Preston Airport

WILDLIFE HAZARD SITE VISIT SUMMARY REPORT

FINAL DRAFT

ARDURRA

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

1 Wildlife Hazard Site Visit

1.1 Project Team

The Wildlife Hazard Site Visit (WHSV) for Preston Airport (U10 or Airport) was conducted by Ardurra Group, Inc. in November 2024. The site visit and report were conducted in cooperation with Airport staff. Craig Biggs, Airport Manager, was a key contributor to this report. Mr. Biggs is the sole Airport staff member and reports directly to the Preston Airport Board, which oversees airport governance and strategic decisions.

- Craig Biggs, Airport Manager
  CPB.Flyiton@gmail.com
  (208) 852-2151

The Ardurra team included the following individuals:

- Vince Barthels, a Qualified Airport Wildlife Biologist in accordance with Federal Aviation Administration (FAA) Advisory Circular (AC) 150/5200-36B, *Qualifications for Wildlife Biologist Conducting Wildlife Hazard Assessments and Training Curriculums for Airport Personnel Involved in Controlling Wildlife Hazards on Airports.*[1] Mr. Barthels conducted all wildlife surveys and supervised the preparation of the WHSV Report.
- AJ Mondor, an Environmental Planner, prepared the WHSV Report. AJ has extensive experience in habitat and wildlife management in Idaho.
- Shane Slate, an Environmental Project Manager, provided review of the WHSV Report. Shane has extensive knowledge and experience working with wildlife, habitats, and airports within the Pacific Northwest.

For more information, please contact:

Mr. Vince Barthels
Environmental Services Manager
Email: vbarthels@ardurra.com
Phone: (509) 951-9564

1.2 Introduction

The Federal Aviation Administration (FAA) and the United States Department of Agriculture's Wildlife Services (USDA-WS) release an annual report detailing wildlife strikes involving civilian aircraft in the United States. This report has been compiled since 1990, the year the FAA began tracking wildlife strike data. According to FAA Advisory Circular (AC) 150/5200-32C, *Reporting Wildlife Aircraft Strikes*, issued on July 31, 2024, the following key statistics were reported:

- From 1990 to 2022, aircraft struck 639 bird species, 55 species of terrestrial mammals, 46 species of bats, and 34 species of reptiles.
- Between 1990 and 2022, over 276,000 wildlife strike incidents have been recorded in the National Wildlife Strike Database.
- Wildlife strikes have led to a minimum average annual cost of $54.3 million to the U.S. civil aviation industry from 1990 to 2018.[2] Further research estimates that additional "spillover" costs—such as flight delays caused by these strikes—amount to approximately $25 million annually (adjusted to 2020 U.S. dollars).[3]

Despite the steady increase in wildlife strike reporting over the past two decades, discrepancies remain in how different stakeholders—such as pilots, air carriers, airport operators, and air traffic controllers—report these incidents. Specifically, there is a tendency to report more damaging strikes than non-damaging ones, particularly at smaller general aviation (GA) and Part 139 airports. To improve the accuracy of wildlife strike data, it is important to encourage the reporting of all incidents, including detailed information on the species involved, damage incurred, and associated costs.

The FAA has initiated several programs aimed at improving wildlife strike data collection and analysis. Accurate and consistent reporting is critical for the development and effectiveness of wildlife hazard management plans (WHMPs), which require detailed documentation of wildlife strikes occurring within designated distances, as specified in FAA AC 150/5200-33C, *Hazardous Wildlife Attractants on or near Airports.*[4] The FAA mandates that strikes occurring "on or near the airport" must be reported, ensuring that significant incidents in these areas are addressed according to wildlife hazard area regulations and included in WHMP reviews.

1.3 Regulatory Background

The FAA is responsible for establishing and enforcing Federal Aviation Regulations (FARs) under Title 14 of the Code of Federal Regulations (CFR), which govern aviation safety at both certificated and non-certificated airports. These regulations are designed to safeguard public safety at airports that operate under FAR Part 139, as well as at non-certificated airports that are federally obligated.

Preston Airport (U10), which is jointly owned and operated by Franklin County and the City of Preston, does not operate under FAR Part 139, as it is not a certificated airport. However, the Airport does receive federal funding for improvements, and by accepting these funds, the Airport is required to adhere to specific conditions outlined in the FAA's grant assurances.

There are 37 grant assurances that airport operators must follow when receiving federal funding. Wildlife hazard management falls under Grant Assurance No. 19, which pertains to "Operations and Maintenance" under the FAA's Airport Improvement Program (AIP). The FAA may recommend wildlife studies, such as a wildlife hazard site visit (WHSV) or wildlife hazard assessment (WHA), for airports receiving federal funds. If the WHSV reveals

significant findings, the FAA may advise that the airport complete a full WHA or develop a WHMP in accordance with 14 CFR Part 139.[5] Additionally, a formal adoption of the WHSV recommendations can allow for AIP funding, following FAA review and approval by the appropriate FAA Airport District Office (ADO). This adoption may also be considered a WHMP in certain cases.

1.4 Project Purpose and Objectives

In November 2024, Ardurra conducted a WHSV at U10 to assess the potential risks posed by wildlife on or near the Airport that could threaten aircraft operations. This site visit was conducted in alignment with FAA guidelines and FAA AC150/5200-38, *Protocol for the Conduct and Review of Wildlife Hazard Site Visits, Wildlife Hazard Assessments, and Wildlife Hazard Management Plans.*[6] According to the AC, a WHSV involves three key steps:

- Collecting airport-related data;
- Observing the airport environment for wildlife activity;
- Preparing a final report that includes recommendations based on the findings.

The results from a WHSV are intended to help airport operators assess and mitigate wildlife hazards quickly and determine whether further steps, such as conducting a WHA or developing a WHMP, are necessary. The primary goals of the WHSV report, in accordance with FAA AC 150/5200-38, are to:

- Document the wildlife species present, including their numbers, locations, and movement patterns;
- Identify features on or near the airport that may attract hazardous wildlife;
- Describe the potential risks these wildlife hazards pose to aircraft operations;
- Recommend actions to reduce or eliminate identified wildlife hazards.

Before conducting the WHSV, the Ardurra team examined relevant background data to familiarize themselves with the area and the wildlife species likely to be present around the Airport. Aerial imagery was analyzed to assess the Airport's layout in relation to its surroundings, including nearby features or facilities that might attract wildlife posing potential risks. This information was compiled and served as a reference during discussions with Airport staff and while conducting field surveys.

