FRIEDMAN MEMORIAL AIRPORT

LAND ACQUISITION AND OBSTRUCTION REMOVAL

ENVIRONMENTAL ASSESSMENT AND DOT SECTION 4(f) EVALUATION

MAY 2019

AIP # 3-16-0016-044-2017

Prepared for the Friedman Memorial Airport (SUN) and the Federal Aviation Administration

Prepared by T-O Engineers

T·O ENGINEERS

Friedman Memorial Airport

Land Acquisition and Obstruction Removal

Environmental Assessment and DOT Section 4(f) Evaluation

(AIP # 3-16-0016-044-2017)

This Environmental Assessment becomes a Federal document when evaluated and signed by the responsible FAA official.

Responsible FAA Official

May 24, 2019
Date

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TABLE OF CONTENTS

LIST OF TABLES AND FIGURES

APPENDICES

ACRONYMS AND ABBREVIATIONS

AC	Advisory Circular
AEDT	Airport Environmental Design Tool
ALP	Airport Layout Plan
APE	Area of Potential Effect
ARC	Airport Reference Code
ARFF	Aircraft Rescue and Firefighting
BCHA	Blaine County Housing Authority
BGEPA	Bald and Golden Eagle Protection Act
BMPs	Best Management Practices
CEQ	Council of Environmental Quality
CO_2	Carbon dioxide
CFR	Code of Federal Regulations
CFS	Cubic feet per second
CREC	Controlled Recognized Environmental Condition
CWA	Clean Water Act
DNL	Day-night average sound level
DOT	Department of Transportation
DWG	Dual-wheel gear
DWT	Dual-wheel tandem
EA	Environmental Assessment
EO	Executive Order
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FBO	Fixed-Base Operator
FEMA	Federal Emergency Management Agency
FMAA	Friedman Memorial Airport Authority
FPPA	Farmland Policy Protection Act
GHG	Greenhouse Gas
HABS	Historic American Building Survey
HREC	Historic Recognized Environmental Condition
IDAPA	Idaho Administrative Code
IDEQ	Idaho Department of Environmental Quality
IDFG	Idaho Department of Fish and Game
IFWIS	Idaho Fish and Wildlife Information System
IHSI	Idaho Historic Sites Inventory
ITD	Idaho Transportation Department
LUST	Leaking underground storage tank
MBTA	Migratory Bird Treaty Act
MOA	Memorandum of Agreement
MOS	Modifications of Standards
MPU	Master Plan Update

NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPDES	National Pollutant Discharge Elimination System
NPIAS	National Plan of Integrated Airport Systems
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
PEM	Palustrine Emergent
PFO	Palustrine Forested
PSS	Palustrine Scrub-Shrub
RECs	Recognized Environmental Conditions
RPZ	Runway Protection Zone
RSA	Runway Safety Area
SGCN	Species of Greatest Conservation Need
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SRE	Snow removal equipment
SUN	Friedman Memorial Airport
SWG	Single-wheel gear
UIC	Underground injection well
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	Underground storage tank

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Chapter 1 BACKGROUND AND PROPOSED ACTION

1.1 INTRODUCTION

The Friedman Memorial Airport (Airport or SUN) is located in Blaine County in the City of Hailey, Idaho (**Figure 1-1**), within the Wood River Valley. The Friedman Memorial Airport Authority (FMAA or Sponsor), formed through a Joint Powers Agreement between the City and County, currently operates and manages the Airport.

The Airport is a commercial service airport, serving several airlines and a wide variety of general aviation traffic. The Airport currently does not meet all design standards per Federal Aviation Administration (FAA) guidance and regulations and hence, there are non-standard conditions that exist at the Airport. Several non-standard conditions at the Airport are currently allowed via approved FAA Modifications of Standards (MOS); however, the approved MOSs do not address several other non-standard conditions related to land on the south end of the Airport. The Proposed Action is endorsed by the Sponsor to fix deficiencies on the south end of the Airport that were identified during the 2018 Master Plan Update (MPU)[1]. The Proposed Action includes land acquisition, removal of trees, and the extension of part of the Airport's perimeter fence. MOSs that are already approved will remain in place after the Proposed Action is implemented, as these relate to non-standard conditions that will not be addressed under the Proposed Action.

This Environmental Assessment (EA) was prepared to identify the potential environmental impacts associated with the Proposed Action, as well as how any identified impacts can be avoided, minimized, or mitigated. The EA was prepared pursuant to Section 102(2)(c) of the National Environmental Policy Act (NEPA) and the President's Council on Environmental Quality (CEQ) Regulations Title 40 CFR §§ 1500-1508, the implementing regulations for NEPA and in accordance with FAA Order 1050.1F *Environmental Impacts: Policies and Procedures*[2] and FAA Order 5050.4B *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*[3].

1.2 BACKGROUND AND EXISTING FACILITIES

SUN is classified as a primary non-hub commercial service airport by the FAA's National Plan of Integrated Airport Systems (NPIAS). Similarly, the Idaho Transportation Department's (ITD) 2010 State Aviation System Plan[4] identifies SUN as a commercial service airport needed to accommodate scheduled commercial air carrier service in addition to air cargo, business aviation and all types of general aviation. The Airport property includes approximately 209 acres

[1] SUN. 2018. Friedman Memorial Airport (SUN) Master Plan Update. Accessed April 25, 2018 at http://iflysun.com/master-plan/

[2] FAA. 2015. Order 1050.1F. U.S. Department of Transportation, Federal Aviation Administration. Accessed May 3, 2018 at https://www.faa.gov/documentLibrary/media/Order/FAA_Order_1050_1F.pdf

[3] FAA. 2006. Order 5050.4B. U.S. Department of Transportation, Federal Aviation Administration. Accessed May 9, 2018 at https://www.faa.gov/airports/resources/publications/orders/environmental_5050_4/

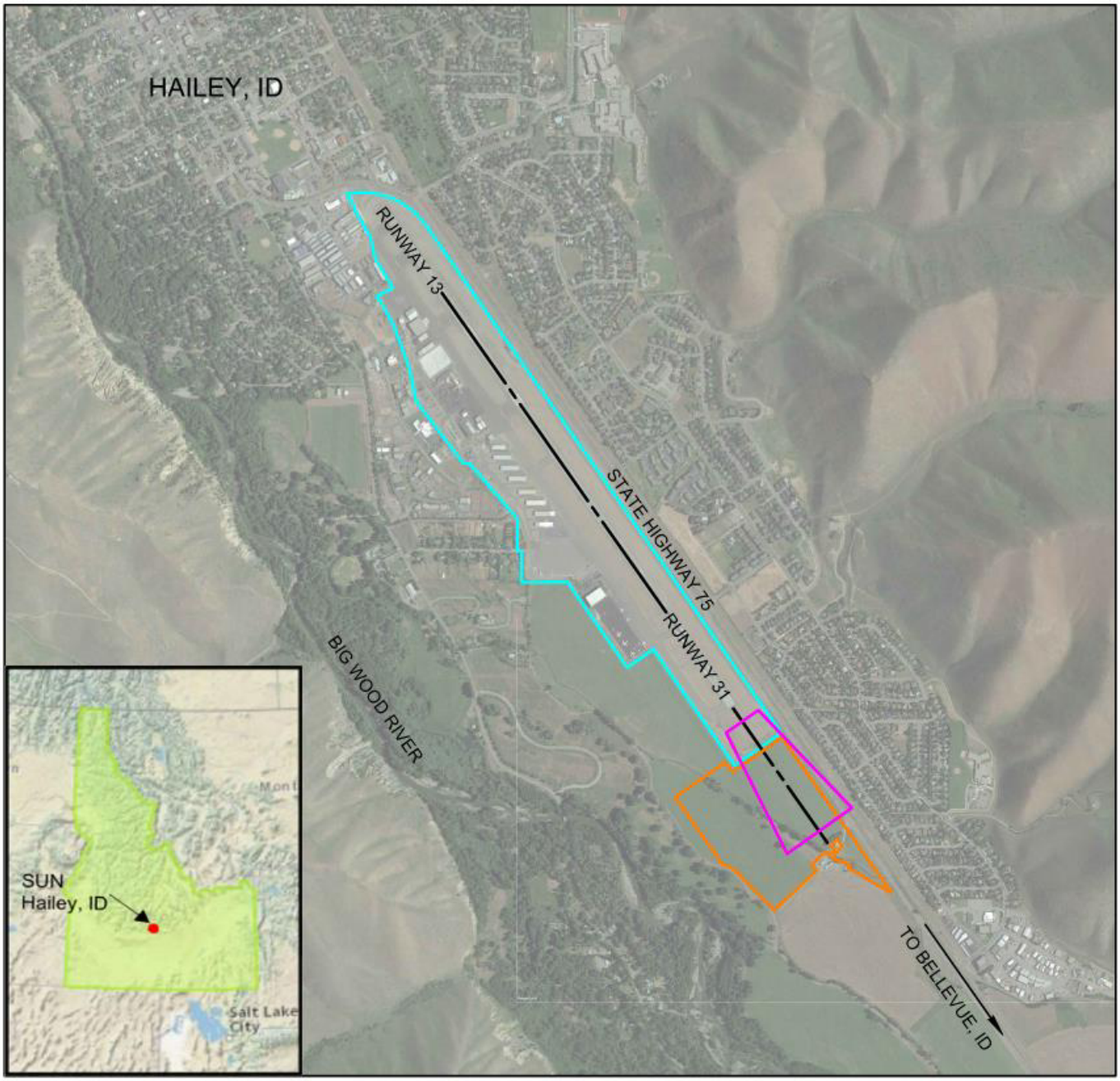
[4] ITD. 2010. Idaho Airport System Plan. Idaho Transportation Department. Accessed May 9, 2018 at http://apps.itd.idaho.gov/apps/aero/Executive_Summary/IASP_ES-FINAL(LowRes).pdf

of land and is situated in a very geographically confined location: it is located directly south of the City of Hailey's urban core, west of State Highway 75, east of the Wood River, and less than 2 miles north of the City of Bellevue as shown in the Vicinity Map, **Figure 1-1**.

The Airport has a single runway, Runway 13/31, which is 7,550 feet long with a general north-south heading. The Airport also has a full parallel taxiway (Taxiway B) on the west side of the runway. The runway is 100 feet wide and its asphalt pavement is designed for aircraft with weight bearing capacities of single-wheel gear (SWG) of 65,000 pounds, dual-wheel gear (DWG) of 95,000 pounds and dual-wheel tandem (DWT) of 150,000 pounds.

There are seven taxiway connectors providing access to/from the runway: one at each end as well as five connectors in between. Four connectors on the north end of the runway and one at the south end are designed to accommodate larger aircraft, while the remaining two connectors are for use by smaller aircraft only. A total of four aprons are available for parking and maneuvering aircraft: one at the north end of the airport; one at approximately midfield, serving the terminal; and, two at the southern end of the airfield. The terminal is located approximately 2,800 feet from the northern end of the runway, along the western side. Additional airport facilities include an air traffic control tower; an airport operations building that houses aircraft rescue and firefighting (ARFF), snow removal equipment (SRE) and airport administration; fixed-base operator (FBO) hangars; general aviation hangars; automobile parking; and, two fuel facilities. The existing Airport layout is illustrated in **Figure 1-2**.

The geographic constraints of the Airport lead to a variety of conditions that result in the Airport being unable to meet full design standards of an ARC C-III (see **Section 1.3** for an explanation of this term). Several non-standard conditions at the Airport are currently allowed via approved FAA Modifications of Standards (MOS); however, the approved MOSs do not address several non-standard conditions related to land on the south end of the Airport. Based on the physical constraints of the Airport's airspace due to mountainous terrain, predominant departures at the Airport are to the south on Runway 13 and arrivals are from the south on Runway 31. This predominant "one-way-in/one-way-out" operation is utilized by all commercial (airline) aircraft and a majority of the large general aviation aircraft fleet, including corporate jets. As a result, the land on the south end of the Airport experiences more airport operations and represents one of the most critical areas to protect from a safety and land use compatibility standpoint.



LEGEND

- AIRPORT PROPERTY BOUNDARY
- RUNWAY 13-31 CENTERLINE
- RUNWAY PROTECTION ZONE [RPZ]
- PROPOSED ACQUISITION AREA [64.6 ACRES]

1000 0 1000 2000

SCALE: 1" = 2000'

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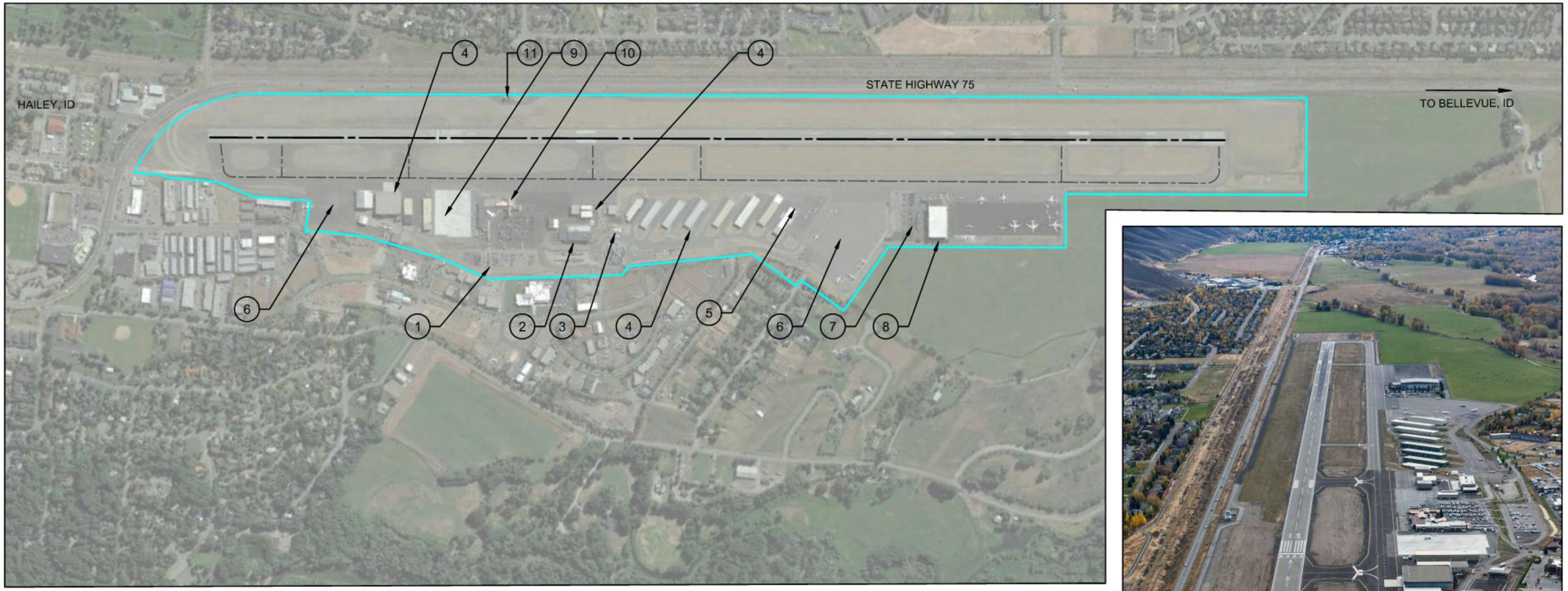
FIGURE 1-1: VICINITY MAP



BUILDINGS AND FACILITIES	
1	PUBLIC PARKING
2	ARFF/SRE/ADMINISTRATION
3	FUEL FARM
4	GENERAL AVIATION HANGARS
5	GENERAL AVIATION FUEL
6	GENERAL AVIATION APRON
7	PILOT/FBO PARKING
8	ATLANTIC AVIATION (FBO)
9	AIR CARRIER APRON
10	TERMINAL BUILDING
11	AIR TRAFFIC CONTROL TOWER

LEGEND

AIRPORT PROPERTY BOUNDARY

RUNWAY 13-31 CENTERLINE

PARALLEL TAXIWAY B CENTERLINE

375 0 375 750

SCALE: 1" = 750'

AERIAL IMAGE OF SUN AIRPORT LOOKING SOUTH AT THE RUNWAY AND PARALLEL TAXIWAY

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FIGURE 1-2: EXISTING AIRPORT LAYOUT

1.3 AIRPORT LAYOUT PLAN AND AIRPORT PLANNING

The Airport Layout Plan (ALP) is a set of drawings and an associated report that the FAA, State of Idaho, and Sponsor use to plan for future improvements. In coordination with the Sponsor, the ALP for the Airport was most recently conditionally approved by the FAA on August 23, 2018, as part of the MPU. Together, these documents provide the framework needed to guide future airport development based on forecast aviation demand. The Airport currently faces numerous design and operational constraints, including but not limited to: non-compliance with several FAA design standards for ARC C-III; surrounding mountainous terrain that limits aircraft approaches and departures; and, an Airport property footprint that restricts its ability to meet current and long-term needs. FAA MOSs are in place to address several of these non-standard conditions at the Airport as shown in **Table 1-1**.

TABLE 1-1: CURRENT MODIFICATIONS OF STANDARDS AT SUN.

	Title	Description	FAA Approval Date
MOS 1	Runway Centerline to Parallel Taxiway Centerline	Allows a Runway Centerline to Parallel Taxiway Centerline of 320 feet, while the standard is 400 feet, due to man-made constraints including hangars, the Terminal Building, and airplane parking.	November 2013
MOS 2	Parallel Taxiway Object Free Area (TOFA) Width	Allows a TOFA width of 160 feet, while the standard is 186 feet, due to man-made constraints including hangars, the Terminal Building, and airplane parking.	November 2013
MOS 3	Runway Object Free Area (ROFA) Width	Allows the following structures to remain in the ROFA: State Highway 75, Perimeter Fence, and Off Airport Buildings.	November 2013
MOS 4	Runway Safety Area (RSA) Grading	Allows the existing RSA transverse grades of 0% to 1%, while the standard is 1.5% to 3%.	November 2013
MOS 5	Runway Centerline to Aircraft Parking Area	Allows a Runway Centerline to Aircraft Parking Area separation of 400 feet, while the standard is 500 feet.	November 2013
MOS 6	Taxiway Width	Allows a parallel taxiway width of 50 feet plus 10-foot paved shoulders, while the standard for width is 75 feet with taxiway edge safety margin of 15 feet. Intersections and fillets are designed to accommodate Taxiway Design Group (TDG) 5 aircraft so that the required taxiway edge safety margin is provided for all aircraft operating at SUN.	November 2013

Source: 2018 MPU, Table C1.

A critical step in the airport planning process is to identify the type of aircraft using the airport and number of associated operations. This is necessary in order to plan and design the facility in order to safely accommodate the aircraft that are using the Airport, both now and through the MPU planning horizon (through the year 2034). As part of the 2018 MPU, the existing traffic using the Airport was evaluated, and aviation activity forecasts were developed for both the

number of based aircraft and total annual aircraft operations at the Airport through the planning horizon (2034). The forecasts were used as a planning tool to project future facility needs, some of which are planned for development within the next few years and are being analyzed in this EA. Since the planning documentation was conditionally approved in 2018, no additional evaluations of aviation forecasts were developed for this EA.

FAA airport design parameters are driven by the size and speed of aircraft using the airport. Per FAA guidance (see FAA Order 5090.3C), the most demanding aircraft based on regular use at the airport is considered the design aircraft. Regular use means 500 or more annual operations (an operation being a take-off or landing). Designation of a design aircraft drives airport design and planning decisions including what airport dimensional standards (such as runway width, separation standards, surface gradients, etc.) are appropriate for the airport. Based on the design aircraft, the FAA uses an airport coding system referred to as the Airport Reference Code (ARC) that establishes the specific design criteria for facility development.

The 2018 MPU and ALP identified the Bombardier Q-400 as the design aircraft at SUN. In 2018, the Bombardier Q-400 had 1,020 annual operations[5] at the Airport. The Q-400 is a commercial air carrier passenger aircraft currently operated by Alaska Airlines at SUN. It should be noted that since the completion of the MPU, the Embraer E-175 commercial air carrier passenger regional jet has replaced the CJR700 regional jet as the primary air carrier regional jet with regular use at SUN. The E-175 is operated by Delta and United Airlines and had 1,734 annual operations[6] in 2018. The Q-400 and E-175 are depicted in **Figure 1-3**. SUN also serves a wide variety of large corporate jets, such as the Gulfstream and Global families of aircraft.

[5] FAA Operations and Performance Data from Traffic Flow Management System Counts. Accessed online on January 30, 2019 at https://aspm.faa.gov/tfms/sys/Airport.asp

[6] Personal communications with Chris Pomeroy (SUN Airport Manager) dated February 4, 2019.

FIGURE 1-3: DESIGN AIRCRAFT

The E-175 photo (left photo) was obtained from www.flickr.com; and, the Q-400 photo (right photo) was obtained from www.wingsmagazine.com.

According to the 2018 MPU, the Q-400 has an approach speed in the "C" category with a wingspan in Group III. The EMB-175 is also a C-III aircraft based on wingspan and approach speed. As a result, SUN is classified as an ARC C-III facility. Although the Q-400 and EMB-175 commercial aircraft are identified as the most demanding aircraft based on regular use at SUN, there is also regular use by corporate jets with the C-III classification. The Airport is expected to remain ARC C-III throughout the MPU planning horizon (2034).

According to the 2018 MPU, the Airport does not meet full design standards for an ARC C-III facility due to its constrained location and development that has occurred and is ongoing. Over the past 15 years, the Airport has attempted to identify and correct these deficiencies in standards, including temporarily addressing some non-standard issues with FAA approved MOSs (see **Table 1-1)**.

Even with some FAA-approved MOSs in place, the Airport does not meet all operational standards per FAA guidance and regulation. The following sections provide an explanation of identified deficiencies that are relevant to the Proposed Action in this EA and are not covered by an FAA approved MOS. Further detail regarding the operational deficiencies can be found in the 2018 MPU and in the attached Alternatives Analysis Report in **Appendix A**.

1.3.1 Runway Safety Area and Runway Object Free Area

The Runway Safety Area (RSA) is a defined area that is suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway. The Runway Object Free Area (ROFA) is a two-dimensional area on the ground surrounding the runway that is clear of objects except for items fixed by their function (e.g. airfield lighting). The dimensions of the RSA and ROFA are based on the ARC. At SUN, the RSA is centered on the runway and is 500 feet wide. The ROFA is centered on the runway and is 800 feet wide. The RSA and ROFA both extend 1,000 feet beyond the runway ends for take-off operations and 600 feet beyond the runway ends for landing operations.

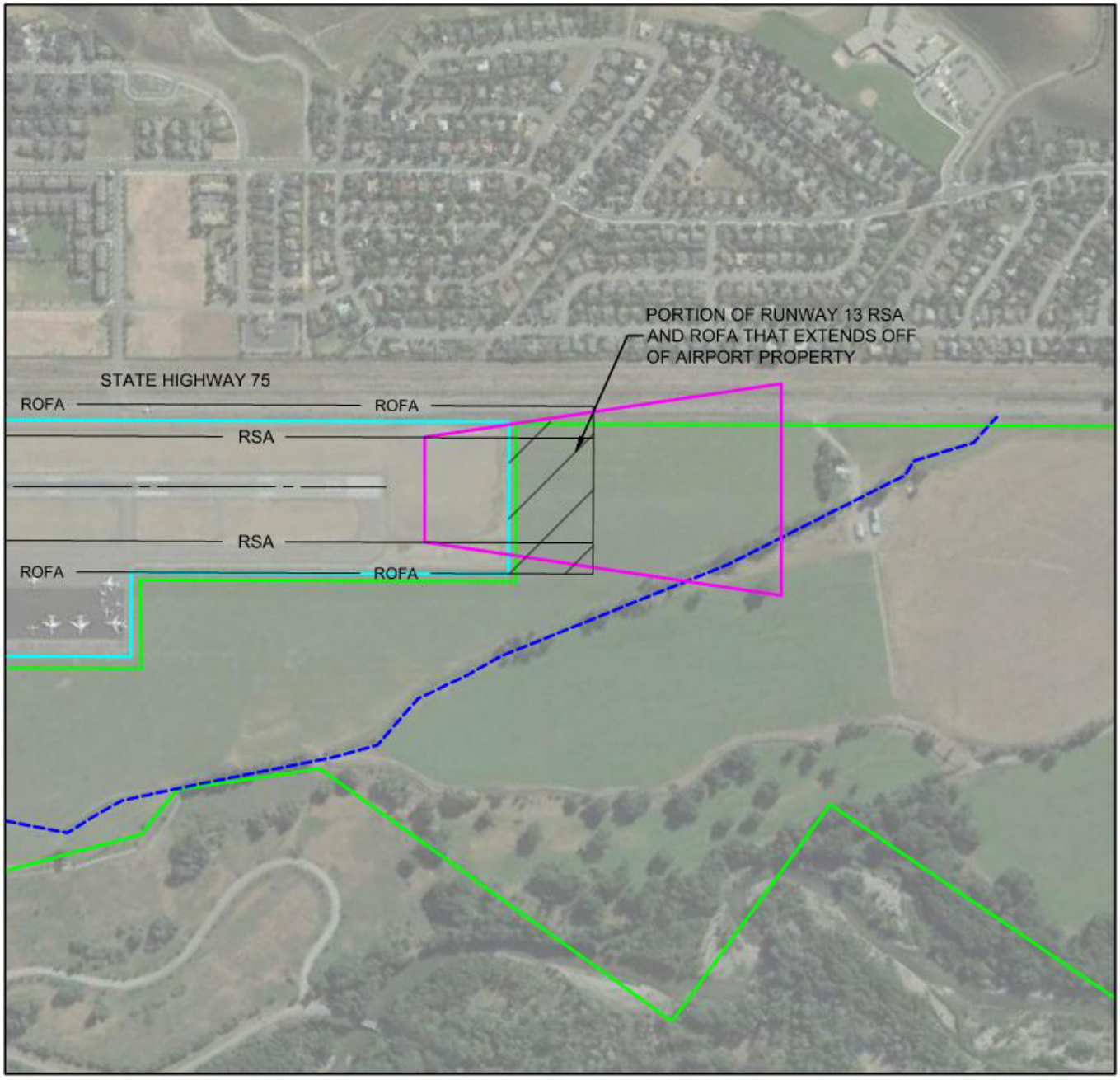
The Airport does not control the property containing the full RSA or full length of the ROFA that would typically continue beyond the end of the runway. The existing Airport property line and fence are located only 600 feet south of the runway end. Therefore, declared distances are published for aborted takeoffs from Runway 13 (departure to the south) and for landings on Runway 13 (landing from the north) in order to meet FAA design standards since the full RSA and ROFA extends off of airport property (see **Figure 1-4**). Declared distances must be used, rather than the runway's physical length for aircraft performance calculations prior to departure or arrival. However, an aircraft is not prohibited from operating beyond a declared distance limit during departure, arrival, or taxi operation provided the runway surface is appropriately marked as usable runway. The entire length of runway at SUN is marked as usable runway.

The use of declared distances impacts commercial airline operations. Especially when the air temperature is high, the airlines must reduce their take-off weight. This limits the number of passengers, baggage and fuel they can carry, meaning passengers are often bumped from flights and/or there is limited range due to reduced fuel load for the airline in those conditions. This is a regular occurrence for airline flights at SUN during summer months.

1.3.2 Runway Protection Zone

As stated in the previous subsection, the RSA and ROFA are areas intended to reduce the risk of damage to airplanes in the event of an incident near the runway. The Runway Protection Zone (RPZ) is an area off the end of the runway intended to enhance the protection of people and property on the ground. The Runway 31 RPZ starts 200 feet off the runway end and extends 1,700 feet. The inner and outer widths of the Runway 31 RPZ are 500 feet and 1,010 feet, respectively (see **Figure 1-4**).

The RPZ off the Runway 31 end is located only partially on property owned or permanently controlled by the Airport. Sponsor control over RPZ land is emphasized by the FAA to achieve the desired protection of people and property on the ground. The lack of control of an RPZ creates the potential for the introduction of safety hazards and land use compatibility issues. The majority of the southern RPZ and part of the RSA and ROFA at the southern end of the runway are on land owned by the adjacent landowner (Eccles Flying Hat Ranch). This situation is complicated by the fact that the Ranch is a designated Historic District (see **Sections 4.5 and 4.8** for more information). A segment of Cove Canal, which is an irrigation ditch, also traverses the RPZ (see **Sections 4.5, 4.8, and 4.14** for more information about the Cove Canal).



LEGEND

- AIRPORT PROPERTY BOUNDARY
- RUNWAY 13-31 CENTERLINE
- RUNWAY PROTECTION ZONE [RPZ]
- RSA — RUNWAY SAFETY AREA [RSA]
- ROFA — RUNWAY OBJECT FREE AREA [ROFA]
- COVE CANAL
- ECCLES FLYING HAT RANCH

375 0 375 750

SCALE: 1" = 750'

FIGURE 1-4: RUNWAY 13-31 RSA, ROFA, AND RPZ EXHIBIT

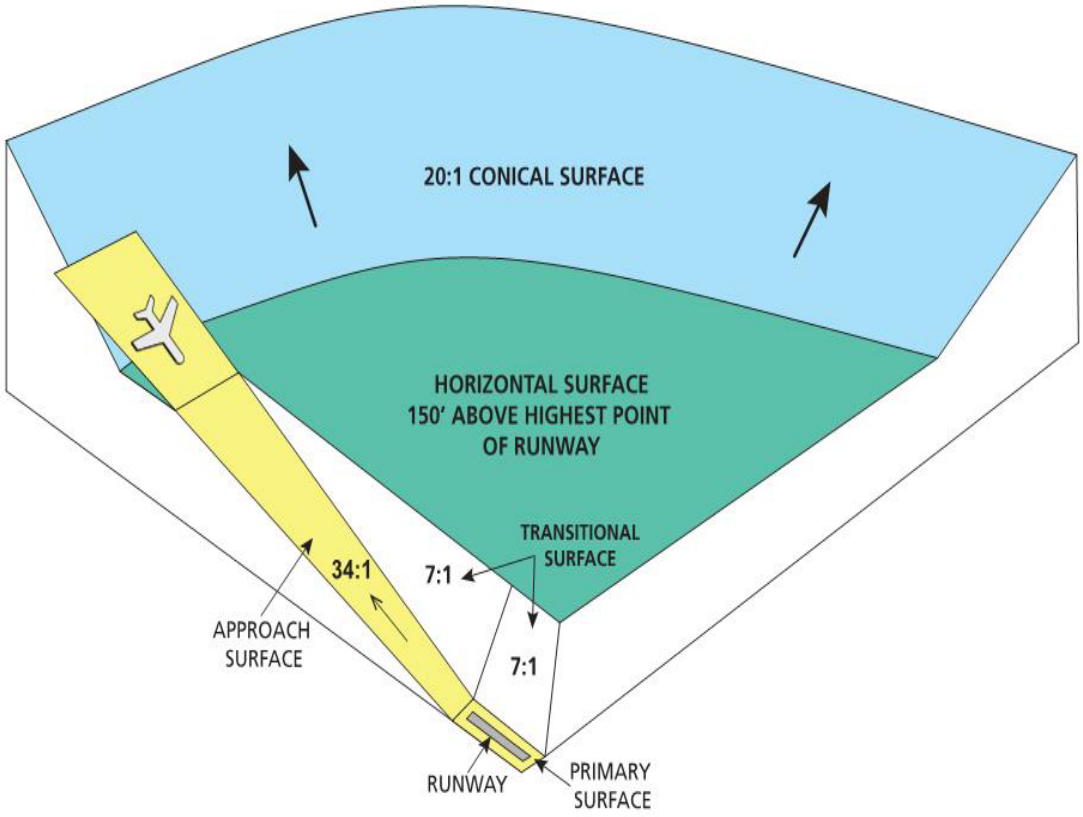
1.3.3 14 Code of Federal Regulations Part 77 Surfaces (14 CFR Part 77) and AC 150/5300-13A Departure Surface

Title 14 CFR Part 77 (14 CFR Part 77), "Safe, Efficient Use, and Preservation of the Navigable Airspace," establishes descriptions for determining obstructions in navigable airspace. It describes imaginary surfaces that surround each airport and are defined relative to the specific airport and each runway in order to protect the safety of aircraft operating in the airport environment. Any objects (trees, buildings, towers, terrain, etc.) that penetrate these airspace surfaces are known as obstructions.

There are five surfaces associated with 14 CFR Part 77:

1. Primary Surface;
2. Approach Surface (referred to as "Part 77 Approach Surface" in this EA);
3. Horizontal Surface;
4. Conical Surface; and,
5. Transitional Surface.

Figure 1-5: 14 CFR Part 77 Surfaces



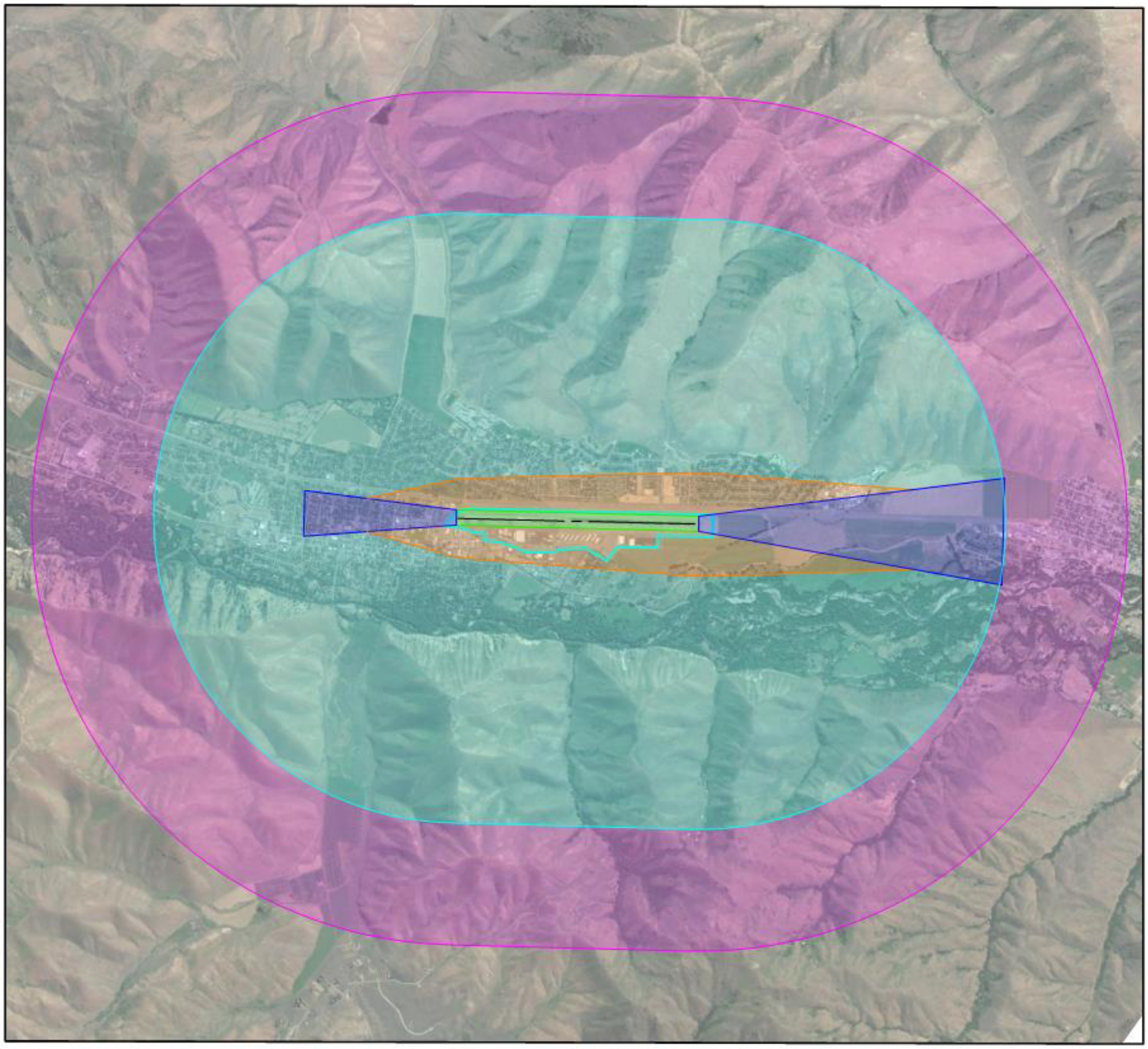
Graphic provided by T-O Engineers

In addition to 14 CFR Part 77, the FAA provides additional airport planning guidance in Advisory Circular (AC) 150/5300-13A, *Airport Design*. This design guidance is mandatory for airports that receive federal grants (including SUN). This document includes the definition of the Departure Surface (referred to as "AC 5300-13A Departure Surface" in this EA), which is designed to allow aircraft to follow standard departure procedures when departing an airport. This surface is much larger than the Part 77 Approach Surface. Obstructions to this surface can affect the safety of departure operations. The map for the Airport's 14 CFR Part 77 surfaces and airspace is shown in **Figure 1-6**.

