



Mobile International Airport

WILDLIFE MANAGEMENT PLAN 2024

CFR TITLE 14 FAR PART 139.337

Wildlife Coordinator: Randy Jackson

PREPARED FOR: MOBILE INTERNATIONAL AIRPORT
1891 NINTH STREET
MOBILE, AL 36615

IN COOPERATION WITH: USDA WILDLIFE SERVICES
602 DUNCAN DRIVE
AUBURN UNIVERSITY, AL 36849

Federal Aviation Administration
Southern Region Airports Division

APPROVED

30 May 2025

MP
Inspector

TABLE OF CONTENTS

EXECUTIVE SUMMARY	VI
PREFACE	VII
SIGNATORIES	VII
DISTRIBUTION OF WILDLIFE MANAGEMENT PLAN	VIII
TABLE OF REVISIONS	IX
LIST OF ACRONYMS	X
INTRODUCTION	1
OVERVIEW	1
PROBLEM SPECIES	2
PURPOSE AND SCOPE	2
AUTHORITIES AND RESPONSIBILITIES FOR PLAN IMPLEMENTATIONS	3
OVERVIEW	3
PERSONS WITH AUTHORITY AND RESPONSIBILITY FOR PLAN IMPLEMENTATION	3
OPERATIONS SUPERINTENDENT	3
WILDLIFE COORDINATOR	4
AIRFIELD OPERATIONS, ARFF AND QUALIFIED MAINTENANCE	6
FACILITY MANAGER	7
FAA - AIRPORT CERTIFICATION SAFETY INSPECTOR	8
FAA - AIR TRAFFIC CONTROL	8
USDA APHIS WILDLIFE SERVICES	8
WILDLIFE HAZARD GROUP (WHG)	10
HABITAT MANAGEMENT, WILDLIFE POPULATION MANAGEMENT, AND LAND USE	11
OVERVIEW	11
WILDLIFE ATTRACTANTS AND THE AIRPORT ENVIRONMENT	11
NON AIRPORT/ADJACENT LAND-USE PROJECTS	12
WATER MANAGEMENT	12
VEGETATION MANAGEMENT	12
GRASSES AND SHRUBS	13
TREES	14
PREY-BASED MANAGEMENT	14
WILDLIFE FEEDIGN AND HUMAN FOOD WASTE	14
ANIMAL CARCASSES	15
WILDLIFE MITIGATION MANAGEMENT PLAN	15
FOOD/PREY BASED MANAGEMENT HAZARD 1: FEEDING WILDLIFE	15
STRUCTURAL MANAGEMENT HAZARD 2: FENCE MAINTENANCE AND REPAIR	16
VEGETATION MANAGEMENT HAZARD 3: GRASSES AND FORBES	16
VEGETATION MANAGEMENT HAZARD 4: SHRUBS FOUND ON WEST, SOUTHWEST, SOUTH, AND EAST	16
VEGETATION MANAGEMENT HAZARD 5: TREES	17
WATER MANAGEMENT HAZARD 6: DRAINAGE DITCHES	17
STRUCTURAL MANAGEMENT HAZARD 7: HANGERS, LEDGES AND CONSTRUCTION	17
STRUCTURAL MANAGEMENT HAZARD 8: POWERLINES, ANTENNAS, ROCK / SAND PILES	18
WATER MANAGEMENT HAZARD 9: MOBILE BAY	18
STRUCTURAL MANAGEMENT HAZARD 10: PIER OVER MOBILE BAY	18
VEGETATION MANAGEMENT HAZARD 11: LANDSCAPING	19
HUMAN FOOD BASED MANAGEMENT HAZARD 12: FOOD, TRASH, WASTE PRODUCTS	19

STRUCTURAL MANAGEMENT HAZARD 13: CULVERTS AND MANHOLES	19
VEGETATION MANAGEMENT HAZARD 14: MULCH OR GROUND COVER	19
NON-LETHAL CONTROL	20
LETHAL CONTROL	21
PERMITS AND REGULATIONS	21
OVERVIEW	21
ALABAMA WILDLIFE REGULATIONS	22
FEDERAL REGULATIONS	22
NATIONAL ENVIRONMENTAL POLICY ACT	23
WILDLIFE CATEGORIES	23
TABLE 1. STATE AND FEDERAL PERMIT REQUIREMENTS FOR WILDLIFE CONTROL IN ALABAMA	23
GENERAL REGULATIONS FOR WILDLIFE CONTROL	24
BIRDS	24
RESIDENT GAME BIRDS	24
MIGRATORY GAME BIRDS	25
MIGRATORY BIRD DEPREDAATION PERMIT	25
RESIDENT NONGAME BIRDS	25
DEPREDAATION ORDER FOR BLACKBIRDS, COWBIRDS, GRACKLES AND CROWS	25
BIRDS THAT ARE EXEMPT FROM FEDERAL/AL PROTECTION	26
MAMMALS	26
GAME MAMMALS	26
NONGAME MAMMALS	26
FREE-RANGING MAMMALS	26
REPTILES AND AMPHIBIANS	26
WILDLIFE HABITAT/ISSUES OF SPECIAL CONCERN	27
FEDERAL THREATNED AND ENDANGERED (T&E) SPECIES	27
TABLE 2. USFWS LIST OF T & E SPECIES IN MOBILE COUNTY	27
EAGLE PERMITS	28
HABITAT CONSERVATION	28
WETLANDS MITIGATION	28
CERTIFIED PESTICIDE APPLICATOR LICENSING	29
FAA REGULATIONS, ADVISORY CIRCULARS, AND CERTALERTS	29
OTHER REQUIRED DOCUMENTS/PERMITS	29
RESOURCES	30
OVERVIEW	30
AIRPORT SUPPLIES	30
AIRPORT OPERATIONS, AUTHORIZED MAINTENANCE AND ARFF	30
USDA WILDLIFE SERVICES ASSISTANCE	31
MOBILE COUNTY ANIMAL SHELTER	31
SOURCES OF WILDLIFE MANAGEMENT SUPPLIES/EQUIPMENT	32
METAL WIRES, PROJECTIONS, OR NETTING	32
OTHER EXCLUSIONARY DEVICES	32
PROPANE EXPLODERS	33
PYROTECHNIC DEVICES	33
TRAPS AND TRAPPING SUPPLIES	33
OPTICS AND FIREARMS	34
FIELD BOOKS	34
WILDLIFE HAZARD MANAGEMENT PROCEDURES	34
OVERVIEW	34
WILDLIFE CONTROL MEASURES	34

WILDLIFE PATROL	35
GENERAL WILDLIFE CONTROL	35
BIRD HAZARD MANAGEMENT	36
MANAGEMENT OF BLACKBIRDS AND STARLINGS AT BFM	36
MANAGEMENT OF TERNS AT BFM	37
MANAGEMENT OF MOURNING DOVES AT BFM	38
MANAGEMENT OF GULLS AT BFM	39
MANAGEMENT OF AMERICAN ROBINS AT BFM	39
MANAGEMENT OF SWALLOWS, SPARROWS, AND AMERICAN KESTRELS AT BFM	40
MANAGEMENT OF OTHER BIRDS SPECIES AT BFM	41
MAMMAL HAZARD MANAGEMENT	41
MANAGEMENT OF EASTERN COTTONTAILS AND RODENTS AT BFM	42
MANAGEMENT OF FREE-RANGING DOGS AND CATS AT BFM	42
MANAGEMENT OF SKUNKS, FOXES, OPOSSUMS, RACCOONS, AND COYOTES AT BFM	43
MANAGEMENT OF OTHER MAMMALIAN SPECIES NOT LISTED AT BFM	43
USDA WILDLIFE SERVICES ASSISTANCE	44
ADDITIONAL PROPOSALS TO REDUCE WILDLIFE HAZARD	44
COMMUNICATION WITH ATC TOWER DURING WILDLIFE HAZARD EVENTS	44
ANNUAL TRAINING OF MAA OPERATIONS PERSONNEL	44
ESTABLISHMENT OF EASY-FLOWING, STRIKE DOCUMENTATION SYSTEM AND WEEKLY REVIEW	44
WILDLIFE BIOLOGIST/SPECIALIST REPORTING REQUIREMENT	45
PROCEDURES FOR AIRFIELD CUTTING AND WEED-EATING	46
ESTABLISHMENT OF WILDLIFE HAZARD GROUP (WHG)	46
ATTENDANCE AT ANNUAL BIRD STRIKE COMMITTEE USA (AND CANADA) MEETING	46
EVALUTION	47
OVERVIEW	47
MEETINGS	47
WILDLIFE STRIKE DATABASE	47
AIRPORT EXPANSION	47
TRAINING	48
OVERVIEW	48
STANDARD TRAINING	48
USDA APHIS WILDLIFE SERVICES TRAINING	48
AGENCY DIRECTORY	49
REGULATORY AND ENFORCEMENT	49
TECHNICAL ASSISTANCE	50
OPERATIONAL ASSISTANCE	50
APPENDICES	
APPENDIX A	51
APPENDIX B	52
APPENDIX C	53
APPENDIX D	54
APPENDIX E	55
APPENDIX F	56
APPENDIX G	57
APPENDIX H	58

APPENDIX I	59
APPENDIX J	60
APPENDIX K	61
APPENDIX L	62
APPENDIX M	63
APPENDIX N	64
APPENDIX O	65

EXECUTIVE SUMMARY

Pursuant to Code of Federal Regulations (CFR) Title 14 Federal Aviation Regulations (FAR) Part 139.337(e), Mobile International Airport (BFM) developed this Wildlife Hazard Management Plan (WHMP) in cooperation with the U.S. Department of Agriculture Wildlife Services (WS) Program. This plan will be reviewed periodically by BFM's Wildlife Hazard Group (WHG) and will be updated as changing circumstances merit. All changes made to the WHMP will be sent to the Federal Aviation Administration (FAA) for approval and shall be recorded in the Table of Revisions of this document.

BFM will take immediate measures to identify and mitigate wildlife hazards when they are detected or when airport operations personnel have been advised that hazardous conditions exist. The WHMP outlines steps for monitoring, documenting, and reporting potential wildlife hazards and strikes at BFM. Protocols for responding to hazardous wildlife situations are presented which includes roles and responsibilities of airport personnel. Wildlife control procedures for birds and mammals are also presented in this plan.

Habitat on and around the airfield should be managed in a manner which will reduce its attractiveness to wildlife. The Plan outlines priorities for habitat management, including target dates for completion. The legal status of wildlife is described which includes laws and regulations pertaining to permits needed for control actions such as harassment and lethal removal of wildlife. BFM's wildlife-related permits will be obtained and included in appendices. Monitoring and management of wildlife hazards requires application of control techniques conducted in a coordinated and accountable manner. Supplies and equipment for these activities will be obtained and maintained responsibly within Mobile International Airport (BFM) Operations or within a designated storage site accessible. These materials include, but are not limited to, harassment/hazing devices (e.g., pyrotechnics, propane exploders, Mylar tape), wildlife restraint equipment (e.g., traps), and firearms. BFM personnel will be trained to properly identify wildlife and apply wildlife control techniques in a safe, effective and efficient manner as outlined in this document.

Identification, management, and monitoring of wildlife-related hazards at BFM will be coordinated within the Airport Operations, ARFF and Authorized Maintenance Departments. BFM's Wildlife Hazard Group (WHG), chaired by the Operations Superintendent will meet annually to evaluate the need for updating and modifying the WHMP once annually. Subgroups of the WHG may meet more often as necessary. Modifications will be documented and communicated to the FAA along with various MAA Divisions and State and Federal agencies.

PREFACE

This Wildlife Hazard Management Plan was written to fulfill the requirements of CFR Title 14 FAR part 139.337(e) for BFM. This plan is intended specifically for the airport's use to monitor and reduce wildlife hazards.

SIGNATORIES

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

Brad Morris
OPERATIONS SUPERINTENDENT, MOBILE INTERNATIONAL AIRPORT

4/1/24
DATE

FAA AIRPORT CERTIFICATION INSPECTOR

DATE

DISTRIBUTION OF THE WILDLIFE HAZARD MANAGEMENT PLAN

The following is a list of all those who may be associated to the Wildlife Hazard Management Plan due to the position or title in which they possess.

MOBILE INTERNATIONAL AIRPORT
1891 NINTH STREET
MOBILE, AL 36615

NAME AND POSITION

Executive Director

VP Operations

Director of Airports

Operations Superintendent

Airport Operations Supervisor

Facility Manager

Airfield Supervisor

Airfield Lead

ARFF

USDA-APHIS

Federal Aviation Administration
Southern Region Airports Division
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30 May 2025
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TABLE OF REVISIONS

This Wildlife Hazard Management Plan is incorporated into the BFM Airport Certification Manual. The bottom of each page 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. The master document is contained in the offices of MAA Substation. Revisions to this plan will be recorded on this page in the table below.