2 Preston Airport

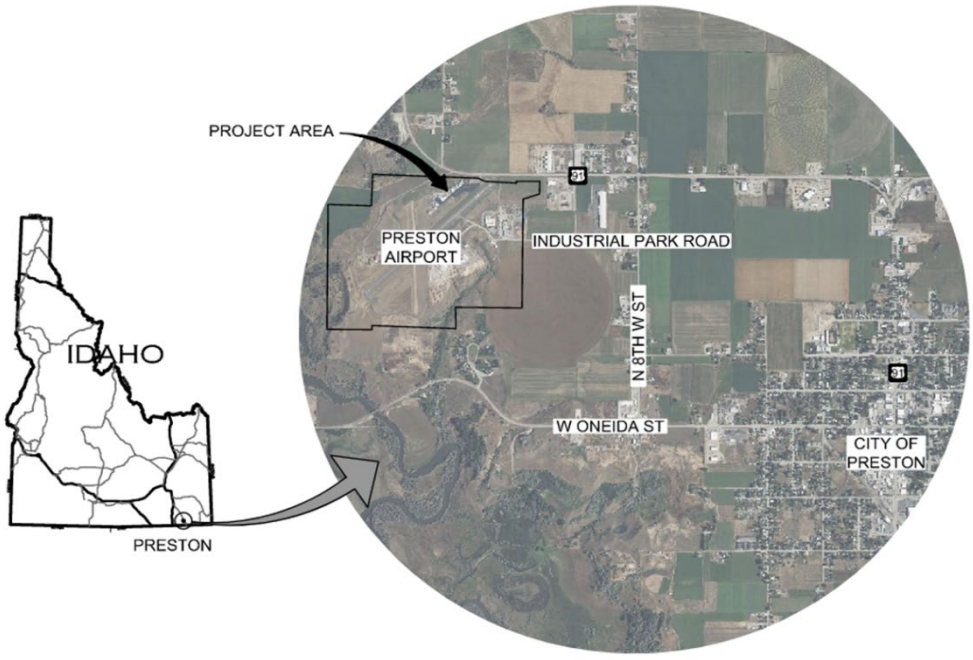
2.1 Site Background

U10 is a GA airport situated in the south-central part of Idaho's Cache Valley. It is surrounded by the Portneuf Range to the north, the Bannock Range to the west, and the Bear River Range to the east. The Airport straddles part of the border between unincorporated Franklin County and the City of Preston — Franklin County's seat and largest city — and is jointly owned and operated by the City and the County. As the only airport in Franklin County, U10 serves a region in southeast Idaho that includes the cities of Preston, Franklin, Dayton, Clifton, Oxford, and Weston. In 2020, this census area had a population of approximately 14,194 people.[7]

The northern region of the Cache Valley, where the Airport is located, has a semi-arid climate. U10 receives an average of 17.3 inches of precipitation and 52.4 inches of snowfall annually. July is the hottest month with an average maximum temperature of 89.2°F and January the coldest with an average minimum temperature of 15.3°F.[8]

U10 is located within the Central Basin and Range Ecoregion established by the United States Environmental Protection Agency.[9] This ecoregion is characterized by a complex landscape of alternating mountain ranges (see Attachment A, Photo 1) and basins, primarily located in the western United States. It encompasses parts of Nevada, Utah, and eastern California, featuring diverse habitats that range from desert environments to higher elevation forests. The region is known for its unique geology, including volcanic formations and ancient lakebeds, as well as its rich biodiversity. This ecoregion supports a variety of plant and animal species adapted to arid conditions, making it an important area for conservation and ecological research.

Figure 2.1 Location and Vicinity Map



Source: Ardurra

2.2 Airport Facility

The 201-acre airport is surrounded by agricultural lands on all sides with some industrial properties to the southeast and the Bear River approximately 0.27 miles to the west. U.S. Highway 91 sits immediately adjacent to the north of the Airport. The Preston Gun Range also lies approximately 0.37 miles to the north. Grass/hay are bailed and removed from the airport. The Airport Manager coordinates weed control as well as mowing. Prior to airport operations, this area was primarily utilized for agricultural and rangelands.

The surrounding agricultural fields grow primarily corn, wheat, hay, alfalfa, potatoes, and barley. The industrial sites closest to the Airport include a welding fabrication shop, a publishing studio, and a wood framing prefabrication shop. Extending out to a 1-mile radius, there are more agricultural fields, some associated residences, pasturelands and wetlands around the river, and more industrial, automotive, and construction businesses.

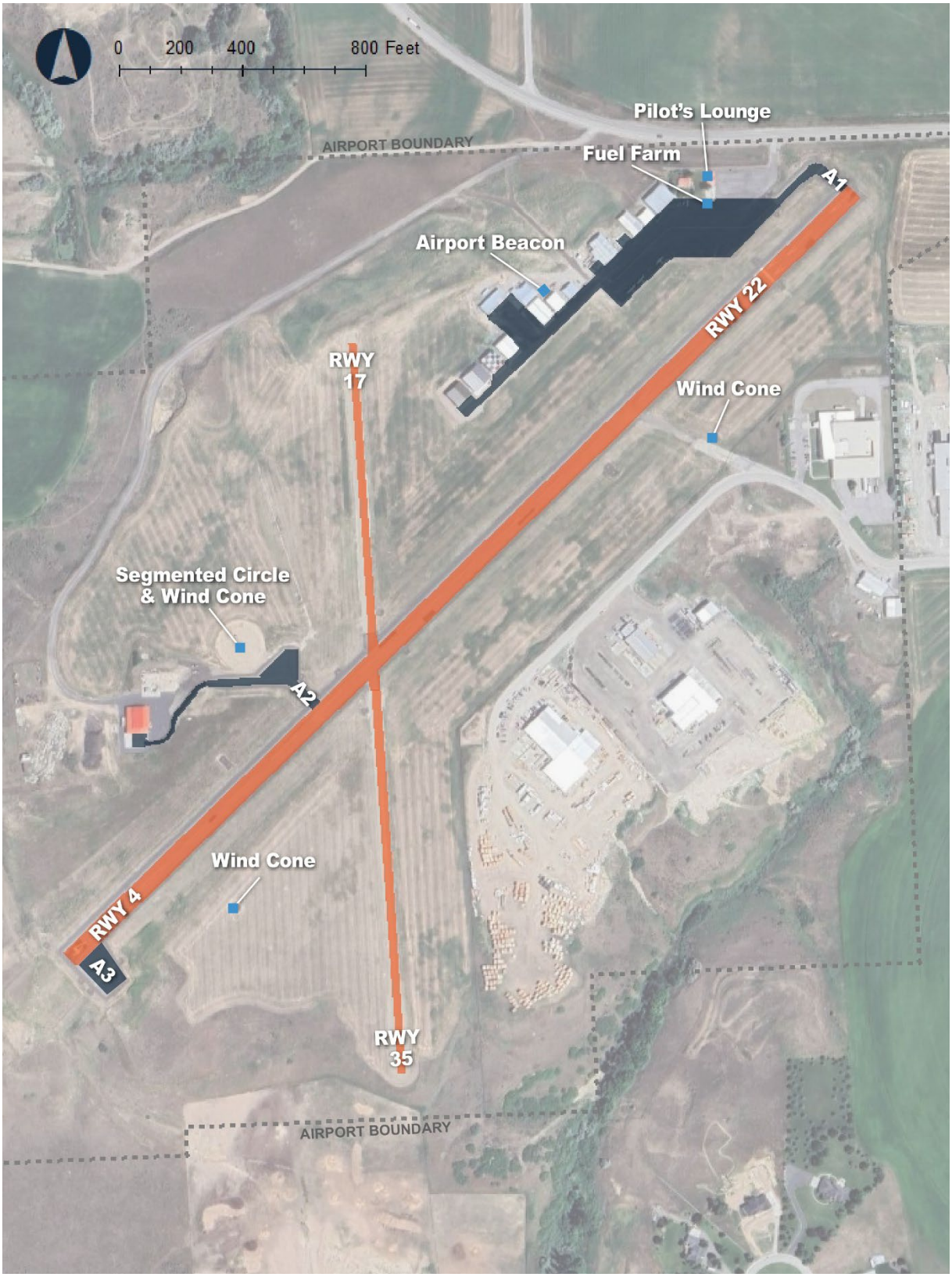
There are two perpendicular runways at U10:

