to some other cause. Any bird remains that are found should be bagged, labeled (e.g., time and date found, location on runway, person who found remains, etc.), and placed in a freezer for later inspection and identification. Wildlife strikes may be reported directly to the FAA via Internet at www.faa.gov/arp/hazard.htm but a printout of the report must also be immediately submitted to the Airport Manager and Wildlife Coordinator so that the situation can be assessed.

6.3 GENERAL WILDLIFE CONTROL

Each wildlife hazard that develops will be analyzed by wildlife control personnel to determine a practical solution. The initial response for most species will be to haze them with frightening devices, followed by population control methods when necessary. A primary key to successful wildlife control is persistence and innovation. Personnel should select techniques based on safe application and on the biological, sociological, economical effectiveness of the technique. Most control techniques retain their effectiveness when used judiciously and in conjunction with other methods. Some methods such as pesticides or leg-hold traps are only effective and legal for certain species and situations. Therefore, the methods chosen will depend largely on the situation and the species involved. Finally, personnel involved in direct control should be aware of the potential diseases that wildlife can carry and should take appropriate precautions.

6.4 BIRD CONTROL

Several species of birds at LAX represent the most significant potential for causing damaging strikes. Migratory and residential birds, e.g., western meadowlarks, red-tailed hawks, gulls, and rock pigeons are a great concern for aircraft safety. Juvenile birds may also constitute an unusual wildlife hazard because of their general unfamiliarity with the airport environment at LAX. The "Prevention and Control of Wildlife Damage" manual discusses a number of methods that may be used to haze birds from the airport but as previously stated, an integration of multiple methods should be employed for maximum effectiveness. The proper application of techniques discussed in this reference manual should reduce most hazards involving species of concern at LAX.

6.5 MAMMAL CONTROL

Potential hazards from mammals at LAX are moderate due to the presence of red fox, striped skunks, opossum, and raccoons. Smaller mammals, including ground squirrels and pocket gophers, exist on the airfield in low to moderate densities, and can provide an attraction to larger predators and raptors. Rodent populations will be mitigated by the LAX Biologist.

6.6 USDA-WILDLIFE SERVICES ASSISTANCE

Wildlife Services provides a Biologist that currently assists LAX with wildlife control activities on the airport. Wildlife Services can be contacted at (310) 646-6638 for problems involving mammalian species or other unique wildlife hazards.

**6.7 COUNTY ANIMAL CONTROL ASSISTANCE**

Los Angeles Animal Care and Control is also available to help with free-roaming dogs and cats. If their assistance is needed on the airfield, call (562) 940-8875 (Chapter 9). If the animal poses an immediate threat to aviation, wildlife control personnel should attempt to catch, disperse, or lethally remove it.

6.8 INTERNATIONAL BIRD RESCUE

International Bird Rescue in San Pedro is available to assist in the safe removal of brown pelicans and other seabirds posing a potential risk to aircraft safety. Since brown pelicans are protected under the Federal Endangered Species Act, extreme caution is required in maintaining the safe handling of the bird.

139.337(e)(5)(iv) Communication between wildlife control personnel and any air traffic control tower in operation at the airport;

All wildlife control personnel should be equipped with radios and have proper training to contact the air traffic control tower. If an immediate hazard exists that might compromise the safety of air traffic at LAX, Airfield Operations should coordinate with the air traffic control tower, and if necessary, detain arriving or departing air traffic until the hazard is eliminated. In extreme cases, the runway may need to be closed temporarily at the discretion of the Chief of Operations, Airfield Superintendent, or tower. Although the air traffic control tower cannot be expected to monitor all wildlife hazards on the airfield and still direct air traffic, tower personnel should notify the Superintendent of Operations immediately if pilots report hazards or any such hazards are observed from the tower.



7 - EVALUATION

7.1 OVERVIEW

The WHMP will be evaluated at least annually. The Wildlife Hazard Group will determine the effectiveness of the WHMP at reducing wildlife strikes at LAX and monitor the status of hazard reduction projects, including their completion dates.

7.2 MEETINGS

The Wildlife Hazard Working Group will meet periodically but the group may convene more regularly if situations warrant as determined by the Wildlife Coordinator.