<u>DATE</u>	<u>PAGE</u>	<u>REVISION</u>
4/01/2024		ENTIRE DOCUMENT
11/10/2024	PAGE II	TABLE OF CONTENTS
11/10/2024	PAGE III	TABLE OF CONTENTS
11/10/2024	PAGE VI	EXECUTIVE SUMMARY
11/10/2024	PAGE VIII	DISTRIBUTION LIST
11/10/2024	PAGE IX	TABLE OF REVISIONS
11/10/2024	PAGE 3	AUTHORITIES AND RESPONSIBILITIES
11/10/2024	PAGE 5	WILDLIFE COORDINATOR
11/10/2024	PAGE 6	AIRFIELD OPERATIONS, ARFF AND QUALIFIED MAINTENANCE
11/10/2024	PAGE 7	FACILITY MANAGER
11/10/2024	PAGE 8	FAA CERT INSPECTOR
11/10/2024	PAGE 8	ATCT
11/10/2024	PAGE 8	USDA
11/10/2024	PAGE 10	WILDLIFE HAZARD GROUP TABLE
11/10/2024	PAGE 11	HABITAT MANAGEMENT, WILDLIFE POPULATION MANAGEMENT, AND LAND USE
11/10/2024	PAGE 12	VEGETATION MANAGEMENT
11/10/2024	PAGE 13	GRASSES AND SHRUBS
11/10/2024	PAGE 14	ANIMAL CARCASSES
11/10/2024	PAGE 15	ANIMAL CARCASSES
11/10/2024	PAGE 15	HAZARD 1
11/10/2024	PAGE 16	HAZARD 2
11/10/2024	PAGE 16	HAZARD 3
11/10/2024	PAGE 16	HAZARD 4
11/10/2024	PAGE 16	HAZARD 5
11/10/2024	PAGE 17	HAZARD 6
11/10/2024	PAGE 18	HAZARD 9
11/10/2024	PAGE 18	HAZARD 10
11/10/2024	PAGE 19	NON-LETHAL
11/10/2024	PAGE 30	AIRPORT OPERATIONS, AUTHORIZED MAINTENANCE AND ARFF
11/10/2024	PAGE 31	AIRPORT OPERATIONS, AUTHORIZED MAINTENANCE AND ARFF
11/10/2024	PAGE 31	MOBILE COUNTY ANIMAL SHELTER
11/10/2024	PAGE 34	OVERVIEW
11/10/2024	PAGE 34	WILDLIFE PATROL
11/10/2024	PAGE 35	WILDLIFE PATROL
11/10/2024	PAGE 44	COMMUNICATION WITH ATCT DURING WILDLIFE HAZARD EVENT
11/10/2024	PAGE 44	ANNUAL TRAINING OF MAA OPERATIONS, AUTHORIZED MAINTENANCE AND ARFF PERSONNEL
11/10/2024	PAGE 44	ESTABLISHMENT OF EASY FLOWING, STRIKE DOCUMENTATION SYSTEM AND WEEKLY REVIEW
11/10/2024	PAGE 45	PROCEDURES FOR AIRFIELD CUTTING AND WEED EATING
11/10/2024	PAGE 47	WILDLIFE STRIKE DATABASE
11/10/2024	PAGE 48	STANDARD TRAINING
11/10/2024	PAGE 48	USDA APHIS WILDLIFE SERVICES TRAINING
11/10/2024	PAGE 53	APPENDIX C
2/25/2025	PAGE 1	COVER PAGE
2/25/2025	PAGE VIII	NAME AND POSITION
2/25/2025	PAGE IX	TABLE OF REVISIONS

LIST OF ACRONYMS

AC	ADVISORY CIRCULAR
ACOE	UNITED STATES ARMY CORPS OF ENGINEERS
ADAI	ALABAMA DEPARTMENT OF AGRICULTURE AND INDUSTRIES
ALDOT	ALABAMA DEPARTMENT OF TRANSPORTATION
AGL	ABOVE GROUND LEVEL
AOA	AIRCRAFT OPERATIONS AREA
APHIS	ANIMAL AND PLANT HEALTH INSPECTION SERVICE
ATC	AIR TRAFFIC CONTROL TOWER
AL	ALABAMA
ADCNR	ALABAMA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
CFR	CODE OF FEDERAL REGULATIONS
EPA	ENVIRONMENTAL PROTECTION AGENCY
FAA	FEDERAL AVIATION ADMINISTRATION
FAR	FEDERAL AVIATION REGULATIONS
FOD	FOREIGN OBJECT DEBRIS
ILS	INSTRUMENT LANDING SYSTEM
MAA	MOBILE AIRPORT AUTHORITY
MBTA	MIGRATORY BIRD TREATY ACT
MOU	MEMORANDUM OF UNDERSTANDING
BFM	MOBILE DOWNTOWN AIRPORT
NEPA	NATIONAL ENVIRONMENTAL POLICY ACT
NOTAM	NOTICE TO AIRMEN
NOV	NOTICE OF VIOLATION
SIDA	SECURITY IDENTIFICATION DISPLAY AREA
T&E	THREATENED AND ENDANGERED
USCG	UNITED STATES COAST GUARD
USDA	UNITED STATES DEPARTMENT OF AGRICULTURE
USDOT	UNITED STATES DEPARTMENT OF TRANSPORTATION
USFWS	UNITED STATES FISH AND WILDLIFE SERVICE
WHA	WILDLIFE HAZARD ASSESSMENT
WHMP	WILDLIFE HAZARD MANAGEMENT PLAN
WHG	WILDLIFE HAZARD GROUP
WS	WILDLIFE SERVICES

INTRODUCTION

Wildlife hazard management plans 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) can require airports that incur bird-aircraft strikes to develop and implement a WHMP according to CFR Title 14 FAR Part 139.337 (**Appendix A**). The WHMP must include seven components (**Appendix B**), each of which is a separate chapter in this document. These requirements are as follows (and labeled according to 14 CFR 139.337):

CHAPTER 1. 14 CFR 139.337 (f)(1). Provide a list of individuals having authority and responsibility for implementing each aspect of the plan.

CHAPTER 2. 14 CFR 139.337 (f)(2). Provide a prioritized list for direct wildlife population management, habitat modification and changes in land use to reduce wildlife hazards identified in the ecological study (Wildlife Hazard Assessment (WHA)), with target dates for initiation and completion.

CHAPTER 3. 14 CFR 139.337 (f)(3). Describe requirements for and, where applicable, provide copies of local, state, and federal wildlife control permits.

CHAPTER 4. 14 CFR 139.337 (f)(4). Identify resources to be provided by the certificate holder for implementation of the plan.

CHAPTER 5. 14 CFR 139.337 (f)(5). Identify 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.

CHAPTER 6. 14 CFR 139.337 (f)(6). Describe protocol for periodic evaluation and review of 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.



CHAPTER 7. 14 CFR 139.337 (f)(7). Outline a training program to provide airport personnel with the knowledge and skills needed to carry out the wildlife hazard management plan required by CFR Title 14 FAR Part 139.337.

In addition to the requirements stated above, CFR Title 14 FAR 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 CFR Title 14 FAR part 139.337, the FAA issued a Certalert (No. 97-09, **Appendix B**) to provide guidance to airports in developing their plans. This Certalert contains a sample outline that was followed in the development of this plan.

PROBLEM SPECIES

According to the Federal Aviation Administration 97.5% of all wildlife strikes are caused by birds with gulls, doves, and pigeons representing a combined 34% of strikes. Although any bird can create a hazardous situation for aviation, those which tend to flock or of large size are of special concern. The wildlife assessment includes a list of all the bird species identified and their seasonal frequency data.

Numerous mammals were also documented on BFM. Larger mammals such as deer and coyotes could create serious issues because of their larger size and nocturnal habits. Smaller herbivores can compound the wildlife situation as they are prey items for larger birds and mammals.

PURPOSE AND SCOPE

Enhancing safe air carrier operations is a primary objective of BFM. Accomplishing this objective entails careful monitoring of all aspects of arriving and departing aircraft in the vicinity of BFM, including potential wildlife hazards on and around the airport. As part of its safety efforts, BFM will implement and maintain a WHMP according to CFR Title 14 FAR Part 139.337(e) to address potential wildlife hazards.

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 emergency situations immediate actions may be necessary that are not addressed in this plan to ensure the safety of airport patrons. This plan provides BFM with the discretion and capability to respond to these situations while providing guidance for compliance with applicable federal, state, and municipal laws and regulations. The latitude afforded BFM 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 Manager stating the nature, extent, and duration of the deviation.”

This plan will be valid until BFM 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 hazards are identified that merit evaluation.

AUTHORITIES AND RESPONSIBILITIES

OVERVIEW

The Superintendent of Operations has the authority and responsibility of designating a Wildlife Coordinator to implement the WHMP. Each department at MAA has responsibilities outlined in the WHMP and will incorporate them into their programs. Clear communication and prompt response 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 Superintendent of Operations 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.

PERSONS WITH AUTHORITY AND RESPONSIBILITY FOR PLAN IMPLEMENTATION

OPERATIONS SUPERINTENDENT

The OPERATIONS SUPERINTENDENT (or a designee) will:

- Ensure that the WHMP, and its amendments, adhere to federal, state and local laws and regulations, and is approved by the FAA.
- Designate a Wildlife Coordinator within the department of aviation to monitor all wildlife related activities and implement all management activities that occur at BFM as described in the WHMP.
- Establish a WHG that will oversee, monitor and/or implement the WHMP.



- Conduct annual meetings of the WHG to review all management activities and coordinate a review of the WHMP.
- Retain the services of a certified airport wildlife biologist/specialist to work with the Wildlife Coordinator on reducing and preventing wildlife hazards at and around BFM when needed.
- Chair the WHG meetings.
- Disclose responsibilities related to wildlife hazard management to all new airfield tenants.
- Advise new tenants of NOV's associated with wildlife hazard infractions.
- Review proposals involving landscaping, airside developments, security, landside developments, mowing, insect management, building construction, maintenance, and other activities to ensure that wildlife attractants are not created; or request that they be reviewed by the airport certified wildlife biologist/specialist on these matters.
- Review proposals involving land-use changes within the 10,000 ft. and 5-mile critical zones of BFM to the extent that they are known to MAA.
- Attend the annual Bird Strike Committee USA (and Canada) Meeting when possible.

WILDLIFE COORDINATOR

The Wildlife Coordinator will perform or coordinate much of the wildlife management program at BFM. The duties and responsibilities of the Wildlife Coordinator are, therefore, all encompassing. At a minimum, the Wildlife Coordinator will:

- Ensure communication between the ATC and wildlife control personnel.
- Conduct WHG meetings semi-annually, and update and revise the WHMP as appropriate.
- Oversee the implementation and monitoring of activities described in the WHMP.
- Disseminate information and assignments through the WHG. Report new information discussed at meetings or conferences to the Director of Aviation.



- Designate personnel within the Airport staff who will be trained and equipped to respond to wildlife hazards on the airfield.
- Obtain federal, state and local permits that authorize control of wildlife pursuant to the WHMP.
- Maintain records of animals taken pursuant to federal and state permits and include this information in annual permit renewals.
- Ensure the availability of supplies necessary for conducting wildlife control activities.
- Maintain safety and efficiency of wildlife management equipment and supplies through regular maintenance and cleaning, proper storage, and limitation of access to other persons.
- Oversee coordination and communication with off-airport entities if/when wildlife hazards are identified at these locations.
- Require authorized staff to document wildlife activity of significance (i.e., flocks of blackbirds, circling hawks, pigeons nesting or roosting on airport, vultures on approach at ends of runways, crows, seagulls, or mammals).
- Require authorized staff to properly report all types of wildlife strikes to the FAA Wildlife Strike Database.
- Require authorized staff to retrieve unidentifiable wildlife carcasses or remains from runways for species identification.
- Work with the authorized staff to retrieve wildlife remains from aircraft reporting bird strikes at BFM.
- Identify areas on the airfield growing hazardous plant species that produce food for wildlife and request mowing or application of growth regulators to reduce available seed for wildlife.
- Coordinate the issuance of NOTAMS concerning eminent wildlife hazards on the airport.
- Complete wildlife hazard management training courses, such as the one available through WS, regarding bird and wildlife identification, wildlife hazard management techniques, reporting, etc.

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- Coordinate with the Director of Communication and Marketing to provide public relations support for wildlife control activities, as necessary.
- Attend the annual Bird Strike Committee USA (and Canada) Meeting when possible.
- Serve as liaison between WS and the Operations Superintendent.

AIRFIELD OPERATIONS, ARFF AND QUALIFIED MAINTENANCE

- Work closely with the Wildlife Coordinator to mitigate wildlife hazards at BFM.
- As a part of the airfield inspections to meet FAR Part 139 requirements, Airport personnel will inspect runways and taxiways for wildlife activity and strikes.
- Collect bird and other animal remains found during airfield inspections for identification by the Wildlife Coordinator.
- Complete a FAA 5200-7 Wildlife Strike Report Form each time a collision between aircraft and wildlife is reported or the remains of a dead bird or other animal is found on the airfield. Forward the report along with any remains to the Wildlife Coordinator.
- Communicate the nature and location of any known wildlife attractants or hazards to the Wildlife Coordinator in a timely manner.
- Communicate wildlife-related emergency situations and the hazardous presence of wildlife to the Wildlife Coordinator, ATC tower personnel, airport tenants, airlines, and others, as appropriate.
- Inform the Wildlife Coordinator if/when growth of weeds and annual grasses attractive to wildlife is observed in the infields. Remove weeds and annual grasses attractive to wildlife on the airfield.
- Assist the Wildlife Coordinator with wildlife control activities, including, but not necessarily limited to, harassment (pyrotechnic, vehicles, lasers, propane cannons), wildlife reproduction control (elimination of pigeon nests, destruction of bird nests in buildings, etc.), population reduction (shooting, trapping, use of pesticides), exclusion (installation of netting, fencing, and other barriers), and monitoring of wildlife attractants.
- Enforce a “No Feeding” policy for airport employees and tenants.

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- When wildlife attractants, such as refuse associated with dumpsters, airport tenants (food services, caterers, etc.), trash containers, construction sites, and taxicab staging areas are identified, communicate wildlife hazard management needs to Wildlife Coordinator of the source of the problem (i.e., Airport tenant).
- Complete wildlife hazard management training courses, such as the one available through WS, regarding bird and wildlife identification, wildlife hazard management techniques, reporting, etc.
- Report wildlife activity or hazards on the airfield and around parking lots, roadways, and landside structures to the Wildlife Coordinator.
- Inform the Wildlife Coordinator of animals taken pursuant to federal and Alabama State Permits so the information can be included in annual permit renewals.
- Participate in WHG meetings.
- Route all wildlife related inquiries (telephone calls, letters, etc.) to the Wildlife Coordinator.

FACILITY MANAGER

- Ensure construction contractors on BFM complete all projects while minimizing the wildlife attractants (i.e., bare ground, dirt piles, improper ground cover plantings).
- Coordinate with WS to ensure that the design of proposed buildings at BFM does not provide roosting or nesting habitat for wildlife.
- Distribute approved plant lists as appropriate and ensure that the landscaping palette selected for proposed buildings on BFM complies with FAA-recommended plant lists.
- Coordinate requests for landscaping changes with Wildlife Coordinator.
- Inform Wildlife Coordinator of any violations of the BFM “No Feeding” policy by individuals in and around BFM.
- Participate in WHG meetings

FAA - AIRPORT CERTIFICATION SAFETY INSPECTOR

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- Review and provide recommendations during periodic reviews of the BFM WHMP.
- Assist BFM in reviewing proposed land use changes, construction plans and mitigation projects for potential wildlife hazards to aircraft.