- Runway 4/22 is a northeast-southwest oriented asphalt runway that is 3,557 feet long and 60 feet wide.
- Runway 17/35 is a north-south oriented gravel/dirt runway that is 2,375 feet long and 30 feet wide.

According to Airport records, there were 6,813 operations in calendar year 2023, which did not include glider operations. There are 14 hangar structures at U10. Figure 2.2 shows the airport layout and associated structures.

General Aviation accounts for 99% of flights operating within U10. These include (but are not limited to) single engine and light twins, Cessna, Piper, Beech, and experimental aircraft. A few turboprop aircraft (e.g.: PC-12, or Beech King Air) once or twice a quarter. U10 currently has student training daily with about 20 plus active students. U10 also receives training and transient aircraft that come and go throughout the week for fuel or maintenance or business or fun. Military aircraft utilize U10 once or twice a year.

Figure 2.2 Airport Layout



Source: Ardurra

2.3 FAA Wildlife Strike Database Records

The FAA keeps a National Wildlife Strike Database that tracks strike incidents from 1990 to the present. According to this database, only one wildlife strike has occurred at U10, which was recorded in December 2015 when a government aircraft collided with an unidentified bird.[10]

It is important to note, however, that FAA data should be interpreted with caution. The reporting of strikes is voluntary, and the FAA estimates that only 47 percent of all strikes nationwide from 2009 to 2013 were documented in the database, with that figure rising to about 91 percent when considering commercial aircraft only.[11] U10 does not maintain a log of bird strikes. Mr. Biggs Reported that two of the local instructors each had a bird strike (small sparrow sized) this spring and there was no damage from the impact. No efforts have been made to tried to collect strike data from Airport users.

2.4 Existing Wildlife Hazard Management at U10

Mr. Craig Biggs lives on site at U10 and serves as the Airport Manager. As the sole staff member, he is responsible for all day-to-day operations and wildlife hazard management. Oversight and governance are provided by the Preston Airport Board. Mr. Biggs stated that he patrols the air operations area (AOA) regularly to disperse wildlife from the airfield (birds, deer, and coyotes) primarily utilizing human/vehicle presence though there are no written procedures or policies for managing wildlife hazards and no official wildlife log is in place though plans to implement one are forthcoming. The Airport does not currently hold any state or federal depredation permits to perform lethal control of wildlife within the AOA.

The Airport is equipped with approximately 7,300 feet of four-strand barbed wire perimeter fence (see Attachment A, Photo 4), which is broken in certain areas and insufficient to exclude most wildlife from entering the AOA. Approximately 3,000 feet of six-foot security fence topped with barbed wire (but no skirt to prevent burrowing) is located along Industrial Park Road to the southeast of U10 (see Attachment A, Photos 8, 9, and 10). Approximately 700 feet of four-foot chain link perimeter fence encloses the public parking area at U10 (see Attachment A, Photo 17), but does little to deter wildlife.

U10 maintains vegetation regularly throughout the airfield; grass, sagebrush, and other herbaceous material that is located within the AOA is mowed to maintain fire breaks and trees that become obstructions are removed.

2.5 Recent Airport Improvements

Areas of the Airport were recently graded (summer 2024) and re-seeded with primarily a crested wheatgrass mix. The newly seeded grass is being permitted to grow taller in its first season but will be maintained between 6 and 12 inches once fully established (see Attachment A, Photo 2).

2.6 Current Wildlife Hazard Threats and Concerns

U10 currently lacks a full perimeter security or wildlife fence to prevent mammals from accessing the AOA. The wildlife species posing the greatest risk to aircraft operations include larger mammals such as mule deer and coyotes, that could be excluded by a security or wildlife fence. During the site visit, deer tracks could be seen crossing the runway and runway protection zone (RPZ).

European starlings (see Attachment A, Photos 3 and 15), which were observed in varying numbers, ranging from single individuals to a murmur in excess of 1,000 birds are also frequently seen within the AOA and aircraft movement areas. Other bird species that pose significant risks to aircraft operations, such as waterfowl, finches,

and chukar, are commonly found foraging, flying, and perching within the AOA (see Attachment A, Photo 19). Additionally, species typically associated with spring and fall migrations—such as gulls, raptors, blackbirds, and various passerines—represent potential threats to aircraft operations, although few were observed during the WHSV. The following features were observed on and near U10 that have the potential to attract potentially hazardous wildlife.

2.6.1 Agricultural Fields

Agricultural fields surround the Airport in all directions (see Attachment A, Photos 3, 4, and 16) and provide a constant food source for a variety of wildlife, including deer, rabbits, and rodents. The availability of such food attracts species that are often found near the Airport's perimeter, increasing the likelihood of wildlife entering the AOA. The proximity of these fields to the AOA can also lead to an increase in the movement of animals across the area, raising the risk of wildlife strikes with aircraft. Additionally, the proximity to farming activities might attract birds, such as migratory waterfowl and raptors, that forage in the fields, further contributing to potential safety hazards for flight operations. Therefore, managing the interface between agricultural lands and the airport is critical for minimizing wildlife-related risks.