At SUN, there are up to 200 individual trees (primarily cottonwoods) directly south of the Airport, many of which are obstructions to the Part 77 Approach Surface and AC 5300-13A Departure Surface used by aircraft departing on Runway 13 (to the south) and aircraft arriving on Runway 31 (from the south).

In order to achieve an acceptable level of safety for aircraft operations, obstructions in the Part 77 Approach Surface and AC 5300-13A Departure Surface must be removed or lighted, airport layouts modified (e.g. relocate the runway end), or operating procedures developed (e.g. climb gradients). An existing easement with the Eccles Flying Hat Ranch was in place to light trees, which have been documented as obstructions to air navigation, but this agreement expired in December of 2018. A new agreement allows the lights to remain up until the end of September 2020; however, the landowner has stated he does not want another long-term easement.

Because of the lights in the trees identified as Part 77 approach surface obstructions, as allowed by the easement, the trees are not considered a hazard to air navigation. The trees are identified in the FAA's published departure procedure for SUN in the Takeoff Minimums, (Obstacle) Departure procedures, and Diverse Vector Area (Radar Vectors) section of the U.S. Terminal Procedures Publication. The FAA's flight procedures office has advised the Airport in the past that If the easement were to expire, the lights removed, and the trees remain, the instrument approach procedures would be noted as not available after dark. This means all aircraft attempting to land after dark would have to make a visual approach. Additionally, due to the terrain around the airport, the Airport's commercial operators always use the instrument procedure. Based on the current airline schedule, the loss of instrument approach procedures after dark could impact weekly commercial operations during winter months. Loss of the instrument approach procedures after dark could also impact private and business jet operations since these operators could choose not to operate after dark without an instrument approach.



LEGEND

- PRIMARY SURFACE
- APPROACH SURFACE
- HORIZONTAL SURFACE
- CONICAL SURFACE
- TRANSITIONAL SURFACE
- RUNWAY 13-31 CENTERLINE
- AIRPORT PROPERTY BOUNDARY

2500 0 2500 5000

SCALE: 1" = 5000'

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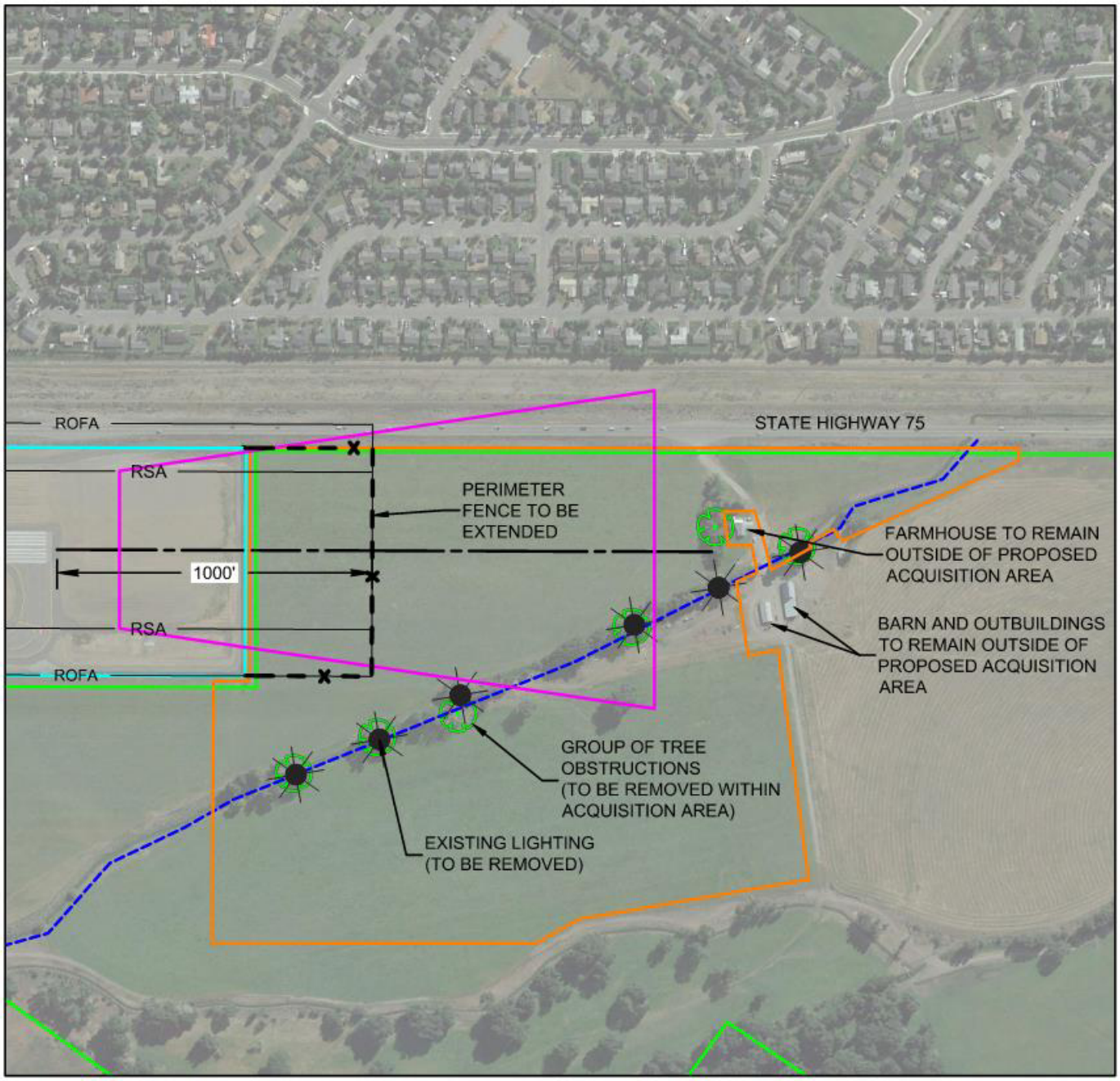
FIGURE 1-6: 14 CFR PART 77 SURFACES

1.4 PROPOSED ACTION

The Proposed Action is intended to correct the non-standard conditions discussed in the previous section and thus improve the safety of the Airport. The other non-standard conditions currently addressed by MOSs would remain. Specifically, the Proposed Action will allow the Airport to meet FAA's emphasis on owner control of the RPZ by fee acquisition, the requirement to provide full RSA and full length ROFA for arrivals from and departures to the south, and the removal of obstructions.

The Proposed Action includes the following components, shown in **Figure 1-7**:

1. Acquisition of 64.6 acres of property at the southern end of Runway 31 to gain full control of the land encompassing the RSA, full length of the ROFA, and most of the RPZ, as well as maintain the areas where the obstructions (trees located along the Cove Canal and near the farmstead) are located within the approach/departure surfaces. Note: The Proposed action does not acquire the segment of the RPZ that covers State Highway 75 and does not acquire the portion of the ROFA associated with State Highway 75 as allowed by MOS 3 (See **Table 1-1**).
2. Removal of all trees (including obstruction lights currently placed in the trees) on the south end of the runway that penetrate, or could penetrate in the future, the Airport's Part 77 Approach Surface and AC 5300-13A Departure Surface. Up to 200 trees may be removed. Once the obstructions have been removed, FAA would amend the departure procedure for Runway 13 to remove the takeoff notes related to those obstructions.
3. Extending the Airport perimeter fence to provide fencing for the full length of the ROFA, which extends 1,000-feet beyond the Runway 31 end. The perimeter fence will be extended approximately 400 feet south of its current location to encompass 6.5 additional acres and contain the full RSA and full length of the ROFA. Note: As allowed by MOS 3 (see **Table 1-1**), a portion of the width of the ROFA associated with State Highway 75 will remain outside of the Airport fence.



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- COVE CANAL
- ECCLES FLYING HAT RANCH
- PROPOSED ACQUISITION AREA [64.6 AC]

250 0 250 500

SCALE: 1" = 500'

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FIGURE 1-7: PROPOSED ACTION

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Chapter 2 **PURPOSE AND NEED**

2.1 PURPOSE

The purpose of the project is to improve safety by addressing deficiencies to bring safety areas at the south end of the Airport into compliance with FAA standards and recommendations and by removing obstructions to the airspace south of the Airport. MOSs that are already approved will remain in place after the Proposed Action is implemented, as these relate to non-standard conditions that will not be addressed under the Proposed Action.

2.2 NEED

The Proposed Action is needed because the 2018 MPU identified deficiencies at the south end of the Airport, which included deficiencies correlated to the RSA, ROFA and RPZ, as well as obstructions in the Part 77 Approach Surface and AC 150/5300-13A Departure Surface. The need is in accordance with FAA guidance to ensure Airport control of surfaces and designated safety areas surrounding the runway. The Proposed Action will improve safety for aircraft, people, and property on the ground, and will acquire additional rights and property to maintain clear airspace in accordance with FAA AC 150/5300-13A and FAA Order 5100.38D.

2.2.1 Need for Acquisition of Land

The acquisition of land will ultimately accomplish the following:

- Provide Sponsor ownership of the full RSA and the length of the ROFA meeting FAA dimensional standards on the south end of the Airport through fee simple ownership. (As noted in **Section 1.4**, the portion of the ROFA associated with State Highway 75 is not included for acquisition, as allowed by MOS 3 (see **Table 1-1**)).
- Control property and airspace at the south end of Airport, which encompasses the departure end of Runway 13 and the approach end of Runway 31 (including the RSA, full length of ROFA, and most of the RPZ) through fee simple ownership. (As noted in **Section 1.4**, the portions of the ROFA and RPZ associated with State Highway 75 will not be acquired).
- Acquire property to maintain the area south of the runway clear of obstructions, both man-made and natural; and to control and protect the area from future incompatible land uses.

As discussed in **Section 1.3.1**, the Airport does not control the property containing the full RSA or full length of the ROFA that would typically continue beyond the end of the runway, and declared distances are utilized at SUN because of this situation. For SUN, the RSA and ROFA both extend 1,000 feet beyond the runway ends for departures and 600 feet beyond the runway ends for arrivals; however, the existing Airport property line and fence are located only 600 feet south of the runway end.

According to FAA AC 150/5300-13A, Modifications of Standards for an RSA are not allowed; therefore, to meet standards, the RSA at SUN must extend the full 1,000 feet beyond the end of the runway for departures to the south. The FAA allows declared distances to be used to obtain

additional RSA and/or ROFA only when it is impractical to meet these standards. The Proposed Action will bring the Airport into compliance with FAA design standards for RSA at the south end of the runway without the use of declared distances. For the ROFA, MOS 3 (see **Table 1-1**) is in place to allow State Highway 75, the perimeter fence, and off airport buildings to remain in the ROFA as it is impractical to move or remove them. With MOS 3 in place, the declared distances can be removed at SUN once the Airport controls the full 1,000-foot length of the RSA and the perimeter fence is relocated as proposed.

In addition to not having control of the full RSA, one of the non-standard conditions that the proposed land acquisition will correct is the fact that the RPZ on the south end of the Airport is not entirely located on property owned or permanently controlled by the Airport. Airport control over the land in the RPZ is encouraged by the FAA to achieve the desired protection of people and property on the ground. Although the FAA recognizes that in certain situations the Sponsor may not fully control land within the RPZ, the FAA encourages Sponsors to take all possible measures to protect against and remove or mitigate incompatible land uses. The majority of the southern RPZ at SUN is owned by the adjacent landowner and protected by an easement that expired in December of 2018. A new agreement is in place until the end of September 2020; however, the landowner has stated he does not want another long-term easement.

In addition to protecting the majority of the southern RPZ, this easement had also allowed the placement and maintenance of obstruction lights in the trees identified as obstructions to the Part 77 Approach Surface and AC 150/5300-13A Departure Surface. Acquisition of this property will provide the Airport the ability to remove the trees identified as obstructions, which is further discussed in **Section 2.2.2**.

The RPZ and the AC 5300-13A Departure surface and Part 77 imaginary surfaces, exist for the safety of those on the ground and to provide for the safe navigation of aircraft. FAA guidance encourages airport sponsors to have control over property containing these surfaces around their airports. The acquisition of the property in the Proposed Action at SUN will provide the Airport control over these surfaces, the ability to prevent incompatible land uses from encroaching into these areas, and the ability to remove the trees identified as obstructions. Although as noted previously, the Proposed Action does not acquire the segment of the RPZ and ROFA that covers State Highway 75.

2.2.2 Need for Removal of Obstructions

The AC 5300-13A Departure Surface and Part 77 surfaces are imaginary surfaces that exist primarily to prevent obstructions from extending upward into navigable airspace, thereby reducing the likelihood of accidents to aircraft. The FAA has identified that a natural growth penetration to the Part 77 Approach Surface is an obstruction[7] and is presumed to be a hazard to air navigation[8] unless further aeronautical study concludes the object is not a hazard. The Airport Sponsor is required to clear, remove, lower, relocate, mark, or light the hazard, per FAA

[7] 14 CFR Part 77, Safe, Efficient Use and Preservation of the Navigable Airspace, Section 77.13(a). Accessed May 10, 2018 at http://dot.ca.gov/hq/planning/aeronaut/documents/regulations/faa_far_part77.pdf

[8] 14 CFR Part 77, Safe, Efficient Use and Preservation of the Navigable Airspace, Section 77.15(b). Accessed May 10, 2018 at http://dot.ca.gov/hq/planning/aeronaut/documents/regulations/faa_far_part77.pdf

Order 5190.6 Airport Compliance Order, Section 7.13 Hazards and Mitigation[9], and FAA Grant Assurance #20, Hazard Removal and Mitigation[10].

Penetrations in the Part 77 Approach Surface and AC 5300-13A Departure Surface at SUN consist of approximately 200 trees (primarily cottonwoods) along the Cove Canal and on the Eccles Flying Hat Ranch farmstead, which have grown up to 100 feet tall and are identified as obstructions on the Airport's ALP. Any trees that penetrate one of the Part 77 Approach Surfaces and/or AC 5300-13A Departure Surface, or that have the potential to penetrate these surfaces, will be removed under the Proposed Action after the acquisition of the land. Secondary to the trees existing as obstructions, they also provide wildlife habitat. Commercial service airports like SUN are required by the FAA under 14 CFR Part 139[11] to minimize wildlife hazards and attractants, especially in the RPZ.

In addition to providing protection to the majority of the southern RPZ, the easement with the Eccles Flying Hat Ranch had also allowed the placement and maintenance of obstruction lights in the trees that have been identified as obstructions. Because of the lights, the trees are not considered a hazard to navigation; although they are identified in the FAA's published departure procedure in the Takeoff Minimums, (Obstacle) Departure procedures, and Diverse Vector Area (Radar Vectors) section of the U.S. Terminal Procedures Publication. If the trees are removed, the FAA would amend the departure procedure for Runway 13 to remove the takeoff notes related to those obstructions.

Without the lights, and if the trees were to remain in place, the FAA's flight procedures office has advised the Airport in the past that the instrument approach procedures would be noted as not available after dark. This means all aircraft attempting to land after dark would have to make a visual approach and would constitute a major operational restriction if the easement was allowed to expire, the obstruction lights were removed, and the trees remained in place. This conflicts with FAA guidance and increase the safety risks to air traffic and people on the ground as well as reduces the utility of a public use airport.

The landowner of the Eccles Flying Hat Ranch has stated he does not want another long-term easement. As a result, the landowner and Sponsor agree that acquisition of property is necessary to control the RPZ, which would allow removal of the trees. In the interim, the new agreement allows the lights in the trees to remain in place until end of September 2020.

Tree removal includes all existing mature trees as well as younger trees not yet penetrating the protected surfaces, as they will eventually grow and penetrate the surfaces. Complete removal is needed to prevent re-growth of the trees and for mowing and ease of maintenance. Trimming or topping of the trees would remove the obstructions only temporarily, and then would require continuous maintenance to remain obstruction free.

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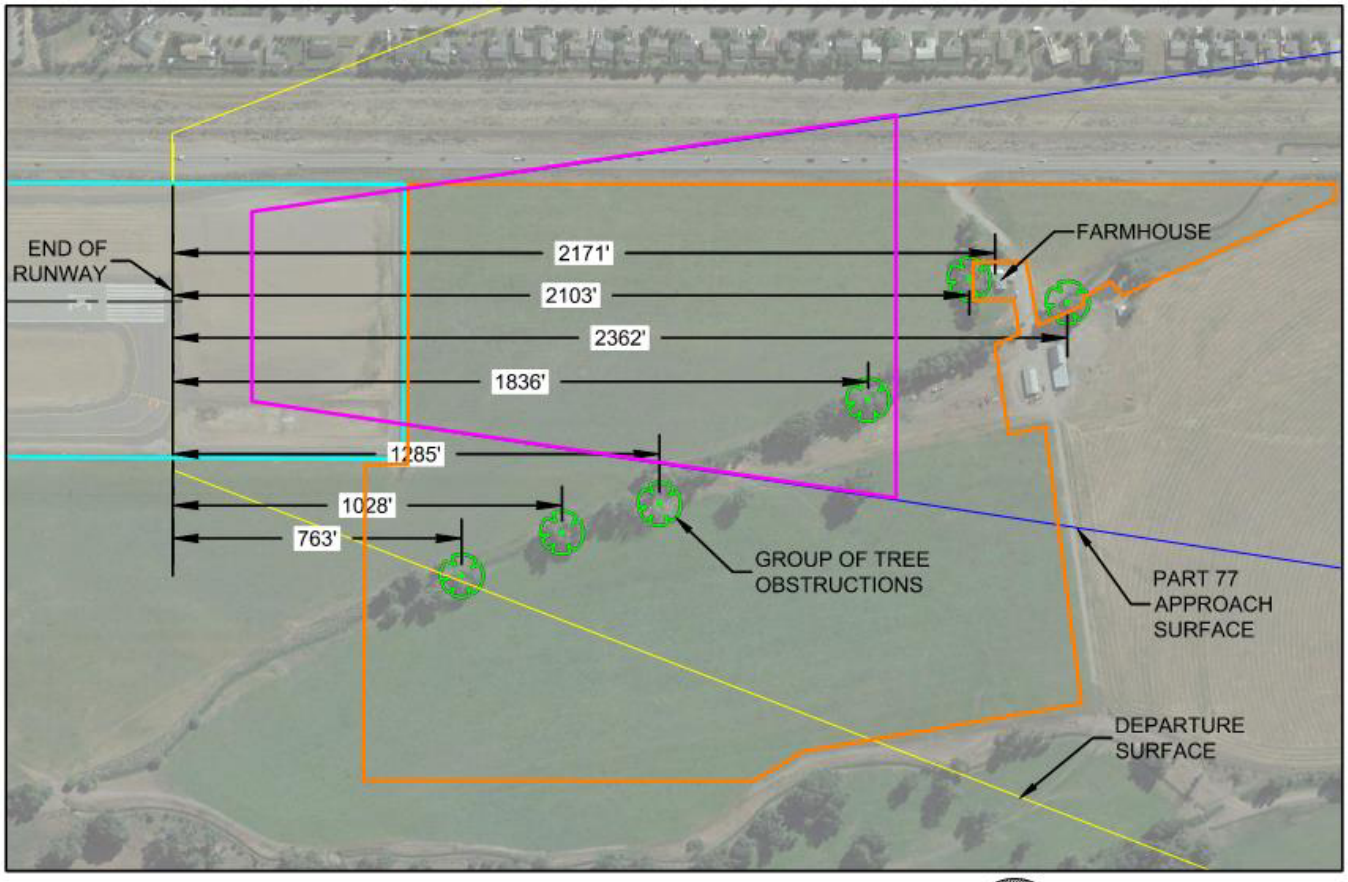
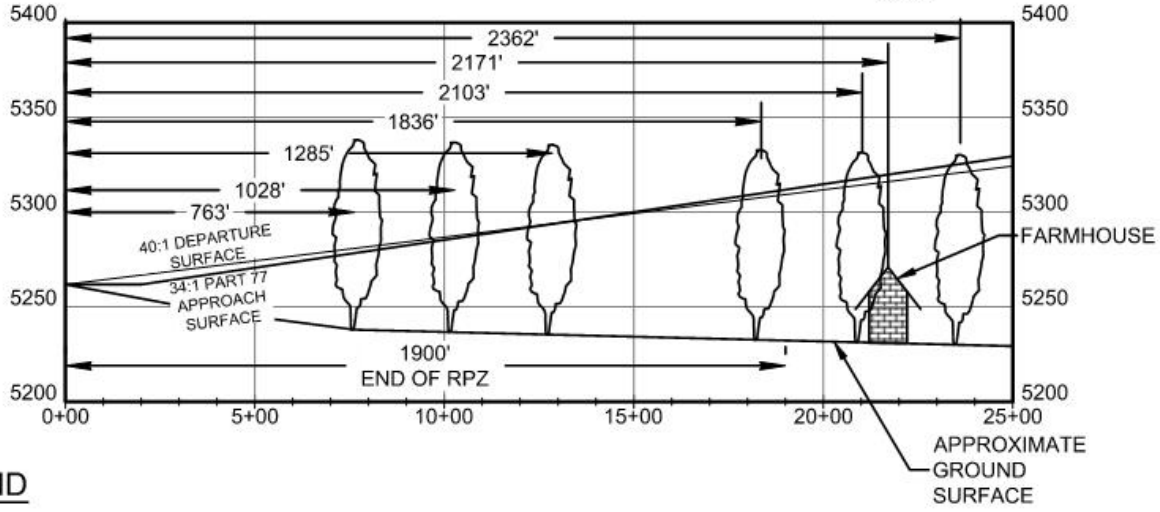
[9] FAA. 2009. Order 5190.6B, FAA Airport Compliance Manual. Accessed May 10, 2018 at https://www.faa.gov/documentLibrary/media/Order/5190_6b.pdf

[10] FAA. 2015. Reminder of Responsibilities for FAA Personnel and Airport Sponsors for Protecting Approach and Departure Surfaces. Accessed May 10, 2018 at https://www.faa.gov/airports/engineering/media/Policy-Reminder-Protecting-Approach-and-Departure-Surfaces.pdf

[11] 14 CFR Part 139 Certification of Airports. Accessed May 10, 2018 at https://www.law.cornell.edu/cfr/text/14/part-139

Figure 2-1 depicts the documented obstructions to the Part 77 Approach Surface and AC 5300-13A Departure Surface. Obstructions exist within these surfaces within and beyond the RPZ. Trees are shown as obstructions as far as 2,362-feet off the end of Runway 31. Distances from the Runway 31 end to the documented obstructions are illustrated in both the plan and profile views in **Figure 2-1**. Removal of the trees is necessary for the operational safety of pilots and passengers and for meeting the grant obligations of the Sponsor. The purpose of the Proposed Action is not to increase aircraft operations beyond current and forecasted demand in the foreseeable future or directly affect economic activity.





LEGEND

- AIRPORT PROPERTY BOUNDARY
- RUNWAY 13-31 CENTERLINE
- RUNWAY PROTECTION ZONE [RPZ]
- PROPOSED ACQUISITION AREA [64.6 ACRES]

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FIGURE 2-1: DOCUMENTED OBSTRUCTIONS TO APPROACH & DEPARTURE SURFACES

2.2.3 Need to Extend the Airport Perimeter Fence

As stated previously, the RSA and ROFA at SUN are required to extend 1,000 feet beyond the end of the runway for departures to the south. However, the Airport does not control the property for the full 1,000 feet from the actual end of Runway 31 and the Airport fence lies at the existing property boundary (currently 600 feet from the runway end). If the land is acquired according to the Proposed Action, the Airport perimeter fence will be extended to contain the RSA and full length of the ROFA as shown in **Figure 1-7**. The fence will extend to approximately 1,000 feet south of the end of Runway 31, which is approximately 400 feet south of its current location. The width of the existing fence extends from the Airport boundary on the east to the ROFA on the west. The width of the perimeter fence (in relation to the distances from the Runway centerline) will remain unchanged. The extended perimeter fencing will total approximately 1,524 linear feet (approximately 400 feet south on each side of the runway and 724 feet east/west) and encompass 6.5 additional acres.

Control of the full 1,000-foot length of the RSA, relocation of the Airport's perimeter fence, and continued used of MOS 3 (see **Table 1-1**) are necessary for the Airport to cease the use of declared distances for landings on Runway 13 (landings from the north) and for aborted takeoffs from Runway 13 (departure to the south).

2.3 REQUESTED FEDERAL ACTIONS

The FAA actions being requested by the Sponsor include:

- Unconditional Approval of the Proposed Action as shown on the ALP.
- Determination that Environmental Analysis Prerequisites associated with any future Airport Improvement Program (AIP) funding application have been fulfilled pursuant to 49 United States Code § 47101.
- Once the obstructions have been removed, FAA would amend the departure procedure for Runway 13 to remove the takeoff notes related to those obstructions.

2.4 PROPOSED TIMELINE

If approved, the Sponsor would initiate project engineering design immediately after completion of the environmental review process. The land acquisition, fence extension, and obstruction removal are tentatively scheduled to be completed in 2019.

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Chapter 3 **ALTERNATIVES**

3.1 OVERVIEW AND 2018 MASTER PLAN UPDATE

The process to update SUN's Master Plan began in early 2014 and the FAA accepted the Master Plan Update (MPU) in August of 2018. The 2018 MPU identified deficiencies at the south end of the Airport, which included deficiencies related to the RSA, ROFA and RPZ, as well as obstructions in the Part 77 Approach Surface and AC 150/5300-13A Departure Surface. The 2018 MPU recommended land acquisition for the area south of the Airport to control the RPZ and protect the Airport from potential encroachment by incompatible land uses and approach/departure obstructions. The removal of tree obstructions contained within the approach and departure surfaces was also detailed in the MPU.

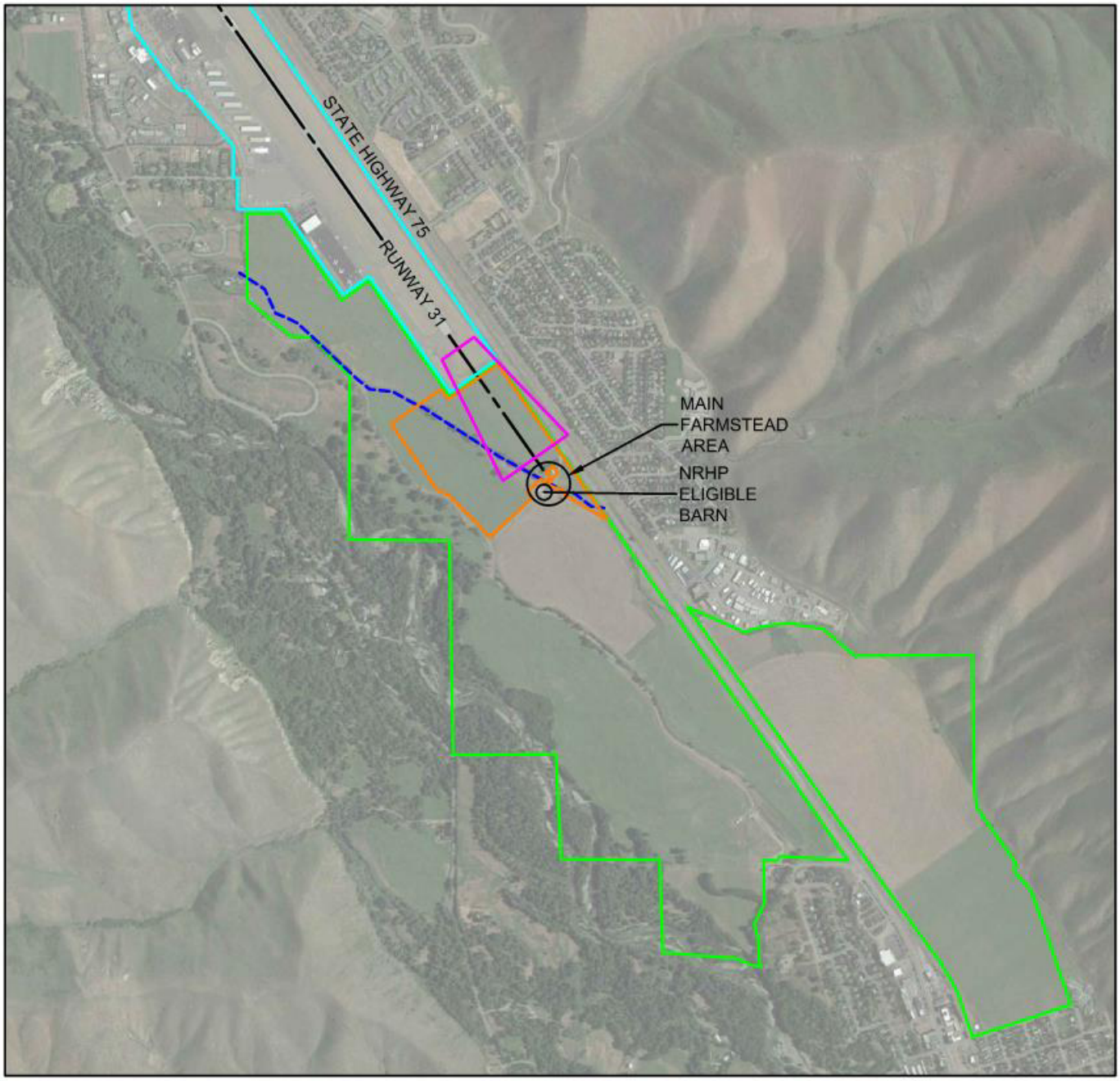
As recommended in the 2018 MPU, alternatives were developed to correct the identified deficiencies near the southern end of Runway 31. A total of six alternatives were established during the 2018 MPU and development of this EA. Four alternatives were developed initially, which included a No-Action alternative (Alternative 1) and three alternatives (Alternatives 2 through 4) to meet the Purpose and Need as described in **Chapter 2.**

The preliminary action alternatives (Alternatives 2 through 4) were developed in May of 2017. At the FMAA Board meeting on July 7, 2017, these alternatives and preliminary environmental evaluation criteria for the alternatives were presented and discussed. The Board accepted the evaluation criteria and scheduled a public meeting to request feedback on Alternatives 1 through 4. Prior to the public meeting, the preliminary environmental evaluation criteria were summarized based on the discussion at the July 2017 Board meeting and a bulleted pros and cons description of each alternative was developed. Alternatives 1 through 4, along with the resulting pros and cons, were then presented to the public at a formal public meeting held on August 8, 2017 in Hailey, Idaho. Stakeholders, invitees, sign-in sheets, and the information presented are the meeting is included in **Appendix H**.

Following FMAA Board review of the four initial alternatives, the Board determined none of the alternatives completely met the FAA's, Airport's, and landowner's needs. This caused the FMAA Board to meet with the landowner and through discussions, developed two subsequent alternatives meeting the Purpose and Need and the FAA, Airport, and landowner's needs. Descriptions of the six alternatives are provided in **Section 3.2**. Additional information on the alternatives carried forward for environmental analysis in this EA are provided in **Appendix A**.

3.1.1 Background

The property to the south of the Airport, where the acquisition would occur, is a part of a larger Historic District known as the "Eccles Flying Hat Ranch" (also known as the "Halfway Ranch"). The ranch property spans approximately 750-acres, of which approximately 615 acres west of Highway 75 form the historic core of the ranch. Much of the main farmstead of the Historic District lies on the extended centerline of the Airport's Runway 13/31. A layout of the Historic District and its relation to the Airport is shown in **Figure 3-1**.



LEGEND

- AIRPORT PROPERTY BOUNDARY
- RUNWAY 13-31 CENTERLINE
- RUNWAY PROTECTION ZONE [RPZ]
- PROPOSED ACQUISITION AREA [64.6 ACRES]
- COVE CANAL
- ECCLES FLYING HAT RANCH

1000 0 1000 2000

SCALE: 1" = 2000'

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FIGURE 3-1: ECCLES FLYING HAT RANCH HISTORIC DISTRICT

The ranch property on the west side of State Highway 75 is eligible for listing in the National Register of Historic Places (NRHP) as it retains sufficient integrity to communicate its historic associations with the agricultural development of the Wood River Valley. The ranch is a relatively rare surviving example in the Wood River Valley of an early twentieth century large-acreage ranch district, complete with the key, character-defining historic elements of open pastureland, tree lines, and a nucleus of farmstead buildings that clearly convey a sense of past time and place.

The farmstead, which lies on the extended centerline of Runway 13/31, encompasses several individual resources (e.g. farmhouse, barn (**Photo 4-3**), grain bins, animal sheds, utility buildings, canals, a corral, equipment shed, well, and outhouse) dating from 1884 to 2006, of which, seven (**Table 4-6**) comprise the main farmstead area. Although the house and garage have been altered, the remaining farm structures and general setting retain their historic integrity. Further discussion of the Ranch is provided in **Sections 4.5 and 4.8** and the Cultural Resources Report that is provided in **Appendix C**.

In order for the Airport to control the RSA, ROFA, RPZ, and remove obstructions to meet FAA standards and recommendations described in **Chapter 2**, acquisition of approximately 64.6 acres of the Eccles Flying Hat Ranch would be necessary. The impact of the acquisition on the Historic District was an important consideration in the development of alternatives. Acquisition of buildings and structures that are considered contributing elements to the Historic District would have an adverse effect to Department of Transportation Section 4(f) historic resources in addition to Section 106 resources (See **Section 4.8**). Use of a Section 4(f) resource as part of a transportation project requires further evaluation to explore if there are any practicable alternatives to avoid use of the resource. Section 4(f) resources are discussed in **Section 4.5**. The Section 4(f) evaluation (see **Appendix G**) influenced the development and consideration of alternatives.

3.2 EVALUATION OF DEVELOPMENT ALTERNATIVES

FAA Orders 1050.1F *Environmental Impacts: Policies and Procedures* and 5050.4B[12] *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*, require the consideration of all reasonable alternatives, the No Action alternative, and the Proposed Action. This section describes the alternatives and the process of evaluating each of them.

[12] FAA. 2006. Order 5050.4B. U.S. Department of Transportation, Federal Aviation Administration. Accessed May 9, 2018 at https://www.faa.gov/airports/resources/publications/orders/environmental_5050_4/

3.2.1 Alternative 1

For the No Action Alternative, the Airport would not acquire any land and therefore would not have control of the RSA and the full length of the ROFA at the southern end of the runway. Without the land acquisition, the Airport would be forced to control these surfaces, the RPZ, and approach/departure areas (including maintenance of obstruction lights in the trees) through an easement with the Eccles Flying Hat Ranch. No changes would be made to the Cove Canal or to the Eccles Flying Hat Ranch under this alternative.

Without control of these surfaces and the ability to remove obstructions, the deficiencies at the south end of the Airport identified in the 2018 MPU will remain. Also, under this alternative, without ownership and control over the RSA and full length of the ROFA, the Airport would not be able to move the perimeter fence; and therefore, would have to continue the use of declared distances. Additionally, the landowner of the Eccles Flying Hat Ranch has stated that he is not agreeable to another long-term easement for lighting the trees. If the easement was allowed to expire, the FAA's flight procedures office has advised that the instrument approach procedures for SUN would be noted as unavailable after dark since the obstruction lights in the trees would have to be removed and the trees (obstructions) would remain. This would result in severe restrictions to the operational capability of the airport.