FAA – AIR TRAFFIC CONTROL TOWER

- Warn pilots of observed or reported wildlife hazards on frequency.
- Delay aircraft movements, if necessary, to avoid wildlife strikes.
- Record strikes on the Wildlife Strike Report Form, FAA 5200-7, and forward the completed form to BFM Wildlife Coordinator.

USDA APHIS WILDLIFE SERVICES

A Certified Airport Wildlife Biologist/Specialist may be contracted to assist BFM to providing technical assistance (advice, training, etc.) and direct wildlife management assistance (conduct of operational wildlife management activities) pursuant to a cooperative service agreement between WS and BFM. The nature of WS involvement will depend on the airport's needs and resources, but may consist of the following:

- Computerize and consolidate all Wildlife Strike Reports Forms from MAA personnel.
- Identify remains from runways and aircraft or submit remains for species identification to the Smithsonian Institution.
- Teach MAA staff how to recover feather remains from aircraft for species identification.
- Follow-up each wildlife strike report submitted by pilots or airport personnel to assist in identifying the wildlife species involved in strike.
- Participate in WHG meetings.
- Provide advice, recommendations, and training regarding identification and management of wildlife hazards at BFM.

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- Cooperate with the Wildlife Coordinator to conduct wildlife hazard management activities at BFM and to implement recommendations of the WHA and the WHMP. WS will implement specialized wildlife management approaches and activities, such as use of pesticides, firearms, and trapping, as well as conduct activities related to the BFM Wildlife Hazard Management Program.
- Respond to calls for assistance with wildlife concerns throughout the airport (i.e., birds, injured wildlife, animals in buildings or terminals etc.)
- Respond as needed to any emerging wildlife hazard issue and inform MAA Operations Superintendent and Wildlife Coordinator of any identified emerging hazard.
- Report any WS take to the USFWS and/or the Alabama Department of Conservation and Natural Resources pursuant to permits and regulations.
- Identify areas on the airfield growing hazardous plant species that produce food for wildlife and request mowing or application of growth regulators to reduce available seed for wildlife.
- Coordinate with the Wildlife Coordinator to review documents, plans, and programs to identify potential wildlife attractants or other circumstances which could create or exacerbate wildlife hazards within the critical areas of BFM.
- Facilitate the implementation of the WHMP outside of BFM by attending cooperator meetings and providing recommendations to eliminate wildlife hazards associated with proposed projects.
- Produce monthly report to Wildlife Coordinator of bird numbers observed, wildlife killed and/or harassed, and overall activities accomplished within the preceding month.
- Conduct regular surveys of BFM airfield and surroundings to monitor wildlife populations seasonally.
- Collect biological data from wildlife specimens that would help gain knowledge of the wildlife problem at BFM.
- Maintain a Certified Pesticide Applicators License (CPAL) with the State of Alabama to allow for the use of restricted-use pesticides / herbicides in wildlife hazard management at BFM.

- Provide recommendations for inclusion in the updates to the WHMP.

WILDLIFE HAZARD GROUP (WHG)

The Wildlife Hazard Group will meet at minimum every six months with more frequent meetings being scheduled if needed during times of increased wildlife hazards. The WHG will review the WHMP as it relates to each member's respective departmental duties on an annual basis. The group will monitor activities and make recommendations to the Wildlife Coordinator.

The Wildlife Hazard Group will include one individual from each of the following:

SUPERINTENDENT OF OPERATIONS	BRAD MORRIS
WILDLIFE COORDINATOR	RANDY JACKSON – AIRFIELD SUPERVISOR
WS WILDLIFE BIOLOGIST/SPECIALIST	PAUL SEGEL - USDAWS
MAA AIRPORT OPERATIONS	PEACHES MCCREARY – OPERATIONS SUPERVISOR
MAA FACILITIES	BRYAN CREGG – FACILITY MANAGER
ARFF SERVICES	BRIAN O'HEAR – PROTEC FIRE

The WHG is responsible for:

- Explaining individual wildlife related responsibilities and progress of mitigation.
- Reviewing wildlife strike records and significant wildlife activity from the previous year.
- Ascertaining status of wildlife control procedures.
- Evaluating the impact of off airport projects as necessary and appropriate on operations at BFM.
- Discussing future airport projects, expansions plans, and nearby land-use changes that may affect wildlife-use patterns around BFM.
- Recommending changes to the WHMP.

The Wildlife Coordinator will submit a report regarding work accomplished from the previous six months and any recommendations for change to the Superintendent of Operations for review and approval. This report will be prepared cooperatively by the Wildlife Coordinator.

Federal Aviation Administration
Southern Region Airports Division
APPROVED
Oct 28 2024
MDF
Inspector

HABITAT MANAGEMENT, WILDLIFE POPULATION MANAGEMENT, AND LAND USE

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 goal is to provide an environment that is uniform yet unattractive to the species considered the greatest hazard to aviation. Habitat modifications will be monitored to ensure they reduce wildlife hazards while not creating new attractions for other wildlife species. MOB will take guidance from FAA Advisory Circular (AC) No. 150/5200-38, “Hazardous Wildlife Attractants on or Near Airports” (**Appendix C**). A timeline for habitat management projects is presented beginning on page 16 of this chapter.

In addition, habitat modification can sometimes produce temporarily attractive areas for wildlife. During those times, direct wildlife control in the form of harassment or lethal removal may be necessary. Short-term wildlife population management methods are discussed below.

WILDLIFE ATTRACTANTS AND THE AIRPORT ENVIRONMENT

Land use patterns within the airport’s Expanded Critical Zone (area within 5 miles along the approach/departure patterns) could potentially impact air traffic safety operating out of BFM. The objective of this WHMP is to actively reduce attractive wildlife habitat on property under the control of BFM while working cooperatively with adjacent property owners to discourage land use patterns in this expanded critical zone that might increase wildlife hazards.

The Wildlife Coordinator and BFM Facility Manager should participate in all land use planning and mitigation efforts sited for BFM property. The Wildlife Coordinator and BFM Facility Manager should be involved in the initial phases of airport building projects whether structural or landscaping to ensure they are unattractive to wildlife. Efforts will be made to revise plans that create attractive wildlife habitat when possible.

NON-AIRPORT/ADJACENT LAND-USE PROJECTS

The FAA’s Airports Division in the Southern Region will provide technical guidance to BFM in addressing land-use compatibility issues. If BFM or the FAA requests assistance from WS (as per the Memorandum of Understanding between FAA and WS, **Appendix D**), then WS will provide technical and/or operational assistance in addressing issues or concerns associated with the proposed project



or land-use change. Proposed projects that may increase bird populations within flight zones will be identified and recommendations provided. Incompatible land uses near the airport may include developments such as water reservoirs, parks with artificial ponds, wetlands, waste handling facilities, and wildlife refuges/sanctuaries. Projects already under development that have the potential to attract hazardous species of wildlife will be closely monitored. Wildlife hazards created by land use changes will be discussed with local planning authorities for collaboration with wildlife control activities.

WATER MANAGEMENT

Water attractants on or near Brookley Field Mobile include drainage ditches and Mobile Bay.

Mobile Bay is located at the southeast end of Runway 32. Many species of birds utilize Mobile Bay for feeding, loafing, and resting. At the end of the runway a long pier extends into the bay which can create hazards from perching birds. Harassment may be needed if large flocks begin to congregate.

Off-site water sources will be monitored for bird activity by MAA. Flight patterns of birds between these off-site water sources will also be noted. If a pattern in bird movement is established that creates a hazard to landing and departing planes a meeting should be scheduled with landowners to address BFM concerns. Control measures will be initiated once allowed by the landowners. All control activities will be considered.

VEGETATION MANAGEMENT

The Wildlife Coordinator will determine if any new vegetative plantings will create an attraction for wildlife.

New plantings and current vegetation will be managed or eliminated if they create roosting areas for flocking birds. It is recommended that trees which produce dense roosting cover be pruned or eliminated and replaced with an alternative species in the landscaping plans. The Wildlife Coordinator, Operations Superintendent, or his designee, will participate in the initial and early phases of all airport building projects in an attempt to avoid any inadvertent increase in wildlife hazards resulting from landscape changes. The FAA's Airports District Office (ADO) reviews proposed construction activities for potential wildlife attractions when the FAA Form 7460-1 application is submitted and may also solicit input from WS.

GRASSES AND SHRUBS

Grass is used for aesthetic value and some erosion control at BFM. No grass types known to attract wildlife will be intentionally planted. FAA Certalert No. 98-05 advises that "airport operators should

Federal Aviation Administration
Southern Region Airports Division
APPROVED
Oct 28 2024
MDF
Inspector

ensure that grass species and other varieties of plants attractive to hazardous wildlife are not used on the airport.” In addition, grasses currently on airport property which are known to attract wildlife should be controlled (i.e. cutting before seeding out, treated with seed suppression growth regulators, or herbicide to reduce grass attractants/forbs) to the extent possible.

BFM will attempt to control grasses and shrubs through the use of a mowing/herbicide/seed head suppression/growth regulation schedule. BFM will establish a mowing priority system to facilitate the timing of mowing operations with respect to reducing available seed for birds and grass heights. The system will be flexible, allowing seed-reduction mowing to be considered top priority when plants are growing seed and bird numbers are increasing. The Wildlife Coordinator will identify critical plant stands producing seeds that need mowing or herbicide applications and Airfield Maintenance staff will be assigned to mow that stand.

Efforts will be made to cut grass to a height of 6-10 inches (8 inches is the ideal). The height of mowing decks will be checked by Airfield Maintenance Supervisors. Decks will be raised to a level to allow for 6-inch grass over uneven ground, or to their highest capacity. The Airfield Maintenance Supervisor will monitor grass heights and report findings to the Wildlife Coordinator. The last cut of the season will be carefully monitored so that grass remains at the proper height during the dormant time of year.

In addition to the growing season, weather can play an important role when cutting. The airfield contains areas where tractors are not accessible after a rain. High precipitation is expected for the Mobile area so wet areas on the airfield that are not accessible after a rain will be grated, filled, or drained, when feasible, so that tractors can access these wet areas. If manipulation of these areas is not feasible, weed-eating and herbicide application should be implemented to maintain the height of grass between 6 and 10 inches. This not only includes areas that are considered wet but those that contain steep banks or grades.

If planting is necessary to reduce areas of bare ground new grass stands will be planted according to planting recommendations for the local area (e.g. Coastal Bermuda). These recommendations are available from Auburn University and/or the Alabama Cooperative Extension Service, (e.g. seasonal timing, planting methods, fertilizer, liming, water, and mineral requirements).

The Wildlife Coordinator will attempt to verify that seeds being sown are not hazardous grasses or weeds that will attract avian species. This may require inspection of seed prior to use by a qualified seed expert or have a one-pound bag of seed sent for analysis. Seed identification services are offered at the private, state, and federal laboratories.

TREES

Federal Aviation Administration
Southern Region Airports Division
APPROVED
Oct 28 2024
MDF
Inspector

Trees growing at BFM could provide habitat to wildlife that could become hazardous to aviation. Woody vegetation that encourages birds to perching, nest, or roost should be removed when possible. In addition, there are many trees that can be found on the airfield to support wildlife food and cover. It is recommended that BFM remove or prune some of these trees to reduce available wildlife habitat. Should all trees be eliminated from the airfield, wildlife will still have ample resources available to them from outside of the airfield.

PREY-BASE MANAGEMENT

Wildlife requires food, water, and shelter to survive. If any of these components are removed the area becomes less attractive. For carnivores, piscivores, and insectivores habitat that supports their specific prey items can create wildlife hazards. MAA may consider using aquatic pesticides to remove fish in retention ponds with no possibility of runoff. All dead fish should be removed immediately and disposed of to keep scavengers from the area. Although insecticides and pesticides may be used to control prey species, the cost/benefit should be carefully investigated before applying. Birds are prey items for accipiter's and buteos. Habitat alterations and lethal control may be used to reduce bird populations. Rabbit control may be done by the use of firearms.

WILDLIFE FEEDING AND HUMAN FOOD WASTE

Food waste and wildlife feeding can attract a variety of birds and mammals. Tenant personnel will ensure that windblown litter, trash and debris does not accumulate, that lids are placed securely on trash cans and that dumpsters are kept covered not to exceed capacity.

Airport employees, tenants, and patrons should not be allowed to feed birds or mammals anywhere on the airport. MAA will monitor incidents of feeding of wildlife and unclean practices of caterers and other tenants and shall issue Notice of Breach of Rules violations as appropriate. Signs should be posted throughout pertinent areas (i.e., outdoor break/smoking areas and loading docks) to educate personnel and the public on the association between feeding animals and creating wildlife hazards.

ANIMAL CARCASSES

Animal carcasses are food items for various mammalian and bird scavengers. Carcasses of animals which were involved in collisions with vehicles, aircraft, or taken pursuant to permits will be immediately collected and disposed of by the Wildlife Coordinator or designated personnel on the airport. This is important not only to properly record wildlife strikes and to remove FOD, but it will also reduce the extent to which scavenging birds and carnivores are attracted to the airport.

Federal Aviation Administration
Southern Region Airports Division
APPROVED
Oct 28 2024
MDF
Inspector

Deceased animals will be removed by authorized personnel during routine runway and taxiway inspections. All bird carcasses removed from within 200 feet of the runway centerline or taxiways will be frozen for species identification by the Wildlife Biologist/Specialist if needed. Necessary information pertaining to where and how the carcass was found will be reported on the FAA Wildlife Strike Report Form (**Appendix K**) and left with the carcass for the Wildlife Biologist/Specialist.

WILDLIFE MITIGATION MANAGEMENT PLAN

The following information contains a list of wildlife hazards resulting from water, vegetation, structure, and food/prey at BFM. These hazards are identified with mitigation plans, where and why these resources are considered wildlife related hazards, MAA personnel responsible for mitigating hazards; including an initial target date and the date to which it should be completed. Due to situations that were addressed while performing the WHA, some of these hazards have been improved. For the purpose of the WHMP these hazards will be stated for future documentation.