7.3 FAA WILDLIFE STRIKE DATABASE (FAA Form 5200-7)

The ASO Wildlife Coordinator will refer to the USDA monthly wildlife reports or the FAA Wildlife Strike Database <http://wildlife-mitigation.tc.faa.gov/wildlife/>. Information from this database will be used to identify trends and to monitor any increases in wildlife hazards on the airfield. If unacceptable increases in wildlife populations are observed, the cause should be determined and the WHMP modified to address the problem. The records should be entered weekly into a computerized database by the LAX Biologist.

7.4 AIRPORT EXPANSION/CONSTRUCTION


Airport expansion plans will be reviewed by the LAX Biologist to ensure that new developments will not inadvertently result in increased wildlife hazards to aircraft operations. If appropriate, they will coordinate designs with the FAA and Wildlife Services.

7.5 FAA INVOLVEMENT

FAA Regional Certification Inspectors should be invited to make comments on the WHMP and to attend annual meetings on plan modifications.

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JAN 30 2017

FAA Approval: 



8 - TRAINING

8.1 OVERVIEW


Training is essential for those personnel involved in the WHMP. The Wildlife Coordinator should ensure that all personnel that might be working in a wildlife deterrence capacity are trained in the proper selection and application of control methods including species identification.

8.2 STANDARD TRAINING

Wildlife control personnel should receive training in mitigating wildlife hazards at airports including an overview of laws associated with wildlife control, firearm and pyrotechnic safety including hands-on training, wildlife identification and dispersal techniques. Airport communications and driving should also be provided to all employees involved in wildlife control operations that may require them to operate on the AOA.

FAA APPROVED

JAN 30 2017

FAA Approval: 



9 - AGENCY DIRECTORY

REGULATORY AND ENFORCEMENT

U.S. Fish and Wildlife Service (Wildlife Permitting)

Migratory Bird Permit Office
2800 Cottage Way
(916) 414.6464

U.S. Fish and Wildlife Service
Division of Endangered Species
U.S. Fish and Wildlife Service
2800 Cottage Way, Suite W2606
Sacramento, California 95825
(916) 414.6464

U.S. Fish and Wildlife Service
Ecological Services
2493 Portola Road, Suite B
Ventura, CA 93003
(805) 644-1766

U.S. Fish and Wildlife Service
Office of Law Enforcement
P.O. Box 9
Sherwood, OR 97140-0009
(503) 521-5300

California Division of Fish and Game
Law Enforcement Division
4949 View Ridge Ave,
San Diego, CA. 92123
(858) 467-4201

Federal Aviation Administration (FAA)
Western-Pacific Region Airports Division
15000 Aviation Boulevard
Hawthorne, CA 90261

Mailing Address:
Western-Pacific Region Airports Division
P.O. Box 92007
World Way Postal Center
Los Angeles, CA 90009

Safety and Standards Branch
(310) 725-3622 - Certification Officer
(310) 725-3636 - Certification Officer

Planning Section
(310) 725-3615 – Env. Specialist

Federal Aviation Administration (FAA)

Staff Wildlife Biologist
FAA Airport Safety and Compliance
FAA-AA5-317
800 Independence Ave., SW
Washington, DC 20591
866-835-5322

MUNICIPAL AGENCIES

Los Angeles Animal Care and Control
216 W. Victoria
Carson, CA 90745
(310) 523-9566

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JAN 30 2017



TECHNICAL ASSISTANCE

U.S. Department of Agriculture, Wildlife Services

7333 World Way West
Los Angeles, CA 90505
(310) 646-6638

Los Angeles County - Department of Agriculture

11012 Garfield Ave
South Gate, CA 90280-7598
(562) 622-0400

California Department of Pesticide Regulation

1001 I Street, P.O. Box 4015
Sacramento, CA 95812-4015
(916) 445-4038

INTERNET SITES OF INTEREST

Federal Aviation Administration (FAA)

www.faa.gov

http://www.faa.gov/airports/resources/advisory_circulars/media/150-5200-33B/150_5200_33B.pdf

http://wildlife.pr.erau.edu/EnglishManual/2005_FAA_Manual_complete.pdf

U.S. Department of Agriculture-Wildlife Services

http://www.aphis.usda.gov/wildlife_damage/

California Department of Fish and Game

<http://www.dfg.ca.gov/>

Transport Canada - Wildlife Control Techniques

<http://www.tc.gc.ca/eng/menu.htm>