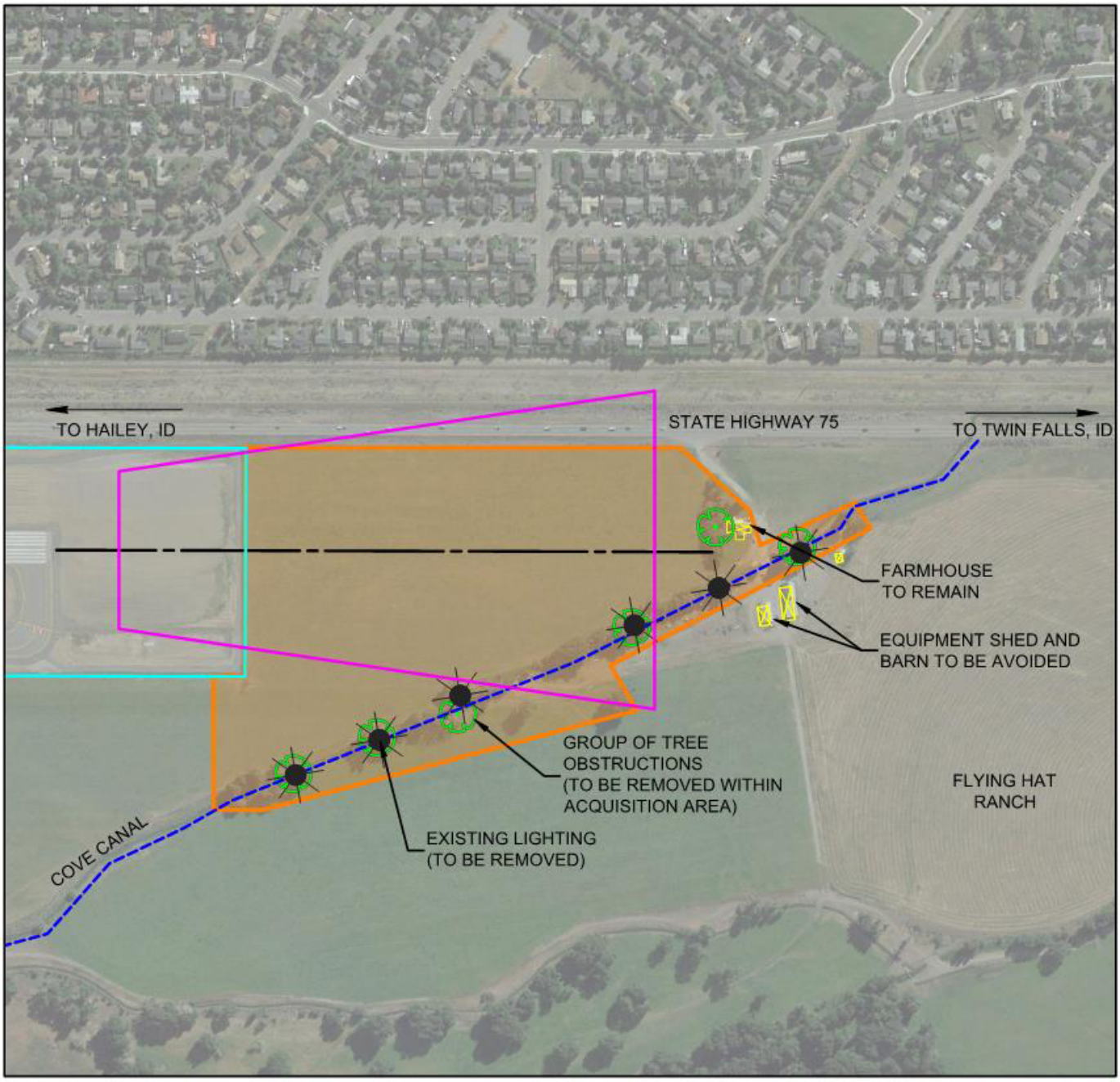
Although the No Action Alternative does not meet the Purpose and Need, CEQ and NEPA regulations require evaluation of a No Action Alternative. When compared with the Proposed Action, the No Action Alternative serves as a reference point.

3.2.2 Alternative 2

Alternative 2, shown in **Figure 3-2**, is the minimum acreage which would be required to gain perpetual control of the RSA, full length of the ROFA, RPZ, and clear the documented obstructions, with two exceptions. The land acquisition in this alternative encompasses almost the entire RPZ and ROFA, except for the areas overlapping Highway 75 and a small segment of land in the southwestern corner of the RPZ. Avoiding irrigation infrastructure (specifically irrigation controls and electrical supply) was incorporated into Alternative 2 in order to minimize modifications to irrigation equipment housed in the southwestern corner of the RPZ.

This alternative would acquire 34.3 acres of land, consisting of 30.2 acres of active pasture, 3.1 acres attributed to the Cove Canal, and 1 acre of farmstead. This alternative would acquire 2,274 feet of Cove Canal to remove tree obstructions and prevent tree obstruction regrowth. Alternative 2 did not include the segment of Cove Canal (approximately 417 linear feet of canal) that stems between the farmstead and Highway 75 to the east. The Eccles Flying Hat Ranch farmhouse would be acquired but left intact.

This alternative fails to acquire the entire RPZ, does not result in full ownership of the Cove Canal extending to the Highway 75 right-of-way (R-O-W), and does not acquire the entire approach and departure surfaces that are of concern. This would provide the Airport limited control of the Cove Canal that may lead to regrowth of trees that are obstructions in sections not owned by the Airport. Alternative 2 was ultimately not carried forward for further analysis due to its failure to address the Purpose and Need and the potential adverse effect to Section 4(f) resources linked to the farmstead.



LEGEND

- ALTERNATIVE ACQUISITION AREA
- AIRPORT PROPERTY BOUNDARY
- RUNWAY 13-31 CENTERLINE
- RUNWAY PROTECTION ZONE
- COVE CANAL
- GROUP OF TREE OBSTRUCTIONS (TO BE REMOVED WITHIN ACQUISITION AREA)
- OBSTRUCTION LIGHTING
- FARMHOUSE AND OUTBUILDINGS

250 0 250 500

SCALE: 1" = 500'

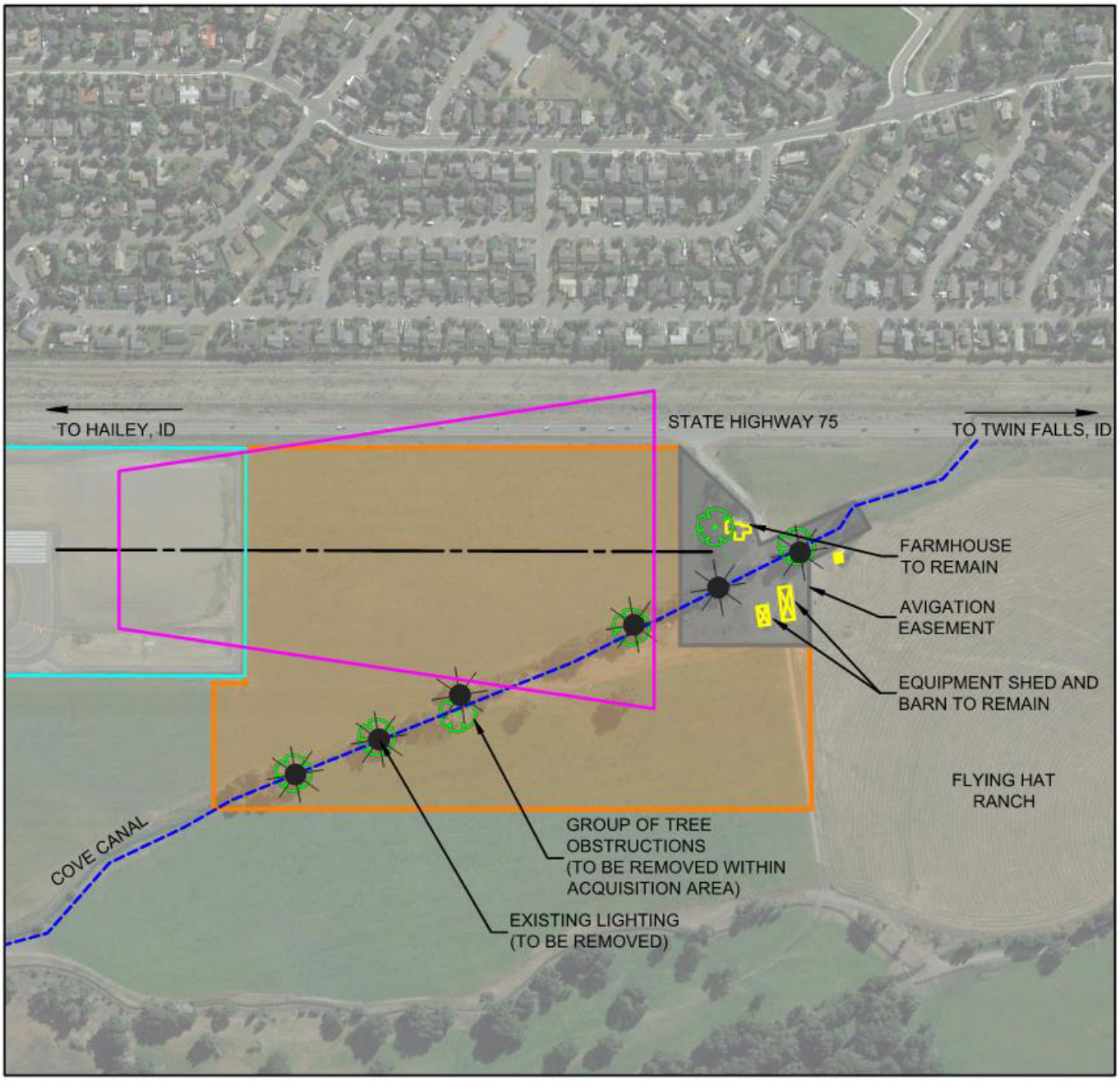
FIGURE 3-2: ALTERNATIVE 2

3.2.3 Alternative 3

Alternative 3, shown in **Figure 3-3**, expands the total area of acquisition toward the southwest compared to Alternative 2. Compared to Alternative 2, Alternative 3 would gain control over 12.7 additional acres for a total of 47 acres. The land acquisition would consist of 41 acres of active pasture, 3.1 acres attributed to the Cove Canal, and 2.9 acres of farmstead. Moreover, the acquisition of the 47 acres includes 4.7 acres in avigation easement and 42.3 acres in fee simple acquisition. Distinctly different than Alternative 2, the Alternative 3 westerly boundary line of the acquisition stems approximately 800' parallel of the extended runway centerline, which aids to clear transitional surfaces.

Alternative 3 encumbers the entire farmstead by placing approximately 4.7 acres into an avigation easement for the maintenance of the obstructions. Similar to Alternative 2, Alternative 3 would acquire 2,274 feet of Cove Canal to remove tree obstructions and prevent tree obstruction regrowth. Alternative 3 did not include the segment of Cove Canal (approximately 417 linear feet) that stems between the farmstead and Highway 75 to the east.

Alternative 3 does not result in full ownership of the Cove Canal extending to the Highway 75 right-of-way (R-O-W) and provided the Airport limited control of the Cove Canal that may lead to regrowth of trees that are obstructions in sections not owned by the Airport. This alternative was not acceptable to both the landowner and the FMAA Board who objected to using easements to achieve the Purpose and Need. Using fee simple property acquisition to gain control of the RPZ and required airspace is preferred by the Sponsor and landowner over the use of avigation easements to meet FAA standards. Alternative 3 was ultimately not carried forward for further analysis due to its failure to address the Purpose and Need and the potential adverse effect to Section 4(f) resources linked to the farmstead.



LEGEND

- ALTERNATIVE ACQUISITION AREA
- AIRPORT PROPERTY BOUNDARY
- RUNWAY 13-31 CENTERLINE
- RUNWAY PROTECTION ZONE
- COVE CANAL
- GROUP OF TREE OBSTRUCTIONS (TO BE REMOVED WITHIN ACQUISITION AREA)
- OBSTRUCTION LIGHTING
- FARMHOUSE AND OUTBUILDINGS

250 0 250 500

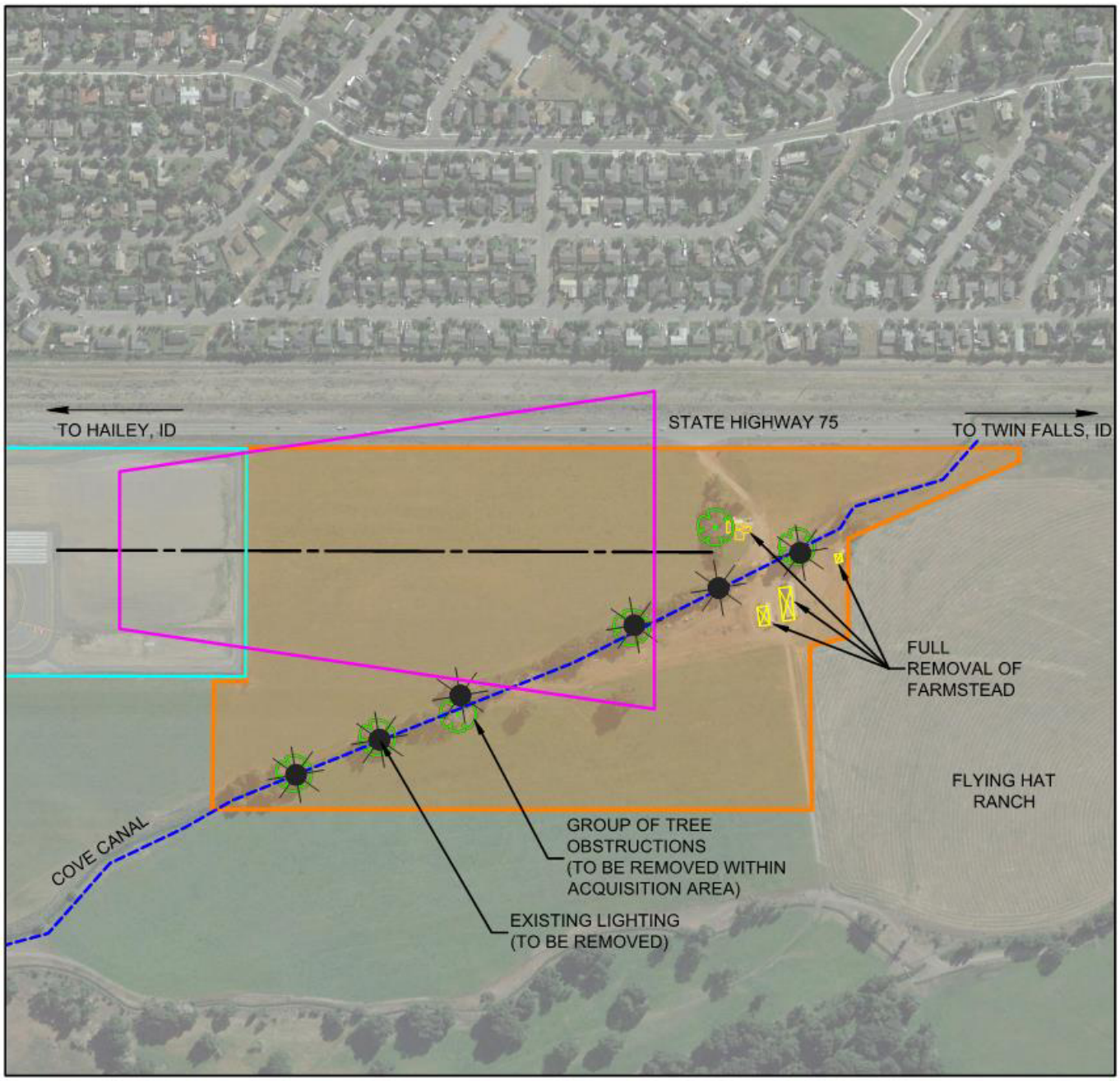
SCALE: 1" = 500'

FIGURE 3-3: ALTERNATIVE 3

3.2.4 Alternative 4

Alternative 4, shown in **Figure 3-4**, expands the total area of acquisition toward the east compared to Alternative 3. Compared to Alternative 3, Alternative 4 would gain control over 5 additional acres for a total of 52 acres. The land acquisition would consist of 44.3 acres of active pasture, 3.7 acres attributed to the Cove Canal, and 4 acres of farmstead. The easterly boundary of the acquisition extends to include approximately 417 feet of Cove Canal up to the Highway 75 R-O-W and includes all the Halfway Ranch buildings. The additional acreage would provide greater ownership of the Cove Canal for ongoing maintenance.

Although this alternative met the Purpose and Need, the impacts to the historic farmstead are the greatest with this alternative. Alternative 4 was eliminated due to the potential adverse effect to Section 4(f) resources linked to the farmstead buildings.



LEGEND

- ALTERNATIVE ACQUISITION AREA
- AIRPORT PROPERTY BOUNDARY
- RUNWAY 13-31 CENTERLINE
- RUNWAY PROTECTION ZONE
- COVE CANAL
- GROUP OF TREE OBSTRUCTIONS (TO BE REMOVED WITHIN ACQUISITION AREA)
- OBSTRUCTION LIGHTING
- FARMHOUSE AND OUTBUILDINGS

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SCALE: 1" = 500'

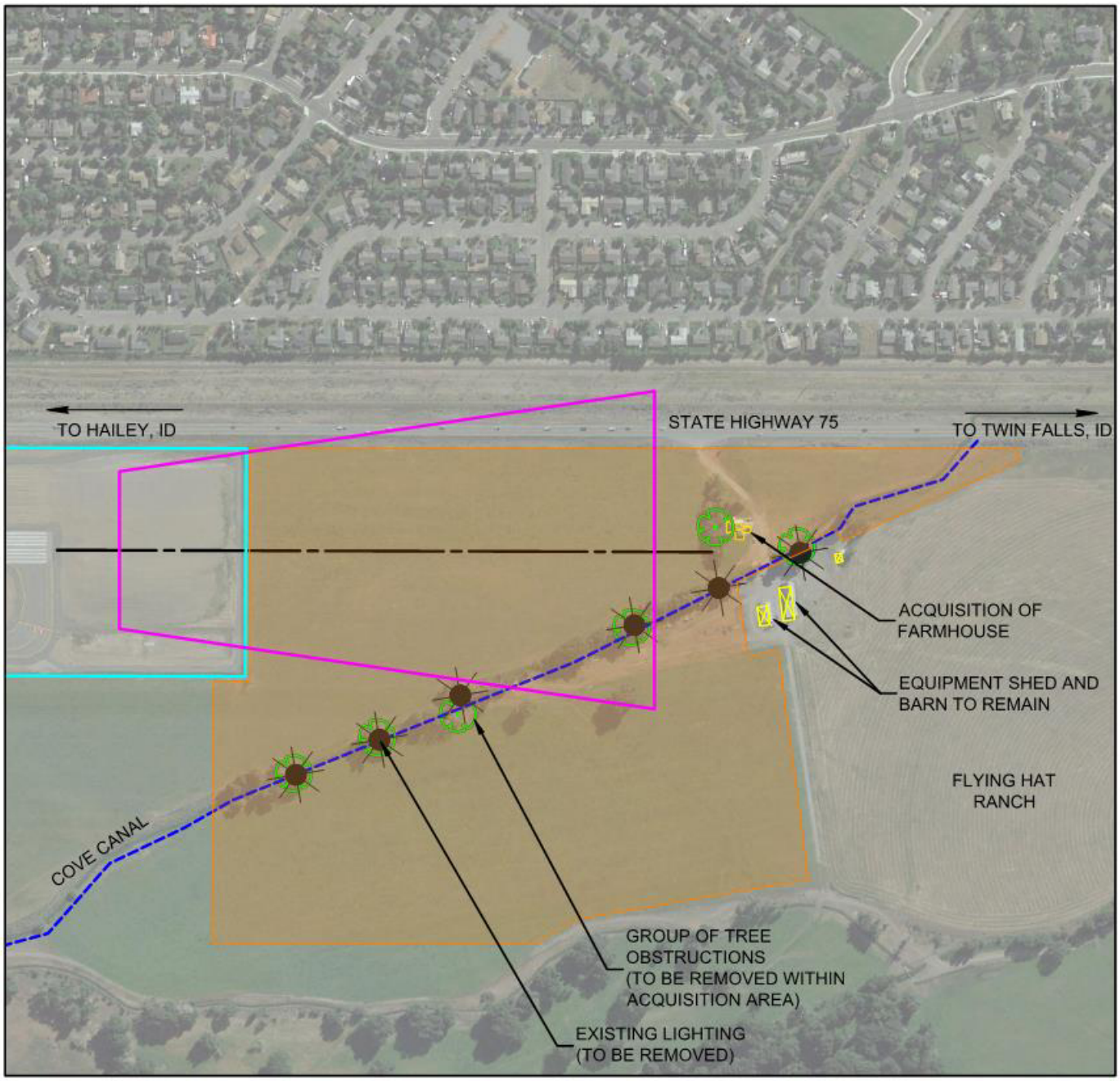
FIGURE 3-4: ALTERNATIVE 4

3.2.5 Alternative 5

Alternative 5 was developed during discussions with the FMAA Board as they determined Alternatives 2, 3, and 4 did not meet all of the Airport's, FAA's, and landowner's needs. Alternative 5 was created using parts and concepts of Alternatives 2, 3, and 4.

Figure 3-5 shows Alternative 5 as approved by the FMAA Board. Alternative 5 expands the total area of acquisition toward the southwest compared to Alternative 4. Compared to Alternative 4, Alternative 5 would gain control over 12.8 additional acres for a total of 64.8 acres. The land acquisition would consist of 59.8 acres of active pasture, 3.7 acres attributed to the Cove Canal, and 1.3 acres of farmstead. The westerly boundary of the acquisition extends approximately 1,250 feet from the runway centerline. Notably, Alternative 5 would include acquisition of the farmhouse for future removal but would avoid the remaining farmstead buildings, namely the equipment shed, historic barn, and irrigation infrastructure.

Alternative 5 was presented to the Board and public at the FMAA board meeting held on September 5, 2017. The Board was unanimously in favor of Alternative 5 becoming the Proposed Action Alternative. While Alternative 5 meets the Purpose and Need, the potential impacts to 4(f) resources, namely the acquisition of the farmhouse, led to the development of Alternative 6 and the removal of Alternative 5 from further consideration.



LEGEND

- ALTERNATIVE ACQUISITION AREA
- AIRPORT PROPERTY BOUNDARY
- RUNWAY 13-31 CENTERLINE
- RUNWAY PROTECTION ZONE
- COVE CANAL
- GROUP OF TREE OBSTRUCTIONS (TO BE REMOVED WITHIN ACQUISITION AREA)
- OBSTRUCTION LIGHTING
- FARMHOUSE AND OUTBUILDINGS

250 0 250 500

SCALE: 1" = 500'

FIGURE 3-5: ALTERNATIVE 5

3.2.6 Alternative 6 – Proposed Action

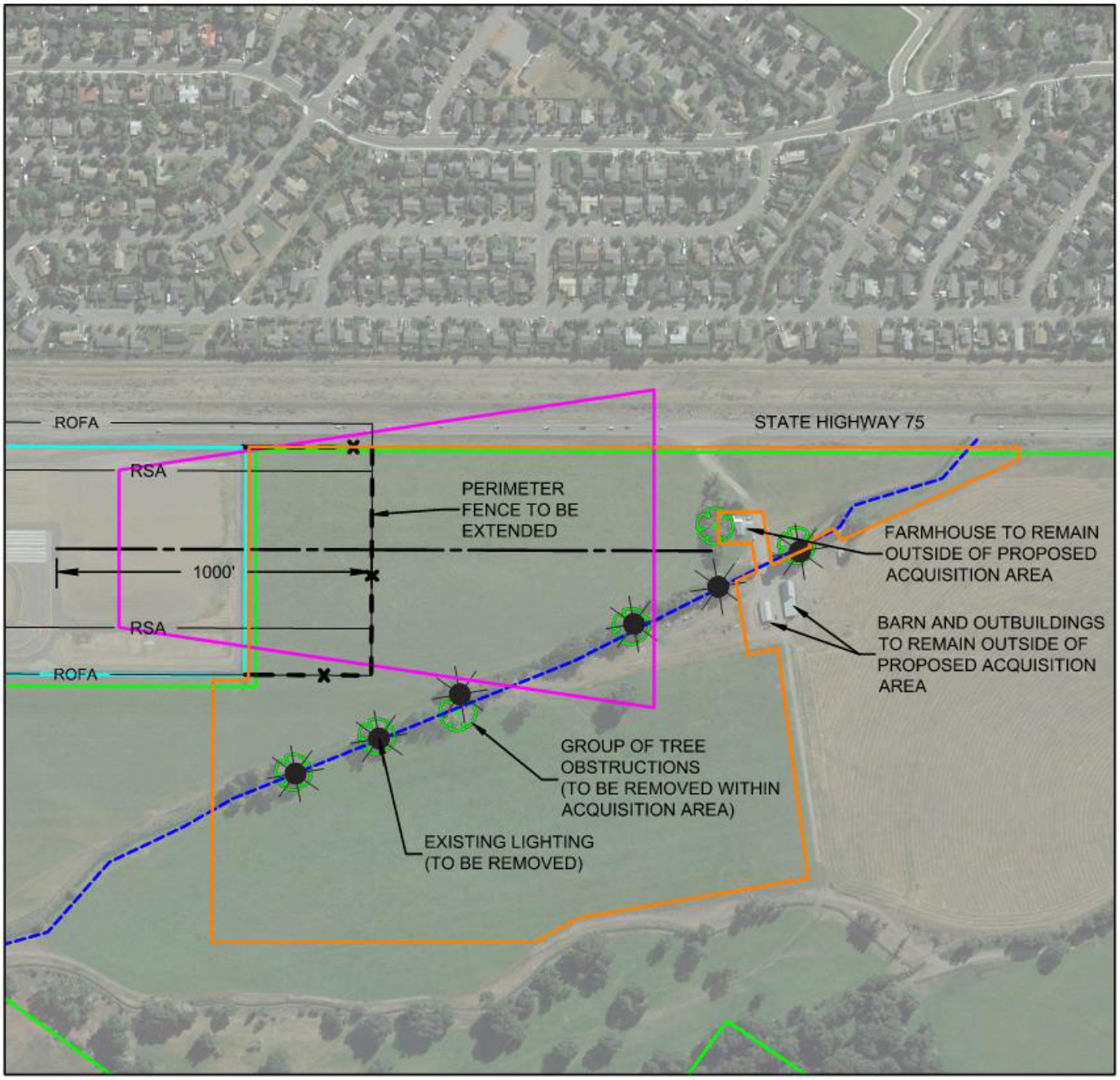
During initial environmental evaluation of Alternative 5 and through active discussion with the FAA, State Historic Preservation Office (SHPO), and the Airport, it was determined that the acquisition of the farmhouse proposed in Alternative 5 would be an "adverse effect", as defined by Section 106 of the National Historic Preservation Act (NHPA)[13] (see **Section 4.8)** and therefore also a Section 4(f) use (see **Section 4.5**). Due to this determination and through the Section 4(f) evaluation process, Alternative 6 was developed to avoid acquisition of the farmhouse. Alternative 6 thereby reduces the total area of acquisition compared to Alternative 5. Alternative 6 would reduce the acquisition area by 0.2 acres for a total of approximately 64.6 acres. The land acquisition consists of 59.8 acres of active pasture, 3.7 acres attributed to the Cove Canal, and 1.1 acres of farmstead.

Alternative 6 was presented at the FMAA Board meeting on March 6, 2018 and approved as the Proposed Action as shown in **Figure 3-6**.

The Proposed Action components include:

1. Acquisition of 64.6 acres of property at the southern end of Runway 31 to gain full control of the land encompassing the RSA, full length of the ROFA, and most of the RPZ, as well as maintain the areas where the obstructions (trees located along the Cove Canal and near the farmstead) are located within the approach/departure surfaces. Note: The Proposed action does not acquire the segment of the RPZ that covers State Highway 75 and does not acquire the portion of the ROFA associated with State Highway 75 as allowed by MOS 3 (See **Table 1-1**).
2. Removal of all trees (including obstruction lights currently placed in the trees) on the south end of the runway that penetrate, or could penetrate in the future, the Airport's Part 77 Approach Surface and AC 5300-13A Departure Surface. Up to 200 trees may be removed. Once the obstructions have been removed, FAA would amend the departure procedure for Runway 13 to remove the takeoff notes related to those obstructions.
3. Extending the Airport perimeter fence to provide fencing for the full length of the ROFA, which extends 1,000-feet beyond the Runway 31 end. The perimeter fence will be extended approximately 400 feet south of its current location to encompass 6.5 additional acres and contain the full RSA and full length of the ROFA. Note: As allowed by MOS 3 (see **Table 1-1**), a portion of the width of the ROFA associated with State Highway 75 will remain outside of the Airport fence.

[13] 36 CFR Part 800 Protection of Historic Properties, Section 106. Accessed April 23, 2018 at http://www.achp.gov/regs-rev04.pdf



LEGEND

- AIRPORT PROPERTY BOUNDARY
- RUNWAY 13-31 CENTERLINE
- RUNWAY PROTECTION ZONE [RPZ]
- RSA — RUNWAY SAFETY AREA [RSA]
- ROFA — RUNWAY OBJECT FREE AREA [ROFA]
- COVE CANAL
- ECCLES FLYING HAT RANCH
- PROPOSED ACQUISITION AREA [64.6 AC]

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SCALE: 1" = 500'

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FIGURE 3-6: PROPOSED ACTION

3.3 ALTERNATIVES BEING EVALUATED

Two alternatives carried forward for evaluation in this EA are:

- Alternative 1 – No Action; and,
- Alternative 6 – Proposed Action.

3.3.1 Alternative 1 – No Action

The No Action Alternative would maintain the existing condition, with control of the southern ends of the RSA and ROFA, RPZ, and approach area including maintenance of obstruction lights only through an easement. Although the landowner has stated he has no interest in renewing the existing easement, (expired in December 2018), he has agreed upon extending the easement until 2020. If the easement would have expired (or is allowed to expire in 2020), the Airport would have lost the ability to control airspace in the critical approach and departure surfaces and RPZ. Additionally, if the easement were to expire, the obstruction lights were removed, and the trees remained in place, the FAA's flight procedures office has advised that the instrument approach procedures for SUN would be noted as unavailable after dark, which would pose a major operational restriction on the Airport. Additionally, without control of the full RSA and full length of the ROFA, the Airport will have to continue to publish declared distances for landings on Runway 13 (landings from the north) and for aborted takeoffs from Runway 31 (departure to the south).

This alternative does not meet the Purpose and Need. Although this alternative does not meet the Purpose and Need, CEQ and NEPA regulations require consideration of a No Action Alternative. When compared to the Proposed Action, the No Action Alternative serves as a reference point to evaluate impacts of the Proposed Action.

3.3.2 Alternative 6 - Proposed Action

Section 3.2 describes the development of all the action alternatives and the reasons for elimination of Alternatives 2 through 5. Alternative 6 was selected as the Proposed Action as it meets the Purpose and Need and minimizes use of 4(f) resources (as discussed in **Section 4.5**).

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Chapter 4 AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION

This chapter evaluates potential impacts related to the Proposed Action on each of the Environmental Impact Categories defined by FAA Order 1050.1F. The evaluation of each Environmental Impact Category includes: (1) the Affected Environment, which describes the existing natural, ecological, cultural, social, and economic conditions that could be impacted by the Proposed Action; (2) the Environmental Consequences, which evaluates the human and environmental consequences of the Proposed Action for each environmental resource; (3) Mitigation Measures related to anticipated Proposed Action impacts; and, (4) Findings and Conclusions, which evaluates the human and environmental consequences of the No Action Alternative and the Proposed Action for each environmental resource.

Baseline data used to determine the affected environment were collected by reviewing existing documentation and databases, consulting with various individuals and agencies, and conducting field investigations.

For comparison purposes, the No Action Alternative is evaluated alongside of the Proposed Action. Although the No Action Alternative does not address any of the existing issues or meet the Purpose and Need as explained in **Chapter 2**, CEQ and NEPA regulations require evaluation of a No Action Alternative. When compared with the Proposed Action, the No Action Alternative serves as a reference point. The project area associated with the No Action Alternative correlates to the 64.6-acre acquisition area (**Figure 3-6**). The project area for the Proposed Action is generally defined as the 64.6-acre acquisition area under the Proposed Action (**Figure 3-6**), however, some Environmental Impact Categories require an expanded project area to encompass all areas directly or indirectly affected by the Proposed Action.

4.1 AIR QUALITY

The U.S. Environmental Protection Agency (EPA) has established National Ambient Air Quality Standards (NAAQS)[14] for ambient outdoor concentrations of the following criteria pollutants to protect public health, welfare, and the environment:

- carbon monoxide (CO),
- nitrogen dioxide (NO_2),
- ozone (O_3),
- sulfur dioxide (SO_2),
- lead (Pb),
- particulate matter with a diameter of 10 microns or less (coarse or PM_{10}), and
- particulate matter with a diameter of 2.5 microns or less (fine or $PM_{2.5}$).

Nitrogen oxides (NO_x) and volatile organic compound (VOC) emissions are precursors to ozone formation. Idaho incorporates the NAAQS into its air quality rules by reference but has not promulgated state-specific criteria pollutant standards.

[14] EPA. 2018. NAAQS Criteria Air Pollutants. Environmental Protection Agency. Accessed May 3, 2018 at https://www.epa.gov/criteria-air-pollutants/naaqs-table

The General Conformity Rule[15] of the federal Clean Air Act prohibits federal agencies (including the FAA) from permitting or funding projects that do not conform to an applicable State Implementation Plan (SIP). If the emissions exceed the thresholds, a formal Conformity Determination is required to demonstrate that the action conforms to the applicable SIP. Under the General Conformity Rule, project-related emissions of the applicable nonattainment/ maintenance pollutants are compared to de minimis level thresholds.

According to the 40 CFR Part 93 Rule as cited in the Federal Presumed to Conform Actions Under General Conformity, "federal agencies must meet the criteria for establishing activities that are presumed to conform by either: (1) Clearly demonstrating that the total of direct and indirect emissions from the type of activities that would be presumed to conform would not: (i) Cause or contribute to any new violation of any standard in any area; (ii) Interfere with provisions in the applicable SIP for maintenance of any standard; (iii) Increase the frequency or severity of any existing violation of any standard in any area; or (iv) Delay timely attainment of any standard or any required interim emission reductions or other milestones in any area including emission levels specified in the applicable SIP; or (2) Providing documentation that emissions from the types of actions that would be presumed to conform are below the applicable de minimis levels established in 40 CFR § 93.153(b)(1) and (b)(2)." Under this same rule[16], some airport-related actions and activities, such as rulemaking, routine maintenance, and land acquisition, qualify for exemption from general conformity requirements since these actions and activities "result in no emissions increase or increases in emissions are clearly de minimis." In addition, the FAA Environmental Desk Reference, Chapter 1.3.5[17], "The General Conformity Rule" is only considered when a federal action is proposed to occur in an EPA-designated nonattainment or maintenance area;" thus, in "attainment" areas that meet air quality standards the General Conformity Rule does not apply.

4.1.1 Affected Environment

The project area is in attainment for all of the NAAQS; therefore, the General Conformity Rule does not apply. The closest nonattainment/maintenance areas are the Fort Hall nonattainment area and the Portneuf Valley maintenance area for PM_{10} near Pocatello, Idaho, approximately 100 miles southeast of the Airport. Blaine County is in attainment for all criteria pollutants. The Idaho Department of Environmental Quality (IDEQ) monitors $PM_{2.5}$ at Ketchum, Idaho, which is representative of regional conditions. Recent and historic monitoring over the past year show that Ketchum is well within $PM_{2.5}$ thresholds, with the latest pollution levels at 5.4 $\mu g/m^3$ with an

[15] Federal Presumed to Conform Actions Under General Conformity, 72 Federal Register, July 30, 2007, https://www.faa.gov/airports/resources/publications/federal_register_notices/media/environmental_72fr41576.pdf

[16] Federal Presumed to Conform Actions Under General Conformity, 72 Federal Register, July 30, 2007, https://www.faa.gov/airports/resources/publications/federal_register_notices/media/environmental_72fr41576.pdf

[17] FAA. 2015. 1050.1F Desk Reference, Air Quality Chapter. Accessed April 16, 2018 at https://www.faa.gov/about/office_org/headquarters_offices/apl/environ_policy_guidance/policy/faa_nepa_order/desk_ref/media/1-air-quality.pdf

index value of 19, rated as "Good."[18] $PM_{2.5}$ emissions are generally caused by smoke and wood burning in the region.

4.1.2 Environmental Consequences

Given that Blaine County (and the entire project) is in attainment for all criteria pollutants, the General Conformity Rule does not apply. The Proposed Action will not result in any operational changes at the Airport; therefore, there is no increase in aircraft emissions associated with the project.