FOOD/PREY BASED MANAGEMENT HAZARD 1: FEEDING OF WILDLIFE

MITIGATION STRATEGY: NO FEEDING OF WILDLIFE IN OR AROUND AIRPORT OPERATIONS, SPEAK WITH LOCAL BUSINESSES, RESIDENTS, AND EMPLOYEES ABOUT THE PROBLEMS WITH FEEDING WILDLIFE IN ASSOCIATION WITH AVIATION.

WILDLIFE REASON: FEEDING OF WILDLIFE ATTRACTS ANIMALS TO AREAS WHERE THEY COULD BE INVOLVED IN HUMAN HEALTH AND SAFETY ISSUES. FEEDING WILDLIFE PROMOTES UNNATURAL BEHAVIOR AND AN INCREASE IN REPRODUCTION SUCCESS.

RESPONSIBILITIES ASSIGNED: OPERATIONS, FACILITIES, AIRFIELD AND GROUND MAINTENANCE

INITIATION DATE: SEPTEMBER 2013

TARGET COMPLETION DATE: *ON GOING*

STRUCTURAL MANAGEMENT HAZARD 2: FENCE MAINTENANCE AND REPAIR (ENTIRE FENCE PERIMETER)

MITIGATION STRATEGY: SURVEY THE PERIMETER OF THE FENCE EACH MONTH (REPAIRING AREAS THAT ALLOW WILDLIFE TO ACCESS). SCHEDULED MONITORING AND MAINTENANCE WILL NOT ONLY DISCOURAGE WILDLIFE FROM ACCESSING THE AIRFIELD IT WILL ALSO INCREASE BFM'S AWARENESS OF WILDLIFE TRYING TO ENTER.

WILDLIFE REASON: HOLES AND ACCESS AREAS THAT ALLOW WILDLIFE TO ACCESS ONTO AIRFIELD WITH LITTLE RESISTANCE (DEER, COYOTES, FREE-RANGING DOGS, ETC.).

Federal Aviation Administration
Southern Region Airports Division
APPROVED
Oct 28 2024
MDF
Inspector

RESPONSIBILITIES ASSIGNED: AIRFIELD MAINTENANCE AND OPERATIONS

TARGET INITIATION: SEPTEMBER 2013

TARGET COMPLETION DATE: ONGOING

VEGETATION MANAGEMENT HAZARD 3: GRASSES AND FORBS

MITIGATION STRATEGY: MOWING, BURNING, WEED-EATING, OR HERBICIDE APPLICATION TO MAINTAIN GRASSES 6-10 INCHES IN HEIGHT. REDUCE THE AMOUNT OF FORBS OR GRASSES THAT ARE FAVORABLE TO WILDLIFE.

WILDLIFE REASON: AREAS OF THE AIRPORT CONTAINS TALL GRASSES EXCEEDING THE DESIRED HEIGHT. THE AREA IS USED BY WILDLIFE SPECIES FOR NESTING, COVER, AND FOOD RESOURCES WHICH MAY ATTRACT PREDATOR SPECIES.

RESPONSIBILITIES ASSIGNED: AIRFIELD AND GROUND MAINTENANCE

TARGET INITIATION DATE: SEPTEMBER 2013

TARGET COMPLETION DATE: ONGOING

VEGETATION MANAGEMENT HAZARD 4: SHRUBS AND SMALL TREES FOUND ON THE AIRFIELD ALONG DRAINAGE DITCHES, BURMS, AND AREAS THAT ARE NOT EASILY ACCESSED WITH TRACTORS OR LARGE EQUIPMENT

MITIGATION STRATEGY: THINNING, PRUNING, AND CLEARING AREAS THAT CONTAIN SHRUBS AND TREES WITH USES OF HERBICIDE, BURNING, CUTTING, WEED-EATING, OR CHOPPING.

WILDLIFE REASON: THESE SHRUBS AND TREES PROVIDE PERCHING, FOOD, COVER, AND NESTING AREAS FOR BIRDS TO CONGREGATE.

RESPONSIBILITIES ASSIGNED: AIRFIELD AND GROUND MAINTENANCE

TARGET INITIATION DATE: SEPTEMBER 2013

TARGET COMPLETION DATE: ONGOING

VEGETATION MANAGEMENT HAZARD 5: TREES (ALONG DRAINAGE DITCHES AND ON THE SOUTHEAST SIDE OF BFM)

MITIGATION STRATEGY: REMOVE, THIN, PRUNE, AND LIMB TREES ON THE AIRFIELD

WILDLIFE REASON: WILDLIFE SPECIES USE TREES FOR DENS, PERCHING, LOAFING, HUNTING, AND COVER. THE REMOVAL, THINNING, AND PRUNING OF TREES WILL DECREASE THE WILDLIFE AND AVIAN SPECIES THAT UTILIZE THESE RESOURCES FOR THE ABOVE-MENTIONED REASONS.

RESPONSIBILITIES ASSIGNED: AIRFIELD MAINTENANCE

TARGET INITIATION DATE: ONGOING

Federal Aviation Administration
Southern Region Airports Division
APPROVED
Oct 28 2024
MDF
Inspector

TARGET COMPLETION DATE: ONGOING

WATER MANAGEMENT HAZARD 6: FIVE DRAINAGE DITCHES ON BFM THAT CONTAIN OR REDIRECT WATER

MITIGATION STRATEGY: REMOVE VEGETATION AND DEBRIS FROM IN OR AROUND DRAINAGE AREAS

WILDLIFE REASON: REMOVAL OF VEGETATIVE DEBRIS WILL DIMINISH HABITAT, FOOD SOURCES, AND TRAVEL CORRIDORS THAT WILDLIFE USE. IT WILL ALSO ALLOW MORE VISIBILITY TO WILDLIFE SPECIES ON THE AIRPORT. IN ADDITION, PREY SPECIES ARE MORE SUSCEPTIBLE TO PREDATORS AND LESS LIKELY TO INHIBIT THESE OPEN AREAS.

RESPONSIBILITY ASSIGNED: FACILITY AND AIRFIELD MAINTENANCE

TARGET INITIATION DATE: JANUARY 2013

TARGET COMPLETION DATE: ONGOING

STRUCTURAL MANAGEMENT HAZARD 7: OPEN HANGERS, BUILDINGS WITH LEDGES, AND NEW CONSTRUCTION PROJECTS

MITIGATION STRATEGY: INSERT EXCLUSION DEVICES, BIRD WIRE, AND MAKE ANY NECESSARY REPAIRS TO PROVIDE INHOSPITABLE HABITAT TO WILDLIFE. ELIMINATE BIRDS USING BUILDINGS TO ROOST, NEST, OR PERCH WITH HARASSMENT AND LETHAL CONTROL

WILDLIFE REASON: ELIMINATING AREAS WHERE PREY SPECIES CAN CONGREGATE WILL ALSO DECREASE PREDATOR ACTIVITY ON THE AIRPORT.

RESPONSIBILITIES ASSIGNED: FACILITIES OR AIRFIELD MAINTENANCE

TARGET INITIATION: JANUARY 2013

TARGET COMPLETION DATE: ONGOING

STRUCTURAL MANAGEMENT HAZARD 8: POWERLINES, ANTENNAS, EXCESSIVE ROCK AND SAND PILES (EAST AND SOUTHEAST OF AIRFIELD)

MITIGATION STRATEGY: REMOVAL OF MATERIALS THAT ARE NOT IN USE OR ARE STORED ON THE AIRFIELD THAT CREATE ADDITIONAL HABITAT. POWERLINES AND ANTENNAS THAT CANNOT BE REMOVED ARE AREAS WHERE WILDLIFE TO CONGREGATE HARASSMENT AND LETHAL CONTROL SHOULD BE IMPLEMENTED INTO THE PLAN.

WILDLIFE REASON: BIRDS WERE OBSERVED LINING POWERLINES IN LARGE QUANTITIES. ANTENNAS AND LEFT OVER MATERIAL LIKE ROCKS AND SAND PILES ALLOW BIRDS TO LOAF, PERCH OR PICK UP SMALL ROCKS.

RESPONSIBILITIES ASSIGNED: FACILITIES OR AIRFIELD MAINTENANCE

Federal Aviation Administration
Southern Region Airports Division
APPROVED
Oct 28 2024
MDF
Inspector

TARGET INITIATION: JANUARY 2013

TARGET COMPLETION DATE: ONGOING

WATER MANAGEMENT HAZARD 9: MOBILE BAY

MITIGATION STRATEGY: USE HARASSMENT AND HAZING FOR AVIAN SPECIES USING THE PIER AND NEAR SHORE RESOURCES

WILDLIFE REASON: HARASSMENT AND HAZING CAN DETER WILDLIFE TO CONGREGATE IN OTHER AREAS OF MOBILE BAY. IF HARASSMENT AND HAZING DOES NOT RENDER THE PROBLEM THEN LETHAL CONTROL WILL BE IMPLEMENTED.

RESPONSIBILITIES ASSIGNED: OPERATIONS, ARFF AND AUTHORIZED MAINTENANCE

TARGET INITIATION DATE: JANUARY 2013

TARGET COMPLETION DATE: ONGOING

STRUCTURAL MANAGEMENT HAZARD 10: PIER EXTENDING OVER MOBILE BAY

MITIGATION STRATEGY: APPLY BIRD WIRE OR DETERRENTS TO THE PIER TO DISCOURAGE CONGREGATION AND LOAFING OF AVIAN SPECIES. HARASSMENT AND LETHAL CONTROL SHOULD BE USED IF PROBLEM PERSISTS.

WILDLIFE REASON: BIRDS GATHERING IN LARGE NUMBERS ON THE PIER.

RESPONSIBILITIES ASSIGNED: OPERATIONS, ARFF, AUTHORIZED MAINTENANCE AND FAA

INITIATION DATE: JANUARY 2013

TARGET COMPLETION DATE: ONGOING

VEGETATION MANAGEMENT HAZARD 11: LANDSCAPING (BRADFORD PEARS, OAKS, AUTUMN OLIVES, BLACK CHERRIES, CHICKASAW PLUMS, PLANTS AND FLOWERS)

MITIGATION STRATEGY: INSPECT OR RESEARCH COMPONENTS BEFORE PLANTING OR APPLYING FOR WILDLIFE/AVIAN ATTRACTANTS OR ADDITIONAL FOOD SOURCES

WILDLIFE REASON: RESEARCH AND INSPECTION OF TREES, PLANTS, SHRUBS, FLOWERS AND MULCH WILL REDUCE THE DESIRE OF WILDLIFE OR BIRDS DRAWN TO BFM.

RESPONSIBILITIES ASSIGNED: FACILITIES OR AIRFIELD MAINTENANCE

TARGET INITIATION DATE: JANUARY 2013

TARGET COMPLETION DATE: ONGOING

Federal Aviation Administration
Southern Region Airports Division
APPROVED
Oct 28 2024
MDF
Inspector

HUMAN FOOD BASED MANAGEMENT HAZARD 12: FOOD, TRASH, AND WASTE PRODUCTS

MITIGATION STRATEGY: USE GARBAGE CANS WITH LIDS, CALL FOR PICKUP WHEN FULL (NOT TO OVER EXCEED MAXIMUM CARRYING CAPACITY OR THE LID CANNOT FULLY BE CLOSED)

WILDLIFE REASON: GARBAGE CANS ATTRACT WILDLIFE FOR THE HUMAN FOOD INSIDE THEM. IF GARBAGE CANS ARE OVERFILLED OR DO NOT HAVE LIDS WITHOUT LIDS IT GIVES WILDLIFE ANOTHER ATTRACTANT. ANY FOOD THAT IS BLOWN FROM TRASH CANS CAN ATTRACT WILDLIFE.

RESPONSIBILITIES ASSIGNED: FACILITIES OR AIRFIELD MAINTENANCE

INITIATION DATE: SEPTEMBER 2013

TARGET COMPLETION DATE: ONGOING

STRUCTURAL MANAGEMENT HAZARD 13: CULVERTS AND MANHOLES (WEST AND SOUTHWEST DRAINAGE PIPE)

MITIGATION STRATEGY: PLACE COVERS OVER OPENINGS TO PREVENT WILDLIFE FROM ENTERING

WILDLIFE REASON: WILDLIFE CAN AND WILL USE THESE CULVERTS AND PIPES AS CORRIDORS TO GAIN ACCESS TO AND FROM BFM.

RESPONSIBILITIES ASSIGNED: FACILITIES OR AIRFIELD MAINTENANCE

INITIATION DATE: JANUARY 2013

TARGET COMPLETION DATE: ONGOING

VEGETATION MANAGEMENT HAZARD 14: MULCH OR GROUND COVER

MITIGATION STRATEGY: INSPECT AND RESEARCH MULCHES OR GROUND COVER BEFORE INITIAL APPLICATION OF THE MATERIAL OR SEED

WILDLIFE REASON: SOME MULCHES OR GRASSES MAY CONTAIN SEEDS THAT HAVE NOT BEEN REMOVED WHEN BAGGED. THESE BAGS COULD CONTAIN SEED THAT IS BENEFICIAL TO BOTH AVIAN AND TERRESTRIAL WILDLIFE SPECIES.

RESPONSIBILITIES ASSIGNED: FACILITIES OR AIRFIELD MAINTENANCE

TARGET INITIATION: JANUARY 2013

TARGET COMPLETION DATE: ONGOING

NON-LETHAL CONTROL

Non-lethal control will fall under the responsibility of the Wildlife Coordinator, Authorized Maintenance, ARFF or Airfield Operations when wildlife/avian species are a potential threat to aviation under all circumstances.

The four commonly used techniques to deter wildlife and avian species are: 1) habitat manipulation 2) scare tactics 3) exclusion devices 4) repellants. Some are tactile while

Federal Aviation Administration
Southern Region Airports Division
APPROVED
Oct 28 2024
MDF
Inspector

others have a bad taste or smell. Each method can be used to discourage wildlife/avian species where they are found feeding/ hunting, loafing, or nesting/shelter.