2.6.2 Sagebrush

One of the factors drawing wildlife to U10 is the sagebrush situated outside the runway safety areas (RSAs) but within the AOA. This vegetation is located south and east of the Airport and is particularly attractive to large, potentially dangerous bird species, while also offering thick cover for animals like coyotes and deer. The sagebrush within the AOA provides habitat for birds that forage, rest, and nest in the area. Its dense structure can conceal wildlife, making it difficult for airport staff and pilots to spot potential threats. Therefore, removing the brush is crucial to minimize or prevent wildlife-related incidents with aircraft operations at U10.

2.6.3 Water Source

Bear River, located to the west of the AOA, serves as a water source with an associated riparian area that draws Canada geese, ducks, great blue herons, and other waterfowl. These birds can pose risks as they fly through the surrounding airspace or take refuge within the AOA, increasing the potential for hazardous encounters.

2.6.4 Wooded Areas

Wooded regions (see Attachment A, Photo 5) can be found along the Bear River to the west of the Airport, as well as in the drainages to the north and south. These areas attract birds such as raptors, ravens, and doves, which frequently cross the AOA and runways. In addition, the cover provided by these woods allows coyotes and deer to move freely between wooded areas, potentially crossing the AOA and creating additional risks (see Attachment A, Photos 6, 7, 20, and 22).

3 Wildlife Observations

3.1 Wildlife Hazard Site Visit and Survey Overview

Ardurra carried out a thorough three-day site visit from November 25 to 27, 2024, to evaluate the U10 property. The survey was led by Vince Barthels, an FAA-Qualified Airport Wildlife Biologist (QAWB), with the objective of assessing property boundaries, pinpointing potential wildlife monitoring locations, and documenting existing conditions.

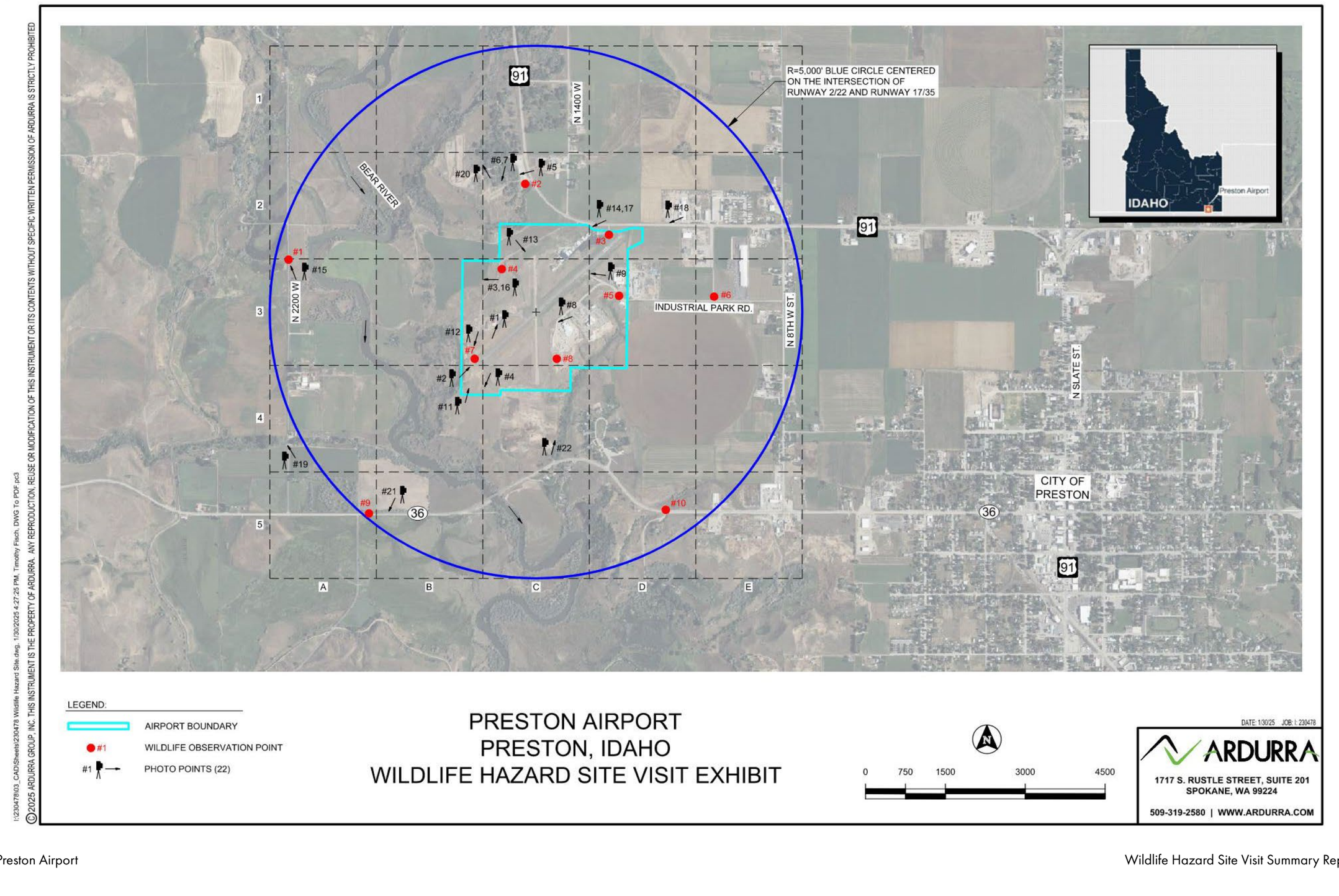
To facilitate wildlife activity monitoring, ten fixed-point survey sites were established (refer to Figure 3.1). Five of these locations were within U10, carefully selected to ensure comprehensive visual coverage of the AOA, which includes runways, taxiways, aprons, buildings, and other structures. The remaining five sites were positioned off-airport in and near areas identified as potential wildlife attractants, such as Bear River, open spaces, sagebrush, and woodlands. These off-airport locations were also strategically aligned within the aircraft approach and departure zones, all within a 5,000-foot radius of the AOA.

Throughout the site visit, the QAWB performed fixed-point wildlife surveys that focused on the presence and behavior of wildlife. A total of four surveys were completed — two during the morning and two in the evening. Morning surveys commenced at dawn, while evening surveys began approximately two hours before sunset. Each survey entailed the QAWB recording all wildlife species observed from each monitoring location over three-minute intervals. Observations were meticulously logged on the WHSV: Wildlife Observation Log data sheet for future analysis.