However, temporary emissions, including CO, VOC, NO_2, SO_2, PM_{10} and $PM_{2.5}$, are expected from equipment used to remove the tree obstructions and to extend the Airport perimeter fence. The tree removal and perimeter fence extension are anticipated to take approximately 20 working days, as up to 200 trees require complete removal, and the Airport's perimeter fence requires extension around the RSA and full length of the ROFA. Each day of construction activities would presumably consist of one, 10-hour shift. As most of the trees are cottonwood or other riparian softwoods, equipment such as chainsaws, chippers, and tracked diesel-powered vehicles are anticipated to be used. For this analysis, the assumption is that a construction fleet of approximately 5 pieces of equipment would be running continuously (to capture the perceived extreme construction equipment usage) at the same time throughout the entire 10-hour shift. Emission levels were estimated for CO, Volatile Organic Compounds (VOCs), NO_2, SO_2, PM-10, PM-2.5, and Pb. VOCs were included because of the role they play in contributing to overall O_3 levels (caused by chemical reactions between nitrogen oxides and VOCs). Lead emissions are no longer a factor because of EPA requirements regarding the use of unleaded fuel. **Tables 4-1** and **4-2** highlight emission levels for primary construction equipment likely associated with the Proposed Action.

TABLE 4-1: EMISSIONS LEVELS ASSOCIATED WITH PRIMARY CONSTRUCTION EQUIPMENT.

Pollutant Type	Loader/ Backhoe (g/hr.)	Skid Steer (g/hr.)	Bucket Truck (g/hr.)	Chipper (g/hr.)	Chainsaw (g/hr.)
CO	399	311	751	141	152
VOCs	75	60	154	29	21
NO_2	426	289	1,945	333	270
SO_2	0	0	0	0	0
PM-10	63	47	84	26	21
PM-2.5	61	46	82	25	21
Pb*	N/A	N/A	N/A	N/A	N/A

*Lead is no longer a factor because of EPA requirements to use unleaded fuels. Emissions levels presented above in Table 4-1 are estimates based upon the EPA AP42 database. https://www.epa.gov/air-emissions-factors-and-quantification/ap-42-compilation-air-emission-factors.

[18] IDEQ. 2018. Real-time air monitoring, Ketchum (PM2.5). Accessed April 23, 2018 at http://airquality.deq.idaho.gov/StationInfo1.aspx?ST_ID=28

Table 4-2 represents a combined total of 1,000 equipment operating hours and assumes that each of the primary pieces of construction equipment would run continuously for the entire 10-hour shift for each day of the tree removal and extension of the Airport's perimeter fence. It is estimated that each piece of equipment will be utilized for a maximum of 200 hours each. For the duration of the construction, estimates of each pollutant were low with the highest predicted emissions being NO2 and CO at 0.653 and 0.350 metric tons, respectively. Given the estimated construction fleet size and construction schedule, the project is not expected to result in and exceedance in the NAAQS.

TABLE 4-2. ESTIMATED NET EMISSIONS LEVELS FOR 20 CONSTRUCTION DAYS.

Vehicle	Estimated Running Hours	Net Emissions Per Criteria Pollutant for 20 Construction Days (Metric Tons)					
		CO	VOCs	NO2	SO2	PM-10	PM-2.5
Loader/Backhoe	200	0.080	0.015	0.085	0	0.013	0.012
Skid Steer	200	0.062	0.012	0.058	0	0.009	0.009
Bucket Truck	200	0.150	0.031	0.389	0	0.017	0.016
Chipper	200	0.028	0.006	0.067	0	0.005	0.005
Chainsaw	200	0.030	0.004	0.054	0	0.004	0.004
Totals:	**1,000**	**0.350**	**0.068**	**0.653**	**0**	**0.048**	**0.046**

4.1.3 Mitigation

No specific mitigation is required as the Proposed Action would not result in exceedance of the NAAQS.

During construction activities, emission reduction can be achieved by implementing Best Management Practices (BMPs) and by incorporating the provisions of FAA AC 150/5370–10G, Standards for Specifying Construction of Airports.[19] These measures may include, but are not limited to, the following:

- Limiting unnecessary idling times on diesel-powered engines.
- Project specifications will include temporary erosion control measures to minimize the impacts to air quality during construction.

4.1.4 Findings and Conclusions

As the non-development alternative, the No Action Alternative will have **no effect** on air quality, as no changes will occur in the project area.

The Proposed Action will not result in any operational changes at the Airport. The acquisition of land will have no effect on air quality. The removal of declared distances will not lead to an increase in emissions. Declared distances must be used rather than a runway's physical length

[19]FAA, Circular 150/5370-10G - Standards for Specifying Construction of Airports, July 21, 2014, http://www.faa.gov/airports/resources/advisory_circulars/index.cfm/go/document.current/documentnumber/150_5370-10

for aircraft performance calculations prior to takeoff and landing. However, aircraft are not prohibited from operating beyond a declared distance limit, provided the runway surface is appropriately marked as usable runway, which is the case at SUN. Therefore, use of the usable runway is not expected to change as a result of the removal of the declared distances, and no increases in emissions are expected. Furthermore, since the project area is in attainment, the General Conformity Rule does not apply. Temporary air quality impacts for the six criteria air pollutants (NAAQS) during construction will be short-term and of local impact. Emission reduction strategies will be employed to minimize these air quality impacts as appropriate. Therefore, no significant, adverse, nor long term impacts to air quality are anticipated that could lead to a violation of the NAAQS and therefore, the Proposed Action will have **no significant effect** on air quality.

4.2 BIOLOGICAL RESOURCES

To satisfy the Endangered Species Act (ESA)[20], the FAA must determine whether the Proposed Action would affect a federally listed species or habitat critical to that species. Federally listed species include those that have been designated as threatened, endangered, or candidate species by the U.S. Fish and Wildlife Service (USFWS). Designated critical habitat is an area formally designated by the USFWS as having physical and biological features essential to the survival of listed species. The FAA must also assess impacts of the Proposed Action on Idaho State-listed endangered, threatened and State sensitive species.

4.2.1 Affected Environment

Threatened and Endangered Species

Endangered species are defined as any native species in danger of extinction throughout all or a significant portion of its range. Threatened species are defined as any native species likely to be classified as endangered within the foreseeable future throughout all or a significant portion of its range. The USFWS Information for Planning and Consultation (IPaC) database[21] for endangered, threatened, proposed, and candidate species with associated proposed and critical habitats was reviewed for potential occurrence in Blaine County. Information was also obtained from the Idaho Fish and Wildlife Information System (IFWIS)[22] occurrence data and the Blaine County species list[23] of occupied and estimated range. Three species were identified for possible presence within the project area: Canada lynx (*Lynx canadensis; Threatened*), yellow-billed cuckoo (*Coccyzus americanus; Threatened*), and North American wolverine (*Gulo gulo luscus; Proposed Threatened*) (**Table 4-3**). No designated or proposed critical habitat was identified within the project area.

[20] USFWS. Endangered Species Act of 1973 as Amended through the 103rd Congress, April 16, 2018, https://www.fws.gov/endangered/esa-library/pdf/ESAall.pdf

[21] U.S. Fish and Wildlife Service (USFWS). 2017a. Information for Planning and Conservation (IPaC), May 2017, http://ecos.fws.gov/ipac/

[22] IDFG. 2017. Idaho Fish & Wildlife Information System (IFWIS), August 2017, https://idfg.idaho.gov/data

[23] IDFG. 2017. Blaine County species list, May 3, 2017, https://idfg.idaho.gov/species/taxa/county-lists

TABLE 4-3: SUMMARY OF ENDANGERED, THREATENED, AND PROPOSED SPECIES.

Species	Status	Habitat Requirements
Canada lynx (*Lynx canadensis*)	Threatened	Boreal forest of typically sub-alpine fir and Engelmann spruce above 4,000 feet in elevation with snowy winters.
North American wolverine (*Gulo gulo luscus*)	Proposed Threatened	Alpine/boreal forests of typically whitebark pine, Douglas fir or lodgepole pine, and tundra with heavy snowpack above 7,000 feet in elevation.
Yellow-billed cuckoo (Coccyzus americanus)	Threatened	Thick, closed canopy riparian forest of mostly cottonwood-willow with dense shrub understory

State Sensitive Species

A review of potential State sensitive species from the IFWIS occurrences within a three-mile[22] buffer of the project area found two Bureau of Land Management (BLM) State sensitive and Species of Greatest Conservation Need (SGCN) designated migratory birds: long-billed curlew (*Numenius americanus*) and olive-sided flycatcher (*Contopus cooperi*). Red-tailed hawk (*Buteo jamaicensis*) is a species of interest and was observed during the biological resources field survey (**Table 4-4**). All three birds are also protected under the Migratory Bird Treaty Act (MBTA), discussed later in this section.

TABLE 4-4: SUMMARY OF STATE SENSITIVE SPECIES.

Species	State Rank	BLM Sensitive	Species of Greatest Conservation Need
Red-tailed hawk (*Buteo jamaicensis*)	S4 (apparently secure)	–	–
Long-billed curlew (*Numenius americanus*)	S2M (imperiled, migratory)	Type 2 (range-wide imperiled)	Tier 2 (high conservation need)
Olive-sided flycatcher (*Contopus cooperi*)	S3B (uncommon, breeding population)	Type 2 (range-wide imperiled)	Tier 3 (moderate conservation need)

General Wildlife and Vegetation

A variety of wildlife exists in Blaine County. Examples of common large mammals in the County include: elk (*Cervus canadensis*), mule deer (*Odocileus hemionus*), whitetail deer (*Odocoileus virginianus*), moose (*Alces alces*), mountain lion (*Puma concolor*), and black bear (*Ursus americanus*). Common small mammals include: foxes (*Vulpes* sp.), coyotes (*Canis latrans*), raccoons (*Procyon lotor*), porcupines (*Erethizon dorsatum*), beavers (*Castor canadensis*), otters (*Lontra canadensis*), white-tailed jackrabbits (*Lepus townsendii*), and skunks (*Mephitis mephitis*). Various songbirds can be found in the County, as well as larger birds like: mallards (*Anas platyrhynchos*), Canada geese (*Branta canadensis*), sandhill cranes (*Grus canadensis*), turkeys (*Meleagris* sp.), ring-necked pheasants (*Phasianus colchicus*), and grouse (*Tetraoninae spp.*). As detailed in the Biological Memorandum, both coyote and white-tailed jackrabbit were observed during the biological resources field surveys (**Appendix B**). The abundance of rangeland, the Big Wood River and associated wetland/riparian habitat, and open space surrounding Hailey, Idaho, provides ample habitat for waterfowl and other wildlife.

The Cove Canal originates at the Big Wood River approximately 1.77 miles northwest of the project area. Although the Cove Canal is present, no fish species are present due to multiple diversions and gates for managing irrigation water. The canal is also seasonally dry outside of

irrigation season. Aquatic life is limited within the proposed project area because of the lack of available habitats and natural waterways.

The vegetation communities within the project area are predominantly associated with two cover types: managed areas of irrigated pasture and a 30-foot wide riparian corridor associated with Cove Canal that flows southeast diagonally across the site. Native vegetation is limited in the project area due to agriculture and land management activities. Vegetation observed during the biological survey includes: black cottonwood (*Populus balsamifera* ssp. *trichocharpa*), Wood's rose (*Rosa woodsii*), red-osier dogwood (*Cornus sericea*), western chokecherry (*Prunus virginiana*), smooth brome (*Bromus inermis*), goldenrod (*Solidago* spp.), stinging nettle (*Urtica dioica*), bull thistle (*Cirsium vulgare*), houndstongue (*Hieracium cynoglossoides*), barnyard grass (*Dactylis glomerata*), rabbitbrush (*Chrysothamnus viscidiflorus*), tall sagebrush (*Artemesia tridentata*), bluebunch wheatgrass (*Agropyron spicatum*), alkali mallow (*Malvella leprosa*), common canary grass (*Phalaris canariensis*), Italian thistle (*Caardus pycnocephalus*), milk thistle (*Silybum marianum*), and curly dock (*Rumex crispus*). A separate survey of wetlands (see **Appendix F** and **Section 4.14.1**) delineated 1.93 acres of palustrine emergent (PEM) wetlands, 2.22 acres of palustrine forested (PFO) wetlands, and 0.29 acres of palustrine scrub-shrub (PSS) wetlands within the project area. Common wetlands species identified include: black cottonwood, buckthorn (*Rhamnus catharica*), Russian olive (*Elaeagnus angustifolia*), cascara buckthorn (*Rhamnus purshiana*), reed canarygrass (*Phalaris arundinacea*), yellow sedge (*Carex flava*), beaked sedge (*Carex rostrata*), creeping thistle (*Cirsium arvense*) and stinging nettle (*Urtica dioica*).

Migratory Birds

Federal agencies must comply with the MBTA of 1918[24] that prohibits the "take" of any migratory bird, their eggs, or nests without a permit pursuant to 50 CFR 21. "Take" is defined by the MBTA as to "pursue, hunt, shoot, wound, kill, trap, capture, or collect." Bald eagles (*Haliaeetus leucocephalus*) and golden eagles (*Aquila chrysaetos*) are further protected under the Bald and Golden Eagle Protection Act (BGEPA)[25], enacted in 1940 and amended since, which prohibits anyone without a permit issued by the Secretary of the Interior from "taking" bald eagles or golden eagles, including their parts, nests, or eggs. The BGEPA defines "take" as to "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." The term "disturb" means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior. The areas within and adjacent to SUN provide potential foraging and nesting habitat for many bird species that are protected by the MBTA.

[24] USFWS. Digest of Federal Resource Laws of Interest to the U.S. Fish and Wildlife Service Migratory Bird Treaty Act of 1918, April 16, 2018, https://www.fws.gov/laws/lawsdigest/migtrea.html

[25] USFWS. 6 USC 668-668d Bald and Golden Eagle Protection Act. Accessed May 3, 2018 at https://www.fws.gov/le/USStatutes/BEPA.pdf

Migratory and resident bird species that have been identified within a three-mile buffer[26] of the project area include: dark-eyed junco (*Junco hyemalis*), black-billed magpie (*Pica hudsonia*), red-winged blackbird (*Agelaius phoeniceus*), song sparrow (*Melospiza melodia*), house sparrow (*Passer domesticus*), Eurasian collared-dove (*Streptopelia decaocto*), European starling (*Sturnus vulgaris*), downy woodpecker (*Picoides pubescens*), mountain chickadee (*Poecile gambeli*), and red-breasted nuthatch (*Sitta canadensis*). The USFWS IPaC list[27] identified six migratory birds that may be found at or near the project area: black rosy-finch (*Leucosticte atrata*), Cassin's finch (*Haemorhous cassinii*), lesser yellowlegs (*Tringa flavipes*), long-billed curlew (*Numenius americanus*), marbled godwit (*Limosa fedoa*), olive-sided flycatcher (*Contopus cooperi*), and rufous hummingbird (*Selasphorus rufus*). Lastly, the following birds were documented on-site during the 2017 field survey: red-winged blackbird, great blue heron (*Ardea herodias*), common merganser (*Mergus merganser*), red-tailed hawk, Steller's jay (*Cyanocitta stelleri*), northern flicker (*Colaptes auratus*), American kestrel (*Falco sparverius*), cliff swallow (*Petrochelidon pyrrhonota*), and American robin (*Turdus migratorius*). Numerous other migratory birds that may occur at or near the project area are listed in the Blaine County species list of occupied and estimated range, located in **Appendix B**.

4.2.2 Environmental Consequences

This section addresses the potential impacts of the Proposed Action implementation to fish, wildlife, and plant resources, including federally listed species and Idaho State sensitive species. According to FAA Order 1050.1F, a proposed action would have significant impacts on fish, wildlife, or plant resources when the USFWS or National Marine Fisheries Service determines that the action would be likely to jeopardize the continued existence of a federally listed threatened or endangered species or would result in the destruction or adverse modification of federally designated critical habitat. Adverse effects may include long term or permanent loss of unlisted plant and wildlife species; impacts to special status species or their habitats; a substantial loss, reduction degradation, disturbance or fragmentation of native species' habitats or populations; or adverse impacts on species' reproductive success rates, natural mortality rates, non-natural mortality, or ability to sustain the minimum population levels required for maintenance. A biologic resource survey and habitat assessment of the project area was completed to satisfy the IDFG and USFWS regulatory requirements and to determine the presence of and potential impacts to fish, wildlife, and plants associated with the Proposed Action (**Appendix B**). The project area as it pertains to Biological Resources includes all areas to be affected directly (i.e. habitat impacts within the acquisition area) and indirectly (i.e. lighting, noise, changes to water quality) by the Proposed Action. Emphasis was placed on species listed as threatened, endangered, or candidate under the ESA and species with a special conservation status specified by the State of Idaho. Information about fish, wildlife, and plants found on and adjacent to the Airport was obtained by conducting a desktop review, literature search, field investigation, and coordination with IDFG and USFWS. The desktop review included publicly available geospatial data for vegetation, wildlife, and fish resources.

[26] IDFG. 2017. Idaho Fish & Wildlife Information System (IFWIS). Accessed August 2017, https://idfg.idaho.gov/data

[27] U.S. Fish and Wildlife Service (USFWS). 2017a. Information for Planning and Conservation (IPaC). Accessed May 2017 at http://ecos.fws.gov/ipac/

Threatened and Endangered Species

Canada Lynx

Lynx are medium-sized cats (18–23 pounds) with color that varies seasonally. They are specialized predators that are highly dependent on snowshoe hares for food, and as a result, their distribution is linked to its habitat[28]. Lynx habitat can generally be described as boreal forest above 4,000 feet in elevation with cold, snowy winters[29]. While predicted lynx habitat was identified within the general vicinity[30], the project area is located in a valley of mostly grasses, pasture and agricultural areas with very little forested habitat and no subalpine fir or Engelmann spruce associated with Canada lynx. Further, current urban development and agricultural use are prevalent in the project area, including proximity to the city of Hailey, Idaho, which is not conducive to Canada lynx habitation. The Proposed Action activities will have **no effect** on the Canada lynx identified as a federally listed threatened species because neither the species nor its habitat are found in the project area.

North American Wolverine

The wolverine is the largest species in the family *Mustelidae* (17–40 pounds) with a broad head, short, rounded ears, small eyes, and a bushy tail. Wolverines are known as solitary animals that are difficult to study due to their secretive nature and relatively low densities[31]. Their habitat is closely associated with heavy snowpack persisting into the late spring and they have adapted to denning in the deep snow[32,33]. They occupy boreal forests and tundra; preferred habitat is generally not proximal to areas with human infrastructure or use[34,35]. However, juvenile wolverines are known to wander long distances in search of undisturbed areas free of other wolverines, being found in habitats not suitable for their long-term needs.

Suitable conditions do not exist within or adjacent to the project area, most notably because the project area is well below the general elevation where North American wolverine are known to occur (above 7,000 feet in elevation). No alpine forest or boreal forest habitat is present in the vicinity. Further, current urban development and agricultural use are prevalent in the project area, including close proximity to the city of Hailey, Idaho, which is not conducive to wolverine

[28] USFWS. 2013. Canada lynx, Lynx canadensis. U.S. Fish and Wildlife Service. Accessed May 3, 2018 at https://www.fws.gov/mountain-prairie/es/species/mammals/lynx/CandaLynxFactSheet_091613.pdf

[29] Quinn, N.W.S., and G. Parker., 1987. Pages 683–694 in M. Novak, J.A. Barber, M.E. Obbard, B. Malloch (eds.). Lynx. Wild furbearer management and conservation in North America. Ontario Ministry of Natural Resources.

[30] IDFG. 2017. Blaine County species list of occupied and estimated range. Idaho Department of Fish and Game. Accessed May 3, 2017 at https://idfg.idaho.gov/species/taxa/county-lists

[31] Lofroth, E. C., and J. Krebs., 2007. The abundance and distribution of wolverines in British Columbia, Canada. *Journal of Wildlife Management* 71:2159–2169

[32] Copeland, J. P.; McKelvey, K. S.; Aubry, K. B.; Landa, A.; Persson, J.; Inman, R. M.; Krebs, J.; Lofroth, E.; Golden, H.; Squires, J. R.; Magoun, A.; Schwartz, M. K.; Wilmot, J.; Copeland, C. L.; Yates, R. E.; Kojola, I.; May, R., 2010. The bioclimatic envelope of the wolverine (*Gulo gulo*): do climatic constraints limit its geographic distribution? *Canadian Journal of Zoology* 88:233-246

[33] Aubry, K.B., K.S. McKelvey, and J.P. Copeland, 2007. Geographic distribution and broad-scale habitat relations of the wolverine in the contiguous United States. *Journal of Wildlife Management* 71:2147-2158

[34] Copeland, J. P., J. M. Peek, C. R. Groves, W. E. Melquist, K. S. McKelvey, G. W. McDaniel, C.D. Long, and C. E. Harris, 2007. Seasonal habitat associations of the wolverine in central Idaho. *Journal of Wildlife Management* 71:2201–2212.

[35] May, R., A. Landa, J. van Dijk, and R. Andersen., 2006. Impact of infrastructure on habitat selection of wolverines. *Wildlife Biology* 12:285–295

habitation. Occurrence of North American wolverine is highly unlikely within the project area. The Proposed Action activities will have **no effect** on the North American wolverine identified as a federally listed proposed threatened species because neither the species nor its habitat are found in the project area.

Yellow-billed Cuckoo

The yellow-billed cuckoo (or YBCC) is a long, slim bird with a flat head, long tail and large yellow bill. The upper body is grey-brown and the underside is white; the tail also has white spots at the end of the central tail feathers[36]. This neotropical migrant historically occupied riparian ecosystems across the western United States, including the Wood River Valley. Yellow-billed cuckoos arrive in the United States in late May or early June and breed in late June through July. Cuckoos typically start their southerly migration by late August or early September[37]. The YBCC requires thick, closed canopy riparian forest with an understory of dense brush at a minimum of 50 acres in size[38,39]. These riparian forests are usually composed of various species of willows and cottonwoods.

Due to the presence of riparian cottonwood canopy along the Cove Canal and Big Wood River, a presence/absence survey for YBCC using USFWS protocol[40] was performed in June, July and August 2017 (**Appendix B**). Following USFWS protocols, call back surveys did not identify YBCC presence. The wetland survey (**Appendix F**) delineated 2.22 acres of PFO wetlands of mostly cottonwood located along the Cove Canal. However, this small, linear habitat does not meet minimum acreage, dense understory, or closed-canopy habitat preferences of YBCC. Therefore, suitable habitat to support this species is not present within the project area. Suitable habitat exists along the Big Wood River, approximately 1,000 feet west of the project area. Occurrence of YBCC within the project area is unlikely, thus the Proposed Action that includes land acquisition, obstruction removal, and fence extension will have **no effect** on this species.

USFWS and IDFG were contacted several times over the course of this EA and made aware of FAA's planned no effect determination (on YBCC). Frank Edelmann, Regional Biologist with IDFG and Greg Bujak, USFWS were engaged via e-mails and discussions regarding the yellow-billed cuckoo (YBCC) in May to June 2017, prior to field surveys due to the sensitive status of YBCC and its identification as a SGCN in Idaho. In June, July, and August 2017,

[36] Halterman, M.D. Johnson, M.J., Holmes, J.A. and Laymon, S.A. 2016. A Natural History Summary and Survey Protocol for the Western Distinct Population Segment of the Yellow-billed Cuckoo. US Fish and Wildlife Service, Draft. Colorado Plateau Research Station, Northern Arizona University, Flagstaff, Arizona and Sacramento Fish and Wildlife Office, US Fish and Wildlife Service, Sacramento, California

[37] Parrish, J.R., F.P. Howe, and R. E. Norvell. 1999. Utah Partners in Flight draft conservation strategy. UDWR publication number 99-40. Utah Partners in Flight Program, Utah Division of Wildlife Resources, Salt Lake City.

[38] Hughes, J.M. 1999. Yellow billed Cuckoo (Coccyzus americanus). In *The Birds of North America*, No. 148 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, Pennsylvania

[39] USFWS. Determination of Threatened Status for the Western Distinct Population Segment of the Yellow-bille d Cuckoo (*Coccyzus americanus*) Final Rule, October 3, 2014, https://www.gpo.gov/fdsys/pkg/FR-2014-10-03/pdf/2014-23640.pdf

[40] Halterman, M, Johnson, M.J., Holmes, J.A., and Laymon, S. 2015. A Natural History Summary and Survey Protocol for the Western Distinct Population Segment of the Yellow-billed Cuckoo. U.S. Fish and Wildlife Techniques and Methods, 45 p.

presence/absence surveys for YBCC were conducted using USFWS protocol[41]. Potential YBCC habitat may exist in association with the cottonwood trees lining the Cove Canal and the larger cottonwood stands adjacent to the Big Wood River located west of the Airport. In July 2018, Bob Kibler with the USFWS-Ecological Services Division was contacted regarding YBCC and completed ESA survey. The USFWS confirmed that the nearest documented YBCC nests in relation to the Airport are located at the Magic Valley Reservoir (approximately 20 miles south of the Airport) and north of Ketchum (approximately 18 miles north of the Airport), both of which are in areas primarily owned by the United States Forest Service (USFS). USFWS had no siting or nesting information for YBCC for the area between Bellevue and Ketchum, as YBCC are not tolerant to urban areas (see **Appendix B**).

Follow-up coordination with Frank Edelmann, Regional Biologist with IDFG, and Bob Kibler with USFWS, was conducted in December 2018 regarding the complete Biological Memorandum (**Appendix B**) and agencies did not provide opinions contrary to the "no effects" finding. **Appendix B Supplement** contains a Timeline of Evaluation and Agency Coordination pertaining to the YBCC. USFWS concurrence on a Federal Agency's no effect determination is not required.

State Sensitive Species

Red-tailed Hawk

The red-tailed hawk is a large raptor with a dark head and upper body, broad wings, light underside, and reddish fan-shaped tail[42]. Red-tailed hawk populations are abundant and secure in Idaho[43]. They are widely distributed and can be found wherever there are prey and nesting sites, from forests to deserts to agricultural lands. Some red-tailed hawks are resident birds, but most are partial migrants, migrating south in the winter[44]. Red-tailed hawks nest in March and April near the top of tall trees and are extremely sensitive to disturbance from human interference during nest building and may even abandon the nest.

A red-tailed hawk was observed perched in a cottonwood tree adjacent to the Cove Canal within the project area during the field survey (**Appendix B**), however, no nest was observed. Red-tailed hawks are sit-and-wait hunters[45] and are often found at a tall perch watching the ground for prey. The project area provides numerous large trees for perching and the adjacent irrigated pasture and riparian areas likely support small mammals, such as voles, mice, rats, gophers, ground squirrels, rabbits and hares. Under the Proposed Action, up to 200 individual trees (primarily cottonwoods) will be removed. Low-growing shrubs (under 15 feet in height) will be planted near the farmhouse once the larger trees are removed. The removal of trees will

[41] Halterman, M, Johnson, M.J., Holmes, J.A., and Laymon, S. 2015. A Natural History Summary and Survey Protocol for the Western Distinct Population Segment of the Yellow-billed Cuckoo. U.S. Fish and Wildlife Techniques and Methods, 45 p.

[42] Idaho Department of Fish and Game. no date. Idaho's Birds of Prey. April 17, 2018, https://idfg.idaho.gov/old-web/docs/wildlife/nongame/leafletBirdsPrey.pdf

[43] Idaho Department of Fish and Game. no date. Idaho's Birds of Prey. April 17, 2018, https://idfg.idaho.gov/old-web/docs/wildlife/nongame/leafletBirdsPrey.pdf

[44] Idaho Department of Fish and Game. no date. Idaho's Birds of Prey. April 17, 2018, https://idfg.idaho.gov/old-web/docs/wildlife/nongame/leafletBirdsPrey.pdf

[45] Idaho Department of Fish and Game. 2015. Red-tailed hawk. Wildlife Express 29: 3. April 17, 2018, https://idfg.idaho.gov/old-web/docs/wildlifeExpress/2015nov.pdf

permanently remove potential nesting and perching/foraging habitat for red-tailed hawk. However, adequate habitat exists offsite along the Big Wood River riparian corridor, approximately 1,000 feet west of the project area. The Proposed Action construction activities and tree removal will not occur during nesting season unless authorized by a qualified biologist (see Mitigation section below).

Multiple coordination attempts with IDFG[46] occurred from 2017 to 2018 and are outlined in **Chapter 5**. In June of 2017, Frank Edelmann (IDFG) was contacted over the phone to receive baseline information about the project area to be used in the biological surveys. In October of 2018, the final report (Biological Memorandum, **Appendix B**) was sent to IDFG to quantify impacts to migratory birds and the red-tailed hawk; IDFG acknowledged receipt of the Technical Memorandum. Communication with IDFG in December 2018 indicates they neither support nor oppose the project. Therefore, the Proposed Action **may impact but will not likely contribute to a trend towards federal listing or loss of viability** for red-tailed hawk.

Long-billed Curlew

The long-billed curlew is a large, long-legged shorebird with a distinctive long, decurved bill and pale cinnamon-colored plumage[47]. In Idaho, long-billed curlews use grassland, wet meadow and shrub steppe habitats during breeding, nesting and migrating periods from March through November. Breeding occurs in early April and nests are built in mostly open habitats void of large trees and shrubs, while brood rearing occurs in denser cover in proximity to water[48]. The greatest threat to long-billed curlew is loss of habitat, such as conversion of grasslands to residential or commercial development.

Although no long-billed curlews were observed during field surveys, the project area is predominantly irrigated pasture which is often used and sometimes preferred by long-billed curlew[49]. The project area is also located in a suspected breeding region. The Cove Canal provides water throughout the irrigation season which may also be utilized by curlew. The removal of up to 200 trees under the Proposed Action may temporarily impact underlying wetland areas. In addition, the wetlands will be converted from PFO and PSS wetlands to PEM wetlands. It is well documented that long-billed curlew choose nesting locations void of large trees and that large blocks of trees, such as those along the Cove Canal, can render grassland habitat unsuitable for nesting[50]. Therefore, the removal of riparian tree canopy may benefit

[46] Edelmann, Frank (Regional Biologist, Idaho Department of Fish and Game). Personal Communications. June 2017, October and December 2018.

[47] USFWS. 2009. Status Assessment and Conservation Action Plan for the Long-billed Curlew (*Numenius americanus*), Biological technical publication BTP-R6012-2009. USFWS Nongame Migratory Bird Coordinator's office, Denver, Colorado. Accessed April 17, 2018 at https://www.fws.gov/migratorybirds/pdf/management/focal-species/Long-billedCurlew.pdf

[48] Cavallaro, R. 2006. Conservation and management of Long-billed Curlews and waterbirds in the Foster's Slough wetland complex, Teton Valley, Idaho. *Wader Study Group Bulletin* 109:32.

[49] USFWS. 2009. Status Assessment and Conservation Action Plan for the Long-billed Curlew (*Numenius americanus*), Biological technical publication BTP-R6012-2009. USFWS Nongame Migratory Bird Coordinator's office, Denver, Colorado. Accessed April 17, 2018 at https://www.fws.gov/migratorybirds/pdf/management/focal-species/Long-billedCurlew.pdf

[50] USFWS. 2009. Status Assessment and Conservation Action Plan for the Long-billed Curlew (*Numenius americanus*), Biological technical publication BTP-R6012-2009. USFWS Nongame Migratory Bird

breeding and nesting habitat for long-billed curlew within the project vicinity. The Proposed Action is expected to have **no effect** on long-billed curlew as grassland and irrigated pasture habitat will be maintained.

Olive-sided Flycatcher

The olive-sided flycatcher is an upright-perching flycatcher with a large head, wide bill, and short tail; it is olive-gray overall with a white patch down the breast. Olive-sided flycatchers migrate to Idaho from April to September for breeding and nesting[51]. Their primary breeding habitat is high elevation mixed conifer that includes whitebark pine (*Pinus albicaulis*), mountain hemlock (*Tsuga mertensiana*), grand fir (*Abies grandis*), subalpine fir (*Abies lasiocarpa*), and Engelmann spruce (*Picea engelmannii*); secondary habitat is low elevation mixed conifer consisting of western larch (*Larix occidentalis*) and Douglas fir (*Pseudotsuga menziesii*)[52].

The IFWIS database indicate that no sightings of olive-sided flycatcher have been documented in the vicinity of the project area nor were any identified during field surveys. The project area contains no high elevation mixed conifer habitat nor low elevation mixed conifer habitat associated with the olive-sided flycatcher. As occurrence of the olive-sided flycatcher within the project area is unlikely and discountable, the Proposed Action is expected to have **no effect** on the olive-sided flycatcher because neither the species nor its habitat is found in the project area.

General Wildlife and Vegetation

The project area provides irrigated pasture and a 30-foot wide riparian corridor of mostly cottonwood with a shrub understory as potential habitat. Several cavity nests were observed in standing dead trees adjacent to the Cove Canal during the field surveys. The Proposed Action will remove up to 200 individual trees (primarily cottonwoods) along the Cove Canal, which will permanently remove potential nesting and foraging habitat for bird and wildlife species. However, the removal of riparian forest habitat is not significant (2.2 acres) when compared to alternative riparian forest habitat that exists along the Big Wood River, approximately 1,000 feet west of the project area. In addition, it is important to note that the Airport does not wish to promote the use of trees within the Airport boundaries because the presence of birds within the bounds of the Airport increases the risk of aircraft-bird strikes, which increases the risk of harm to both humans and bird species. The Proposed Action also includes a 400-foot extension of the fence, which will transfer 6.5 acres from agricultural production into non-irrigated grassland. The fence will alleviate wildlife incursions, such as mule deer, from entering the RSA, which increases risk of harm to both humans and wildlife. All construction activities will occur outside of the nesting season unless authorized by a qualified biologist (see Mitigation section below). Pasture, grassland, and emergent wetland habitat within the acquired area will remain and will be protected from future development. Therefore, the Proposed Action **may impact but will not likely contribute to a trend towards federal listing or loss of viability** for any general wildlife and vegetation species.

Coordinator's office, Denver, Colorado. Accessed April 17, 2018 at https://www.fws.gov/migratorybirds/pdf/management/focal-species/Long-billedCurlew.pdf

[51] Kotliar, N.B. 2007. Olive-sided Flycatcher (Contopus cooperi): a technical conservation assessment. USDA Forest Service, Rocky Mountain Region. Accessed April 18, 2018 at http://www.fs.fed.us/r2/projects/scp/assessments/olivesidedfycatcher.pdf

[52] Ritter, S. 2000. Idaho Bird Conservation Plan, Version 1.0. January 2000. Idaho Partners in Flight.

Migratory Birds

Suitable nesting habitat for birds subject to the MBTA, including red-tailed hawk, is present within the project area that includes: irrigated pasture; trees near the ranch outbuildings; the riparian corridor along the Cove Canal; and cavity nests in trees adjacent to the Cove Canal. Under the Proposed Action, approximately 64.6 acres of the Eccles Flying Hat Ranch will be acquired, including 59.8 acres of active pasture, 3.7 acres attributed to the Cove Canal (or approximately 2,691 linear feet of the Cove Canal), and 1.1 acres of farmstead. The pasture will be leased for continued agricultural use and will continue to provide habitat for many species. Up to 200 individual trees (primarily cottonwoods) will be removed along the Cove Canal, which will permanently remove potential nesting and foraging habitat for bird species that utilize riparian trees and for those purposes. However, the removal of riparian forest habitat is not significant (2.2 acres) when compared to alternative riparian forest habitat that exists along the Big Wood River, approximately 1,000 feet west of the project area. The removal of 6.5 acres from agricultural production into non-irrigated grassland is unlikely to impact migratory birds since most local species utilize non-irrigated grassland habitat. All construction activities will occur outside of the nesting season unless authorized by a qualified biologist (see Mitigation section below). Pasture, grassland, and emergent wetland habitat within the acquired area will remain intact. Therefore, the Proposed Action **may impact but will not likely contribute to a trend towards federal listing or loss of viability** for any migratory bird species.

Multiple coordination attempts with IDFG were conducted in 2017-2018 for concurrence on “no effects” determinations (as listed in **Chapter 5)**. In December of 2018, IDFG neither supported, nor opposed the project and deferred to the USFWS to assess the project effects determination.

4.2.3 Mitigation

The following measures are recommended to avoid or minimize effects on the special status and migratory birds. **Table 4-5** summarizes survey requirements, avoidance buffers, and construction windows for special status bird species and birds protected under the MBTA.