Habitat manipulation involves altering the property to deter wildlife. The ideal situation in habitat manipulation is to create BFM so that it is physically and structurally unappealing to wildlife/avian species. This would produce a habitat on BFM that would not attract or include resources for wildlife/avian species to survive. This is difficult so incorporating other non-lethal control techniques have been adapted to assist with wildlife hazard management

Scare tactics, exclusion devices, and repellants are other non-lethal wildlife/avian control methods. Pyrotechnics and propane cannons are examples of scare tactics. Pyrotechnics, which are similar to fireworks, can be purchased in the form of screamers and bangers. Screamers whistle in flight while bangers are similar to bottle rockets in a report at the end of their flight. Propane cannons can be programmed to make a loud report at specific times throughout the day.

Exclusion devices and repellants are used on buildings, ledges, overhangs, and could be used where wildlife are gaining access into the building through a crack or a hole. One-way devices allow animals to exit but not enter. Repellants, such as bird wire, are used on ledges which discourage perching. Some repellants are used to affect olfactory senses. Usually these will have a bad taste or smell repelling the animal from the treated area. In some situations, animals will adapt to the use of scare tactics and deterrents. If this occurs lethal control may be required

LETHAL CONTROL

Lethal control may need to be implemented if the non-lethal methods do not produce the required results. Some methods involve catching the animal in a live trap then euthanizing it. Other methods include using firearms (shotguns/rifles) and pesticides (fumigants/ chemical baits). In some scenarios lethal methods may be the only option.

Occasionally law prohibits the use of lethal control as a first source method. One bird which has been documented on BFM property falls under this law. Previously blackbirds could be handled strictly with the use of lethal control. Recently the law changed due to declining rusty blackbird populations. The law requires a non-lethal approach before lethal methods are used.

Lethal control should be applied when wildlife/avian species populations are most active during the seasonal data presented in the Mobile International WHA. The Wildlife Coordinator will determine when and what species need to be targeted during this time.

If wildlife issues persist after lethal and non-lethal methods have been employed the plan should be reevaluated. Land use patterns on adjacent properties could be encouraging wildlife which is creating aviation hazards. A meeting with the landowners should be made to discuss those practices and the health and human safety factors they are presenting.

PERMITS AND REGULATIONS

OVERVIEW

Federal, state, or municipal laws protect most forms of wildlife and their habitats. Before administering any control action at BFM, whether lethal or non-lethal, the legal status of the target species and possible non-targets will be determined. Regulatory agencies governing wildlife may issue permits to trap or kill wild animals depending on the species and method of control involved. A permit may be required to harass threatened and endangered species. BFM will follow current regulations regarding wildlife control and obtain appropriate permits to take or harass specific types of wildlife. WS already has state and federal permits for many wildlife species. If a special permit is needed WS will obtain that permit from the proper authority if contracted out to do so. Otherwise it will be the responsibility of the Wildlife Coordinator to obtain the proper permit. Permits to take wildlife in Alabama are issued by the United States Fish and Wildlife Service (federal agency) and the Alabama Department of Conservation and Natural Resources (state agency).

In almost all instances of direct wildlife management, the tools used to capture or kill animals are regulated by the State of Alabama or by local and federal ordinances (the use of firearms).

ALABAMA WILDLIFE REGULATIONS

Alabama law follows the Federal regulations for migratory bird species and further regulates actions concerning mammals and game birds (See Alabama Department of Conservation and Natural Resources Alabama Game, Fish and Wildlife Laws,). The ADCNR is responsible for issuing state

depredation and scientific collection permits [(Appendices E and J include permits and laws that allow for the take of birds and mammals to protect property, agriculture and human health and safety)]. ADCNR publishes these regulations periodically (most recently in 1997) as the Alabama Game, Fish and Wildlife Laws (see Appendix E). A full copy of these regulations is available through ADCNR - Wildlife and Freshwater Fisheries Division upon request as well as a copy of annual bag limits and season descriptions.

Municipalities may regulate the use and disclosure of firearms that could impact BFM wildlife management operations. Consequently, BFM will check with local city enforcement officials prior to conducting operational control measures, especially lethal control. Appendix J also contains a list of regulations pertaining to Alabama's firearm policy.

FEDERAL REGULATIONS

The U.S. Government has passed several acts for the protection of wildlife including the Migratory Bird Treaty Act (MBTA), the Lacey Act, the Endangered Species Act, Eagle Protection Act, the National Environmental Policy Act, the Clean Water Act, and the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). These are the basis of most wildlife regulations that have been issued in the Codes of Federal Regulations (CFR). Several agencies are responsible for implementing these regulations and many of these affect wildlife management at airports. Federal wildlife laws are administered by the USFWS and primarily involve migratory birds protected under the MBTA and all species protected under the Threatened and Endangered (T&E) Species Act (Appendix F and Appendix G).

Federal permits authorize BFM to kill non-endangered and non-threatened species of migratory birds when they are creating or about to create a hazard to aircraft after non-lethal techniques have been attempted. To avoid a lapse in permit, BFM will "submit a written application at least 30 days prior to the expiration date of the permit" (see 50 CFR § 13.22 in Appendix N and Appendix F for application form). BFM's depredation permit is also subject to the conditions put forward in 50 CFR § 21.27: Special Purpose Permits (Appendix N). Under these guidelines, BFM is required to document the permitted activity including type of action, species and numbers involved, and disposition of carcasses. These records will be available for inspection if called upon.

NATIONAL ENVIRONMENTAL POLICY ACT

The National Environmental Policy Act (NEPA) of 1969 requires Federal agencies to analyze their actions regarding potential impacts to the environment. Completion of an environmental assessment and finding of no significant impact will usually suffice; however, if the project contains

significant negative environmental impacts, completion of an environmental impact statement is necessary. Recently, court rulings have suggested that those State, City, and local agencies in receipt of federal funds should also complete a NEPA exercise.

WILDLIFE CATEGORIES

Federal (CFR Title 50) and Alabama laws define the categories of wildlife and regulations related to their management. Feral and free ranging domestic animals are included in this plan as they pose also hazards to aircraft. Most domestic animals are regulated under municipal laws. MAA personnel will be aware of the category for the species that they intend to control so they can determine the relevant laws and necessary permits (Table 1).

Table1. State and federal permit requirements for wildlife control in Alabama

CATEGORY	SPECIES	STATE PERMIT REQUIRED	FEDERAL PERMIT REQUIRED
RESIDENT GAME BIRDS	TURKEY, BOBWHITE QUAIL	YES	NO
RESIDENT NON-GAME	STARLING, HOUSE SPARROW, PIGEON	NO	NO
MIGRATORY GAME BIRDS	MOURNING DOVE, CANADA GOOSE, DUCK, SNIPE, WOODCOCK, RAIL, GALLINULE, COOT MOORHEN, MERGANSER	NO, THE STATE RECOGNIZES THE FEDERAL PERMIT	YES, AND LICENSE TO HUNT DURING SEASON
MIGRATORY NON-GAME	RAPTOR, GULL, JAY, SONGBIRD, SWIFT, SWALLOW, SHOREBIRD, WADING BIRD	NO, THE STATE RECOGNIZES THE FEDERAL PERMIT	YES
DEPREDATION ORDER BIRDS	CROW, RED-WINGED BLACKBIRD, BROWN HEADED COWBIRD, GRACKLE	NO	NO
GAME MAMMALS WITH CLOSED SEASON	BEAR	YES	YES
GAME MAMMALS	DEER, RED FOX, RABBIT, SQUIRREL, COYOTE, BOBCAT, RACCOON, SKUNK, OPOSSUM, MUSKRAT, BEAVER, NUTRIA, MINK, GROUNDHOG, FERAL SWINE	YES, EXCEPT WHEN HUNTING OR TRAPPING SEASON IS IN THEN A LICENSE FOR HUNTING	NO
BEAVER, COYOTE, FERAL SWINE SPECIFICALLY	BEAVER, COYOTE, FERAL SWINE	NO, THERE IS NO CLOSED SEASON FOR BEAVER, COYOTE, OR FERAL SWINE ON PRIVATE LAND	NO

NON-GAME MAMMALS	VARIOUS SPECIES OF BATS, WEASELS, MICE, POCKET GOPHER	CHECK REGULATIONS	No
THREATENED & ENDANGERED SPECIES	SEE APPENDIX G	YES	YES
FERAL DOMESTIC MAMMALS	DOGS AND CATS	NO- CONSULT WITH LOCAL ANIMAL CONTROL	No

For a list of migratory birds see 50 CFR 10.13 (Appendix N).

To obtain a state permit, contact M. Barnett Lawley, Commissioner, ADCNR Wildlife and Freshwater Fisheries, 334-242-3465.

Depredation order birds – A federal permit is not required “when concentrated in such numbers and manner as to constitute a health hazard or other nuisance.” See 50 CFR 21.43 (Appendix N).

GENERAL REGULATIONS FOR WILDLIFE CONTROL

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

BIRDS

RESIDENT GAME BIRDS

Resident game birds, such as quail and turkey, are non-migratory. Although they are not managed by the MBTA and no federal permit is required for take, they are protected by state law and a state depredation permit is required before take. Permits to take resident game birds at airports in Alabama are obtained from the ADCNR. The ADCNR requires a Scientific Collecting Permit (**Appendix J**) for the take of these species or a valid hunting license (if animals are taken according to season, required methods, and bag limits).

MIGRATORY GAME BIRDS

Migratory game birds (mourning doves, ducks, and geese) are regulated by the USFWS pursuant to the MBTA and state laws. These regulations allow harassment of migratory birds when they are damaging property or human health and safety, but a special permit is required for take and for the removal of nests/eggs. Permits for take may also require a certain type of required ammunition. Migratory bird permits are not issued for eagles or T&E species (these species require separate permits for harassment and/or take).



Identification of open hunting seasons and the wildlife involved may be necessary before employing certain wildlife management measures. For instance, the use of the tranquilizer alpha-chloralose on waterfowl is not allowed during the waterfowl hunting season. If hunting is used as a management method for migratory game birds, individuals must possess a valid Alabama hunting license and harvest information program stamp. A state waterfowl stamp and federal migratory bird hunting stamp are also required for waterfowl although there are limitations to where the stamps can be used.

MIGRATORY BIRD DEPREDAATION PERMIT (CFR 50, PART 13)

A depredation permit to take federally protected migratory birds can be obtained by contacting the local WS office and requesting a permit application. WS will supply the necessary recommendation form, which must be submitted along with the completed permit application to the USFWS. The Wildlife Coordinator will be responsible for obtaining and maintaining a migratory bird depredation permit from the USFWS. A list of migratory bird species may be found in **Appendix F**.

RESIDENT NONGAME BIRDS

Pigeons, European starlings, and house sparrows do not require any permits to be harassed or lethally removed.

DEPREDAATION ORDER FOR BLACKBIRDS, COWBIRDS, GRACKLES, AND CROWS

A Depredation Order is a Federal regulation which authorizes the take of certain bird species involved in damage situations, without a Federal permit. Under CFR 50 Part 21.43 (**Appendix N**), "Depredation Order for Blackbirds, Cowbirds, Grackles, Crows, and Magpies," these species may be taken without a federal permit when they are concentrated in such numbers and manner as to constitute a health hazard or other nuisance. Non-Lethal control must first be implemented before lethal control can be used to take blackbirds at BFM. A state permit is not required.

BIRDS THAT ARE EXEMPT FROM FEDERAL/AL PROTECTION

Various "pet" birds such as monk parakeets are exotic (non-native) bird species that are not afforded Federal protection. Therefore, the birds, or their nests, eggs, or young may be taken without a permit. Some domestic waterfowl (e.g., Peking and Muscovy ducks) breed with migratory waterfowl, creating hybrids often resembling wild birds. If the bird is indistinguishable from a wild bird, it is afforded the same protection as a wild migratory bird, and a permit is required to take it.

MAMMALS

GAME MAMMALS

In Alabama, game mammals are those species that are hunted or trapped for sport, fur, or meat. Mammals are primarily regulated only by State law. T&E species are regulated by both federal and state laws. The taking of game mammals requires a state scientific collecting permit or a valid hunting license issued by the ADCNR. Deer, red fox, gray fox, rabbit, squirrel, coyote, bobcat, raccoon, skunk, opossum, muskrat, beaver, nutria, mink groundhog and feral swine are game mammals.

NON-GAME MAMMALS

Some non-game mammals are protected under the Alabama Nongame Species Regulation (220-2-.92) (**Appendix I**). A scientific collection permit is required to take any of these species (**Appendix J**). In addition, some of these animals are classified as threatened or endangered (**Appendix G**), and would require a Section 7 consultation with the USFWS before being impacted (**Appendix H**). Some of these animals may be found at BFM so MAA personnel should be familiar with them.

FREE-RANGING MAMMALS

In Alabama, take of free-ranging mammals such as dogs and cats does not require a federal or state permit. Domestic animals will be turned over to animal control officers.

REPTILES AND AMPHIBIANS

In Alabama, many reptiles and amphibians are protected (see **Appendix I**). Their take would require a state scientific collecting permit. It has not been found that these species currently present hazards at BFM.

WILDLIFE/HABITAT ISSUES OF SPECIAL CONCERN

FEDERAL THREATENED AND ENDANGERED (T&E) SPECIES

The Federal Endangered Species Act (Sec. 2 [16 U.S.C. 1531]) protects plants and animals which may be threatened with extinction. These acts also protect wildlife habitat. 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 a 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 T&E species cannot be taken or harassed without a special permit (**Appendix G**). Section 7 of the Endangered Species Act requires Federal agencies to consult with the USFWS to determine whether their activities will impact T&E species. Negative impacts can be mitigated with reasonable and prudent alternatives, thereby allowing the project to go forward. The working relationship between WS and the USFWS allows for quick and progressive consultations to occur without compromising agency projects. Permits from the USFWS must be updated annually unless otherwise stated on the permit.

The USFWS maintains updated lists of T&E species. Wildlife control personnel at BFM will familiarize themselves with listed bird and mammal species and their potential occurrence at the airport (**Appendix G**). Updated lists of Federal T&E species will be obtained from the USFWS website prior to the WHG meetings. When these lists change, the current lists will be inserted into this document by the Wildlife Coordinator. Some of these species may present hazards to air traffic at BFM, and permits are required to harass them. In most cases, permits will not be granted to take T&E species. Habitat critical to listed species is regulated by the USFWS and ADCNR (**Appendix O**), and these regulations will be reviewed to determine their potential effect on BFM's habitat modification plans to reduce wildlife hazards.