In addition to the formal survey data, general observations concerning wildlife presence or signs, such as scat, tracks (see Attachment A, Photos 11 and 12), and holes (see Attachment A, Photo 13) not linked to fixed-point monitoring locations, were also made. These observations documented wildlife encounters experienced while traversing between monitoring sites, near hangars, along the airport perimeter, or during other activities on the U10 property.

During the site visit, weather conditions predominantly included rain, with precipitation levels ranging from 0.05 to 0.52 inches, and wind speeds between 9 and 14 miles per hour. Temperatures fluctuated from a brisk 20°F in the mornings to a maximum of 47°F later in the day.

Figure 3.1 Wildlife Hazard Site Visit Exhibit



3.2 Wildlife Survey Results

As indicated in Table 3.1, a total of 3,939 birds and 87 mammals from 27 different wildlife species were observed during the surveys. The species diversity recorded at U10 is typical for the region, especially during the late fall migration period when the WHSV was conducted. The majority of the species observed are either common residents of the area or fall migrants passing through Franklin County. Among the bird species, European starlings were the most frequently sighted, often in flocks numbering over 1,000 individuals. Additionally, coyotes, deer, and signs of badger activity were also recorded within the AOA.

Table 3.1 Wildlife Observed During the WHSV Surveys November 25-27, 2024

Species	Scientific Name	Abundance
American kestrel	*Falco sparverius*	2
Badger	*Taxidea taxus*	Dormant Badger/Coyote Den Observed
Bald eagle	*Haliaeetus leucocephalus*	2
Barn cat	*Felidae spp.*	1
California quail	*Callipepla californica*	14
Canada goose	*Branta canadensis*	103
Chukar	*Alectoris chukar*	39
Coyote	*Canis latrans*	2
Crow	*Corvus spp.*	5
Duck	*Anatidae spp.*	339
European starling	*Sturnus vulgaris*	3,214
Great blue heron	*Ardea herodias*	1
House finch	*Haemorhous mexicanus*	37
House sparrow	*Passer domesticus*	6
Killdeer	*Charadrius vociferus*	1
Magpie	*Pica hudsonia*	40
Marsh wren	*Cistothorus palustris*	2
Mourning dove	*Zenaida macroura*	76
Mule deer	*Odocoileus hemionus*	85
Northern flicker	*Colaptes auratus*	3
Pheasant	*Phasianus colchicus*	8
Pigeon	*Patagioenas fasciata*	8
Red-tailed hawk	*Buteo jamaicensis*	7
Red-winged blackbird	*Agelaius phoeniceus*	4
Ring-billed gull	*Larus delawarensis*	1
Ruby-crowned kinglet	*Corthylio calendula*	3
Sparrow	*Passer domesticus*	23
Total Individuals Observed From 27 Species		**4,026**

Source: Ardurra

3.3 Wildlife Habitat and Activity Assessment at U10

The QAWB also identified various habitats and biological communities on airport property that could attract or support wildlife. General inspections were carried out to pinpoint features that were observed or had the potential to attract hazardous wildlife. These features included agricultural fields, sagebrush, Bear River, wooded areas, buildings, hangars, and airfield structures.

Wildlife activity on U10 property and within its facilities may vary due to seasonal and daily changes in site conditions and weather patterns. The data gathered during the WHSV provides a snapshot of wildlife presence and behavior at the Airport and should not be regarded as a complete representation of wildlife populations or behaviors at U10. Instead, it establishes a baseline for developing recommendations to guide future studies. Any proposed changes or upgrades to U10's property or facilities should be reviewed by the QAWB to assess their potential impact on wildlife presence, behavior, distribution, and abundance within the AOA and surrounding areas. Such changes may involve modifications to structures, landscaping, and stormwater or drainage systems.

3.4 Threatened and Endangered Species

The United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) species list includes species that are threatened or endangered under the Endangered Species Act (ESA). The IPaC data was reviewed to determine if any ESA-listed species may be present in the vicinity of the Airport. Three species were identified: the monarch butterfly (*Danaus plexippus*), a proposed threatened species under the ESA, the Suckley's cuckoo bumble bee (*Bombus suckleyi*), a proposed endangered species under the ESA, and the Ute Ladies'-tresses (*Spiranthes diluvialis*), which is listed as threatened under the ESA. However, none of these species were observed during the WHSV.

In addition to ESA-listed species, migratory birds are protected under the federal Migratory Bird Treaty Act (MBTA). The IPaC species list includes several migratory bird species such as the American avocet (*Recurvirostra americana*), American white pelican (*Pelecanus erythrorhynchos*), California gull (Larus californicus), Franklin's gull (*Leucophaeus pipixcan*), northern harrier (*Circus hudsonius*), and willet (*Tringa semipalmata*). None of these species were observed during the WHSV.

Though not listed on the IPaC species list, two bald eagles (Haliaeetus leucocephalus) were observed in the area. These eagles are further protected under the Bald and Golden Eagle Protection Act of 1940.

3.5 Wildlife Attractants

3.5.1 On-Airport Wildlife Attractants

The primary wildlife attractants identified at U10 are the expansive grass fields within the AOA. These fields draw various species of birds that can pose hazards, while also serving as forage grounds for deer. To ensure optimal visibility and minimal cover for wildlife in the AOA, it is essential to maintain these grass fields at a height of six to twelve inches. Additionally, wooded areas along the Airport boundary provide habitat for raptors, ravens, doves, and other birds that traverse the AOA and runways. The cover from these woodlands also facilitates movement for coyotes and deer, potentially leading them into the AOA and increasing associated risks.

Effective wildlife management necessitates the implementation of exclusion strategies to mitigate attractants on-site. The current four-strand barbed wire fence (see Attachment A, Photo 16), particularly in its current state of

disrepair, does little to stop larger wild mammals, such as deer and coyotes, from accessing areas where aircraft operate. The presence of mammals in these zones can create significant hazards for aircraft.

Collisions with large mammals can be disastrous. The FAA designates deer and other large mammals as the species that present the highest threat to aircraft operations. Considering the prevalence of deer in the surrounding environment (see Attachment A, Photos 6, 7, 12, 16, and 20), it is highly recommended that U10 explore the construction of a wildlife exclusion fence around the AOA. This fence should be constructed at a sufficient height to deter deer and designed to contain a buried skirt to prevent burrowing by coyotes and other mammals. Refer to FAA AC 150/5200-33C, *Hazardous Wildlife Attractants on or near Airports,*[12] and FAA CertAlert No.16-03, *Recommended Wildlife Exclusion Fencing,*[13] for more information.