If construction will occur during the nesting season (February 1 through September 15), a qualified biologist will conduct a pre-construction nesting bird survey within 7 days prior to construction or land disturbance. Survey protocol should include specific tasks to address the potential presence and breeding activity of red-tailed hawk and cavity nesters. Due to the high potential for nesting birds to be present and to utilize the site, the following Best Management Practices (BMPs) are recommended to reduce or eliminate impacts to nesting birds:

- Prior to nesting season, remove suitable nesting habitat features from the project area/construction footprint. Management activity should include vegetation removal to minimize nesting habitat including mowing, grubbing, tree, and shrub removal. Habitat removal should be conducted during nonbreeding season (October 1-January 31), if practicable.
- During nesting season, if construction must occur during the nesting season, minimize vegetation removal to the maximum extent possible. Conduct nesting season preconstruction nest surveys 7 days before disturbance or vegetation removal to identify and protect any nesting birds that may be affected by project activities.

TABLE 4-5: SURVEY REQUIREMENTS AND WORK WINDOWS FOR BIRD SPECIES.

Biological Resource	Pre-construction Survey Information
Special status bird species and birds protected under the Migratory Bird Treaty Act	Nest survey to be conducted 7 days prior to ground disturbance or construction during nesting (Feb 1 – Sept 30)

4.2.4 Findings and Conclusions

As the non-development alternative, the No Action Alternative will have **no effect** on threatened and endangered species, State sensitive species, general wildlife and vegetation, or migratory birds. The project area will continue to provide habitat for many species, including undesirable bird species that increase the risk of aircraft-bird strikes.

Threatened and Endangered Species

The Proposed Action will have **no effect** on federally-listed Canada lynx and North American wolverine, as neither the species nor their habitats are found in the project area. The Proposed Action will also have **no effect** on the YBCC. The project area does not contain suitable YBCC habitat as the Cove Canal riparian is too fragmented and lacks the required tree density/understory, minimum size (50-acre minimum), and riparian width (50-meter width minimum). In addition, the species was not identified during call-back surveys and coordination with IDFG and USFWS indicated that the YBCC do not occur within the Airport project area and/or urban areas (Between Bellevue and Ketchum) of the Wood River Valley.

State Sensitive Species

The Proposed Action **may impact but will not likely contribute to a trend towards federal listing or loss of viability** to red-tailed hawk, as the removal of the cottonwood trees along the Cove Canal will reduce potential nesting and perching habitat. However, the number of cottonwood trees removed is insignificant when compared to available habitat along the Big Wood River and adequate replacement habitat is readily available. The Proposed Action will have **no effect** on State sensitive olive-sided flycatcher as neither the species nor its habitat is found in the project area. The Proposed Action will have **no effect** on State sensitive long-billed curlew because grassland and irrigation pasture will remain intact.

General Wildlife and Vegetation

The Proposed Action **may impact but will not likely contribute to a trend towards federal listing or loss of viability** for general wildlife and vegetation species, as the removal of the cottonwood trees along the Cove Canal will reduce potential perching and nesting habitat. However, the number of cottonwood trees removed is insignificant when compared to available habitat along the Big Wood River. Pasture, grassland, and emergent wetland habitat within the acquired area will remain intact.

Migratory Birds

The Proposed Action **may impact but will not likely contribute to a trend towards federal listing or loss of viability** to some migratory birds, including red-tailed hawk, as the removal of the cottonwood trees along the Cove Canal will reduce potential nesting and perching habitat for bird species. However, the number of cottonwood trees removed is insignificant when compared

to available habitat along the Big Wood River and adequate replacement habitat is readily available. Pasture, grassland, and emergent wetland habitat within the acquired area will remain intact.

4.3 CLIMATE

4.3.1 Affected Environment

Research has shown there is a direct correlation between fuel combustion and greenhouse gas (GHG) emissions[53]. GHGs are gases that trap heat in the atmosphere and are primarily a result of burning fossil fuels, such as carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). EPA data indicate that CO_2 emissions from domestic aviation account for approximately three percent of total U.S. CO_2 emissions[54]. The International Civil Aviation Organization estimates that GHG emissions from aircraft account for roughly three percent of all anthropogenic GHG emissions globally[55]. Climate change due to GHG emissions is a global phenomenon, so the affected environment is the global climate[56].

The scientific community is continuing efforts to better understand the impact of aviation emissions on the global atmosphere. The FAA is leading and participating in a number of initiatives intended to clarify the role that commercial aviation plays in GHG emissions and climate. The FAA, with support from the U.S. Global Change Research Program and its participating federal agencies (National Aeronautics and Space Administration, National Oceanic and Atmospheric Administration, EPA and Department of Energy), has developed the Aviation Climate Change Research Initiative to advance scientific understanding of regional and global climate impacts of aircraft emissions[57]. FAA also funds the Partnership for Air Transportation Noise & Emissions Reduction Center of Excellence research initiative to quantify the effects of aircraft exhaust and contrails on global and U.S climate and atmospheric composition. Similar research topics are being examined at the international level by the International Civil Aviation Organization[58].

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[53] *Documentation for Aircraft Component of the National Emissions Inventory Methodology*. EPA, April, 2010. Prepared by Eastern Research Group, ERG No. 0245.02.302.001, Contract No. EP-D-07-097.

[54] *Aviation and Climate Change*. GAO Report to Congressional Committees, 2009, http://www.gao.gov/new.items/d09554.pdf.

[55] Melrose, Alan. 2010. *European ATM and Climate Adaptation: A Scoping Study* in International Civil Aviation Organization Environmental Report.

[56] As explained by the EPA, "greenhouse gases, once emitted, become well mixed in the atmosphere, meaning U.S. emissions can affect not only the U.S. population and environment but other regions of the world as well; likewise, emissions in other countries can affect the United States." Climate Change Division, Office of Atmospheric Programs, EPA, Technical Support Document for Endangerment and Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act 2-3, 2009, http://epa.gov/climatechange/endangerment.html.

[57] Brown, N., et. al. 2010. The U.S. Strategy for Tackling Aviation Climate Impacts, 27th International Congress of the Aeronautical Sciences, http://www.icas.org/ICAS_ARCHIVE/ICAS2010/PAPERS/690.pdf

[58] Lourdes Q. Maurice and David S. Lee. *Chapter 5: Aviation Impacts on Climate. Final Report* of the International Civil Aviation Organization Committee on Aviation and Environmental Protection Workshop, 2007, http://www.icao.int/icaonett/cnfrst/CAEP/CAEP_SG_20082/docs/Caep8_SG2_WPI0.pdf.

FAA Order 1050.1F states that GHGs and climate change should be considered and evaluated as an impact category in FAA environmental documents, including both Environmental Assessments and Environmental Impact Statements. However, there are currently no federal standards for aviation-related GHG emissions and, as noted by the CEQ, "it is not currently useful for the NEPA analysis to attempt to link specific climatological changes, or the environmental impacts thereof, to the particular project or emissions; as such direct linkage is difficult to isolate and to understand[59]."

4.3.2 Environmental Consequences

The removal of declared distances after the Airport gains control of the full length of the RSA and ROFA and moves the fence, will not lead to an increase in emissions. Declared distances must be used rather than a runway's physical length for aircraft performance calculations prior to takeoff and landing. However, aircraft are not prohibited from operating beyond a declared distance limit, provided the runway surface is appropriately marked as usable runway, which is the case at SUN. Therefore, use of the usable runway is not expected to change as a result of the removal of the declared distances, and no increase in emissions are expected.

The Proposed Action will not cause or create an increase in aircraft operations at the Airport. Therefore, the Proposed Action will not lead to an increase in operational GHG emissions beyond current projected growth.

4.3.3 Mitigation

No mitigation is required as there are no federal standards for aviation-related GHG emissions that are required to be met at this time for both the No Action Alternative and the Proposed Action.

4.3.4 Findings and Conclusions

As the on-development alternative, the No Action Alternative will result in no additional GHG emissions beyond normal projected growth. Therefore, the No Action Alternative will have **no effect** on climate.

The Proposed Action will not cause or create an increase in aircraft operations at the Airport. Therefore, the Proposed Action will have **no significant effect** on climate.

4.4 COASTAL RESOURCES

4.4.1 Affected Environment

The Airport is not located within the Coastal Barrier Resources System[60], as delineated by the USFWS or Federal Emergency Management Agency (FEMA) coastal barrier maps. Neither the

[59] *Draft NEPA Guidance on Consideration of the Effects of Climate Change and Greenhouse Gas* Emissions, December 24, 2014, http://energy.gov/nepa/downloads/revised-draft-guidance-consideration-greenhouse-gas-emissions-and-climate-change-nepa

[60] USFWS. 2018. Coastal Barrier Resources System - Overview. U.S. Fish and Wildlife Service. Accessed May 3, 2018 at https://www.fws.gov/CBRA/

Proposed Action or the No Action Alternative would affect a coastal zone as the state of Idaho is located entirely inland and does not contain any marine coastal barriers or coral reefs. Therefore, actions involving the Airport are not applicable to these regulations and are not considered for further evaluation.

4.5 DEPARTMENT OF TRANSPORTATION, SECTION 4(F)

Section 4(f) was initially codified in Title 49 of the United States Code (USC) § 1653(f) (Section 4(f) of the USDOT Act of 1966). In 1983, § 1653(f) was reworded and recodified as Title 49 USC § 303[61], but still commonly referred to as Section 4(f). Congress amended Section 4(f) in 2005 when it enacted the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

Section 4(f) lands are defined as "any publicly owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance or land from an historic site of national, state, or local significance[62]."

Section 4(f) prohibits the use of land of significant publicly owned public parks, recreation areas, wildlife and waterfowl refuges, and land of a historic site for transportation projects unless the Administration determines that there are no feasible and prudent avoidance alternatives and that all possible planning to minimize harm has occurred.

Any actions that may affect Section 4(f) properties must be identified as early as practicable in the planning process if the Section 4(f) properties include historic sites of national, state, or local significance in public or private ownership regardless of whether they are open to the public or use of a public recreational resource. The term "use" occurs when land is permanently incorporated into a transportation facility, when there is a temporary occupancy of land that has an adverse effect, or when the proximity of the project substantially impairs the attributes that qualify the resource for protection under Section 4(f)[63]. De minimis impacts on publicly owned parks, recreation areas, and wildlife and waterfowl refuges are defined as those that do not "adversely affect the activities, features and attributes" of the Section 4(f) resource. The SAFETEA-LU amendment to Section 4(f)[64] allows different de minimis impact criteria for historic sites; de minimis impacts to historic sites are defined as the determination of either "no adverse effect" or "no historic properties effected" in compliance with Section 106 of the NHPA[65].

[61] 49 U.S.C. §303 - Policy on lands, wildlife and waterfowl refuges, and historic sites. Accessed April 23, 2018 at https://www.gpo.gov/fdsys/pkg/USCODE-2011-title49/html/USCODE-2011-title49-subtitleI-chap3-subchapI-sec303.htm

[62] 23 U.S. Code § 138 - Preservation of parklands. Accessed April 23, 2018 at https://www.ecfr.gov/cgi-bin/text-idx?tpl=/ecfrbrowse/Title23/23cfr774_main_02.tpl

[63] Federal Highway Administration (FHWA) Sec. 771.135 Section 4(f). Accessed April 23, 2018 at https://www.fhwa.dot.gov/legsregs/directives/fapg/cfr0771.htm

[64] Guidance for Determining De Minimis Impacts to Section 4(f). Accessed April 23, 2018 at https://environment.transportation.org/pdf/FHWA-FTA_De_Minimis_Guidance_12-13-05.pdf

[65] 36 CFR Part 800 Protection of Historic Properties, Section 106. Accessed April 23, 2018 at http://www.achp.gov/regs-rev04.pdf

4.5.1 Affected Environment

In July of 2017, the City of Hailey and Blaine County were contacted to identify land use resources, including recreational resources. Three Section 4(f) recreational resources were identified within the project vicinity: the Wood River Trail (0.1 miles), Wertheimer Park (0.3 miles), and Toe of the Hill Trail Heads (0.5 miles) as shown in **Figure 4-1**. All of the resources are located within the City of Hailey and are located east of SH-75 (the Proposed Action is located west of SH-75).

To identify potential historic sites, a Cultural Resources Survey (**Appendix C**) per Section 106 of the NHPA, was conducted in the summer of 2017 (approved in April 2018) to identify and evaluate resources at and abutting the Airport properties and areas proposed for acquisition. A 970-acre area was surveyed (see **Appendix C**). Section 106 cultural resources were identified in the Area of Potential Effect (APE) and the full extent of Airport property (FMA-01) was documented for FAA's future planning purposes. The Section 4(f) Evaluation prepared for potential impacts to historic resources is located in **Appendix G**, and includes recreational resources identified by the City of Hailey.

The Cultural Resources Survey reviewed two large properties — Eccles Flying Hat Ranch (13-16207) and the Friedman Memorial Airport (FMA-01) — which had previously been surveyed, at least minimally or partially, and which were resurveyed to current SHPO and FAA standards as part of this project.

The Friedman Memorial Airport (FMA-01), which included its twenty-five resources, was determined to be ineligible for the NRHP by the FAA in a letter dated April 5, 2018. SHPO concurred with this determination in a letter dated May 1, 2018 (see **Appendix C**). Therefore, it is not considered a 4(f) resource.

State Highway 75 (13-16171) was also identified in the Cultural Resources Survey; which abuts the project area, is outside the APE and was determined to be an NRHP-eligible Section 4(f) Resource. State Highway 75 is a two-lane historic highway that travels north-south along the eastern side of the Airport.

Within the APE, the following historic resources were determined to be NRHP-eligible Section 4(f) Resources (**Figure 4-1**):

1. Cove Canal (10BN1126)
2. Eccles Flying Hat Ranch (13-16207) (west of Highway 75)
3. Barn (NRHP- Individually Eligible) (Previously recorded as a part of the SH-75 EIS)

The **Cove Canal (10BN1126)** is an historic irrigation feature established in 1882. It originates from the Big Wood River approximately 1.77 miles northwest from the project area. The Canal generally flows southeasterly, diagonally across the project area. After flowing for a total of approximately 7.65 miles, the Canal terminates southeast of the Town of Bellevue. The Cove Canal is associated with significant trends in local history and retains sufficient integrity to communicate its historic associations with the agricultural development of the Wood River Valley.

Given its location directly off of the end of Runway 13/31, there are no practical measures to entirely avoid the Canal. Approximately 3.7 acres (approximately 2,691 linear feet) of the Cove Canal will be within the acquisition area.

The **Eccles Flying Hat Ranch (13-16207)** spans approximately 750 acres to the east and west of State Highway 75, south of Hailey, Idaho, and south of the Airport. The pasture on the east side of Highway 75 was acquired into the larger property in 1997; thus, it has no historic association with the Eccles Flying Hat Ranch and on its own, does not adequately communicate historical significance. The 615 acres on the west side of State Highway 75 is eligible for listing in the NRHP as it retains sufficient integrity to communicate its historic associations with the agricultural development of the Wood River Valley and because it embodies distinctive characteristics of the settlement period methods of construction during the early twentieth century. The ranch is a relatively rare surviving example in the Wood River Valley of an early twentieth century large-acreage ranch district, complete with the key, character-defining historic elements of open pastureland, tree lines, and a nucleus of farmstead buildings that clearly convey a sense of past time and place. Though few resources on the ranch appear to be individually eligible, the ranch as-a-whole appears to be eligible for listing in the NRHP as a Historic District made up of its contributing resources and landscape elements.

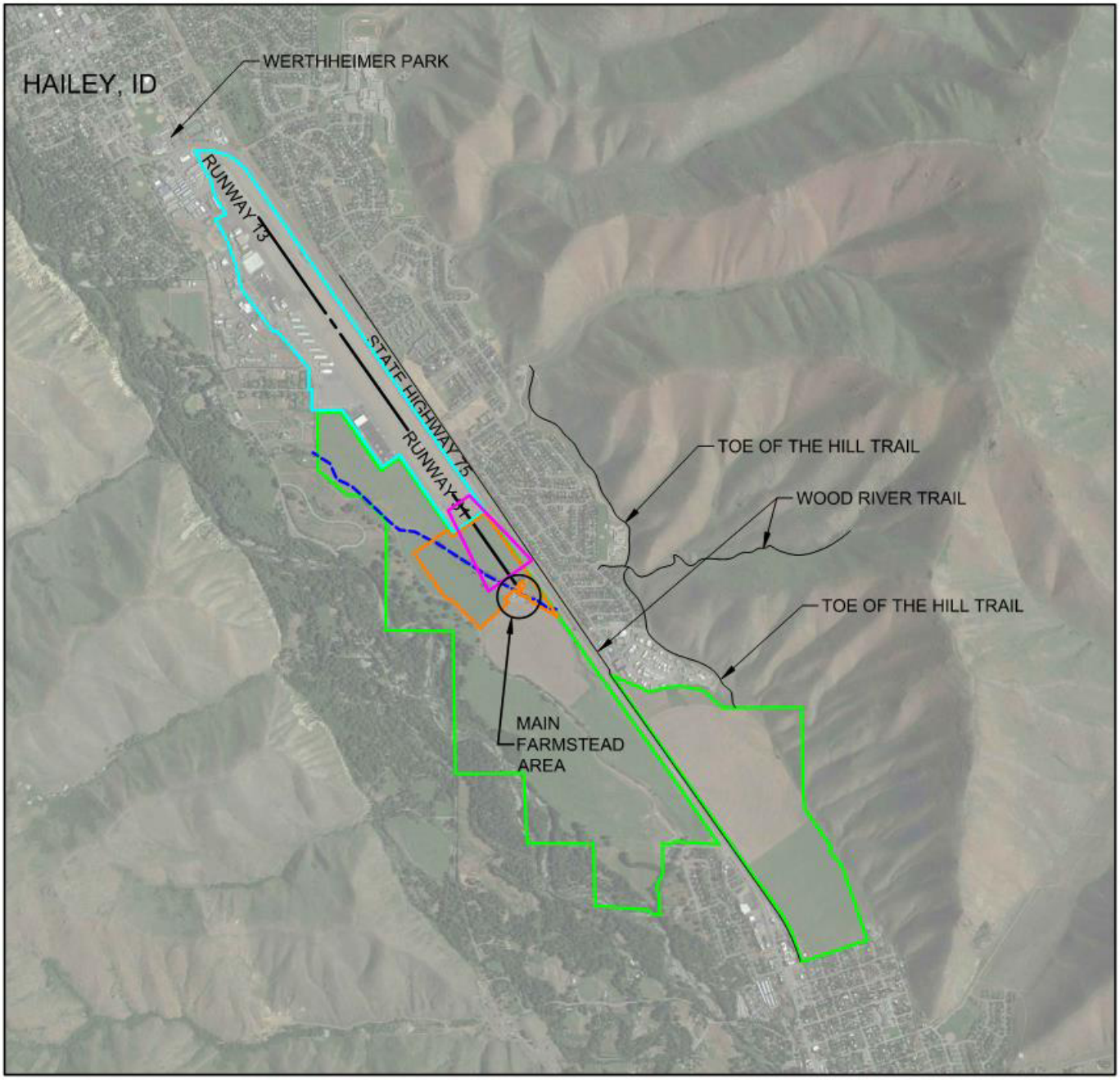
The farmstead, which lies on the extended centerline of the Airport's Runway 13/31 (see **Figure 3-1**), encompasses several individual resources (e.g. farmhouse, barn, grain bins, animal sheds, utility buildings, canals, a corral, equipment shed, well, and outhouse) dating from 1884 to 2006, of which, seven (resources illustrated within **Table 4-6**) comprise the main farmstead area. Although the house and garage have been altered, the remaining farm structures and general setting retain their historic integrity. On May 1, 2018, the Idaho SHPO added the windrow of trees surrounding the main farmstead area as a contributing element to the Eccles Flying Hat Ranch (**Appendix C**). The "Windrow" is made up of the trees on the east and north side of the farmhouse, which were planted in association with the main farmstead. The windrow is a combination of ornamental, deciduous, and pine trees.

As it is eligible for listing on the NRHP, the Eccles Flying Hat Ranch is also considered a Section 4(f) historic resource. Given the location of the Eccles Flying Hat Ranch directly off the end of Runway 13/31, there are no practicable measures to entirely avoid the Ranch; thus, the Eccles Flying Hat Ranch could be impacted by the proposed project.

The **barn (NRHP- Individually Eligible)** is an excellent example of an early twentieth century ground-level stable barn (**Photo 4-3** on page 75). It has a large wood-frame and a steeply pitched gambrel roof with the following features: open eaves with exposed rafter tails; corner boards; large, hinged door/ramp centered in the top of the east gable; and a row of square, four-light wood windows illuminating stalls. The barn communicates strong associations with development of the ranch and agriculture in the Wood River Valley, as-a-whole.

As it is eligible for listing on the NRHP, the barn is also considered a Section 4(f) historic resource. Given its location within the Eccles Flying Hat Ranch, the barn could be impacted by the proposed project.

For more information on these historical resources, please refer to **Appendices C and G and Section 4.8**.



LEGEND

- AIRPORT PROPERTY BOUNDARY (FMA-01)
- RUNWAY 13-31 CENTERLINE
- RUNWAY PROTECTION ZONE [RPZ]
- PROPOSED ACQUISITION AREA [64.6 ACRES]
- COVE CANAL (10BN1126)
- ECCLES FLYING HAT RANCH (13-16207)

1500 0 1500 3000

SCALE: 1" = 3000'

NOTE:
REFERENCE NAMES/NUMBERS PRESENTED IN "( )" ABOVE ARE ASSIGNED BY THE IDAHO STATE HISTORIC PRESERVATION OFFICE (SHPO).

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FIGURE 4-1:
DOT SECTION 4(F) PROPERTIES

TABLE 4-6: MAIN FARMSTEAD AREA RESOURCES.

Resource Name	Construction Date; Alteration Date(s)	Eligibility Status	Justification
Farmhouse	c. 1900; c. 1920; c. 1955; c. 1991	Contributing	Integrity of design, materials, workmanship lost; Integrity of location, setting, feeling and association intact.
Well	c. 1955	Contributing	Integrity of location, setting, design, materials, workmanship, feeling, and association all intact.
Barn	c. 1925; c. 1950	Individually eligible; Contributing	Criterion A* for Agriculture; Integrity of location, setting, design, materials, workmanship, feeling, and association all intact.
Equipment Shed	c. 1950	Contributing	Integrity of location, setting, design, materials, workmanship, feeling, and association all intact.
Outhouse	c. 1965	Noncontributing	Integrity of materials, workmanship, and feeling lost; Integrity of location, setting, design, and association intact.
Irrigation Shed	c. 2000	Noncontributing	Constructed after period of significance; not historic.
Windrow**	N/A	Contributing	Integrity of location, setting, design, materials, workmanship, feeling, and association intact.

*Sites and/or structures associated with events that have made a significant contribution to broad patterns in history.
Windrow was included as a main farmstead resource per SHPO concurrence letter dated May 1, 2018 (Appendix C**).

4.5.2 Environmental Consequences

Recreation resources

The Wood River Trail, Wertheimer Park, and Toe of the Hill trail heads are well outside of the project area and will not be affected by the land acquisition, obstruction removal, or fence extension. The Proposed Action does not change flight patterns or operations of the Airport; and therefore, no constructive use would occur as a result of the Proposed Action.

State Highway 75 (13-16171)

State Highway 75 is adjacent to, but not within the area of impact for the Proposed Action. Therefore, the Proposed Action, which includes land acquisition, obstruction removal, and fence extension, will have “no use” of State Highway 75.

Cove Canal (10BN1126)

Approximately 3.7 acres (approximately 2,691 linear feet) of the Cove Canal will be within the acquisition area under the Proposed Action. Within this area, trees (primarily cottonwoods) that have reached heights of as much as 80 to 100 feet would be removed. Tree removal would include cutting them at ground level and the removing the stumps. Wetlands associated with the canal would transition from a forested canopy to shrub or emergent complex. The removal of trees along the Cove Canal does not affect the vital water conveyance function of the Canal itself; thereby, the direct impacts associated with the removal of the trees along Cove Canal do not cause an “adverse effect” under Section 106 and are “no use” under Section 4(f). SHPO has concurred that the Proposed Action will have “no adverse effect” on the Cove Canal (see **Appendix C**).

Eccles Flying Hat Ranch Historic District (13-16207)

Under the Proposed Action, approximately 64.6 acres of the Eccles Flying Hat Ranch will be acquired. The land acquisition will not diminish the overall historical integrity of the property and will not include the main farmstead resources, which include the farmhouse, well, barn, equipment shed, outhouse, and irrigation equipment shed. The irrigation shed, equipment shed, and on-site utility cabinets will be retained so that irrigation features, pastures, and fields can continue to operate as a farm. The land change will reduce the overall acreage of the Eccles Flying Hat Ranch from approximately 750 acres to approximately 685 acres. However, the reduction is small, representing about 9% of the total Ranch area. Overall, the character-defining historic elements and the distinctive characteristics of the settlement period will be retained.

One component of the Proposed Action would remove all trees identified as airspace obstructions. Per SHPO concurrence (**Appendix C**), the removal of the majority of the windrow, a character defining feature of the historic farmstead associated with 13-16207, diminishes both the setting and feeling of the farmstead. The "windrow" is made up of the trees on the east and north side of the farmhouse, these trees were planted in association with the main farmstead. The windrow is a combination of ornamental, deciduous, and pine trees. Given the location of the windrow near the main farmstead and the Purpose and Need of the Proposed Action, there is no prudent and feasible Action Alternative that could avoid the Eccles Flying Hat Ranch without use of Section 4(f) resources. Removal of the obstructions along the Cove Canal (primarily cottonwood trees) and near the main farmstead (primarily the windrow pines) are needed to meet Runway 13-31 safety parameters.

The Proposed Action will have an "adverse effect" on the Eccles Flying Hat Ranch Historic District through the removal of the windrow trees; therefore, the Proposed Action will result in "direct use" of the Eccles Flying Hat Ranch. A Section 4(f) Evaluation (See **Appendix G**) was prepared to evaluate alternatives and make the required findings. The Proposed Action was found to be both reasonable and feasible under the Section 4(f) Evaluation. The location of the windrow places it in an unavoidable position in respect to the Airport safety needs identified in **Chapter 2** as it is both a contributing historic resource and contains obstructions to airspace. Based on the Section 4(f) Evaluation and coordination with FAA, SHPO, the Airport, and the landowner, a finalized Memorandum of Agreement (MOA) has been signed and is attached to the Section 4(f) Evaluation in **Appendix G**.

Barn (NRHP eligible)

The barn will not be included as part of the property acquisition under the Proposed Action and will continue to operate as an agricultural asset. The Proposed Action, which includes land acquisition, obstruction removal, and the fence extension, will have "no use" of the NRHP-eligible barn located on the Eccles Flying Hat Ranch (13-16207).

4.5.3 Mitigation

Section 4(f) properties will result in "no use" under the No Action Alternative but will result in "a direct use" of the Eccles Flying Hat Ranch under the Proposed Action.

Mitigation of potential adverse impacts to historic sites usually consists of measures necessary to preserve the historic integrity of the site and agreed to in accordance with 36 CFR Part 800 (Protection of Historic Properties). The Proposed Action was selected to minimize harm to the Eccles Flying Hat Ranch by limiting the acquisition of the farmstead resources, identified in **Table 4-6**, and by keeping farming operations intact. Consultation between FAA and SHPO took place during the development of a Memorandum of Agreement (MOA) regarding the proposed removal of the trees resulting in an adverse effect to the Eccles Flying Hat Ranch under Section 106. Stipulations in the signed and finalized MOA (**Appendix G**) include providing displays/interpretive panels at the Airport in a public area. The displays/panels will provide information about the agricultural history of the Wood River Valley. Idaho SHPO will be given the opportunity to review the content of the displays before they are finalized. Additionally, replanting the windrow with low growing/airport compatible shrub species will be negotiated during the land acquisition process.

4.5.4 Findings and Conclusions

Under the No Action Alternative, Section 4(f) resources will remain as they presently exist and will result in **no use** of Section 4(f) properties. However, the No Action Alternative does not satisfy the Purpose and Need of the project.

The Proposed Action will result in **no use** of recreational resources, State Highway 75, or the NRHP-eligible barn, as none of these resources are within the area of impact. The Proposed Action will not change Airport flight patterns or operations and no constructive use will occur. SHPO has concurred that the land acquisition, obstruction removal along the Cove Canal, and fence line extension will result in “no adverse effect” to six identified components of the main farmstead area and subsequently **no use** of these historic resources.

The removal of windrow trees surrounding the main farmstead area would constitute an “adverse effect” to contributing elements of the Historic District under Section 106 for impacting the setting of the farmstead area, which contain contributing elements to the Eccles Flying Hat Ranch. The character-defining historic elements and the distinctive characteristics of the settlement period methods of construction during the early 20th century will be retained, although the setting will be altered by removing the windrow trees.

After careful and thorough consideration, the FAA determined that there are no feasible and prudent alternatives to the use of Section 4(f) resources. As demonstrated in **Chapter 3** of this EA, the Proposed Action includes efforts to minimize impacts to Section 4(f) resources by limiting the acquisition of the Eccles Flying Hat Ranch farmstead resources and by keeping farming operations intact. Consultations between the FAA and SHPO resulted in the signing of the MOA (**Appendix G**), which details conditions to preserve the historic integrity of the Eccles Flying Hat Ranch, which include: the installation of a display/panels at the Airport that provide information about the agricultural history of the Wood River Valley and the replanting of low growing/airport compatible shrub species near the farmhouse as mitigation under Section 106.

4.6 FARMLANDS

The Farmland Policy Protection Act (FPPA)[66] requires special consideration be given to soils considered "Important Farmland" by the Natural Resources Conservation Service (NRCS)[67]. Important Farmland includes soils designated as: "Prime Farmland," "Unique Farmland," or farmland of "Statewide Importance" or "Local Importance." Any airport development action funded under the Airport Improvement Program or subject to FAA approval that would permanently convert areas designated as Important Farmland to a non-agricultural use is subject to FPPA coordination. The FPPA does not apply to land already committed to "urban development or water storage[68]" (i.e. airport developed areas). Therefore, only areas designated as "Important" in active agricultural use or not yet developed need to be evaluated.

4.6.1 Affected Environment

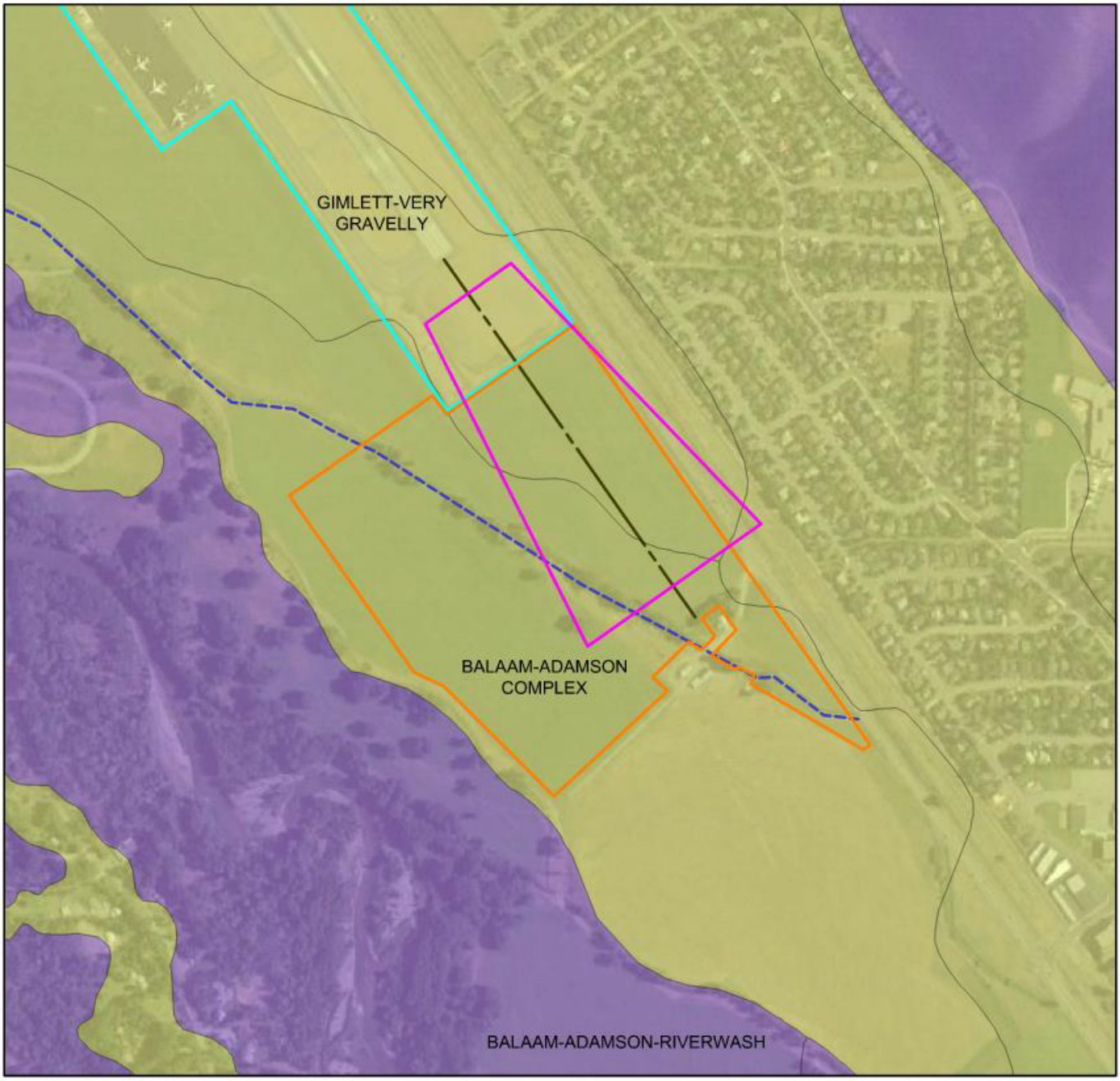
The NRCS Web Soil Survey[69] website was accessed to determine the classification of soils within the project area, defined as the Airport property and areas proposed for acquisition. All lands within existing Airport boundaries and within the parcels proposed for acquisition are classified as Balaam-Adamson complex and Gimlett very gravely sandy loam. These soils are considered "Prime Farmland" if irrigated. The ranch has an extensive irrigation system; and therefore, all soils are considered "Prime Farmland." Farmland soil classifications are shown in **Figure 4-2**. The entire proposed acquisition area is mapped as "Prime Farmland" if irrigated.

[66] 49 FR 27724, July 5, 1984. Part 658 – Farmland Protection Policy Act. Accessed April 18, 2018 at https://www.nrcs.usda.gov/wps/PA_NRCSConsumption/download?cid=stelprdb1042433&ext=pdf

[67] NRCS. 2012. Part 523 – Farmland Protection Policy Act Manual, April 12, 2018, https://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/stelprdb1049284.pdf

[68] 49 FR 27724, July 5, 1984. Part 658 – Farmland Protection Policy Act. Accessed April 18, 2018 at https://www.nrcs.usda.gov/wps/PA_NRCSConsumption/download?cid=stelprdb1042433&ext=pdf

[69] NRCS. 2018. Web Soil Survey. U.S. Department of Agriculture, Natural Resources Conservation Service, April 12, 2018, https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm



LEGEND

- AIRPORT PROPERTY BOUNDARY
- RUNWAY 13-31 CENTERLINE
- RUNWAY PROTECTION ZONE [RPZ]
- PROPOSED ACQUISITION AREA [64.6 ACRES]
- COVE CANAL
- PRIME FARMLAND IF IRRIGATED
- NOT PRIME FARMLAND

375 0 375 750

SCALE: 1" = 750'

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FIGURE 4-2:
NRCS SOILS CLASSIFICATIONS

4.6.2 Environmental Consequences

Since the FPPA does not apply to land already committed to "urban development or water storage", such as the existing Airport property, only the proposed acquisition area is subject to FPPA requirements. Under the Proposed Action, approximately 64.6 acres of land will be acquired, of which 58.1 acres will remain in agricultural use/irrigated pasture; these acres will continue to be irrigated and will remain “Prime Farmland.” The remaining 6.5 acres will be fenced and no longer irrigated, converting these acres from “Prime Farmland” to “Not Prime Farmland.” This removal is unavoidable to meet FAA safety standards in order to move the perimeter fence outside of the RSA and extend the fence for the full length of the ROFA. The 6.5 acres converting to “Not Prime Farmland” represents less than 1% of the total farm acreage (750 acres). A Farmland Conversion Impact Form was completed for the Proposed Action to determine the level of impact to Prime Farmland and the NRCS was consulted in November 2017 (**Appendix D**). Based on the current location of the farmland to be converted (off of the end of Runway 31), and the small percentage of the area being converted, among other factors, the site scored 144 points out of 260 points. According to the desk reference to FAA Order 1050.1F *Environmental Impacts: Policies and Procedures*, sites receiving a total score of less than 160 need not be given further consideration for protection and no further evaluation is needed. Based on the results of the Farmland Conversion Impact Form and consultation with the NRCS, the Proposed Action will have no significant effect on Prime Farmland.