Currently, the T&E species listed as occurring in Mobile County, Alabama include birds, fish, mammals, and reptiles. The birds and reptiles are presented in Table 2. It is possible for T&E birds and reptiles to reside on properties surrounding BFM. It is very important that all wildlife be properly identified before harassment or lethal control measures are undertaken.

TABLE 2. LISTED BY THE USFWS ARE ANIMALS CATEGORIZED BY GROUP, SPECIES, AND STATUS THAT HAVE ENVIRONMENTAL CONCERNS FOUND IN MOBILE COUNTY.

<u>GROUP</u>	<u>SPECIES</u>	<u>STATUS</u>
BIRDS	BROWN PELICAN	RECOVERING
	WOOD STORK	ENDANGERED
	PIPING PLOVER	THREATENED
	RED COCKADED WOODPECKER	ENDANGERED
	BALD EAGLE	RECOVERING
REPTILES	HAWKSBILL SEA TURTLE	ENDANGERED
	GREEN SEA TURTLE	THREATENED
	LOGGERHEAD SEA TURTLE	THREATENED
	ALABAMA RED-BELLIED TURTLE	ENDANGERED

	<i>KEMP'S RIDLEY SEA TURTLE</i>	<i>ENDANGERED</i>
	<i>EASTERN INDIGO SNAKE</i>	<i>THREATENED</i>
	<i>BLACK PINE SNAKE</i>	<i>CANDIDATE</i>
	<i>GOPHER TORTOISE</i>	<i>THREATENED</i>
<i>MAMMALS</i>	<i>ALABAMA BEACH MOUSE</i>	<i>ENDANGERED</i>

APPENDIX O contains MAA Airports with a list of T&E species, the critical habitats these species are found, whether the species was documented at the airport during the WHA and if the surrounding habitat is conducive for sustaining these T&E species.

EAGLE PERMITS

If a significant hazard exists with a listed species that jeopardizes air safety, the USFWS and/or the ADCNR should be contacted for assistance. Eagles are afforded federal protection under the Bald and Golden Eagle Protection Act, which requires that a federal permit is necessary in order to harass them away from damage situations. Bald eagles have been documented at BFM. (**Appendix F**).

HABITAT CONSERVATION

USFWS and the ADCNR are responsible for species conservation and recovery plans for T&E species. 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 ADCNR biologists will help determine on a case-by-case basis whether critical habitat is affected by airport projects, and if so, the necessary mitigation.

WETLANDS MITIGATION

Wetland modifications may require permits from various agencies, including the USFWS, Army Corps of Engineers (ACOE), or county governments. Pre-development mitigation may be required for issuance of a permit. More information regarding wetlands and mitigation on airports is located on the FAA website. Refer to Advisory Circular 150/5200-33, Section 2-4 (Wetlands). Currently, there are no wetland mitigation issues at BFM.

CERTIFIED PESTICIDE APPLICATOR LICENSE

The use of restricted-use pesticides for the removal of hazardous wildlife (e.g., blackbirds, starlings) or prey species (e.g., rodents, rabbits, insects, earthworms, and weeds) in most cases must be conducted by a Certified Pesticide Applicator or person under the direct supervision of a Certified Pesticide Applicator. To obtain the necessary license to apply restricted-use pesticides, a person



must pass an exam administered by the Alabama Department of Agriculture and Industries ((ADA) **Appendix L**)). All MAA personnel that use restricted-use chemicals will first obtain a pesticide applicator's license or be under the direct supervision of an applicator. Use of all pesticides will adhere to the product label and will follow Environmental Protection Agency (EPA), SPCC and other guidelines.

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 FARs. The FAA also publishes a series of guidelines for airport operators to follow called Advisory Circulars (ACs). Airport operators can find airport safety issues in the 150 series of the ACs, including information dealing with 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, ACs, 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 or by visiting their website at <http://www.faa.gov>.

A manual entitled Wildlife Hazard Management at Airports was developed cooperatively by the FAA and WS in 1999. It contains important information on airport wildlife hazard management. It is consulted by MAA personnel regarding control actions and other wildlife hazard management issues. This manual is helpful and should be retained in the Wildlife Coordinator's office. It is also available on-line (<http://www.wildlife-mitigation.tc.faa.gov>).

OTHER REQUIRED DOCUMENTS/PERMITS

Appendix J includes regulations and a permit related to wildlife hazard management at BFM including clearance to carry firearms on airport property, and a current State Scientific Collection Permit.

RESOURCES

OVERVIEW

Habitat management and wildlife control supplies and equipment are purchased from commercial sources. An adequate supply of equipment will be maintained at BFM for use by trained personnel.

AIRPORT SUPPLIES

Supplies that will normally be available at the airport or will be purchased when necessary to include, but are not limited to:

1. 15 mm pyrotechnic pistol launchers (Bird bombs/bangers and screamers)
2. Pellet rifle and ammunition
3. Cleaning supplies for all firearms and pyrotechnic launchers
4. Catch poles
5. Exclusion materials such as metal spikes and bird netting
6. Cage trap for dogs (e.g., Tomahawk 110B)
7. Cage trap for cats/raccoons (e.g., Tomahawk 108)
8. Small cage or cloth bag for holding bats
9. Binoculars
10. Gloves – thin leather gloves to handle bats, latex gloves to handle birds or carcasses
11. Garbage bags – various sizes
12. Re-sealable bags – various sizes
13. Freezer to preserve bird carcasses for identification by the Wildlife Biologist/Specialist
14. FAA Form 5200-7 “Bird/Other Wildlife Strike Report” (**Appendix K**)
15. 12-gauge shotgun(s) and ammunition
16. Rifle or .22 pistol
17. Mylar tape

The following resource documents will be maintained in written or electronic form in the Wildlife Coordinator’s office.

1. Field guides to wildlife identification
2. Prevention and Control of Wildlife Damage (2-binder manual, on CD or available on the web at <http://wildlifedamage.unl.edu/handbook/handbook/>)
3. FAA Wildlife Hazard Management at Airports manual – available on the web at <http://wildlife.pr.erau.edu/EnglishManual/EngStart.pdf>
4. Transport Canada reference manual for wildlife control procedures at airports – available on the web at <http://www.tc.gc.ca/CivilAviation/Aerodrome/WildlifeControl/tp13549/menu.htm>.
5. Wildlife Hazard Assessment for BFM, and addendum
6. BFM Wildlife Hazard Management Plan

AIRPORT OPERATIONS, AUTHORIZED MAINTENANCE AND ARFF

The Airport Operations, Authorized Maintenance and ARFF personnel should have immediate access to the supplies listed below to facilitate an immediate response to wildlife hazards. These personnel are responsible for

Federal Aviation Administration
Southern Region Airports Division
APPROVED
Oct 28 2024
MDF
Inspector

responding to emergency calls from the BFM ATC tower or the Wildlife Coordinator to disperse animals from the runways. All the supplies listed below except the pyrotechnics should stay in Airport Operations and Airfield Maintenance vehicles. Pyrotechnics should be stored in a manner where they follow storage guidelines but also be easily accessible.

They will maintain radio communications with the air traffic control tower if there is a potentially hazardous situation within the AOA, and the patrols will operate within the aircraft movement areas according to FAA guidelines. At a minimum, supplies to be maintained in the vehicles should include at least:

1. 15 mm pyrotechnic pistol launchers
2. 15 mm pyrotechnics (bangers, screamers, starter caps, etc.)
3. Bird identification field guide
4. Binoculars
5. Latex gloves
6. Garbage bags
7. Re-sealable sandwich bags
8. Data sheets (FAA Form 5200-7 and/or wildlife activity sheets)

USDA WILDLIFE SERVICES ASSISTANCE

Any necessary equipment such as traps, netting, vertebrate pesticides, firearms, lasers, and chemical products may be available through WS for conducting specific control operations only if contracted out with a cooperative service agreement. The use of some control methods, such as alpha-chloralose for waterfowl and DRC-1339 for European starlings, is restricted to certified WS personnel only. BFM has the option to maintain a Cooperative Service Agreement with WS to assist BFM personnel in deterring or removing wildlife from the airport. The duties assigned to the WS Wildlife Biologist/Specialist are listed on page 25 of this plan.

MOBILE COUNTY ANIMAL SHELTER

If the Wildlife Coordinator or Authorized Maintenance, Operations or ARFF are not on site BFM will request the Mobile County Animal Shelter to respond to domestic animal bites and remove stray dogs. Domestic animals must be contained and brought to a nearby animal control shelter. Any animal bites should be immediately reported to the Mobile County Health Department.

SOURCES OF WILDLIFE MANAGEMENT SUPPLIES/EQUIPMENT

Federal Aviation Administration
Southern Region Airports Division
APPROVED
Oct 28 2024
MDF
Inspector

The following is a list of many of the wildlife management equipment suppliers and/or manufacturers. This list was assembled to assist BFM in obtaining wildlife management supplies, equipment, or information, and does not represent any endorsement of any device type, manufacturer, or distributor.

METAL WIRES, PROJECTIONS, OR NETTING

BIRD-B-GONE
24362 VIA MADRUGADA
MISSION VIEJO, CA 92692
1-800-392-6915
WWW.BIRDBARRIER.COM

BIRD BARRIER
20925 CHICO STREET
CARSON, CA 90746
1-800-503-5444

BIRD BARRIER OF AMERICA
300 CALBERT AVE.
ALEXANDRIA, VA 22301
1-800-662-4737

BIRD-X, INC
300 N. ELIZABETH STREET
CHICAGO, IL 60607
1-800-662-5021
WWW.BIRD-X.COM

CAT CLAW INC
P.O. Box 3778
JOHNSTOWN, PA 15994
814-266-5544
WWW.CATCLAW.COM

NIXALITE OF AMERICA
417 25TH STREET
MOLINE, IL 61265
1-800-624-1189
WWW.NIXALITE.COM

NYLON NET COMPANY
845 NORTH MAIN STREET
MEMPHIS, TN 38101
1-800-238-7529

WILDLIFE CONTROL TECHNOLOGY, INC
P.O. Box 592 2501 NORTH SUNNYSIDE
FRESNO, CA 93727
1-800-235-0262

WWW.WILDLIFE-CONTROL.COM

OTHER EXCLUSIONARY DEVICES

AIRPORT SURFACE TECHNOLOGIES
53 EAST JACKSON BLVD. SUITE 1524
CHICAGO, IL 60604
312-692-1962
(AV TURF)

EURO-MATIC PLASTICS, INC.
2201 OLD STANTONSBURG ROAD
WILSON, NC 27893
919-206-1400
(PLASTIC BIRD BALLS)

WILDLIFE CONTROL TECHNOLOGY, INC
P.O. Box 592 2501 NORTH SUNNYSIDE
FRESNO, CA 93727
1-800-235-0262
(BIRD BALLS)
WWW.WILDLIFE-CONTROL.COM

PROPANE EXPLODERS

AGRICULTURAL SUPPLY, INC.

H.C. SHAW COMPANY

REED JOSEPH INTERNATIONAL

1435 SIMPSON WAY4554
ESCONDIDO, CA 92029
1-800-527-6699

QUANTAS LANE SUITE I
STOCKTON, CA 95026
1-800-647-5554

800 MAIN STREET P.O. Box894
GREENVILLE, MS 38702
1-800-221-2884

MARGO SUPPLIES, LTD.
P.O. Box 5400
HIGH RIVER, ALBERTA, CANADA T1V 1M5
403-652-1932
WWW.MARGOSUPPLIES.COM

PYROTECNIC DEVICES

ALL PURPOSE AMMO
517 CONCORD IND. DRIVE
SENECA, SC 29672
1-800-870-2666

APGAR, INC. MILL RIVER SUPPLY
375 ADAMS
BEDFORD HILLS, NY 10507
914-666-5774

REED JOSEPH INTERNATIONAL
800 MAIN STREET P.O. Box 894
GREENVILLE, MS 38702
1-800-647-5554

MARGO SUPPLIES, LTD.
P.O. Box 5400
HIGH RIVER, ALBERTA, CANADA T1V 1M5
403-652-1932
WWW.MARGOSUPPLIES.COM

TRAPS AND TRAPPING SUPPLIES

FORESTRY SUPPLIERS, INC.
205 WEST RANKIN STREET
JACKSON, MS 39284
1-800-360-7788
WWW.FORESTRY-SUPPLIERS.COM

KETCH-ALL COMPANY
4149 SANTA FE ROAD #2
SAN LUIS OBISPO, CA 93401
805-543-7223

M & M FUR COMPANY
P.O. Box 15
BRIDGEWATER, SD 57319
605-729-2535

MONTGOMERY FUR
1539 WEST 3375 STREET
OGDEN, UT 84401
801-394-4686

TOMAHAWK LIVE TRAP, Co.
P.O. Box 323
TOMAHAWK, WI 54487
1-800-272-8727

TRIPLE S OUTDOOR SUPPLY
2179 HIGHWAY 35 SOUTH
FOXWORTH, MS 39483
601-763-1789

OPTICS, FIREARMS, PELLET RIFLES

DICK'S SPORTING GOODS

ACADEMY SPORTS AND OUTDOORS

BASS PRO SHOPS

FIELD BOOKS

BARNES AND NOBLE BOOKSTORE

WILDLIFE HAZARD MANAGEMENT PROCEDURES

OVERVIEW

MAA Operations, Authorized Maintenance or ARFF personnel will conduct physical inspections of movement areas critical to wildlife hazard management as part of the daily protocol. They will document all observed wildlife and all data sheets will be maintained in the airport wildlife log. This airport wildlife log will be retained in the Wildlife Coordinator's office. If no wildlife is observed, a record indicating that an inspection was conducted will be prepared. During periods of exceptionally heavy wildlife activity (e.g., migratory periods, roosts on airport property, etc.), the Wildlife Coordinator will issue a NOTAM and mitigate the issue if possible.