3.5.2 Off-Airport Wildlife Attractants

Bear River is situated to the west of the AOA. This water source is an attractant for Canada geese, various duck species, great blue herons, and other water and shorebirds, presenting potential hazards to aircraft as they approach or traverse through the U10 airspace. Additionally, groves of trees located to the south, north, and west of the AOA can serve as roosting sites for potentially hazardous bird species, including raptors and blackbirds. Surrounding the Airport, there are numerous agricultural fields to the north, west, and southeast, which create expansive habitats attractive to Canada geese and other waterfowl that migrate through or above the U10 airspace.

According to FAA AC 150/5200-33C, *Hazardous Wildlife Attractants on or near Airports,* land use practices that attract or sustain hazardous wildlife are identified, along with recommended minimum separation distances between these land uses and airports. The FAA advises a minimum separation of at least 5,000 feet between hazardous wildlife attractants and airports serving piston-powered aircraft, and a minimum of 10,000 feet for those serving turbine-powered aircraft, such as U10. Furthermore, it is recommended that there be a separation of 5 statute miles between the outer boundaries of the AOA and any hazardous wildlife attractant that could lead to wildlife movement into or across the approach or departure airspace. FAA AC 150/5200-33C enumerates various land uses as potential hazardous wildlife attractants, including landfills, water management facilities, wetlands, spoil containment areas, agricultural activities, golf courses, and landscaping.

4 Recommendations for Airport Safety

4.1 Recommended Changes to U10 Infrastructure

To enhance wildlife management and safety at U10, it is crucial to evaluate and implement strategic changes to the Airport's infrastructure. These recommendations aim to address current wildlife hazards, improve monitoring capabilities, and minimize the risk of wildlife encounters in the AOA. By considering modifications to existing structures, implementing new technologies, and refining management practices, U10 can better control wildlife activity and further reduce the potential for wildlife strikes. The following infrastructure improvements are designed to provide a comprehensive, long-term solution to managing wildlife at U10 while ensuring the safety of both aircraft operations and wildlife.

4.1.1 Perimeter Fence

It is recommended that the Airport install a wildlife exclusion fence around the perimeter of the property. The fence should include barbed-wire outriggers and four feet of buried skirt to prevent mammals, such as coyotes, from burrowing underneath. Specifications for the construction of such a fence are outlined in FAA AC 150/5370-10H, *Standard Specifications for Construction of Airports*, and specified in Attachment B, Detail F-163. According to FAA CertAlert No.16-03, the fence should fully enclose the Airport property to effectively restrict wildlife from accessing the AOA.[14] Moreover, in alignment with FAA Order 5100.38D, *Airport Improvement Program Handbook*, the implementation of wildlife fencing is typically eligible for funding if the Sponsor has adopted the WHSV Report.[15]

Larger mammals, such as deer and coyotes, pose significant risks to aircraft when they enter the AOA. Strikes with these animals can lead to severe damage or even complete destruction of aircraft, particularly during critical takeoff and landing phases. The QAWB who conducted the site visit identified the lack of a sufficient perimeter fence as a major concern at U10, as it allows larger mammals to freely enter the AOA. A wildlife fence is currently identified for construction in 2029 on the 2025-2030 Capital Improvement Plan (CIP) for U10.

4.1.2 Wildlife Deterrence and Management Strategies

To effectively manage wildlife within the AOA, it is recommended to install a combination of active and passive wildlife harassment techniques and deterrents. These measures should include the use of biosonic calls, such as alarm and distress signals, alongside visual deterrents like effigies, predator models, decoys, lasers, and lights or mirrors. When deploying these dispersal methods, it is important to ensure minimal disruption to Airport personnel and visitors, while effectively deterring wildlife. These techniques are further detailed in Airport Cooperative Research Program (ACRP) Report 23, *Airport Passenger-Related Processing Rates Guidebook*.[16]

In addition to sound and visual deterrents, automated or motion-sensing wildlife repellents should be installed within the AOA. These systems can be triggered by the presence of wildlife, activating sound, lights, or sprays to discourage animals from entering critical areas. To further enhance wildlife monitoring and detection, radar systems could be introduced to track wildlife in flight paths and around the Airport, offering real-time data on wildlife movements. Infrared or motion-sensing cameras could also be strategically placed in high-activity areas, providing immediate insights into wildlife presence and enabling a quick response to emerging threats.

Furthermore, modifications to lighting within the AOA can help reduce attraction for nocturnal bird species. Research has shown that certain light wavelengths or lower-intensity lights can discourage birds from

approaching the Airport, thereby improving both aircraft safety and wildlife management. By employing these methods, U10 can effectively mitigate wildlife hazards and enhance overall airport safety.

4.2 Recommendations for U10 Habitat Management

The large grass fields within the AOA at U10 were identified as significant wildlife attractants. If allowed to grow unchecked, the tall grass could obscure potentially hazardous birds and mammals, making them less visible to Airport staff. Adding an as-needed application of herbicides and the continuation of current mowing practices will ensure that these wildlife hazards remain visible to maintenance personnel and aircraft operators. It is crucial that U10 continues to monitor wildlife use in these areas and implements the necessary wildlife management measures to mitigate the risks posed by these attractants.

In addition to on-site efforts, the Airport should collaborate with adjacent landowners to manage habitats in surrounding areas. This could include reducing wildlife attractants, such as food sources, and establishing wildlife barriers to prevent animals from approaching the Airport. Engaging local farmers and community members in this effort can further help minimize wildlife movement toward the Airport. Non-lethal methods, such as capturing and relocating hazardous wildlife species should also be considered to safely manage wildlife populations away from the Airport.

4.3 Wildlife Activity Monitoring Recommendations

The data gathered during the three-day site visit offers a brief overview of wildlife activity at U10. However, it is essential to recognize that wildlife presence, behavior, and site conditions can vary daily, seasonally, and annually. As a result, ongoing monitoring of both on-site and adjacent wildlife is critical for maintaining safety and effective management. U10 should continue to track wildlife behavior, movement, and population density at the Airport and its surroundings.

A comprehensive monitoring program should be implemented to track wildlife populations over time, utilizing data analysis to identify patterns in wildlife movements. This will allow management strategies to be adjusted as needed to address emerging trends and behaviors. The wildlife management plan should be regularly reviewed and updated based on new data, changes in wildlife behavior, or the effectiveness of current management practices.