4.6.3 Mitigation

Farmland areas protected under the FPPA will have no impact under the No Action Alternative and have no significant effect under the Proposed Action. Therefore, no mitigation is required.

4.6.4 Findings and Conclusions

The No Action Alternative will have **no effect** on “Important Farmland” resources under the FPPA because it is a non-development alternative.

Under the Proposed Action, 58.1 acres of land acquired will continue to be irrigated and used for agriculture and remain as “Prime Farmland.” The 6.5 acres of additional fenced area will no longer be irrigated and will convert to “Not Prime Farmland.” The removal of 6.5 acres is unavoidable to meet FAA safety standards, represents less than 1% of the total farm acreage, and is below the significance threshold per the Farmland Conversion Impact Form. Therefore, the Proposed Action will result in **no significant effect** to “Important Farmland.”

4.7 HAZARDOUS MATERIALS, POLLUTION PREVENTION, AND SOLID WASTE

Hazardous materials are products or waste regulated by the EPA and IDEQ. These include substances regulated under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)[70], the Resource Conservation and Recovery Act (RCRA)[71], and regulations for solid waste management, above ground storage tanks and underground storage tanks (USTs).

4.7.1 Affected Environment

For this assessment, a Hazardous Materials Evaluation - Phase 1 Report was prepared (**Appendix E**). As a part of the Phase 1 Report, Environmental Data Resources, Inc. (EDR) was contracted to perform a search of hazardous material sites within ½ mile of the Airport which includes the acquisition area. Numerous databases were searched, and research was conducted in accordance with 40 CFR Part 312, Standards and Practices for All Appropriate Inquiries[72] and ASTM E1527-13, Standard Practice for Environmental Site Assessments[73].

For the Phase 1 survey, the "assessment area" was defined as the Eccles Flying Hat Ranch adjacent to the Airport, that includes one farmhouse, three barns, one equipment shed, an historic animal barn, an irrigation control shed, and the Cove Canal, for a total of approximately 615 acres. The historical use of the Eccles Flying Hat Ranch property is agricultural and residential. While historical records indicate that the Cove Canal was constructed in 1882 and the farmhouse in 1900, historical aerial photos show the adjoining properties as primarily undeveloped in 1954. Historical aerial photo review also indicated that development in the vicinity began after 1954 (see **Appendix E – Table 4.1**) which included: farmland parcel development (irrigation structures built, outhouse built, etc.), development/enhancements of the Airport (i.e. paving of the runway, construction of hangars, etc.), and subdividing and development of nearby residential neighborhoods.

The site assessment was performed on July 26, 2017 and the following potential hazardous sources or petroleum products were identified:

- An individual sewer treatment system and an aboveground storage tank for propane/heating oil for the Farmhouse, as shown in **Photo 4-1**.
- Two additional above ground storage tanks are used to store agricultural chemicals, as shown in **Photo 4-2**.

The individual sewer system and above ground storage tanks appeared in good working order. Active use of fuel, pesticides, herbicides, fertilizers, and other chemicals were also observed as a part of normal agricultural operations. A review of environmental database records for the

[70] 42 U.S.C. §103 Comprehensive Environmental Response, Compensation and Liability Act. Accessed April 24, 2018 at https://www.law.cornell.edu/uscode/text/42/chapter-103

[71] EPA. 2018. Summary of the Resource Conservation and Recovery Act. Accessed April 24, 2018 at https://www.epa.gov/laws-regulations/summary-resource-conservation-and-recovery-act

[72] 40 CFR Part 312, https://www.gpo.gov/fdsys/pkg/CFR-2011-title40-vol28/pdf/CFR-2011-title40-vol28-part312.pdf

[73] ASTM E1527-13, https://elibrary.gsfc.nasa.gov/_assets/doclibBidder/tech_docs/ASTM%20E1527-13.pdf

assessment area found five active underground injection wells (UIC)[74] and one closed underground storage tank (UST) within ¼ mile of the Airport (**Table 4-7** and **Figure 4-3**).

PHOTO 4-1: FARMHOUSE SHOWING PROPANE TANK.

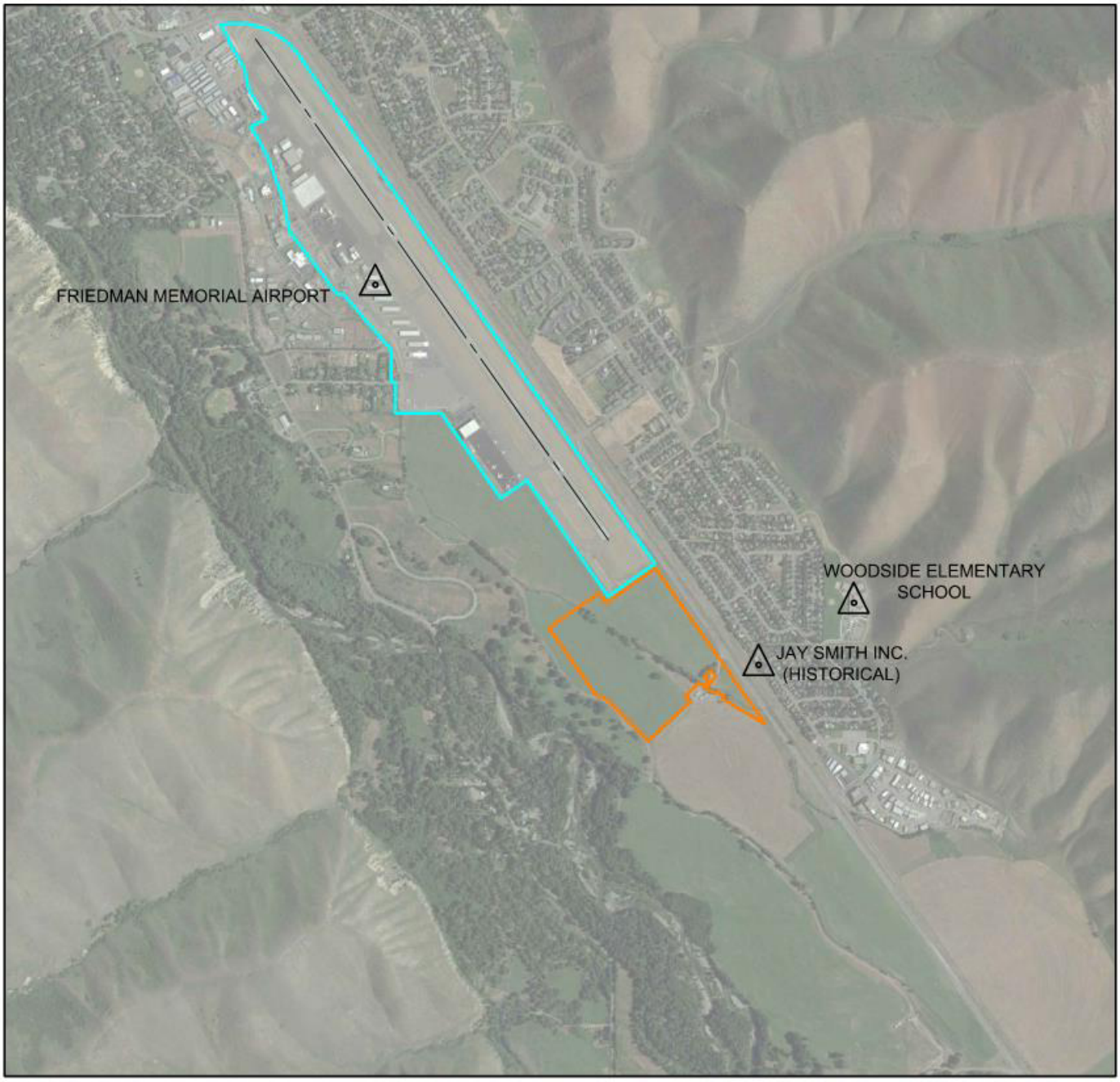
PHOTO 4-2: AGRICULTURAL CHEMICAL ABOVE GROUND STORAGE TANKS.

TABLE 4-7: HAZARDOUS MATERIAL SITES WITHIN ¼ MILE OF THE AIRPORT.

Site Name	Database	Distance & Direction from Airport	Comments
Friedman Memorial Airport	UIC, UST, ALLSITES*	Target Property	Five UIC wells active. UST status is closed.
Woodside Elementary	UIC	0.0125 miles north	One UIC. At elevation 1 foot higher than site
Jay Smith Inc.	EDR exclusive records	0.094 miles east	Historical Carpet and Upholstery Cleaning from 1998-2004. At elevation lower than project site.

**ALLSITES = Idaho's remediation database. Source: EDR, Inc., 2017.*

[74] An underground injection well is used to place fluid underground into porous geologic formations. Injected fluids may include water, wastewater, brine (salt water), or water mixed with chemicals.



LEGEND

- PROPOSED ACQUISITION AREA [64.6 AC]
- AIRPORT PROPERTY BOUNDARY
- RUNWAY 31-31 CENTERLINE
- HAZARDOUS MATERIALS SITES PER EPA PERMITS

1000 0 1000 2000

SCALE: 1" = 2000'

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FIGURE 4-3: HAZARDOUS MATERIALS

The assessment area is not listed in any regulatory databases for leaking underground storage tanks (LUST) and Recovered Government Archive (LUST database), air pollution point sources (AIRS database), or facilitates monitoring by the EPA (FINDS database). No facilities or sites listed under the RCRA or CERCLA were identified within ¼ mile of the assessment area. Only the Airport and two other hazardous materials users are located within ¼ mile of the assessment area (**Table 4-7**, **Figure 4-3**). Based on the distance, status and location of Woodside Elementary and Jay Smith, Inc., these sites would not be expected to present a high environmental risk to the assessment area.

The current and historic agricultural materials used during routine activities include fuel, oil, herbicides, pesticides, and fertilizers. When used per the manufacturer's instructions and for their intended use, these chemicals are not known to be hazardous when correctly applied with the appropriate protective measures. The Hazardous Materials Evaluation - Phase 1 Report found no evidence of an existing release, past release, or material threat of a release of any hazardous substances or petroleum products, which would qualify as a recognized environmental condition (REC) or an historic recognized environmental condition (HREC). Likewise, the assessment found no evidence of controlled recognized environmental conditions (CRECs), in which hazardous substances or petroleum products were released but allowed to remain in place, subject to implementation of the required controls by the applicable regulatory authority.

4.7.2 Environmental Consequences

The land to be acquired under the Proposed Action includes wells used to irrigate the property. The wells are currently in good condition and will continue to be utilized for agricultural irrigation purposes. The Proposed Action does not include acquisition of the farmhouse or equipment shed, which contain the above ground storage tanks and sewer treatment system. Both current and historic use of fuel, pesticides, herbicides, fertilizers, and other chemicals are used as part of the agricultural operation. When used per the manufacturer's instructions and for their intended use, these chemicals are not known to be hazardous. If hazardous materials or petroleum products are encountered, though unlikely, the appropriate agencies will be notified, and the materials will be properly disposed of by certified personnel at an appropriately permitted facility. Additionally, the proposed project will generate very little solid waste as it includes the extension and installation of perimeter fencing and the removal of trees and obstructions. If any of the existing fencing cannot be utilized during the extension, it will be recycled. The removed lighting beacons will also be recycled or utilized offsite and the trees (a raw material) will be cut, removed, and used as firewood or chipped and utilized offsite.

Equipment such as chainsaws, chippers and tracked vehicles are anticipated to be used over several weeks to remove trees that are obstructions. Proper use, storage, inspection, and maintenance of equipment will minimize potential releases of petroleum or other hazardous materials, while onsite. Spill or waste materials will be disposed of at an appropriately permitted facility.

4.7.3 Mitigation

While no specific mitigation is required, the following BMPs may be employed to prevent, minimize and control the potential release of petroleum materials:

- Schedule tree removal and grading activities for dry weather periods.
- Designate a contained area for equipment storage, short-term maintenance, and refueling. Ensure it is located at least 100 feet from waterbodies.
- Inspect vehicles and equipment for leaks and repair immediately.
- Use of approved spill response kit, as necessary.
- Clean up leaks, drips and other spills immediately to avoid soil or groundwater contamination.
- Conduct major vehicle maintenance and washing off site.
- Ensure that all spent fluids including motor oil, radiator coolant, or other fluids and used vehicle batteries are collected, stored, and recycled as hazardous waste off site.
- Ensure that all construction debris are taken to appropriate landfills (as necessary) and all sediment disposed of in approved upland areas or off-site.
- If necessary for dust control, use only a minimal amount of water.

4.7.4 Findings and Conclusions

The No Action Alternative will have **no effect** on hazardous materials, solid waste, or pollution prevention activities because it is a non-development alternative. Any hazardous materials, solid waste, or pollution prevention activities would remain as they presently exist.

The Proposed Action is expected to have **no significant effect** on hazardous materials, solid waste, or pollution prevention activities. The Hazardous Materials Evaluation - Phase 1 Report found no evidence of RECs, HRECs, or CRECs. Proper use, storage, inspection, and maintenance of equipment used to remove trees that are obstructions will prevent potential releases of petroleum materials or other hazardous materials.

4.8 HISTORICAL, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

Cultural resources are locations of human activity, occupation, or use identifiable through field inventory, historical documentation, or oral evidence. The term “cultural resources” includes archaeological, historical, or architectural sites, structures, or places with important public and scientific uses and may include definite locations (sites or places) of traditional cultural or religious importance to specified social and/or cultural groups.

Regulations were promulgated to protect archaeological and historical resources. Section 106 of the NHPA[75] requires federal agencies to consider the effects of their actions on historic properties. Section 106 also requires federal agencies to consult with State and Tribal Historic Preservation Offices and other appropriate parties regarding the identification and evaluation of

[75] 36 CFR Part 800 Protection of Historic Properties, Section 106. Accessed April 23, 2018 at http://www.achp.gov/regs-rev04.pdf

historic properties, assessment of effects on historic properties, and the resolution of adverse effects, and consult with appropriate Native American tribes.

For the purposes of Section 106, historic properties are defined as prehistoric and historic sites, buildings, structures, districts, landscapes, and objects that are either eligible for or listed in the NRHP, as well as artifacts, records, and remains related to such properties[76]. Historic properties can also include those cultural resources that are associated with the cultural practices or beliefs of a living community[77]. Historic properties must demonstrate importance in history, architecture, archaeology, engineering, or culture and meet one or more of the significance criteria identified under Section 106:

- Criterion A – Sites and/or structures associated with events that have made a significant contribution to broad patterns in history.
- Criterion B – Sites and/or structures associated with the lives of persons significant in our past.
- Criterion C – Sites and/or structures that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.

In addition to demonstrating significance, an historic property must demonstrate integrity. The seven aspects of integrity include: location, setting, design, materials, workmanship, feeling, and association.

4.8.1 Affected Environment

To identify potential historic sites, a Cultural Resources Survey (**Appendix C**) per Section 106 of the NHPA, was conducted in the summer of 2017 (approved in April 2018) to identify and evaluate historic, architectural, archaeological, and cultural resources at and abutting the Airport properties and areas proposed for acquisition; a 970-acre area was surveyed (see **Appendix C**). Section 106 cultural resources were identified in the Area of Potential Effect (APE) and further evaluated for impacts by the Proposed Action. The full extent of Airport property (FMA-01) was documented for FAA's future planning purposes.

As part of the Cultural Resources Survey (Survey), an intensive-level pedestrian survey of approximately 206 acres of the Airport was conducted. It was determined that soils have been previously disturbed as the airport was leveled, irrigated, and farmed before being expanded to its current configuration. As such, the Survey concluded that the probability of archaeological resources being present is minimal. Additionally, the Survey included a similar pedestrian survey of approximately fifty-three acres on land currently occupied by the Eccles Flying Hat Ranch abutting the south end of SUN. The Survey noted that aside from the ground occupied by and surrounding the ranch buildings, the fields have been tilled regularly. No archaeological resources were noted in any of the property surveyed.

[76] National Register Bulletin 36. Guidelines for Evaluating and Registering Archeological Properties. Accessed April 24, 2018 at https://www.nps.gov/nr/publications/bulletins/pdfs/nrb36.pdf

[77] National Register Bulletin 38. Guidelines for Evaluating and Documenting Traditional Cultural Properties. Accessed April 24, 2018 at https://www.nps.gov/nr/publications/bulletins/pdfs/nrb38.pdf

The FAA sent a letter with the Cultural Resources Survey to the Shoshone Bannock Tribes inviting Government-to-Government consultation on the Proposed Action (**Appendix C**). The letter was dated January 15, 2019 and was sent to initiate consultation to seek input on properties of cultural or religious significance that may be affected by the undertaking. No additional properties or sites were identified by the Tribes.

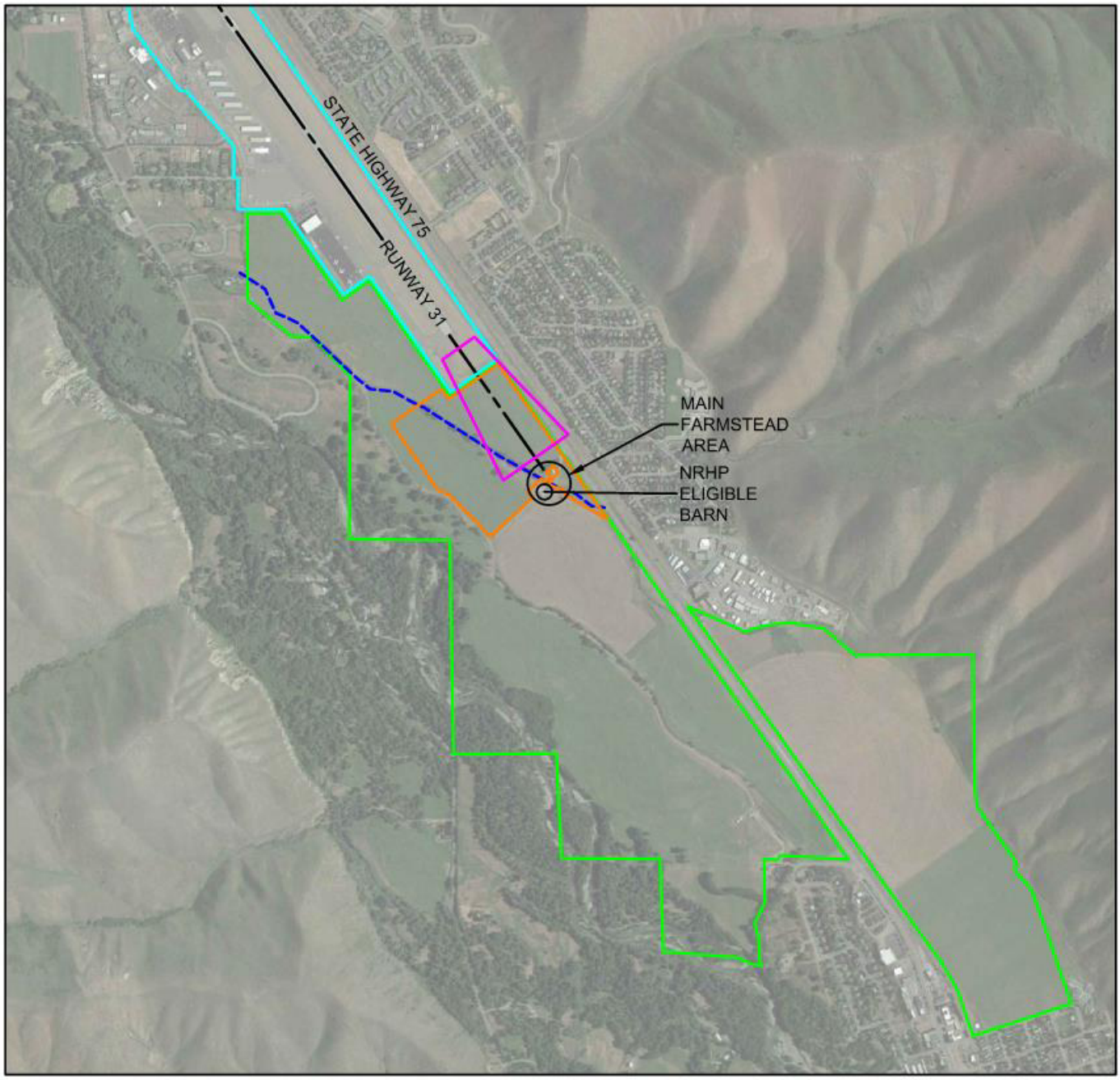
The Cultural Resources Survey reviewed two large properties—Eccles Flying Hat Ranch (13-16207) and the Friedman Memorial Airport (FMA-01)— which had previously been surveyed, at least minimally or partially, and which were resurveyed to current SHPO and FAA standards as part of this project.

The Friedman Memorial Airport (FMA-01), which included its twenty-five resources, was determined to be ineligible for the NRHP by the FAA in a letter dated April 5, 2018. SHPO concurred with this determination in a letter dated May 1, 2018 (see **Appendix C**).

State Highway 75 (13-16171) was also identified in the Cultural Resources Survey; which abuts the project area, is outside the APE and is eligible for listing in the NRHP.

Within the APE, the following historic resources were determined to be NRHP-eligible Resources (**Figure 4-4**):

1. Cove Canal (10BN1126)
2. Eccles Flying Hat Ranch (13-16207) (west of Highway 75)
3. Barn (NRHP- Individually Eligible) (Previously recorded as a part of the SH-75 EIS)



LEGEND

- AIRPORT PROPERTY BOUNDARY (FMA-01)
- RUNWAY 13-31 CENTERLINE
- RUNWAY PROTECTION ZONE [RPZ]
- PROPOSED ACQUISITION AREA [64.6 ACRES]
- COVE CANAL (10BN1126)
- ECCLES FLYING HAT RANCH (13-16207)

1000 0 1000 2000

SCALE: 1" = 2000'

NOTE:
REFERENCE NAMES/NUMBERS PRESENTED IN "( )" ABOVE ARE ASSIGNED BY THE IDAHO STATE HISTORIC PRESERVATION OFFICE (SHPO).

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FIGURE 4-4: HISTORIC RESOURCES

State Highway 75 (13-16171)
State Highway 75 is a two-lane historic highway that travels north-south along the eastern side of the Airport and abuts the project area.

Cove Canal (10BN1126)
The Cove Canal, an irrigation feature established in 1882, originates at the Big Wood River, approximately 1.77 miles northwest from the project area, and generally flows southeasterly, diagonally across the project area. The Cove Canal is associated with significant trends in local history and retains sufficient integrity to communicate its historic associations with the agricultural development of the Wood River Valley (Criterion A).

Eccles Flying Hat Ranch Historic District (13-16207)
The Eccles Flying Hat Ranch spans approximately 750 acres to the east and west of State Highway 75, south of Hailey, and south of the Airport. The pasture on the east side of Highway 75 was acquired into the larger property in 1997; thus, it has no historic association with the Eccles Flying Hat Ranch and on its own does not adequately communicate historical significance. The 615 acres on the west side of State Highway 75 is eligible for listing in the NRHP as it retains sufficient integrity to communicate its historic associations with the agricultural development of the Wood River Valley (Criterion A) and because it embodies distinctive characteristics of the settlement period methods of construction during the early twentieth century (Criterion C). The Eccles Flying Hat Ranch is a relatively rare surviving example in the Wood River Valley of an early twentieth century large-acreage ranch district, complete with the key, character-defining historic elements of open pastureland, tree lines, and a nucleus of farmstead buildings that clearly convey a sense of past time and place. Though few resources on the ranch appear to be individually eligible, the ranch as-a-whole appears to be eligible for listing in the NRHP as an Historic District made up of its contributing resources and landscape elements.

The farmstead, which lies on the extended centerline of the Airport's Runway 13/31 (see **Figure 3-1**), encompasses several individual resources (e.g. farmhouse, barn, grain bins, animal sheds, utility buildings, canals, a corral, equipment shed, well, and outhouse) dating from 1884 to 2006, of which, seven (resources illustrated within **Table 4-6**) comprise the main farmstead area. Although the house and garage have been altered, the remaining farm structures and general setting retain their historic integrity. On May 1, 2018, the Idaho SHPO added the windrow of trees surrounding the main farmstead area as a contributing element to the Eccles Flying Hat Ranch (**Appendix C**). The "windrow" is made up of the trees on the east and north side of the farmhouse, which were planted in association with the main farmstead. The windrow is a combination of ornamental, deciduous, and pine trees.

Barn (NRHP eligible)
The barn is an excellent example of an early twentieth century ground-level stable barn (Criterion C; **Photo 4-3**). It has a large wood-frame and a steeply-pitched gambrel roof with the following features: open eaves with exposed rafter tails; corner boards; large, hinged door/ramp centered in the top of the east gable; and a row of square, four-light wood windows illuminating

stalls within. The barn communicates strong associations with development of the ranch and agriculture in the Wood River Valley (Criterion A).

PHOTO 4-3: FARMSTEAD BARN.

4.8.2 Environmental Consequences

Due to the absence of any archaeological or cultural resources being identified by the Cultural Resources Survey, the disturbance of ground due to the extension of the fence or removal of obstructions is unlikely to affect these resources.

In accordance with Executive Order 13175, Consultation and Coordination with Indian and Tribal Governments and FAA Order 1210.20, American Indian and Alaska Native Tribal Consultation Policy and Procedures, the FAA sent a letter to the Shoshone Bannock Tribes inviting Government-to-Government consultation on the Proposed Action (**Appendix C**). The letter was dated January 15, 2019 and was sent to initiate consultation in accordance with Section 106 of the National Historic Preservation Act of 1966 and implementing regulations 36 CFR Part 800 to seek input on properties of cultural or religious significance that may be affected by the undertaking. The Tribes did not respond with any comments or concerns about the Proposed Action or identify any properties of cultural or religious significance.

The following discussion outlines the Section 106 process for assessing the effects the Proposed Action would have on historic properties. Resources that are listed in or eligible for the NRHP are considered in the Section 106 process by a qualified professional. Ultimately, FAA officials make the Section 106 effect determination and coordinate with the Idaho SHPO. The effects determination will consider both direct and indirect impacts from construction and operation activities. Effects determinations make one of the following conclusions:

- No effects, historic properties are not present in the area of potential impact or the project does not impact resources – Section 106 of the NRHP is not applicable.
- No adverse effect on historic properties – Section 106 of the NRHP applies but the project does not have a negative effect on the historic property.

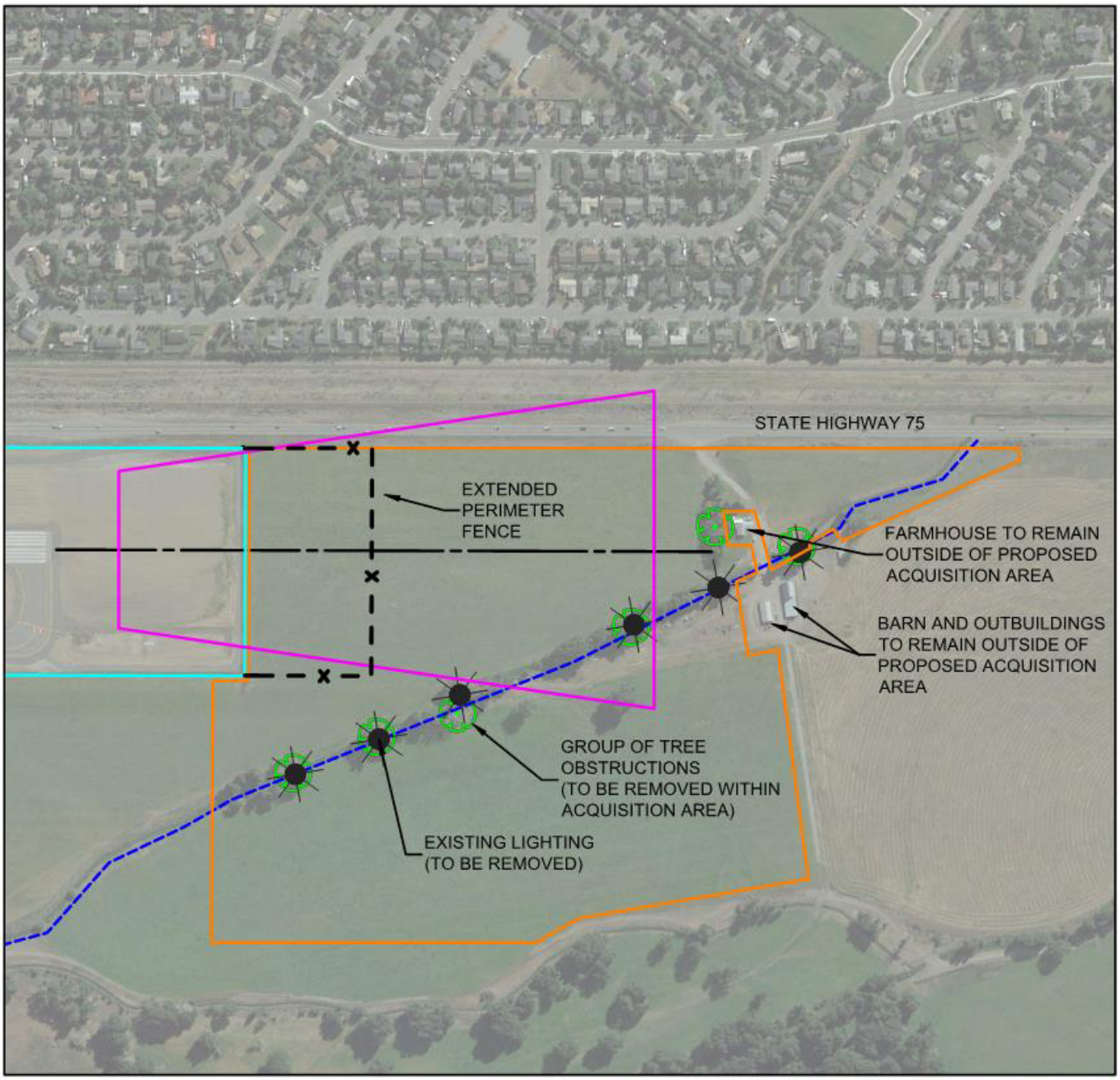
- Adverse effect on historic properties. – Section 106 of the NRHP applies and evaluations of measures to avoid, minimize, or mitigate impacts to the historic property will need to be considered.

On May 1, 2018, SHPO concurred with the FAA determination that the Proposed Action will have an “adverse effect” to historic resources inventoried as a part of this study. Specifically, the removal of the windrow, a character defining feature of the historic farmstead associated with 13-16207, diminishes both the setting and feeling of the farmstead, which are two aspects of integrity that qualify the property for inclusion on the NRHP. See **Appendix C** for the complete historic survey report and correspondence between the FAA and SHPO.

Specific impacts on identified resources described in the previous section (**Section 4.8.1**) are as follows:

State Highway 75 (13-16171)

State Highway 75 is adjacent to, but not within the area of impact for the Proposed Action. Therefore, the Proposed Action - which includes land acquisition, obstruction removal, and fence extension - will have “no effect” on State Highway 75.



LEGEND

- AIRPORT PROPERTY BOUNDARY (FMA-01)
- RUNWAY 13-31 CENTERLINE
- RUNWAY PROTECTION ZONE [RPZ]
- PROPOSED ACQUISITION AREA [64.6 ACRES]
- COVE CANAL (10BN1126)

250 0 250 500

SCALE: 1" = 500'

NOTE:
REFERENCE NAMES/NUMBERS PRESENTED IN "( )" ABOVE ARE ASSIGNED BY THE IDAHO STATE HISTORIC PRESERVATION OFFICE (SHPO).

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FIGURE 4-5: PROPOSED ACTION

Cove Canal (10BN1126)

Approximately 3.7 acres attributed to the Cove Canal (approximately 2,691 linear feet) will be within the acquisition area under the Proposed Action. Within this area, trees (primarily cottonwoods) that have reached heights of as much as 80 to 100 feet would be removed. Tree removal would include cutting them at ground level and the removing the stumps. Wetlands associated with the canal would transition from a forested canopy to shrub or emergent complex. The removal of trees along the Cove Canal does not affect the vital water conveyance function of the Canal itself; thereby, the direct impacts associated with the removal of the trees along Cove Canal do not cause an "adverse effect" under Section 106 (see **Appendix C**).

Eccles Flying Hat Ranch Historic District (13-16207)

Given the location of the Eccles Flying Hat Ranch Historic District directly off the end of Runway 13/31, there are no practicable measures to entirely avoid land surrounding the farmstead. Under the Proposed Action, approximately 64.6 acres of the Historic District will be acquired (see **Figure 4-5** on the previous page).

The land acquisition will not diminish the overall historical integrity of the property and will not include the main farmstead resources, which include the farmhouse, well, barn, equipment shed, outhouse, and irrigation shed. The irrigation shed, equipment shed, and on-site utility cabinets will be retained so that irrigation features, pastures, and fields can continue to operate as a farm. The land acquisition will reduce the overall acreage of the Eccles Flying Hat Ranch from approximately 750 acres to approximately 685 acres. However, the reduction is small, representing about 9% of the total ranch area. Overall, the character-defining historic elements (Criterion A) and the distinctive characteristics of the settlement period (Criterion C) will be retained.

One component of the Proposed Action would remove all trees identified as airspace obstructions. Per SHPO concurrence (**Appendix C**), the removal of the majority of the windrow - a character defining feature of the historic farmstead associated with 13-16207 - diminishes both the setting and feeling of the farmstead. The "windrow" is made up of the trees on the east and north side of the farmhouse, these trees were planted in association with the main farmstead. As previously mentioned, the windrow is a combination of ornamental, deciduous, and pine trees. Given the location of the windrow near the main farmstead and the Purpose and Need of the Proposed Action, there is no prudent and feasible Action Alternative that could avoid the Eccles Flying Hat Ranch. Removal of the obstructions along the Cove Canal (primarily cottonwood trees) and near the main farmstead (primarily the windrow pines) are needed to meet Runway 13-31 safety parameters.

The Proposed Action will therefore, have an "adverse effect" on the Eccles Flying Hat Ranch Historic District under Section 106.

Barn (NRHP eligible)

The barn will not be included as part of the property acquisition under the Proposed Action and will continue to operate as an agricultural asset. Therefore, the Proposed Action, which includes land acquisition, obstruction removal, and fence extension, will have "no effect" on the NRHP-eligible barn located on the Eccles Flying Hat Ranch.

4.8.3 Mitigation

In the event that construction activities encounter any previously unrecorded archaeological or cultural deposits, the contractor shall terminate all operation in that immediate area (100-foot radius [30 meters]) until the FAA notifies the SHPO. Any unanticipated discoveries will be left in place pending further evaluation and consultation with the SHPO and interested Native American tribes (if appropriate).

Mitigation of potential adverse impacts to historic sites usually consists of measures necessary to preserve the historic integrity of the site and agreed to in accordance with 36 CFR Part 800 (Protection of Historic Properties). The Proposed Action was selected to minimize harm to the Eccles Flying Hat Ranch by limiting the acquisition of the farmstead resources, identified in **Table 4-6**, and by keeping farming operations intact. Consultation between FAA and SHPO took place during the development of a Memorandum of Agreement (MOA) under Section 106 regarding the proposed removal of the trees resulting in an adverse effect to the Eccles Flying Hat Ranch.

The finalized MOA was signed on November 15, 2018 by the FAA and Idaho SHPO, with the Airport and the Eccles Flying Hat Ranch signing as concurring signatories. The MOA documents the agreement to mitigate the effects of removing the windrow trees near the farmstead. Mitigation measures are outlined in the finalized MOA (**Appendix G**) and include:

- Provide a display/interpretive panels, which will be displayed at the Airport in a public area. The displays/panels will provide information about the agricultural history of the Wood River Valley. Idaho SHPO will be given the opportunity to review and provide comment on the content and design of the displays prior to them being finalized; and,
- Replant low growing shrubs near the farmhouse to replace the trees that will be removed between the farmhouse and the end of the runway at the Airport. Low growing shrubs are to be approved by the owner prior to installation.