WILDLIFE CONTROL MEASURES

Wildlife observed on BFM that is determined to pose hazards to aviation will be managed using safe, effective, legal, and environmentally responsible direct control techniques.

Wildlife identification guides and handbooks will be available for use by wildlife control personnel at BFM. The manual entitled *Prevention and Control of Wildlife Damage* (2-volume set) details species-specific damage assessment and includes an in-depth discussion of methods of dispersal or removal for each species. It is available on-line at

<http://wildlifedamage.unl.edu/handbook/handbook/>. 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. It is available on-line at <http://www.tc.gc.ca/CivilAviation/Aerodrome/WildlifeControl/tp13549/menu.htm>.

Additionally, the FAA and WS have jointly developed a manual entitled, *Wildlife Hazard Management at Airports*. This manual is available in the Wildlife Coordinator's office and on-line at <http://www.wildlife-mitigation.tc.faa.gov>.

Along with these references, the Airport Wildlife Biologist/Specialist may be consulted regarding special needs and/or emerging hazards. The Wildlife Coordinator will be trained by certified Airport Biologist/Specialist to identify and manage hazardous wildlife at BFM. They will select and implement wildlife management methods that are appropriate to the type of animal causing the hazard.

WILDLIFE PATROL

MAA Operations, Authorized Maintenance or ARFF will conduct at least one wildlife patrol at BFM during each shift. The patrol will monitor and respond to wildlife hazards on the airfield and will coordinate their activities through the Wildlife Coordinator. Airport personnel will be trained in wildlife identification,

Federal Aviation Administration
Southern Region Airports Division
APPROVED
Oct 28 2024
MDF
Inspector

wildlife management techniques, and safe operations. They will have radio-equipped vehicles and adequate wildlife control supplies. Airport personnel will maintain clear communications with the ATC tower, in accordance with FAA radio protocols, and will record all observations of wildlife-related activity (e.g., notable hazards, animals killed or dispersed, unusual wildlife behavior, etc.) in the airport wildlife log.

Routine runway sweeps will be conducted at least once per day, and the presence of any dead animals found that were involved in strikes with aircraft will be recorded on the FAA Wildlife Strike Report Form 5200-7, (**Appendix K**). All dead birds or mammals found on runways and taxiways or within 200 feet of the runway centerline will be considered the result of an aircraft strike. Unknown bird or mammal remains will be placed in a zipped plastic bag and placed in the freezer with an FAA Wildlife Strike Report Form attached. The Wildlife Coordinator will use a key to gain access to the freezer and will forward the carcass for identification by the Wildlife Biologist/Specialist. Wildlife services can pick up the carcass under a cooperative service agreement.

In addition to carcasses found near aircraft movement areas, wildlife strikes will also include: (1) strikes reported by pilots, (2) evidence of wildlife strikes found and reported by aircraft maintenance personnel, and (3) direct observation of a strike by MAA. All MAA Wildlife Strike Report Forms will be submitted to the Wildlife Coordinator for electronic entry at <http://www.wildlife-mitigation.tc.faa.gov>. Printouts of FAA strike report will be retained in the Wildlife Coordinator's Office, near the Wildlife Patrol Log.

GENERAL WILDLIFE CONTROL

Each known wildlife hazard that develops will be analyzed by the Wildlife Coordinator to determine a practical solution. An integration of multiple methods will be employed for maximum effectiveness. BFM will work proactively to discourage bird use of the airport and surrounding areas by conducting habitat manipulation to make the areas less attractive for birds. Initial response to wildlife presence will be harassment away from the airport with frightening devices followed by lethal methods when necessary. Techniques will be applied based on safety, effectiveness, practicality and environmental considerations. The methods chosen will depend largely on the situation and the species involved.

BFM's Wildlife Hazard Management Plan will be guided by the following principles: (1) A zero tolerance policy towards hazardous wildlife on the airport. (2) Wildlife will be harassed immediately and consistently. (3) Wildlife reproduction on the airport will be discouraged, reduced or eliminated. (4) Persistent hazardous wildlife will be removed whenever possible. (5) BFM will adhere to all laws, regulations, policies, permits and licenses.

Federal Aviation Administration
Southern Region Airports Division
APPROVED
Oct 28 2024
MDF
Inspector

BIRD HAZARD MANAGEMENT

Several species of birds are present at BFM and represent the most significant potential for causing damaging strikes. The seasonal data showed multiple species of birds using the airport's resources throughout the year. The three primary species that had the highest frequency data among all other species were three insect feeding birds - European starlings, eastern meadowlarks, and the killdeer. In general these species are not large birds but their numbers are a safety concern to aviation.

Other species of birds that will be mentioned due to their high frequency percentages using the airport during the course of the year are laughing gulls, American robins, mourning doves, barn swallows, savannah sparrows and the American kestrel. These six species except for the laughing gulls, feed on primarily insects, seeds, and fruits.

In order to monitor the activity of birds that are a potential threat to aviation at BFM, bird surveys will be conducted twice a month during the morning, midday, and afternoon. The morning times should begin at day light lasting 5 minutes at each station. The midday survey should begin around 12 pm and the evening survey should take place approximately 2 hours before sundown as dictated by the National Weather Service and lasting until dark. Seasonal and yearly frequency data will show progress of management implications as well as changes in the dynamics of avian species.

MANAGEMENT OF BLACKBIRDS AND STARLINGS AT BFM

For the purposes of this document, the blackbird group consists of red-winged blackbirds, brown-headed cowbirds, common grackles, eastern meadowlarks and European starlings. Although these species are not large birds, their flocking behaviors, local abundance, and habits render them hazardous to aircraft at BFM. As part of the yearly frequency data, the two species consisting of the European starling and eastern meadowlark were the topmost frequently documented species at BFM.

The following steps will be taken to reduce/eliminate hazards involving blackbirds and starlings at BFM:

1. Yearly starlings and blackbird populations will be managed with aggressive and persistent harassment and/or population reduction via pyrotechnics, propane cannons, shooting, trapping, and/or the use of toxicants.
2. If nesting of these species is identified on the airport, nests will be destroyed, and habitat manipulation will be conducted if/where possible to deter future nesting.

3. Roosting starlings or blackbirds will be dispersed with persistent harassment using pyrotechnics and/or avian lasers. If necessary, the integration of thinning, netting, or removal of the roosting trees will be employed. Coordination of the dispersal will begin as soon as a roost is identified, but long-term efforts to prune or remove the roosting trees will be initiated.
4. Habitat manipulation in the form of turf management (height, thickness and species composition) will be employed for long-term reduction of blackbird foraging on the airfield. Grass will be no shorter than 6 inches and broadleaf weeds will be controlled with herbicide applications where necessary.
5. Herbicide and pesticides applications should be an additional resource to reduce the amount of insects that are primarily found in their diets.

Records of blackbird management activities will be maintained in the MAA Wildlife Coordinator's office in the airport wildlife log. All take of blackbirds must be reported to the USFWS annually, with the exception of European starlings. Any take of blackbirds by WS will be reported by the WS Wildlife Biologist/Specialist under the USDA APHIS WS depredation permit. If the take is not by WS, it will be the responsibility of BFM to report any take by BFM employees or those authorized to do so by BFM to the FWS.

MANAGEMENT OF TERNS AT BFM

Seasonal evaluation will be conducted as summer and fall tern populations increase. Terns occasionally used the pier for loafing as well as flying over the airfield.

The following steps will be taken to reduce/eliminate hazards involving terns at BFM:

1. Habitat Manipulation bird wire or netting over the pier area.
2. Use of propane and pyrotechnics as harassment and hazing techniques flying over the airfield or when loafing on pier.
3. Lethal control when habitat manipulation and pyrotechnics are not effective or when a serious threat exist.

Records of tern management activities will be maintained in the MAA Wildlife Coordinator's office in the airport wildlife log. All take of all tern species must be reported to the USFWS annually. Any take of a tern by WS will be reported by the WS Wildlife Biologist/Specialist under the agencies permit. If the take is not by WS, it will be the responsibility of BFM to report any take by BFM employees or those authorized to do so by BFM to the FWS.

MANAGEMENT OF MOURNING DOVES AT BFM

Mourning doves were present on BFM during all four seasons but frequency data illustrates a lower population during the winter months.

The following steps will be taken to reduce/eliminate hazards involving mourning doves at BFM:

1. Prune or remove landscaping trees located on BFM property where mourning doves are roosting.
2. Eliminate mourning dove food sources through habitat management practices (mowing, seed head suppression, turf establishment, proper planting practices, and herbicides).
3. Eliminate unnecessary fences, power lines, etc. that are used by mourning doves for perching.
4. Remove mourning dove nests found on BFM.
5. Remove mourning doves through shooting and trapping where deemed to be safe and effective by the Wildlife Coordinator or Wildlife Biologist/Specialist. Carcasses will be immediately collected for subsequent burial or incineration.

Records of these activities will be maintained in the Wildlife Coordinator's Office in the airport wildlife log. All take of mourning doves, nests and eggs must be reported to the USFWS each year. Any take by WS will be reported by the WS Wildlife Biologist/Specialist under the USDA APHIS WS permit. If the take is not by WS, it will be the responsibility of BFM to report any take by BFM employees or those authorized to do so by BFM to the FWS.

MANAGEMENT OF GULLS AT BFM

Laughing gulls and other gull species will not be allowed to reside anywhere on the airport. Gull management will be carried out with maintenance to areas of congregation with habitat

manipulation, harassment/hazing, and lethal management. Data from the WHA revealed that the gull species were most frequent during the spring season.

The following steps will be taken to reduce/eliminate hazards involving gulls at BFM:

1. Gull species will be managed with removing water from areas on the taxiways, runways and parking areas where water puddles using a broom, squeegee, or by filling in these low areas.
2. Propane cannons and pyrotechnics will be used yearly to harass and discourage gulls from using the runway as fly zones or loafing around hangers and buildings.
3. Food and trash will be disposed of properly in the garbage. The garbage can will contain a lid and it will not exceed the cans carrying capacity. No feeding of gulls will be allowed or tolerated by MAA.
4. Lethal control will be implemented when excessive numbers are present.

Records of gull management activities will be maintained in the MAA Wildlife Coordinator's office in the airport wildlife log. All take of all gulls species must be reported to the USFWS annually. Any take of a gull by WS will be reported by the WS Wildlife Biologist/Specialist under the USDA APHIS WS permit. If the take is not by WS, it will be the responsibility of BFM to report any take by BFM employees or those authorized to do so by BFM to the FWS.

MANAGEMENT OF AMERICAN ROBINS AT BFM

American robins were most frequent during the winter and spring season as thousands of birds were flying during their spring migration. American robins feed on fruits which will be managed by mowing, cutting, or chemical application to reduce vegetation and food attractants over time.

1. Removal and elimination of attractants will be done with herbicides, mowing, cutting, or burning.
2. Roosting areas will be removed with cutting, thinning, or limbing of trees that robins have inhabited.
3. Propane cannons and harassment techniques will be used to discourage robins from roosting areas or flying over the airfield.

4. Shooting will be initiated should increase numbers of migrating robins persist.

Records of American robin's management activities will be maintained in the MAA Wildlife Coordinator's office in the airport wildlife log. All take of all robins species must be reported to the USFWS annually. Any take of American robins by WS will be reported by the WS Wildlife Biologist/Specialist under the USDA APHIS WS permit. If the take is not by WS, it will be the responsibility of BFM to report any take by BFM employees or those authorized to do so by BFM to the FWS.

MANAGEMENT OF SWALLOWS, SPARROWS, AND AMERICAN KESTRELS AT BFM

Swallows, sparrows, and the American kestrel are all insect feeding birds. Savannah sparrows and the American kestrel do have additional food sources of small crustaceans and small mammals. Habitat manipulation along with pesticide use will be the main source for reducing insects that consist of these birds diet.

The following steps will be taken to reduce/eliminate hazards involving swallows at BFM:

1. Habitat manipulation of the grass will consist of a regimented mowing regime keeping the grass to maximum height of 10 inches.
2. Decreasing the amount of insects with insecticide or pesticides to decrease food availability.
3. Harassment and hazing of birds with pyrotechnics and propane cannons.
4. On site nest removal if applicable.
5. Lethal management should be used if non-lethal tactics do not reduce bird numbers.

Management records of swallows, sparrows, and the American kestrel's activities will be maintained in the MAA Wildlife Coordinator's office in the airport wildlife log. All take of these species must be reported to the USFWS annually. Any take of a swallow by WS will be reported by the WS Wildlife Biologist/Specialist. If the take is not by WS, it will be the responsibility of BFM to report any take by BFM employees or those authorized to do so by BFM to the FWS.

MANAGEMENT OF OTHER BIRD SPECIES AT BFM

Raptor management will consist primarily of harassment or trapping and relocation. The Wildlife Coordinator will maintain proper permits for doing so. Monitoring, habitat management (grass height no longer than 10 inches), harassment, and population control will be applied in an integrated fashion as needed in accordance with permits and authorizations. Harassment of raptors

with pyrotechnics will be employed to direct birds away from the airport. Unnecessary structures that are used as perch sites for raptors will be removed.

Other insect feeding birds will be managed with proper mowing regimes, herbicides and habitat manipulation (cutting or pruning branches and limbs for perching). In the addition to habitat management, harassment with the use of pyrotechnics and population control will be implemented to reduce the threat of a bird strike.

Many other avian species were documented throughout the WHA but are not presented in the text above. This does not imply that they will not be managed or disregarded. Crows and Canada geese could be detrimental to human safety if a strike from one of these species should occur. If consistent monitoring of a bird presence at the airport reveals an emerging problem with a particular species, new measures will be applied to address those threats.

Bird management at BFM will be conducted according to the integrated wildlife damage management approach that includes consideration and application of a number of safe, effective, legal, practical, cost-efficient, and environmentally-responsible methods and approaches.

MAMMAL HAZARD MANAGEMENT

The habitat surround BFM varies from open water to green zones and highly developed residential communities. Mobile Bay, University of South Mobile, Doyle Park, a cemetery, and numerous housing developments are all within the critical zone.

This diversity can pose wildlife related issues. According to the WHA the four most frequently encountered mammals include free-ranging domestic cats and dogs, raccoons, and opossums. Coyotes and eastern cottontails were noted but not to any significant frequency.