Regular off-site monitoring at key locations should also be a priority for assessing potential wildlife risks. Bear River, a known habitat for large groups of Canada geese, various waterfowl species, great blue herons, and other water and shorebirds, should be monitored closely. Birds from this area may travel between the river and the Airport, potentially entering the AOA or flying through nearby airspace. It is recommended that U10 track the movements of birds from Bear River. If birds are found to be entering the AOA, it would be prudent for U10 to collaborate with the United States Army Corps of Engineers to explore bird control or management options at the river to mitigate any hazards.

Wildlife patrols should be conducted in conjunction with the monitoring program to identify and address hazardous wildlife within the AOA, with particular focus on areas near sagebrush and woodlands. Patrols should work to disperse deer, coyotes, birds, and other wildlife from these areas. The frequency of these patrols should be adjusted based on seasonal trends and monitoring results. A Per AC 150/5200-38, it is recommended that a wildlife strike log be created and maintained to determine patrol timing, frequency, and need as well as track species within U10 to assist in future wildlife management decisions.

Additionally, both on-airport and adjacent wooded areas should be monitored for bird activity. These wooded areas serve as perching and roosting sites for birds, as well as shelter for deer and coyotes. Birds from these areas may pose a threat to aircraft as they cross runways or fly into airspace. Airport staff should track the movements of birds in these areas to determine if they are entering the AOA or crossing through protected airspace. If birds from nearby wooded areas are observed entering the AOA, U10 should seek permission from the landowner to implement bird dispersal measures. Collaborating with a QAWB can aid in identifying and implementing appropriate bird control strategies in cooperation with the property owner.

Airport personnel should receive training in wildlife identification and management protocols to respond effectively to wildlife hazards in compliance with federal and state regulations. Personnel should be equipped with the necessary tools for managing wildlife threats, including but not limited to:

- Binoculars
- Bird and mammal identification guides
- A wildlife management logbook
- Personal protective equipment (PPE)

4.4 Lethal Control as a Supplement to Non-Lethal Methods

While non-lethal harassment techniques are often effective in managing wildlife, animals can eventually habituate to these methods, reducing their effectiveness over time. In such instances, lethal control may become necessary to complement or reinforce non-lethal strategies. ACRP Synthesis 39, *Airport Wildlife Population Management*, offers comprehensive guidance on integrating lethal control into broader wildlife management plans.[17] Although the use of lethal control may not be popular with the public, it can be crucial for ensuring the safety of airport operations. The benefits, particularly in terms of risk mitigation, often outweigh public concerns. However, lethal control should always be considered a last resort, employed only when non-lethal methods are ineffective or need reinforcement.

State and federal depredation permits should be obtained to implement lethal control measures for managing hazardous wildlife species, such as waterfowl, deer, coyotes, blackbirds, and other hazardous wildlife. Airport operations staff should be properly trained and receive (at minimum) yearly refreshers on safety and proper use of all equipment, particularly those intended for lethal use. Additionally, it is important to provide airport staff with yearly wildlife hazard management training, conducted by a QAWB, to improve their ability to recognize and respond to wildlife risks effectively.

To conduct lethal control on migratory bird species such as Canada geese and raptors, U10 must obtain a federal depredation permit from the USFWS. Additionally, for state-managed species like deer and coyotes, a state depredation permit from the Idaho Department of Fish and Game is required. These permits must be renewed annually with the appropriate federal and state agencies. If lethal control measures are necessary, U10 may enter into a contract with USDA-WS or a private wildlife control contractor to carry out the necessary actions in accordance with all regulatory requirements. This ensures that lethal management is carried out in a controlled, effective, and legal manner.

4.5 Administrative Actions

4.5.1 Wildlife Activity Reporting Recommendations

To ensure effective response to wildlife hazards, all wildlife strikes must be reported to the FAA Wildlife Strike Database (http://wildlife.faa.gov/database.aspx) for tracking and analysis. A clear protocol should be developed for Airport personnel, pilots, and other users to report wildlife sightings or strikes directly to airport management, enabling a timely and coordinated response. Pilots should be advised to file pilot reports (PIREPs) to document any wildlife hazards observed in or around the Airport.

Although the FAA's wildlife strike reporting system is voluntary, reporting all strikes and wildlife sightings is critical for identifying patterns and evaluating wildlife control effectiveness. To streamline this, U10 should establish clear protocols for Airport users—such as fixed-base operators (FBO), pilots, and staff—to report wildlife encounters. U10 management should maintain a comprehensive wildlife strike log of all reported incidents per AC 150/5200-38. These records should be incorporated into U10's WHMP to ensure ongoing monitoring and response.

In cases where persistent wildlife hazards are identified at specific times or locations, a system should be established to issue a Notice to Airmen (NOTAM) to inform pilots of the risks. To further raise awareness about wildlife hazards, informative signage should be posted at key locations throughout the Airport, such as Airport user offices and FBO areas. This will encourage reporting from both Airport personnel and visitors, helping to improve overall wildlife hazard management.

4.5.2 Wildlife Hazard Awareness Protocol

To enhance safety and awareness, the following steps are recommended:

- Encourage Pilots to Report Wildlife Hazards via PIREPs: Pilots should be advised to report any wildlife hazards observed near or on the Airport using PIREPs via UNICOM or the common traffic advisory frequency. This real-time reporting allows for immediate awareness of potential threats to aircraft in the vicinity.
- Issue Specific NOTAMs for Persistent Wildlife Hazards: When a consistent wildlife hazard is identified, especially during peak activity periods, the Airport manager should issue a NOTAM. It is crucial that these notices are specific, highlighting the nature and location of the hazard, rather than using vague terms like "wildlife on and around the airport."
- Raise Awareness with Signage and Communication: To inform everyone on Airport property about wildlife risks, U10 staff should display signs and posters regarding hazardous wildlife and reporting procedures. FAA-approved posters are available, and U10 should consider sending regular email notifications or newsletters to all tenants and stakeholders. These communications should outline the types of wildlife hazards, the importance of reporting strikes, and the steps for doing so.
- Establish a formal wildlife log and associated procedures to determine patrol timing, frequency, and need as well as track species within U10 to assist in future wildlife management decisions.

By implementing these practices, U10 will foster a more proactive approach to wildlife hazard management, improving safety and ensuring that all wildlife encounters are documented and addressed effectively.

4.6 Final Wildlife Hazard Assessment and Management Recommendations

The November 25 to 27, 2024 surveys, conducted by the QAWB in collaboration with U10 staff, have confirmed the presence of hazardous wildlife in proximity to the Airport. Notably, wildlife such as deer, coyotes, and European starlings have been identified as significant threats, posing potential risks to airport operations both on and near airport grounds.