4.8.4 Findings and Conclusions

As the non-development alternative, the No Action Alternative will have **no effect** on historical, architectural, archeological, or cultural resources.

The Proposed Action will have **no effect** on State Highway 75 or the NRHP-eligible barn, as these resources will not be acquired or impacted.

The Proposed Action will have **no adverse effect** on the Cove Canal, as the acquisition will retain use and continued maintenance of the Canal and neither the land acquisition nor removal of trees will markedly diminish its overall historical integrity.

The land acquisition will reduce the Eccles Flying Hat Ranch Historic District by approximately 9%, from roughly 750 acres to 685 acres, but the character-defining historic elements and the distinctive characteristics of the settlement period methods of construction during the early 20th century will be retained. FAA has determined that the obstruction removal of the windrow of trees will result in an **adverse effect** to the Eccles Flying Hat Ranch Historic District by

diminishing the setting and feeling of the farmstead. An MOA under Section 106 has been established to mitigate the adverse effect.

4.9 LAND USE

4.9.1 Affected Environment

Airport property encompasses 209 acres of land and is owned by the City of Hailey, located in Blaine County, Idaho. The City of Hailey has zoned[78] the land immediately to the west and north of the Airport as industrial and business. Land to the east, on the other side of Highway 75, is zoned as "Recreational Green Belt," followed by zoned residential and business (**Figure 4-6**). The area south of the Airport is privately owned (Eccles Flying Hat Ranch) and is zoned Agriculture/Residential.

The City of Hailey Zoning Ordinance Article 4, Section 4.11[79] establishes Airport property as the "Airport District" for the purpose of allowing "regularly scheduled commercial passenger aircraft services to be used by the general public" and "other general aviation services for private aircraft and private aircraft charter only in conjunction with regularly scheduled commercial passenger aircraft services." Article 5[80] prohibits other zoning districts, such as recreational, residential, business, or industry from use within the Airport District, except where State or Federal law otherwise preempts local land use regulation.

Blaine County zoning regulations established the Airport Vicinity Overlay District[81] for land adjacent to the Airport to prevent encroachment on airspace within the runway proper and is comprised of two zones: the Primary and Secondary Zones. The Airport Vicinity Overlay District restricts land use to agricultural, recreational uses without structures, parks, golf courses, cemeteries or water impoundments, within the primary zone; and agricultural, recreational and residential within the secondary zone. Additional restrictions within the Airport Vicinity Overlay District apply to lighting, glare and electromagnetic influences. The ordinance created the Airport Vicinity Overlay District to correspond with the CFR Part 77 airspaces and compatible land uses. A single-family farmhouse on the Eccles Flying Hat Ranch was constructed prior to establishment of the Airport Vicinity Overlay Primary Zone and is located within the boundary of the zone, as shown in **Figure 4-6**.

The City of Hailey and Blaine County have joint jurisdictional authority to regulate future land use in Blaine County outside of the city limits through an Area of City Impact Agreement approved and adopted in 1994[82]. Both jurisdictions have recognized that Airport activity and future growth of the Airport need to be protected in terms of public safety.

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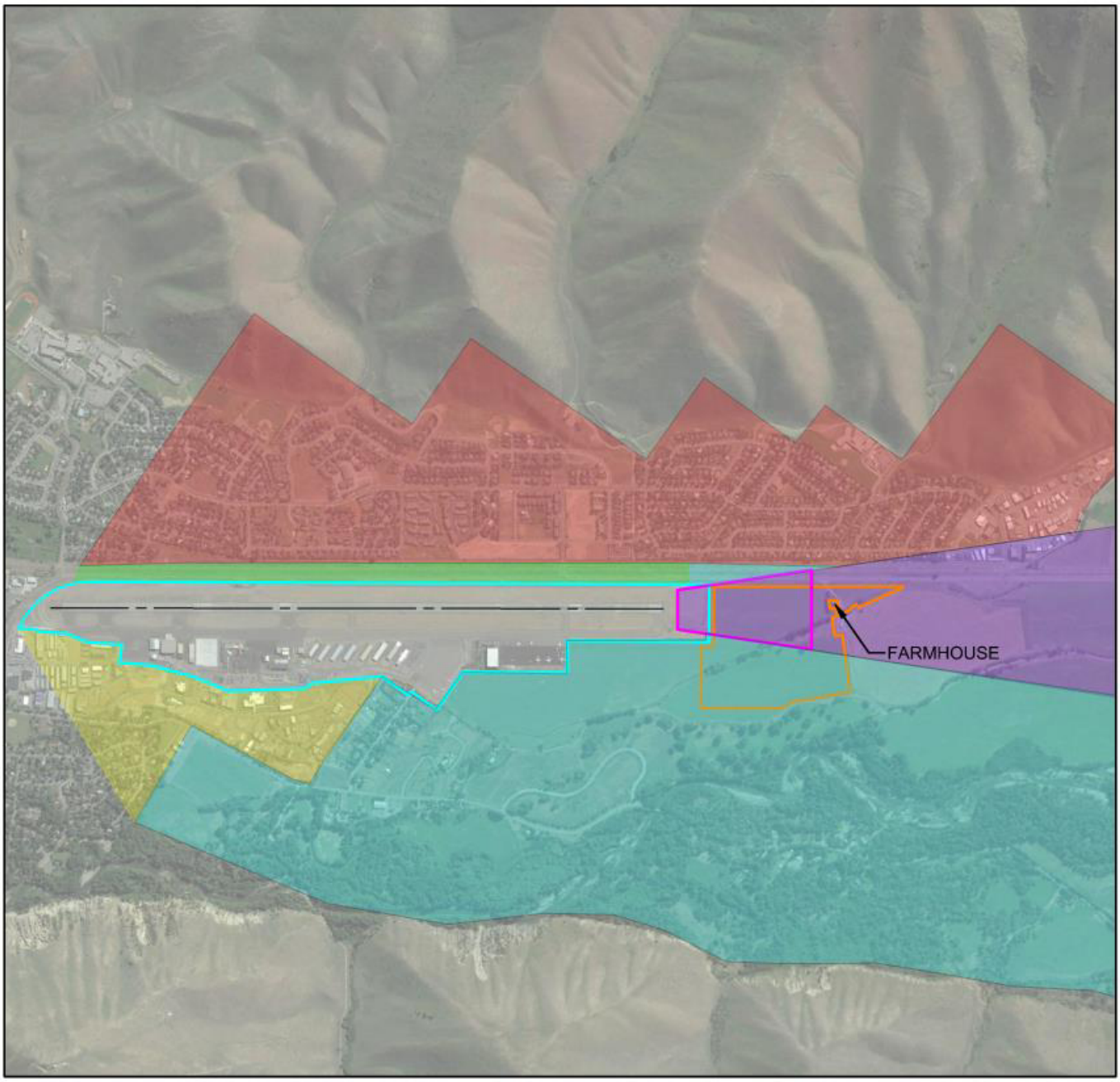
[78] City of Hailey Zoning Map. October 2017. Accessed April 20, 2018, https://www.haileycityhall.org/planning/documents/CityofHaileyZoningMap2018.pdf

[79] City of Hailey Zoning Ordinance, Article 4, Section 4.11 Airport District. Accessed April 19, 2018, https://www.haileycityhall.org/Codes_Plans/documents/Article4.11Airport-1128.pdf

[80] City of Hailey Zoning Ordinance, Article 5 Official Zoning Map and District Use Matrix, April 19, 2018, https://www.haileycityhall.org/Codes_Plans/documents/Article5ZoningMapandDistrictUseMatrix-1169.pdf

[81] Blaine County, Idaho, County Code, Chapter 18 Airport Vicinity Overlay District. Accessed April 20, 2018 at http://www.sterlingcodifiers.com/codebook/index.php?book_id=450

[82] Blaine County Area of City Impact (AOI) Agreement. Accessed April 20, 2018 at http://webpages.uidaho.edu/webteam/law/aoi/Blaine-County-AOI-Agreements.pdf



LEGEND

- AIRPORT PROPERTY BOUNDARY
- RUNWAY 13-31 CENTERLINE
- RUNWAY PROTECTION ZONE [RPZ]
- PROPOSED ACQUISITION AREA [64.6 ACRES]
- AIRPORT VICINITY OVERLAY PRIMARY ZONE
- BLAINE COUNTY AG/RESIDENTIAL ZONE
- CITY OF HAILEY INDUSTRIAL ZONE
- CITY OF HAILEY RESIDENTIAL AND BUSINESS ZONES
- CITY OF HAILEY GREEN BELT

1000 0 1000 2000

SCALE: 1" = 2000'

FIGURE 4-6: LAND USE AND ZONING

The Blaine County Comprehensive Plan is in the process of being updated; the latest draft is dated March 8, 2018[83]. The latest draft emphasizes the need to ensure that the Airport is considered in City of Impact planning, and that zoning within the Airport vicinity follow Blaine County zoning regulations for the Airport Vicinity Overlay District[84].

4.9.2 Environmental Consequences

Upon land acquisition, the majority of the pasture will be leased for continued agricultural use, which is a permitted use within the City of Hailey's Airport District and Blaine County's Airport Vicinity Overlay District. The Proposed Action also involves the removal of trees along the Cove Canal and near the farmstead of the Eccles Flying Hat Ranch and an approximate 400-foot extension of fence line to protect 6.5 acres of the RSA and length of the ROFA. The obstruction removal and protection of the RSA and ROFA will not result in a change of land use and are congruent with zoning ordinances that specify the need to prevent encroachment on airspace and to meet FAA regulations.

4.9.3 Mitigation

The Proposed Action aligns with current land use planning and zoning requirements; therefore, no mitigation is required.

4.9.4 Findings and Conclusions

As the non-development alternative, the No Action Alternative will have **no effect** on land use. Current obstructions would not be removed, which does not comply with FAA standards and land use ordinances. Land use would remain as it presently exists.

Under the Proposed Action, the Airport will acquire land currently used for agriculture and pasture. Only 6.5 acres would change from agriculture to Airport use, which is compatible with the City of Hailey and Blaine County zoning regulations. The removal of obstructions and extension of the fence will not change the land use within the area and will prevent encroachment on airspace, consistent with zoning ordinances. Therefore, the Proposed Action will have **no significant effect** on land use within the vicinity of the Airport.

4.10 NATURAL RESOURCES AND ENERGY SUPPLIES

4.10.1 Affected Environment

This section provides an evaluation of a project's consumption of natural resources (such as water, asphalt, aggregate, wood, etc.) and use of energy supplies (such as coal for electricity; natural gas for heating; and, fuel for aircraft, commercial space, launch vehicles, or other ground vehicles). The Airport requires water and fuel for general operations, aircraft fueling and maintenance, and Airport vehicles.

[83] Blaine County Comprehensive Plan, Draft Land Use Chapter as recommended by PZ 3-18-18. Accessed April 20, 2018 at http://www.co.blaine.id.us/vertical/sites/%7BBB2A7BCF-1E38-4DB2-AE8E-3A22829A1987%7D/uploads/DRAFT_Land_Use_Chapter_as_recommended_by_PZ_3-8-18.pdf

[84] Blaine County, Idaho, County Code, Chapter 18 Airport Vicinity Overlay District. Accessed April 20, 2018 at http://www.sterlingcodifiers.com/codebook/index.php?book_id=450

The area around the Airport is a well-developed urban and suburban area with adequate access to natural resources for facility operation, aircraft operations, and construction projects, so energy sources are not in short supply in the Wood River Valley from Bellevue to Sun Valley. The facilities at the Airport require electricity and propane gas for lighting, cooling, and heating. These energy supplies are provided by Idaho Power and local propane providers. In above average water years, hydropower accounts for nearly 50% of Idaho Power's electricity supply[85]. However, Idaho Power uses a wide variety of electric generation to meet its variable needs, such as from coal, wind, natural gas, and solar. Approximately 25 miles south, hydropower is also supplied by an independent company from Magic Dam, located on the Big Wood River[86].

4.10.2 Environmental Consequences

There are no known natural resource or energy resource shortages for the Airport. Land acquisition under the Proposed Action is not expected to result in any operational changes at the Airport.

However, temporary energy supply resources will be needed to remove obstructions (trees). Up to 200 trees will need to be removed, which is anticipated to take several weeks. As most of the trees are cottonwood or other riparian softwoods, equipment such as chainsaws, chippers, and tracked vehicles are anticipated to be used. These types of two-stroke engines typically require gasoline fuel sources, which is readily available within the Wood River Valley. Extending the fence by approximately 400 feet will also require natural resources and fuel resources for construction. The fence will likely be constructed from chain link, which is readily available in the Wood River Valley. Temporary fuel needs, coupled with BMPs employed during construction to reduce energy consumption, will result in de minimis impacts to natural resources and energy supplies.

4.10.3 Mitigation

There is no specific mitigation required, as the Proposed Action would not result in a notable consumption of natural resources. BMPs employed during construction will be employed where applicable. In order to reduce already insignificant energy consumption associated with the temporary use of chainsaws, chippers, and tracked vehicles for the Proposed Action, construction equipment should be in good working order to ensure the most efficient use of fuel. All vehicles and equipment should be checked for leaks and repaired immediately. In addition, construction equipment should not be kept idling more than necessary.

4.10.4 Findings and Conclusions

As the non-development alternative, the No Action Alternative will result in no additional natural resource or energy supply requirements. Therefore, the No Action Alternative will have **no effect** on natural resources and energy supplies.

[85] Idaho Power. 2017. Energy Sources. Accessed April 20, 2018 at https://www.idahopower.com/energy/delivering-power/energy-sources/

[86] Magic Reservoir Hydro Inc., Accessed April 20, 2018 at http://fwee.org/magic-dam-big-wood-river-id/

The Proposed Action is not likely to cause or create an increase in aircraft operations at the Airport. Construction materials for the fence (i.e. chain link) are readily available in the region. Temporary fuel needs for the fence construction and to remove obstructions will be required over a period of approximately 20 days. These fuel sources are readily available in the region. BMPs will be carried out to reduce energy consumption. As the Proposed Action does not cause demand to exceed available or future supplies of natural resources and energy supplies, the Proposed Action will have **no significant effect** on natural resources and energy supplies.

4.11 NOISE AND NOISE-COMPATIBLE LAND USE

Noise is measured in decibels on a logarithmic scale. For every 10-decibel increase, a sound is 10 times more powerful. Long-term exposure to noise at 65 decibels or higher begin to affect physiological functions and permanent hearing loss can occur with long or repeated exposure to sounds in excess of 85 decibels[87]. Airports are recognized as a common contributor of noise.

Aviation noise primarily results from the operation of aircraft, such as departures, arrivals, overflights, taxiing, and engine run-ups. Noise is often the predominant aviation environmental concern of the public. The FAA Airport Noise Compatibility Planning Final Rule[88] established noise contour maps as a tool to measure and assess noise effects near airports and to determine if noise-sensitive land uses near airports would be affected by changes in airport operations. The FAA has developed a prediction model, the Airport Environmental Design Tool (AEDT), which uses inputs such as runway use, aircraft operations, and flight track geometry to produce noise contour maps. The Final Rule also established guidelines for land use compatibility that identify what land uses are normally considered compatible (e.g. agricultural, commercial, and industrial) and those that are normally considered incompatible (e.g. residential areas, schools, and churches).

Day-Night Average Sound Level (DNL) is the metric used to quantify noise levels and represents the 365-day average, in decibels, of the day and night average sound level. Sixty-five (65) DNL is considered a significant threshold because all land uses are considered compatible with noise levels below 65 DNL.

4.11.1 Affected Environment

A noise analysis was prepared for the 2018 MPU and applied to this environmental evaluation using the FAA's AEDT process. Aviation forecasts from the MPU were used as input into the model and are shown in **Table 4-8**. Noise contours were developed for the base year (2014), to show the configuration of the existing day-night average sound level (DNL) 65 db noise contour. AEDT output and resulting noise contours included in the 2018 MPU assume full use of existing pavement for departures to and arrivals from the south. Declared distances are not considered in the AEDT output since aircraft are not prohibited from operating beyond a declared distance

[87] National Institute of Health. 2015. Noise Induced Hearing Loss. Accessed July 10, 2018 at http://www.nidcd.nih.gov/health/hearing/pages/noise.asp

[88] 14 CFR Part 150 Airport Noise Compatibility Planning; Final Rule. Accessed April 24, 2018 at https://www.faa.gov/airports/resources/publications/federal_register_notices/media/environmental_69fr57622.pdf

limit, provided the runway surface is appropriately marked as usable runway, which is the case at SUN.

TABLE 4-8: AVIATION FORECASTS.

Year	Total Projected Annual Operations	FAA Terminal Area Forecast (TAF)
2014	28,480	29,738
2024	32,918	33,565
2034	37,612	37,995

Source: Mead & Hunt analysis presented in the 2018 MPU[89].

Figure 4-7 illustrates the modeled DNL 65 db noise contour from the 2018 MPU. The DNL 65 db noise contour extends beyond the existing Airport property and includes and includes a small portion of pasture/agricultural land and a small segment of Highway 75. These are compatible land uses within the DNL 65 db noise contour. While DNL represents average sound levels, approaching or departing aircraft can exceed the 65 decibels outside the Airport property, which include the farmstead, irrigated pasture within the RPZ area, as well as residential uses further to the south.

Current land use within the vicinity of the Airport is mostly agricultural, a segment of Highway 75, and residential around the farmstead of the Eccles Flying Hat Ranch (see **Figure 4-6** on page 81.

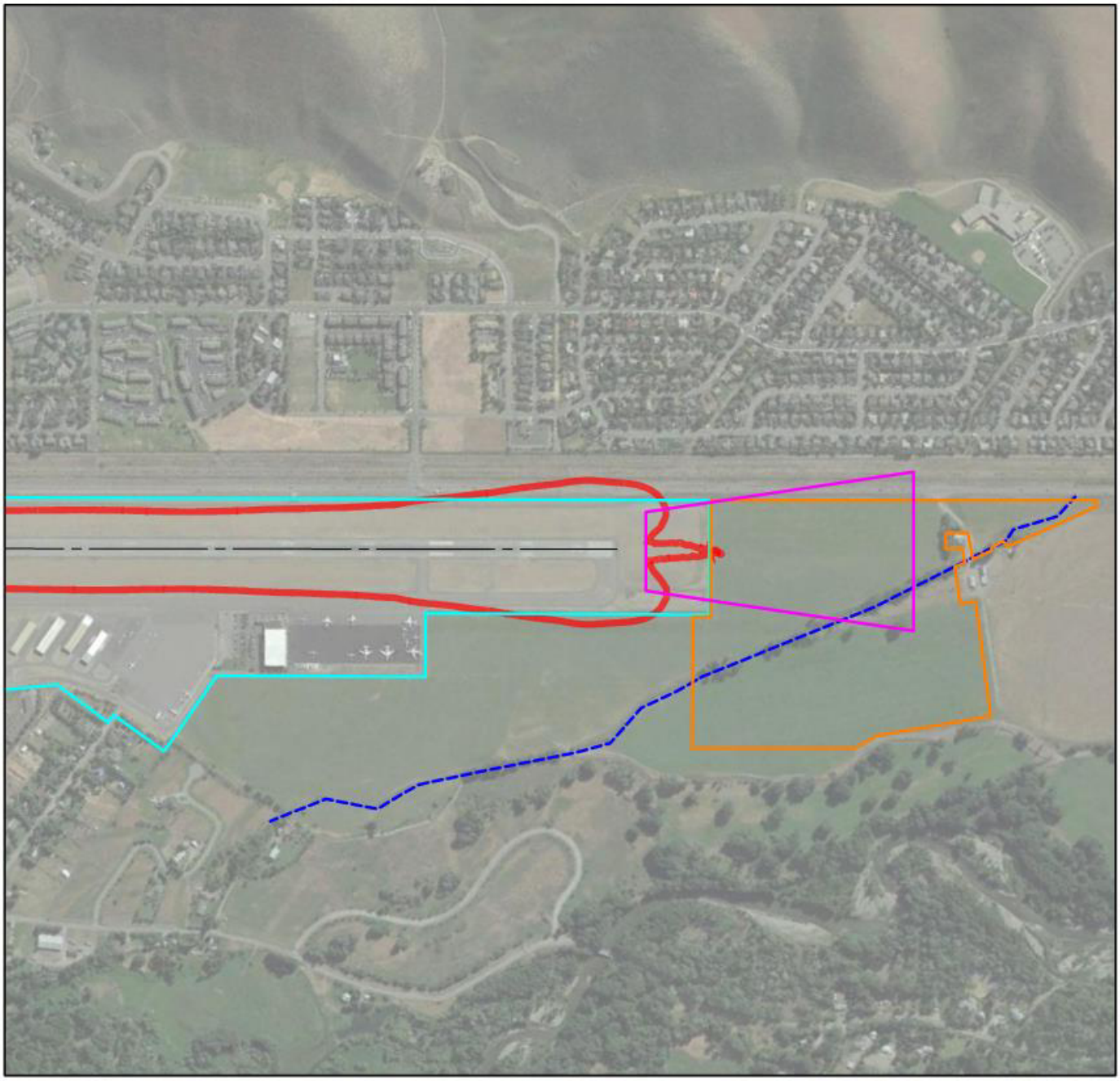
4.11.2 Environmental Consequences

According to the FAA's Environmental Desk Reference Chapter 17[90], environmental analysis of potential noise impacts from aviation development is typically performed for projects such as new or extended runways and taxiways, land purchases for airport-related uses, substantial amounts of airport construction or demolition activities, substantial changes in aircraft operations, or new or relocated airport access roadways.

While noise levels are expected to increase in the future due to projected increases in air traffic, the Proposed Action itself is not likely to cause or create an increase in aircraft operations or result in changed flight patterns. Land acquisition will not result in a change of land use or increase in noise and will serve to protect the area from incompatible development. The removal of trees will likely lead to a slight increase in noise and vibrations to the farmhouse and surrounding property, as the trees will no longer act as a buffer to noise. However, as shown in **Figure 4-7**, the trees identified as known obstructions lie outside the DNL 65 db noise contour; and therefore, removal of the trees will not change the DNL 65 db noise contour.

[89] SUN. 2018. Friedman Memorial Airport (SUN) Master Plan Update. Accessed December 26, 2018 at http://iflysun.com/master-plan/

[90] FAA. 2015. 1050.1F Environmental Desk Reference, Chapter 17, Noise. Accessed April 24, 2018 at https://www.faa.gov/about/office_org/headquarters_offices/apl/environ_policy_guidance/policy/faa_nepa_order/desk_ref/media/11-noise.pdf



LEGEND

- AIRPORT PROPERTY BOUNDARY
- RUNWAY 13-31 CENTERLINE
- RUNWAY PROTECTION ZONE [RPZ]
- PROPOSED ACQUISITION AREA [64.6 ACRES]
- COVE CANAL
- 65DNL NOISE CONTOUR

500 0 500 1000

SCALE: 1" = 1000'

FIGURE 4-7: 65 DNL NOISE CONTOUR FROM 2018 MASTER PLAN UPDATE

Temporary increases in noise are expected from equipment used to remove the obstructions (trees). As most of the trees requiring maintenance are cottonwood or other riparian softwoods, equipment such as chainsaws, chippers, and tracked vehicles are anticipated to be used. These types of equipment can produce noise levels anywhere from 85 to 110 decibels[91]. Prolonged or repeated exposure to sounds louder than 85 decibels can damage hearing and accelerate hearing loss, while sounds softer than 75 decibels are unlikely to damage hearing[92]. However, proximity to construction equipment also matters; a 20-foot distance from equipment producing 110 decibels of noise will result in only 74 decibels at the 20-foot threshold[93]. For noise levels below the regulatory level of 65 decibels would require a distance of 60-feet from equipment producing 100 decibels[94]. The tree removal is anticipated to take several weeks, as up to 200 trees require complete removal. Construction activities to extend the fence line by 400 feet will also lead to a temporary increase in noise. While these actions will cause an increase in noise levels during construction, the duration will be temporary and outside of the 60-foot buffer. Construction-related noise cannot be avoided but impacts can be minimized through BMPs outlined below.

4.11.3 Mitigation

While specific mitigation linked to noise is not required, the following BMPs may be implemented to minimize or reduce noise levels:

- Proper maintenance of equipment to reduce noise caused from faulty or damaged mufflers and loose engine parts such as screws, bolts, or metal plates.
- Use of proper mufflers and sound-absorbing materials for construction equipment.
- Equipment operation training and proper hearing protection for construction workers.

4.11.4 Findings and Conclusions

The No Action Alternative will have **no effect** on noise levels or noise-compatible land use, as it is the non-development alternative. Current noise and land use would remain as they presently exist.

The Proposed Action is not likely to cause or create an increase in aircraft operations or flight patterns. The 65-decibel DNL noise contours (**Figure 4-7**) produced during the MPU and used for this analysis is based on the full existing and usable runway length and is consistent with the Proposed Action. The removal of the published declared distances resulting from the Proposed Action will not alter the analysis presented in this section.

[91] U.S. Forest Service. 2010. Preventing noise-induced hearing loss: safety measures for field employees. Accessed April 25, 2018 at https://www.fs.fed.us/t-d/pubs/pdfpubs/pdf10672321/pdf10672321dpi72.pdf

[92] US. Forest Service. 2010. Preventing noise-induced hearing loss: safety measures for field employees. Accessed April 25, 2018 at https://www.fs.fed.us/t-d/pubs/pdfpubs/pdf10672321/pdf10672321dpi72.pdf

[93] Estimating sound levels with the inverse square law. Accessed April 25, 2018 at http://hyperphysics.phy-astr.gsu.edu/hbase/Acoustic/isprob2.html.

[94] Estimating sound levels with the inverse square law. Accessed April 25, 2018 at http://hyperphysics.phy-astr.gsu.edu/hbase/Acoustic/isprob2.html.

Land acquisition under the Proposed Action will maintain compatible land uses into the future. The removal of trees may slightly increase noise and vibrations to the farmhouse and surrounding property (as the trees currently act as a noise and vibration buffer). However, the trees identified as known obstructions lie outside the DNL 65 db noise contour; and therefore, removal of the trees will not change the DNL 65 db noise contour. Temporary increases in noise are expected during construction but will be short-term and within a 60-foot buffer of the construction area.

To conclude, the Proposed Action will have **no significant effect** on the DNL 65 db noise contour or introduce noise sensitive areas within the contour and will maintain noise-compatible land uses in proximity to the Airport.

4.12 SOCIOECONOMIC IMPACTS, ENVIRONMENTAL JUSTICE, AND CHILDREN'S ENVIRONMENTAL HEALTH AND SAFETY RISKS

Title VI of the US Civil Rights Act of 1964, as amended[95], Executive Order 12898[96]; and, DOT Environmental Justice Order 5610.2(a)[97] require that no minority or low-income person shall be disproportionately adversely affected by any project receiving federal funds. For transportation projects, this means that no particular minority or low-income person may be disproportionately isolated, displaced, or otherwise subjected to adverse effects. Potential impacts are assessed in terms of property acquisitions or relocations, changes in access to employment areas, and other changes in low-income and minority communities/neighborhoods. To determine whether an environmental justice population is present, federal agencies must refer to US Census data to establish the demographic and socioeconomic baseline.

DOT Order 5610.2(a) defines minorities as Black, Hispanic, Asian-American, Native American and Alaskan Native, and Native Hawaiian and Other Pacific Islander individuals. The order also identifies a low-income individual as a person having a median household income at or below the poverty threshold established by the Department of Health and Human Services.

Executive Order 13045[98], Protection of Children from Environmental Health Risks and Safety Risks, requires federal agencies to identify disproportionately high impacts and adverse impacts to children. Environmental health risks and safety risks include any product or substance that a child is likely to come in contact with or ingest, such as air, food, drinking water, recreational waters, soil, or products they might use or be exposed to. According to the FAA's Environmental Desk Reference Chapter 12[99], impacts to children's health and safety should be considered as

[95] Title VI of the Civil Rights Act of 1964 statutes and regulations overview. Accessed April 25, 2018 at https://www.justice.gov/crt/fcs/TitleVI-Overview

[96] Executive Order 12898 of February 11, 1994 – Federal Actions to Address Environmental Justice in Minority Populations and Low-income Populations. Accessed April 25, 2018 at https://www.archives.gov/files/federal-register/executive-orders/pdf/12898.pdf

[97] DOT Environmental Justice Order 5610.2(a). Accessed April 25, 2018 at https://www.fhwa.dot.gov/environment/environmental_justice/ej_at_dot/orders/order_56102a/dot56102a.pdf

[98] Executive Order 13045 of April 21, 1997 – Protection of Children from Environmental Health Risks and Safety Risks. Accessed April 25, 2018 at https://www.gpo.gov/fdsys/pkg/FR-1997-04-23/pdf/97-10695.pdf

[99] FAA. 2015. 1050.1F Environmental Desk Reference, Chapter 12, Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risks. Accessed April 25, 2018 at https://www.faa.gov/about/office_org/headquarters_offices/apl/environ_policy_guidance/policy/faa_nepa_order/desk_ref/media/12-socioecon-enviro.pdf

they relate to the affected environment of other impact categories, such as air quality, water quality, noise, and hazardous materials.

The FAA has not established significance thresholds for socioeconomics, environmental justice, or children's environmental health and safety risks[100].

4.12.1 Affected Environment

Population and Race

The U.S. Census Bureau estimates the base population of the City of Hailey at 8,058[101] and Blaine County at 21,427[102] in 2016. Since the 2010 census, the population has increased by an estimated 3.2%[103] for the City of Hailey and 3%[104] for Blaine County, which is low compared to the overall population increase of 9.5% for Idaho. The City of Hailey is predominately white (69.2%), followed by Hispanic (29.2%), Multiethnic (0.66%), Asian (0.56%) and Hawaiian (0.2%) ethnicities. Hailey's Hispanic population is well above the State of Idaho average of 12.3%. Blaine County is also predominately white (76.9%), followed by Hispanic (20.7%), Asian (1.13%), multiethnic (0.97%) and Black (0.12%).

Employment and Income

The local economy is driven by recreation and tourism, with primary employment occupations in Hailey being Cleaning & Maintenance (16.2%) and Administrative (12.2%). The primary employment industries are Administration, Support & Waste Management Services (13.4%) and Accommodation & Food Service (13.3%). Median household income is $56,522 per year, approximately $4,715 higher than the statewide average. The unemployment rate in December 2016 was 2.7%.

The poverty level for a family of four in 2016 was $24,300[105]. In 2016, an estimated 12.7% of Hailey's population was below the poverty line, the majority of which were children under 11 years old and females over 65 years old. Of those living below the poverty line, 65% were white, 32.7% were Hispanic, and 2.3% were Asian. However, less people live below the poverty line in Hailey than compared to the state as-a-whole (14.4%).

The Airport and parcels proposed for acquisition lie in Census Tract 9601 Block Group 3[106]; within this block approximately 48.1% of people live below the 50% income level[107] for the County. Blaine County provides low income housing through the Blaine County Housing

[100] FAA. 2015. Order 10501.F Environmental Impacts, Policies and Procedures. Accessed April 25, 2018 at https://www.faa.gov/documentLibrary/media/Order/FAA_Order_1050_1F.pdf
[101] US Census Data – Hailey, Idaho. Accessed April 25, 2018 at https://datausa.io/profile/geo/hailey-id/#intro
[102] US Census Data – Blaine County, Idaho. Accessed April 25, 2018 at https://datausa.io/profile/geo/blaine-county-id/
[103] US Census – Quick Facts: Hailey, Idaho. Accessed April 25, 2018 at https://www.census.gov/quickfacts/fact/table/haileycityidaho/PST040216
[104] US Census – Quick Facts: Blaine County, Idaho. Accessed April 25, 2018 at https://www.census.gov/quickfacts/fact/table/blainecountyidaho,ID/PST045216
[105] 2016 Federal Poverty Level (FPL) Guidelines. Accessed April 26, 2018 at https://www.peoplekeep.com/blog/2016-federal-poverty-level-fpl-guidelines
[106] Idaho Commerce. 2006 Census Tract Data. Accessed April 26, 2018 at https://commerce.idaho.gov/site-selection/demographics-and-business-information/
[107] Note that this is *not* equivalent to the poverty line threshold.

Authority (BCHA) located in Ketchum, Idaho. BCHA is not a governmental entity but was authorized by Blaine County as a housing authority pursuant to Title 31, Chapter 42 and Title 50, Chapter 19 of Idaho Code. Two low income BCHA housing apartments are located across Highway 75 about 0.15 miles east of the Airport; Balmoral Apartments and Snow Mountain Apartments. There are no indicators of concentrations of low income or poverty populations, or concentrations of high minority, non-English speaking, or foreign-born populations within the immediate vicinity of the Airport.

Children's Environment

According to the 2010 Census[108], there are 2,432 children aged 19 and younger living in the City of Hailey, representing 30.6% of the population (**Table 4-9**). Children under 5, representing 8.6% of the population, are most vulnerable to environmental hazards[109].

TABLE 4-9: CITY OF HAILEY POPULATION DEMOGRAPHICS FOR CHILDREN BY AGE.

Age	Number	Percent of Total Population
Under 5	683	8.6
5 to 9 years	661	8.3
10 to 14 years	588	7.4
15 to 19 years	500	6.3
Total	**2,432**	**30.6%**

Hailey Elementary School, Wood River Christian School, and Little River Preschool are located about 0.3 miles north of the Airport and within the Primary Safety Zone of the runway[110]. The Sage School is in close proximity to the Airport, less than 0.1 miles to the west, but outside of Primary and Secondary Safety Zones and the DNL 65 db noise contour (**Figure 4-7**)[110]. Other elementary and preschools schools within the vicinity of the Airport include: Alturas Elementary, Syringa Mountain School, Sweet Clover School, Head Start Preschool, and All About Kids Preschool.

There are eight parks within the greater vicinity of the Airport, three of which are considered 4(f) resources including: the Wood River Trail (0.1 miles), Wertheimer Park (0.3 miles), and Toe of the Hill Trail Heads (0.5 miles) as shown in **Figure 4-1** and discussed as 4(f) resources in **Section 4.5**.

4.12.2 Environmental Consequences

The land acquisition, obstruction removal, and fence extension are not likely to cause or create an increase in aircraft operations at the Airport beyond normal projections. The Proposed Action will also have no significant effect on noise, vibrations or fuel consumption, which are of

[108] U.S. Census. American Fact Finder. City of Hailey, Idaho. Accessed April 26, 2018 at https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF

[109] FAA. 2015. 1050.1F Environmental Desk Reference, Chapter 12, Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risks. Accessed April 25, 2018 at https://www.faa.gov/about/office_org/headquarters_offices/apl/environ_policy_guidance/policy/faa_nepa_order/desk_ref/media/12-socioecon-enviro.pdf

[110] SUN. 2018. Friedman Memorial Airport (SUN) Master Plan Update. Accessed April 25, 2018 at http://iflysun.com/master-plan/

socioeconomic and environmental concern. The Proposed Action activities are limited to the land within and immediately surrounding the Airport, and will have no effect on economic activity, employment, income, housing, public services, social conditions, or low income or minority populations in the vicinity of the Airport. The Proposed Action is also expected to have no adverse impacts on air quality, climate, hazardous materials, noise, and water resources that could lead to significant individual or cumulative human health or environmental effects to low income and minority populations. Likewise, the Proposed Action will have no effect on children's environmental health and safety as the proposed activities are limited to land acquisition, obstruction removal, and fence extension and will take place at the southern end of the Airport on what is now property of the Eccles Flying Hat Ranch.

4.12.3 Mitigation

The No Action Alternative and the Proposed Action will have no effect on socioeconomics, environmental justice, or children's environmental health and safety. Therefore, no mitigation is required.

4.12.4 Findings and Conclusions

The No Action Alternative will have **no effect** on socioeconomics, environmental justice, or children's environmental health and safety, as it is the non-development alternative.

The Proposed Action is not likely to cause or create an increase in aircraft operations beyond normal projections. Land use will remain largely the same following acquisition, and project activities, including obstruction removal and the fence line extension, and will not have significant effects on air quality, climate, hazardous materials, noise, and water resources. The Proposed Action will have **no effect** on economic activity, employment, income, housing, public services, social conditions, or low income or minority populations in the vicinity of the Airport. Likewise, the Proposed Action will have **no effect** on the individual or cumulative environmental health of low income and minority populations, or children's environmental health and safety.