The monitoring of the mammalian species will be managed through night surveys done on the airport from dusk to midnight and midnight to dawn once a quarter. These surveys will assist in identifying mammals frequenting the airport and if an increase or decrease in the more frequently seen mammals is taking place.

MANAGEMENT OF EASTERN COTTONTAILS AND RODENTS AT BFM

Eastern cottontails and rodents are prey species that can be eliminated through habitat manipulation of grasses, brush piles, and debris. Edge areas where high grass meets cut grass

makes good places for these animals to feed. Habitat manipulation along with shooting will reduce the population of eastern cottontails.

The following steps will be taken to reduce/eliminate hazards involving eastern cottontails and rodents (prey species) at BFM:

1. Eliminate edges and piles of debris that provide cover for rabbits and rodents.
2. Reduce vegetation and high grass with mowing, cutting, weed-eating and herbicide.
3. Structural management of fences and other means of access.
4. Lethal management via shooting and trapping with live traps should problems persist. Pesticide application is another source of means to reduce prey species should problem persist.

MANAGEMENT OF FREE-RANGING DOGS AND CATS AT BFM

Free-ranging dogs and cats can be managed with resolving issues related to structural damages to the fence, habitat manipulation, and trapping. Dogs and cats will be captured using live cage traps, footholds, catch poles, or snares and delivered to the nearest animal control shelter.

MOBILE ANIMAL CONTROL SHELTER
855 OWENS STREET
MOBILE, AL 36604

The following steps will be taken to reduce/eliminate hazards involving free-ranging dogs and cats at BFM:

1. Fence repair and monitor for holes/access areas around the airport perimeter.
2. Habitat manipulation of grasses, shrubs, and trees through mowing, herbicide, thinning, and removal reducing prey species.
3. Education of adjacent property owners and employees of the hazards associated with wildlife and aviation regarding feeding and free ranging pets.
4. Garbage cans will contain lids and containers will not over exceed carrying capacity.

5. Trapping and removal of free-ranging dogs and cats that are found on BFM and airfield.

MANAGEMENT OF SKUNKS, FOXES, OPOSSUMS, RACCOONS, AND COYOTES AT BFM

The species of mammals that can be found on the airfield and the surrounding area should be managed with habitat manipulation, herbicides and pesticides, and the removal of prey species.

1. Habitat manipulation should be carried out through vegetation reduction (mowing grass on the airfield should be at least 6-10 inches in height), cutting, weed-eating, and herbicide applications (removal of weeds, shrubs, and trees found around drainage ditches and areas of travel), thinning and removal of trees, wooded debris found around the airfield should be removed.
2. Checking fence for areas of access (holes and damages).
3. Lethal control on the reduction of prey species by the use of pesticides, shooting and trapping.
4. Removal of carrion from the airfield whether created naturally, with a wildlife strike or lethal control.
5. Trapping and shooting in the form of lethal control using live traps, footholds, snares, griz getters, or rifles/shotguns.

MANAGEMENT OF OTHER MAMMALIAN SPECIES NOT LISTED

Wildlife observation records and regular monitoring will determine if any other species of mammals become a problem, and necessary actions will then be taken.

USDA APHIS WILDLIFE SERVICES ASSISTANCE

WS personnel will assist with any wildlife management activities at BFM. Many of the control techniques for mammals differ from bird hazard control techniques and require specialized experience and permits. As stated earlier, BFM may maintain a cooperative agreement with WS and may contact WS for any assistance in managing wildlife hazards at BFM. The responsibilities assigned to WS are listed on page 7 of this plan.

ADDITIONAL PROCEDURES TO REDUCE WILDLIFE HAZARDS COMMUNICATION WITH ATC TOWER DURING WILDLIFE HAZARD EVENT

While on the airport, MAA Operations, Authorized Maintenance and ARFF personnel will be equipped with radios and have proper training to contact the ATC tower. If an immediate hazard exists that might compromise the safety of air traffic at BFM, the Airfield Maintenance personnel will coordinate with the ATC tower to modify arriving or departing air traffic until the hazard is eliminated. Although the ATC tower cannot be expected to monitor all wildlife hazards on the airfield and still direct air traffic, tower personnel will be asked to notify the Wildlife Coordinator immediately if pilots report on or off airport wildlife hazards or any such hazards are observed from the tower.

ANNUAL TRAINING OF MAA OPERATIONS, AUTHORIZED MAINTENANCE AND ARFF PERSONNEL

Airport personnel will be trained annually in the identification of wildlife, wildlife hazards, and plants attractive to wildlife. Wildlife management techniques and the operations and use of firearms and pyrotechnics will be taught each year. MAA personnel will be trained in the protocols for documenting wildlife strikes, recovering strike remains, and monitoring for wildlife activity during regular work activities and runway sweeps.

ESTABLISHMENT OF EASY-FLOWING, STRIKE DOCUMENTATION SYSTEM AND WEEKLY REVIEW

A formal strike documentation protocol will be initiated at BFM. The protocol will be as follows:

- All wildlife strikes reported directly to the FAA Wildlife Strike Database by pilots, ATC personnel, or airport worker (those that are not MAA personnel) will be sent electronically to the Wildlife Coordinator via an automated notification system. To receive automatic updates to email addresses, contact Ryan King at ryan.king@faa.gov and request notification.
- MAA personnel will document wildlife strikes (including wildlife carcasses retrieved during runway inspections) using a FAA Wildlife Strike Report Form. These forms will be filled out by hand and submitted to the Wildlife Coordinator promptly. The Wildlife Coordinator will make copies of the forms and forward copies to the Wildlife Biologist/Specialist if contracted.

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- The Wildlife Coordinator will convert all FAA Wildlife Strike Report Forms to electronic format to a spreadsheet so they may be sorted and graphed. The spreadsheets from the FAA database are often behind. This will allow for real-time strike analysis and will indicate if a problem is becoming severe.
- The Wildlife Coordinator will print out every entry in the FAA Wildlife Strike Database and place the hard copy into a 3-ring binder labeled for the calendar year. This ensures that there is a hard copy and electronic database of every wildlife strike documented at BFM.
- The Wildlife Coordinator will update entries in the event that carcass or bird remains are identified to species by scientists at the Smithsonian Institution.
- When a strike is reported to the FAA Wildlife Strike Database by a pilot at 500 ft. AGL or less, the Wildlife Coordinator will follow up with the pilot submitting strike data to get details about the strike including specific time of day, number and species of birds.

WILDLIFE BIOLOGIST/SPECIALIST REPORTING REQUIREMENTS

If a contract for services between MAA and USDA is entered into, the Wildlife Biologist/Specialist will produce a monthly report of bird numbers observed during formal surveys, wildlife harassed or lethally removed, and overall activities accomplished within the preceding month. This report will be due to at a time determined by BFM and WS.

PROCEDURES FOR AIRFIELD CUTTING AND WEED-EATING

The Wildlife Coordinator will submit work orders for cutting priority areas or areas that need critical attention to the Airfield Maintenance Supervisor that could potentially attract wildlife to the airport. These work orders will be addressed within a level of priority. If extenuating circumstances (equipment break-down) prevent the work requests from being initiated within two weeks, the Airfield Maintenance Supervisor will inform the Wildlife Coordinator, and another alternative will be explored.

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ESTABLISHMENT OF WILDLIFE HAZARD GROUP (WHG)

See page 9 for further information.

ATTENDANCE AT ANNUAL BIRD STRIKE COMMITTEE USA (AND CANADA) MEETING

The Wildlife Coordinator, or another MAA designee, will attend the Annual Bird Strike Committee USA (and Canada) Meeting when budget and time permits. Recent research and wildlife hazard management techniques are presented at these meetings. It is important for MAA to be aware of the newest options available for wildlife hazard mitigation.

EVALUATION

OVERVIEW

The WHMP will be evaluated annually. The WHG will determine the effectiveness of the WHMP at reducing wildlife strikes at BFM and monitor the status of hazard reduction projects, including their completion dates.

MEETINGS

MEETINGS

The WHG will meet at least twice each year, but the group may meet more frequently if situations warrant, as determined by the Wildlife Coordinator. The group will examine the effectiveness of the plan in reducing wildlife hazards at BFM, and examine the information presented in the WHA and continued monitoring reports to determine necessary actions to further reduce wildlife hazards.

WILDLIFE STRIKE DATABASE

The Wildlife Coordinator is responsible for documentation of wildlife populations, hazards and strikes at BFM. This is accomplished primarily through requirements placed on MAA personnel. The Wildlife Coordinator requires MAA personnel to document wildlife strikes through completion of an FAA Wildlife Strike Report Form, submission of the unidentifiable species remains to the Wildlife Biologist/Specialist for species identification, if contracted, and completion of various internal records specific to BFM. Authorized personnel should conduct daily checks of the airfield, identify possible wildlife attractants, and monitor wildlife populations.

Prior to each annual WHG meeting, a summary of wildlife strikes will be prepared by the Wildlife Coordinator and will be reviewed by the WHG at the meeting. The summary will list wildlife species involved in strikes and identify trends and strike numbers. This information will be used to identify emerging needs and to contribute to the evaluation of wildlife hazard management programs at BFM. If unacceptable increases in wildlife strikes and populations are observed, the cause should be determined and the WHMP modified to address the problem.

AIRPORT EXPANSION

Airport expansion plans will be reviewed by the Wildlife Coordinator or a designee of the Operations Superintendent to ensure that new developments will not inadvertently result in increased wildlife hazards to aircraft operations. If necessary, coordination among MAA Operations and Facilities will be conducted through the WHG to review potential impacts of airport development of wildlife hazards at BFM and to modify the proposals to reduce or eliminate potential or emerging hazards.

TRAINING

OVERVIEW

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

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Oct 28 2024
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STANDARD TRAINING

Wildlife control personnel will receive annual training in identifying and mitigating wildlife hazards at airports, including an overview of laws associated with wildlife control, techniques used for prey-base reductions, effective use of firearms and pyrotechnics (including hands-on training), and wildlife identification and dispersal techniques. Protocols for documenting wildlife activity and wildlife strikes will also be taught to all Airport personnel spending time on the airfield. Airport communications and driving training should also be provided to all employees involved in wildlife control operations that may require them to operate in the aircraft operations area (AOA). A record of training will be maintained by the Wildlife Coordinator. Training modules will meet the requirements set forth in FAA Advisory Circular AC 150/5200-38 dated Aug 20, 2018 (**Appendix C**) or most recent version.

USDA APHIS WILDLIFE SERVICES TRAINING

If a contract is entered into between MAA and USDA, additional training of designated wildlife control personnel in basic wildlife identification, plant identification, and dispersal techniques will be offered whenever required. The courses will include hands-on training using pyrotechnics, and other deterrent equipment, with an emphasis on safety and effectiveness. The courses will incorporate management issues relating directly to BFM wildlife strikes, populations, and the physical environment. Wildlife Services will train authorized airport personnel on the retrieval and preservation of feather remains from bird strikes for species identification. Trainings will only familiarize MAA and other personnel with necessary techniques.

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AGENCY DIRECTORY

REGULATORY AND ENFORCEMENT

U.S. FISH AND WILDLIFE SERVICE (WILDLIFE PERMITTING)

MIGRATORY BIRD PERMIT OFFICE

P.O. BOX 49208

ATLANTA, GA 30359

TEL. (404) 679-7070

FAX (404) 679-4180

EMAIL PERMITSR4MB@FWS.GOV

U.S. FISH AND WILDLIFE SERVICE (SECTION 7 AND T&E)

DAPHNE ECOLOGICAL SERVICES FIELD OFFICE

1208-B MAIN STREET

DAPHNE, AL 36526

(251) 441-5842

[HTTP://WWW.FWS.GOV/DAPHNE/SECTION7/SECTION7.HTML](http://WWW.FWS.GOV/DAPHNE/SECTION7/SECTION7.HTML)

U.S. FISH AND WILDLIFE SERVICE

OFFICE OF LAW ENFORCEMENT

1208 B MAIN ST.

DAPHNE, ALABAMA 36526

(251) 441-5787

[HTTP://WWW.LE.FWS.GOV](http://WWW.LE.FWS.GOV)

ALABAMA DEPARTMENT OF CONSERVATION

ALABAMA DIVISION OF WILDLIFE AND FRESHWATER FISHERIES

30571 FIVE RIVERS BLVD., SPANISH FORT, AL 36527

(251) 626-5474

[HTTP://WWW.OUTDOORALABAMA.COM](http://WWW.OUTDOORALABAMA.COM)

TECHNICAL ASSISTANCE

U.S. DEPARTMENT OF AGRICULTURE, WILDLIFE SERVICES
SCHOOL OF FORESTRY AND WILDLIFE SCIENCES
602 DUNCAN DRIVE
AUBURN, AL 36849
(334) 844-5670
[HTTP:// WWW.APHIS.USDA.GOV /WS](http://www.aphis.usda.gov/ws)

MOBILE COUNTY COOPERATIVE EXTENSION
JON ARCHER AGRICULTURAL CENTER
1070 SCHILLINGER RD., N.
MOBILE, AL 36608-5298
(251) 574-8445
[HTTP://WWW.ACES.EDU/COUNTIES/MOBILE](http://www.aces.edu/counties/mobile)

OPERATIONAL ASSISTANCE

U.S. DEPARTMENT OF AGRICULTURE, WILDLIFE SERVICES
SCHOOL OF FORESTRY AND WILDLIFE SCIENCES
602 DUNCAN DRIVE
AUBURN UNIVERSITY, AL 36849
(334) 844-5670
[HTTP://WWW.APHIS.USDA.GOV /WS](http://www.aphis.usda.gov/ws)

FEDERAL AVIATION ADMINISTRATION (FAA) STAFF WILDLIFE BIOLOGIST
FAA AIRPORT SAFETY AND COMPLIANCE
FAA-AA5-317
800 INDEPENDENCE AVE., SW
WASHINGTON, DC 20591
(202) 267-3389
[HTTP://WWW.FAA.GOV](http://www.faa.gov)

LOCAL PEST CONTROL OPERATORS ARE AVAILABLE TO ASSIST WITH INSECT AND RODENT PROBLEMS.