Several management approaches can be implemented to address these identified hazards. One effective strategy involves utilizing dispersal techniques, as outlined in Chapter 4 of ACRP Report 23,[18] in combination with regular hazing activities to discourage wildlife from entering the AOA. A wildlife perimeter fence is planned for 2029 and would greatly help exclude larger mammals from the AOA. In instances where non-lethal methods fail to produce sufficient results, obtaining depredation permits from the Idaho Department of Fish and Game and USDA-WS may be necessary to implement lethal control measures as part of a more comprehensive wildlife management plan.

The findings of the WHSV Report, which serves as an assessment of wildlife hazards at U10, confirm the identification of these risks and outline the appropriate management actions. Since this report has been reviewed by a QAWB, and the findings are adequate to determine necessary steps, a full WHA is not considered necessary. As such, the development of a formal WHMP for U10 is recommended based on the conclusions and proposed actions in this report.

U10 may choose to submit the WHSV Report to the FAA for further review. Should the FAA endorse the recommendations made within the report, there is potential for the subsequent WHMP to receive federal funding. If the FAA grants approval for the final management plan, the implementation of its proposed strategies could also qualify for federal financial support.

ENDNOTES

[1] Federal Aviation Administration. (2019, January). Advisory Circular 150/5200-36B, *Qualifications for Wildlife Biologist Conducting Wildlife Hazard Assessments and Training Curriculums for Airport Personnel Involved in Controlling Wildlife Hazards on Airport.* Retrieved December 5, 2024, from https://www.faa.gov/regulations_policies/advisory_circulars/index.cfm/go/document.information/documentID/1035188

[2] Federal Aviation Administration. (2019). FAA National Wildlife Strike Database Serial Report Number 20, *Wildlife Strikes to Civil Aircraft in the United States 1990-2018*. Retrieved December 5, 2024, from http://wildlife.faa.gov/downloads/Wildlife-Strike-Report-1990-2018-USDA-FAA.pdf

[3] Federal Aviation Administration. (2023, June). FAA National Wildlife Strike Database Serial Report Number 29, *Wildlife Strikes to Civil Aircraft in the United States 1990-2022*. Retrieved December 5, 2024, from https://www.faa.gov/sites/faa.gov/files/Wildlife-Strike-Report-1990-2022.pdf

[4] Federal Aviation Administration. (2020, February). Advisory Circular 150/5200-33C, *Hazardous Wildlife Attractants on or near Airports.* Retrieved December 5, 2024, from https://www.faa.gov/documentLibrary/media/Advisory_Circular/150-5200-33C.pdf

[5] National Archives and Records Administration. (2004, February). Code of Federal Regulations (CFR) Title 14, Chapter I, Subchapter G, Part 139, *Certification of Airports.* Retrieved December 6, 2024, from https://www.ecfr.gov/current/title-14/chapter-I/subchapter-D/part-139

[6] Federal Aviation Administration. (2018, August). Advisory Circular 150/5200-38, *Protocol for the Conduct and Review of Wildlife Hazard Site Visits, Wildlife Hazard Assessments, and Wildlife Hazard Management Plans.* Retrieved December 6, 2024, from https://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentNumber/150_5200-38

[7] U.S. Census Bureau. (2020). Census Data Profile: Franklin County, Idaho. Retrieved December 6, 2024, from https://data.census.gov/profile/Franklin_County,_Idaho?g=050XX00US16041

[8] National Oceanic and Atmospheric Administration, National Centers for Environmental Information. (n.d.). U.S. Climate Normals Quick Access. Retrieved December 6, 2024, from https://www.ncei.noaa.gov/access/us-climate-normals/#dataset=normals-monthly&timeframe=30&location=ID&station=USC00107346

[9] Environmental Protection Agency. (2002). *Ecoregions of Idaho.* Retrieved December 10, 2024, from https://dmap-prod-oms-edc.s3.us-east-1.amazonaws.com/ORD/Ecoregions/id/id_eco_lg.pdf

[10] Federal Aviation Administration. (2024). FAA Wildlife Strike Database. Retrieved December 10, 2024, from https://wildlife.faa.gov/home

[11] Federal Aviation Administration. (2023, June). FAA National Wildlife Strike Database Serial Report Number 29, *Wildlife Strikes to Civil Aircraft in the United States 1990-2022*. Retrieved December 10, 2024, from https://www.faa.gov/sites/faa.gov/files/Wildlife-Strike-Report-1990-2022.pdf

[12] Federal Aviation Administration. (2020, February). Advisory Circular 150/5200-33C, *Hazardous Wildlife Attractants on or near Airports.* Retrieved February 26, 2025, from https://www.faa.gov/documentLibrary/media/Advisory_Circular/150-5200-33C.pdf

[13] Federal Aviation Administration. (2016, August). National Part 139 CertAlert No.16-03, *Recommended Wildlife Exclusion Fencing.* Retrieved February 26, 2025, from https://www.faa.gov/sites/faa.gov/files/airports/airport_safety/wildlife/resources/part-139-cert-alert-16-03.pdf

[14] Federal Aviation Administration. (2016, August). National Part 139 CertAlert No.16-03, *Recommended Wildlife Exclusion Fencing.* Retrieved February 26, 2025, from https://www.faa.gov/sites/faa.gov/files/airports/airport_safety/wildlife/resources/part-139-cert-alert-16-03.pdf

[15] Federal Aviation Administration. (2019, February). Order 5100.38D, Change 1: *Airport Improvement Program Handbook.* Retrieved December 17, 2024, from https://www.faa.gov/documentLibrary/media/Order/AIP-Handbook-Order-5100-38D-Chg1.pdf

[16] National Academies of Sciences, Engineering, and Medicine. (2009). Airport Cooperative Research Program Report 23, *Airport Passenger-Related Processing Rates Guidebook*. Retrieved December 18, 2024, from https://nap.nationalacademies.org/read/22990/chapter/1

[17] National Academies of Sciences, Engineering, and Medicine. (2013). Airport Cooperative Research Program Synthesis 39, *Airport Wildlife Population Management*. Retrieved December 18, 2024, from https://nap.nationalacademies.org/read/22599/chapter/1

[18] National Academies of Sciences, Engineering, and Medicine. (2009). Airport Cooperative Research Program Report 23, *Airport Passenger-Related Processing Rates Guidebook*. Retrieved December 18, 2024, from https://nap.nationalacademies.org/read/22990/chapter/1