4.13 VISUAL EFFECTS

Although there are no special purpose laws or requirements specific to light emissions or visual effects, some visual resources are protected under Federal, state, or local regulations. Some of these protected visual resources include, but are not limited to: scenic roadways, Wild and Scenic Rivers, National Scenic Areas, scenic easements, trails protected under the National Trails System Act, and biological resources (impacts to sensitive wildlife species)[111]. Additional laws protecting resources that may be affected by visual effects include Section 106 of the NHPA, Section 4(f) of the DOT Act, and the Coastal Zone Management Act.

Broadly defined, visual effects are the extent to which the Proposed Action or alternative(s) would either: 1) produce light emissions that create annoyance or interfere with activities; or 2) contrast with, or detract from, the visual resources and/or the visual character of the existing

[111] FAA. 2015. 1050.1F Environmental Desk Reference, Chapter 13, Visual Effects. Accessed April 26, 2018 at https://www.faa.gov/about/office_org/headquarters_offices/apl/environ_policy_guidance/policy/faa_nepa_order/desk_ref/media/13-visual-effects.pdf

environment. Light emission effects and visual resources/visual character effects are generally assessed separately. Reference will be made to any visual resources and/or visual character discussed in other NEPA chapters (i.e. Section 106 and Section 4(f) resources).

4.13.1 Affected Environment

Airport facilities and operations cause light emissions that can affect light sensitive land uses such as homes, parks, or recreational areas near an airport. Typical sources of disturbing light emissions include airfield and apron lighting, visual navigational aids, terminal lighting, employee/customer parking lighting, airborne and ground-based aircraft operations, and roadway lighting. Visual effects are measured by the extent to which the Proposed Action and alternative(s) contrast with the existing environment, architecture, historic or cultural setting, or land use planning. Visual effects are subjective, and their significance is typically defined by the community or a jurisdictional agency.

Light Emissions

City of Hailey Ordinance 812[112] addresses light pollution; however, lighting required for the Airport is specifically excluded from these regulations as lights are needed for safe operations. Existing light emissions from the Airport include lighting to airfield components (runway, taxiways, and ramp entrances) and airside facilities, located west of the runway and include the commercial passenger terminal, the FBO, general aviation hangars and apron, and other services. Specifically, the runway is equipped with High Intensity Runway Lights and a four-light Precision Approach Path Indicator lights[113]. There are also six lighted beacons, which illuminate obstructions to the Airport's airspace, that operate from the tree line along the Cove Canal in mature vegetation (trees) shown in **Figure 4-5**.

Visual Resources and Visual Character

The Airport is located in a shallow valley surrounded by mountains on either side. Highway 75 runs along the eastern side of the Airport, with land on the other side of the Highway consisting of an open space greenbelt and residential and business development. Land to the south and southwest is mostly agricultural and open space with some residential neighborhoods. Land to the west and north of the Airport is industrial and business. The Big Wood River flows south along the edge of the valley to the west of the Airport. The terrain of the valley is mostly flat with little topographical relief.

The Eccles Flying Hat Ranch and the Cove Canal, as described in **Section 4.8**, are located south of the Airport and within the Proposed Action's project area. Both are eligible for listing on the NRHP for their character-defining historic elements and/or the distinctive characteristics of the settlement period methods of construction during the early 20th century. Important visual components to the Eccles Flying Hat Ranch include: the open pastureland, tree lines, and a nucleus of farmstead buildings. The barn within the farmstead is also individually eligible for listing on the NRHP.

[112] City of Hailey. 2002. Ordinance Number 812 – Outdoor Lighting Ordinance. Accessed April 26, 2018 at https://www.haileycityhall.org/planning/ordinance/light_ord_812.pdf

[113] SUN. 2018. Friedman Memorial Airport (SUN) Master Plan Update. Accessed April 25, 2018 at http://iflysun.com/master-plan/

4.13.2 Environmental Consequences

Light Emissions

The Proposed Action does not include the installation of new lighting and is not likely to cause or create an increase in aircraft operations at the Airport beyond normal projections. The land acquisition and fence extension will have no effect on light emissions. As part of the obstruction removal, six lighted beacons at the top of the trees will be removed, thus decreasing nighttime light emissions. The Proposed Action is in compliance with the City of Hailey outdoor lighting ordinance.

Visual Resources and Visual Character

The primary visual resources of interest are associated with the Eccles Flying Hat Ranch and Cove Canal (discussed in **Section 4.8**). Under the Proposed Action, the main farmstead resources, including the farmhouse, well, barn, equipment shed, outhouse, and irrigation equipment shed, will not be acquired or removed. The visual character of these resources will remain intact. The irrigation shed, equipment shed, and on-site utility cabinets will be retained so that irrigation features, pastures, and fields can continue to operate as a farm. However, as noted in **Section 4.8**, the Proposed Action will have an "adverse effect" on the Eccles Flying Hat Ranch Historic District under Section 106 through the removal of the windrow trees near the farmstead, which is a character defining feature of the farmstead, and would diminish both the setting and feel of the farmstead.

Extension of the Airport's perimeter fence is not expected to have a significant impact, as the fence will be extended only 400 feet further south of the runway and will be made of similar materials as what is currently in place.

4.13.3 Mitigation

The Proposed Action will remove obstruction lights and up to 200 cottonwood trees. Based on the visual character of the tress linked to the Eccles Flying Hat Ranch farmhouse, replacement of the removed trees with low growing shrubs will be replanted consistent with the signed MOA (**Appendix G**) as described in **Section 4.5** and **Section 4.8**.

4.13.4 Findings and Conclusions

The No Action Alternative does not remove the trees that contain the obstruction lighting, but illumination of the obstruction lighting is contingent upon a long-term lease that may not be renewed. If the obstruction lighting is removed, light emissions would slightly decrease, thereby, the No Action Alternative will have **no effect** on light emissions, visual resources or visual character.

The Proposed Action does not include the installation of new lighting facilities and is not likely to cause or create an increase in aircraft operations at the Airport beyond normal projections that may result in increased light emissions. The removal of six lighted beacons as part of the obstruction removal will slightly decrease light emissions. Therefore, the Proposed Action will have **no effect** on light emissions.

Under the Proposed Action, the farmhouse, well, barn, equipment shed, outhouse, and irrigation equipment shed, will not be acquired or removed. Thus, the visual character of these resources will remain intact. However, the removal of trees near the farmhouse will diminish the visual character of the setting of the farmstead. Therefore, the Proposed Action will have an **adverse effect** on visual resources and visual character within the project area and general vicinity. Coordination with the landowner resulted in the inclusion of planting low-growing shrubs into the MOA that resulted from the Section 106 process (**Appendix G**, Attachment 3), which will replace the trees that will be removed between the farmhouse and the end of the runway. These shrubs will be approved by the landowner prior to installation. The landowner was a concurring signatory on the MOA.

4.14 WATER RESOURCES

Due to the interrelationship between surface water, groundwater, floodplains, and wetlands, these resource categories and their analysis is conducted under the all-encompassing impact category of "water resources." Impacts to any part of the system can have negative consequences to the functioning of the entire system. Wild and Scenic Rivers are included in this category because impacts to Wild and Scenic Rivers closely resembles impacts to water resources, such as altering free-flowing characteristics and impacts to water quality.

The project area, unless otherwise defined, as it pertains to Water Resources includes all areas to be affected directly (i.e. water resources impacts within the acquisition area) and indirectly (i.e. downstream effects to water resources) by the Proposed Action.

Wetlands

Jurisdictional wetlands are protected under Section 404 of the Clean Water Act (CWA)[114], which regulates the discharge of dredge or fill material into Waters of the United States, including wetlands. Section 401 of the CWA[115] requires water quality certification to ensure that a project does not violate State or Tribal water quality regulations. Under the CWA, the term wetlands are defined as areas that, under normal circumstances, support a prevalence of vegetation typically adapted for life in saturated soil conditions. The U.S. Army Corps of Engineers (USACE) delineation manual[116] requires that positive indicators of a wetland be present for the following three parameters to meet the definition of a wetland: (1) hydrophytic vegetation, (2) hydric soil, and (3) hydrology.

Executive Order (EO) 11990[117], Protection of Wetlands, requires federal agencies to "avoid to the extent possible the long and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support of new construction in wetlands wherever there is a practicable alternative."

[114] Environmental Protection Agency (EPA). Clean Water Act, Section 404. Accessed April 27, 2018 at https://www.epa.gov/cwa-404/clean-water-act-section-404

[115] EPA. Clean Water Act, Section 401. Accessed April 27, 2018 at https://www.epa.gov/cwa-404/clean-water-act-section-401-certification

[116] USACE. 1987. Corp of Engineers Wetland Delineation Manual. Accessed April 27, 2018 at http://www.lrh.usace.army.mil/Portals/38/docs/USACE%2087%20Wetland%20Delineation%20Manual.pdf

[117] Executive Order 11990 – Protection of Wetlands. Accessed April 27, 2018 at https://www.energy.gov/sites/prod/files/nepapub/nepa_documents/RedDont/Req-EO11990wetlands.pdf

Floodplains

Development in floodplains is regulated by EO 11988[118], Floodplain Management, and DOT Order 5650.2[119], Floodplain Management and Protection. EO 11988 requires federal agencies to avoid long and short-term adverse impacts to the 100-year floodplain if practicable alternatives exist, such as occupancy, modification or development. DOT Order 5650.2 directs DOT agencies to ensure proper consideration is given to avoid and mitigate adverse floodplain impacts.

According to the FAA 1050.1F Desk Reference Chapter 14[120], floodplains are lowland areas adjoining inland and coastal waters which are periodically inundated by flood waters. Floodplains are often discussed and identified in terms of the 100-year floodplain, which is land that has a 1% chance of flooding in any given year. Floodplains are valued for their natural flood and erosion control, enhancement of biological productivity, and socioeconomic benefits and functions.

Surface Waters

The CWA[121] establishes the basic structure for regulating the discharge of pollutants into waters of the United States, specific sections include Section 303(d), Section 404 and 401 (refer to wetland section), and Section 402, which establishes the National Pollutant Discharge Elimination System (NPDES) permitting program[122]. Section 303(d) sets forth the process to identify impaired waters and to establish the maximum amount of pollutant allowed in a waterbody, known as the total maximum daily load[123], necessary to assess current conditions and project impacts. If project activities have the potential to discharge pollutants into Waters of the United States through a point source, a NPDES permit will likely be required.

Groundwater

Federal activities affecting groundwater are primarily governed by the Safe Drinking Water Act[124], also applicable to surface waters when relevant, which prohibits contamination of EPA-designated sole source aquifers or their recharge areas. Groundwater is defined as subsurface water that occupies the space between sand, clay, and rock, while aquifers are the geologic layers that store or transmit groundwater, such as to wells, springs, and other water sources.

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[118] Executive Order 11988 – Floodplain Management. Accessed April 27, 2018 at https://www.fws.gov/r9esnepa/NEPA_Handbook/EO_11988.pdf

[119] DOT Order 5650.2 – Floodplain Management and Protection. Accessed April 27, 2018 at https://www.fhwa.dot.gov/engineering/hydraulics/policymemo/order56502.pdf

[120] FAA. 2015. 1050.1F Environmental Desk Reference, Chapter 14, Water Resources. April 27, 2018 at https://www.faa.gov/about/office_org/headquarters_offices/apl/environ_policy_guidance/policy/faa_nepa_order/desk_ref/media/14-water-resources.pdf

[121] EPA. Federal Water Pollution Control Act (Clean Water Act), as amended through P.L. 107-303, November 27, 2002. Accessed April 27, 2018 at https://www.epa.gov/sites/production/files/2017-08/documents/federal-water-pollution-control-act-508full.pdf

[122] 40 CFR part 122 – EPA Administered Permit Programs: The National Pollutant Discharge Elimination System. Accessed April 27, 2018 at https://www.gpo.gov/fdsys/pkg/CFR-2015-title40-vol22/pdf/CFR-2015-title40-vol22-part122.pdf

[123] 40 CFR Part 130.7 – Total Maximum Daily Loads (TMDL) and individual water quality-based effluent limitations. Accessed April 27, 2018 at https://www.gpo.gov/fdsys/pkg/CFR-2013-title40-vol23/pdf/CFR-2013-title40-vol23-sec130-7.pdf

[124] Title XIV of The Public Health Service Act: Safety of Public Water Systems (Safe Drinking Water Act). Accessed April 27, 2018 at https://www.gpo.gov/fdsys/pkg/USCODE-2010-title42/pdf/USCODE-2010-title42-chap6A-subchapXII.pdf

Wild and Scenic Rivers

Wild and Scenic Rivers are those rivers having remarkable scenic, recreational, geologic, fish, wildlife, historic, or cultural values as defined by the Wild and Scenic Rivers Act[125], with the purpose to "…preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generation." The Act requires special planning and consultation requirements for actions that may physically impact resources covered in the Act, such as modification by construction or development that effect the river's free-flowing condition or an activity that affects the river's outstanding remarkable values.

4.14.1 Affected Environment

Wetlands

A Wetland Delineation was completed in July 2017 within the wetland survey boundary area (**Figure 4-8**). A series of paired test plots were sampled for hydrophytic vegetation, hydric soils, and hydrology in accordance with the methods outlined in the USACE Wetland Delineation Manual[126] and the Regional Supplement for the Arid West Region[127]. The survey area encompassed approximately 90 acres and included the agricultural fields and Cove Canal immediately south and west of Runway 13/31 and west of Highway 75. The field investigation delineated the following jurisdictional wetlands:

- Palustrine Emergent (PEM) – 1.93 acres (Wetland 1 & 4)
- Palustrine Scrub-Shrub (PSS) – 0.29 acres (Wetland 3)
- Palustrine Forested (PFO) – 2.215 acres (Wetland 2)

A functional assessment found most of the wetlands in low to moderate condition, as the Canal receives pollution and sediment from agricultural and urban runoff. Several wetlands obtained a high rating for organic matter and plant richness, and moderate rating for wildlife habitat.

Floodplains

The FEMA Flood Insurance Rate Map Panel #16013C0856E[128] indicates that the south side of the Airport and the areas proposed for acquisition are not within a floodplain or regulated floodway as shown in **Figure 4-9**. The Big Wood River, 0.3 mile west of the project, is the nearest feature with a regulated floodplain. The Cove Canal is not contained in a floodplain; nor, is the Cove Canal identified as a floodway.

[125] The Wild and Scenic Rivers act of 1968. Accessed April 27, 2018 at https://www.nps.gov/parkhistory/online_books/anps/anps_6f.htm
[126] USACE. 1987. Corps of Engineers Wetlands Delineation Manual, final report. United States Army Corps of Engineers, Vicksburg, Mississippi
[127] USACE. 2008. Regional Supplement to the Corp of Engineers Wetland Delineation Manual: Arid West Region, version 2. United States Army Corp of Engineers, Washington DC
[128] FEMA. 2017. FIRM #16013C0856E. April 30, 2018 at http://maps.co.blaine.id.us/jsapi/LandUseInfoMap.html

LEGEND

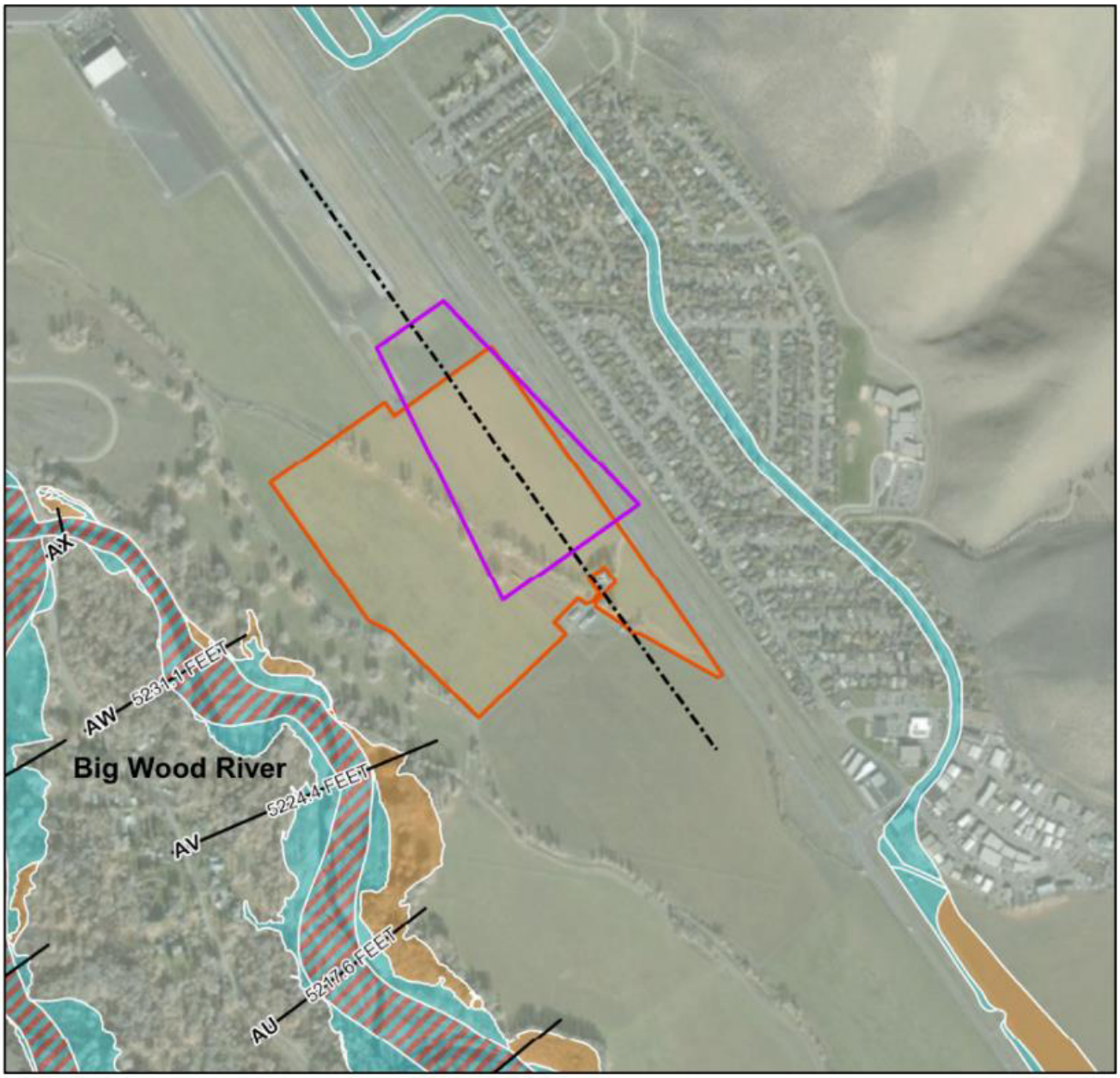
- RUNWAY 13-31 CENTERLINE
- RUNWAY PROTECTION ZONE [RPZ]
- PROPOSED ACQUISITION AREA [64.6 ACRES]
- COVE CANAL
- WETLAND
- WETLAND SURVEY BOUNDARY

250 0 250 500

SCALE: 1" = 500'

I:\170011\3_Acaddwg\Sheets\170011-EA-Figures.dwg

FIGURE 4-8: JURISDICTIONAL WETLANDS



LEGEND

- 500-YEAR FLOODPLAIN
- 100-YEAR FLOODPLAIN
- REGULATORY FLOODWAY
- RUNWAY 13-31 EXTENDED CENTERLINE
- RUNWAY PROTECTION ZONE
- PROPOSED ACQUISITION AREA [64.6 AC]

750 0 750 1500

SCALE: 1" = 1500'

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FIGURE 4-9: FEMA FLOOD ZONES

Surface Waters

The Cove Canal is the only water body within the project area; it receives approximately 14 cubic feet per second (cfs)[129] of diverted water from the Big Wood River during the irrigation season, which is then diverted to agriculture users downstream. While not within the project area, the Big Wood River is 0.3 miles to the west. Flows in the Big Wood River at Hailey, Idaho, range from 150 to 1,650 cfs, measured at the U.S. Geological Survey (USGS) stream gage (#13139510) for the 100-year record[130]. IDEQ currently lists the Big Wood River near the project area as impaired. Recent monitoring shows exceedances in total phosphorus and total suspended sediment[131].

Groundwater

A three-dimensional groundwater model was recently developed by the USGS and Idaho Department of Water Resources for the Wood River Valley Aquifer System[132]. The Wood River Valley Aquifer is approximately 106 square miles in size and comprised of a single unconfined aquifer that underlies two distinct areas: 1) the upper valley from Galena Summit (about 20 miles north of Ketchum) south to Bellevue, and 2) the lower valley south of Bellevue that opens into a triangular alluvial fan, known as the Bellevue fan, about 9 miles wide at its southern end. The project area is in the upper valley, which is narrow and broadens downstream to a maximum of 2-miles in width and has a depth-to-groundwater ranging from 10 to 90 feet. Simulated flows found that, in general, groundwater moves down valley into the Bellevue fan, at which point the flow splits eastwards and westwards. The model indicates that while the Big Wood River is well connected to the unconfined aquifer, from Hailey to Glendale; the depth-to-groundwater is high.

Wild and Scenic Rivers

The nearest Wild and Scenic River is the Middle Fork of the Salmon River[133], located approximately 75 miles north of the Airport. The only water body within the Proposed Action project area is the Cove Canal, which receives water during the irrigation season from the Big Wood River and is diverted into agriculture downstream of the project area. The Big Wood River is a tributary to the Malad River, which flows into the Snake River. Neither of these rivers are classified as Wild and Scenic.

4.14.2 Environmental Consequences

Wetlands

Under the Proposed Action, approximately 3.7 acres attributed to the Cove Canal (approximately 2,691 linear feet) will be acquired and up to 200 individual trees along the Canal

[129] USGS. 2014. Stream seepage and groundwater levels, Wood River Valley, South-Central Idaho 2012-2013. Scientific Investigations Report 2014–5151. U.S. Geological Survey, Reston, Virginia

[130] USGS 13139510 Big Wood River at Hailey Idaho, Total Flow. Accessed April 30, 2018 at https://waterdata.usgs.gov/nwis/dv?referred_module=sw&site_no=13139510

[131] IDEQ. 2017. Big Wood River Watershed Management Plan: TMDL Five Year Review. Idaho Department of Environmental Quality, Boise, Idaho. Accessed April 2018 at http://www.deq.idaho.gov/media/60180970/big-wood-river-watershed-management-plan-tmdl-five-year-review.pdf

[132] Fisher, J.C., Bartolino, J.R., Wylie, A.H., Sukow, Jennifer, and McVay, Michael. 2016. Groundwater-flow model of the Wood River Valley aquifer system, south-central Idaho: U.S. Geological Survey Scientific Investigations Report 2016–5080. Accessed April 30, 2018 at http://dx.doi.org/10.3133/sir20165080

[133] National Wild and Scenic River System. 2018. Salmon River (Middle Fork), Idaho. Accessed April 30, 2018 at https://www.rivers.gov/rivers/salmon-mf-id.php

will be removed. Woody stems and trunks will be cut at the ground surface and the stumps removed. All remaining herbaceous plants will be left intact to the greatest extent possible. This will result in a conversion of PFO wetlands and PSS to PEM wetlands. In general, PFO, PSS and PEM wetlands all provide soil stabilization, flood retention, nutrient removal/transformation, wildlife habitat, among other functions to varying degrees[134]. Conversion of one type of wetland for another may lead to reduction in some functions and gains in other functions.

Consultation with the USACE Idaho Falls Regional Office occurred on August 30, 2017 (**Appendix F**), in which they determined conversion from one wetland type to another, specifically the removal of trees which converts the wetland from a PFO wetland to a PEM wetland, is not considered a wetland impact under the CWA. This conclusion was reached as removal of the trees: 1) does not impact below ground activities within the wetlands, and 2) does not impact Waters of the United States; a CWA Section 404 permit is not required nor a Jurisdictional Determination. Standard construction BMPs will be utilized to minimize impacts to existing wetlands during the obstruction removal (see **Section 4.14.3**). The Proposed Action will convert PFO and PSS wetlands to PEM wetlands, resulting in no net loss of wetlands, and therefore, will have no adverse effect on wetland resources.

In accordance with EO 11990, there are no practicable measures to avoid acquiring part of the Cove Canal and removing the trees identified as obstructions, given its location directly off of the end of Runway 13/31. An existing easement with the Eccles Flying Hat Ranch was in place to light trees, which have been documented as obstructions to air navigation on their property, but this agreement expired in December of 2018. A new agreement allows the lights to remain up until the end of September 2020; however, the landowner has stated he does not want another long-term easement. The Proposed Action will result in no net loss to wetlands and will have no adverse effect on wetland resources. The Proposed Action is necessary to provide safe, navigable airspace in the vicinity of the Airport.

Floodplains

As shown in the FEMA Flood Zones map (**Figure 4-9**), the south side of the Airport and the areas proposed for acquisition and obstruction removal are not within a floodplain. Therefore, the Proposed Action will have no effect on floodplains.

Surface Waters

Land use within the project area will remain largely the same following land acquisition, as the majority of the land will be leased for continued pasture and agricultural use. The Cove Canal will continue to be used for irrigation delivery. Water quantity within the Cove Canal will be unaffected with implementation of BMPs to minimize the sediment that enters the Cove Canal during removal of the trees. The removal of trees will result in a conversion of PFO and PSS wetlands to PEM wetlands. PFO, PSS and PEM wetlands all provide water quality benefits, such as streambank anchoring, soil stabilization, erosion control, and nutrient storage functions to varying degrees depending on the density, diversity and structure of the wetland's vegetation[134]. Conversion of one type of wetland for another may lead to reduction in some functions and gains in other functions. For example, conversion of PFO wetlands to PEM wetlands may lead to a reduction in streambank anchoring functions, but an increase in

[134] Mitsch, W.J. and J.G. Gosselink. 2000. Wetlands, third edition. John Wiley and Sons, Inc. New York, NY

sediment retention[135]. Therefore, the effects of converting one wetland type to another is difficult to analyze but conversion is unlikely to result in significant changes to water quality, as long as BMPs are in place to accelerate the establishment of desired species and control the spread of invasive species (see **Section 4.14.3**). Equipment such as chainsaws, chippers, and tracked vehicles are anticipated to be used. To minimize water quality impacts, proper use, storage, inspection, and maintenance of equipment will be employed.

Groundwater

The Proposed Action will not involve any permanent construction (i.e. structures, impervious surfaces) or excavation activities that would have a potential to affect groundwater. Groundwater modeling shows that while the Big Wood River is connected to the underlying unconfined aquifer, the specific reach in the proximity of the project area is a losing reach, indicating that depth-to-groundwater is higher at this location[136]. The Proposed Action does not involve any groundwater withdrawals or construction activities associated with new or existing wells. Overall, none of the Proposed Action activities are likely to affect groundwater. Construction impacts to groundwater are also unlikely due to the high depth-to-groundwater within the project area, type of equipment being used, and the implementation of BMPs to prevent potential releases of petroleum materials, including proper use, storage, inspection, and maintenance of equipment.

Wild and Scenic Rivers

The Airport is located approximately 75 miles south and outside of the watershed of the nearest Wild and Scenic River, the Middle Fork of the Salmon River[137]. Since this resource does not exist in the project area, the Proposed Action will have no effect on Wild and Scenic Rivers.

4.14.3 Mitigation

Wetlands

While no specific mitigation is required, the following BMPs may be employed to prevent and minimize impacts to wetlands:

- Schedule construction activities for dry weather periods.
- Designate a contained area for equipment storage, short-term maintenance, and refueling. Ensure it is located at least 100 feet from wetland areas.
- Inspect vehicles and equipment for leaks and repair immediately.
- Inspect all vehicles and equipment that may have come in contact with invasive plants, or the seeds of these plants, and carefully clean vehicles and equipment before arriving on-site.
- Conduct major vehicle maintenance and washing off site.

[135] Schmid & Company, Inc. 2014. The effects of converting forest or scrub wetlands into herbaceous wetlands in Pennsylvania. Media, PA. Accessed May 1, 2018 at http://www.delawareriverkeeper.org/sites/default/files/resources/Reports/Wetland%20Conversion%20Report.pdf

[136] Fisher, J.C., Bartolino, J.R., Wylie, A.H., Sukow, Jennifer, and McVay, Michael. 2016. Groundwater-flow model of the Wood River Valley aquifer system, south-central Idaho: U.S. Geological Survey Scientific Investigations Report 2016–5080. Accessed April 30, 2018 at http://dx.doi.org/10.3133/sir20165080

[137] National Wild and Scenic River System. 2018. Salmon River (Middle Fork), Idaho. Accessed April 30, 2018 at https://www.rivers.gov/rivers/salmon-mf-id.php

- Avoid or minimize disturbance to existing herbaceous vegetation to the fullest extent possible
- Replace any herbaceous vegetation that has been disturbed to a pre-project density with herbaceous species appropriate to the site.
- Prevent construction debris from falling into the Cove Canal. Any material that does fall into the irrigation canal during construction should be immediately removed in a manner that has minimal impact to the channel bed and water quality.
- Clean up leaks, drips and other spills immediately to avoid soil or surface water contamination.
- Ensure that all spent fluids including motor oil, radiator coolant, or other fluids and used vehicle batteries are collected, stored, and recycled as hazardous waste off site.
- Ensure that all construction debris is taken to appropriate landfills and all sediment disposed of in upland areas or off-site.
- If necessary for dust control, use only a minimal amount of water.

Floodplains
The Proposed Action's project area is not located in a floodplain; therefore, no mitigation is required.

Surface Waters
No mitigation is required; however, BMPs outlined in the wetlands section above may be employed to prevent and minimize impacts to water quality.

Groundwater
No mitigation is required; however, BMPs outlined in the wetlands section above may be employed to prevent and minimize impacts to groundwater.

Wild and Scenic Rivers
The Proposed Action project area does not reach any Wild and Scenic Rivers; therefore, no mitigation is required.

4.14.4 Findings and Conclusions

Wetlands
The No Action Alternative will have **no effect** on wetlands because it is a non-development alternative. All wetlands would remain as they presently exist.

Under the Proposed Action, approximately 3.7 acres attributed to the Cove Canal (approximately 2,691 linear feet) will be acquired and maintained for water delivery. Given its location directly off of the end of Runway 13/31, there are no practicable measures to avoid acquiring part of the Cove Canal and the removal of trees that have been identified as obstructions. The removal of up to 200 trees will result in the conversion of PFO and PSS wetlands to PEM wetlands. The conversion of wetland types does not qualify as a wetland impact as determined by the USACE under the CWA. BMPs during construction will prevent and minimize wetland impacts. The Proposed Action is in accordance with EO 11990 and will result in no net loss to wetlands and will have **no adverse effect** on wetland resources.

Floodplains
As the project area is not located within the floodplain, the No Action Alternative and the Proposed Action will have **no effect** on floodplains. As no floodplains are located within the project area, requirements under EO 11988 do not apply.

Surface Waters
The No Action Alternative will have **no effect** on surface waters because it is a non-development alternative. All surface water quantity and quality will remain as they presently exist.

Under the Proposed Action, water quantity in the Cove Canal will be unaffected. The conversion of PFO and PSS wetlands to PEM wetlands is unlikely to affect water quality over the long term. With implementation of BMPs during construction to prevent and minimize water quality impacts, the Proposed Action will have **no significant effect** on surface water resources.

Groundwater
The No Action Alternative will have **no effect** on groundwater because it is a non-development alternative. All groundwater quantity and quality will remain as they presently exist.

The Proposed Action does not involve any permanent construction (i.e. structures, impervious surfaces) or excavation activities that would have a potential to affect groundwater. Groundwater modeling indicates that the depth-to-groundwater is high within the general vicinity of the project area. Therefore, the land acquisition, obstruction removal (approximately 200 trees), and perimeter fence line extension under the Proposed Action is unlikely to encounter or affect groundwater. With implementation of BMPs during construction to prevent and minimize spills that could reach groundwater through infiltration, the Proposed Action will have **no significant effect** on groundwater resources.

Wild and Scenic Rivers
The nearest Wild and Scenic River is 75 miles to the north and water from the project area does not reach any Wild and Scenic Rivers; therefore, both the No Action Alternative and the Proposed Action will have **no effect** on Wild and Scenic Rivers.

4.15 CUMULATIVE IMPACTS

According to the CEQ[138], cumulative impacts are “impacts on the environment which result from incremental impacts of the action when added to other past, present, and reasonably foreseeable future actions” and that “can result from individually minor but collectively significant actions taking place over a period of time.”

A cumulative impact analysis provides information on impacts resulting from other actions that have occurred or that will occur within a defined time and geographic area. Cumulative impacts are evaluated on past actions, present actions, and reasonably foreseeable future actions. Airport actions are considered along with actions of tribes, private developers, the FAA, or others. This information is used to decide whether a proposed project’s impact to a specific resource would cause a significant impact on that resource when added to past, present, and

[138] 40 CFR 1508.7 Cumulative impacts. Accessed May 1, 2018 at https://www.gpo.gov/fdsys/pkg/CFR-2012-title40-vol34/pdf/CFR-2012-title40-vol34-sec1508-7.pdf

reasonably foreseeable future actions within a specific geographic area or designated time frame.

4.15.1 Past, Present, and Future Project Listing

To properly assess cumulative impacts, this section identifies all projects in the recent past, present, and reasonably foreseeable future actions. The recent past includes projects implemented within the past five years. Current projects include those which have been publicly funded, privately permitted, or under construction during development of this EA (2017-2019). Future projects include those for which funding has been earmarked or a needs assessment has identified the project for consideration in the reasonably foreseeable future.

Projects considered for this analysis include: other projects using Federal-Aid money, such as the FAA Airport Improvement Program or other federally-funded projects in the general vicinity; Airport capital improvement projects; Idaho Transportation Department Statewide Transportation Implementation Plan, which identifies future transportation projects; and proposed private developments within the local jurisdictions.

The City of Hailey and Blaine County were contacted in July 2017 and again in January of 2019 for information on recent development projects; no private development projects have been implemented in the past five years, currently or in the reasonably foreseeable future within ¼ mile of the Airport.

Based on a review of projects in the vicinity of the Airport, the following projects were identified and evaluated for cumulative impacts:

Past Projects (occurring within the past five years)

1. Relocate Hangar Taxi Lanes/Apron Improvements (2013-14) at the Airport. This project overlaid the General Aviation apron to strengthen pavement and construct new taxi lanes to access hangars for the west rather than the east.
2. Relocated Taxiway B, Grade RSA and Remove Taxiway A (South) (2014) at the Airport. This project relocated and extended Taxiway B while removing Taxiway A, graded the RSA and construction of three new connector taxiways. The total duration of the project was 60 days, but the bulk of the work was completed during a 25-day Airport closure.
3. Terminal Expansion and Remodel (2014-2015) at the Airport. The project moved the terminal aircraft parking to the north side of the terminal to place it outside of the ROFA. The terminal was not configured to move passengers to the north end of the building, so a 14,000-square foot addition to the building was constructed and the existing area of the building was remodeled.
4. Airport Operations Building (2014-2015) at the Airport. The Airport's existing administration office and ARFF/Snow Removal Equipment building needed to be relocated. This project constructed a new facility to house these functions in one building. The new facility is more efficient and suited to the needs of Airport operations staff, especially for snow removal equipment storage and maintenance.
5. Construct Terminal Apron (2014) at the Airport. A new apron for terminal aircraft parking was constructed on the north side of the terminal. This apron was constructed with Portland cement concrete pavement. Due to the confined site, significant analysis of

aircraft movements on the apron was required. T-O Engineers completed this analysis as part of the project design.

6. Relocate Taxiway B, Grade RSA and Remove Taxiway A (North) (2015) at the Airport. This project relocated the remainder of Taxiway B and removed the remainder of Taxiway A, while grading the RSA on the north half of the Airport. The project also reconstructed all of the connecting taxiways in this area and constructed a new apron and hangar access taxi lane at the north end of the airfield. Also included was the demolition of five hangar buildings.
7. Central Bypass Taxiway/Facility Demolition (2015) at the Airport. Due to the constrained site and operational patterns at the Airport, bypass taxiways are necessary to allow aircraft to pass each other head-to-head on the parallel taxiway. The last project in the program removed the Airport administration and ARFF/SRE buildings and constructed a new bypass taxiway in this location.

Current Projects (2017-2019)

8. Terminal Apron Expansion and Access Road Realignment at the Airport ($3.06 million). This project expands the terminal aircraft parking apron at the Airport to accommodate one additional aircraft on the ground, while also realigning the access road and vehicle parking lots for the Airport. The project was designed and bid in 2017 and the majority was constructed in 2018. The remaining items to be constructed will be completed in 2019.

Future Projects (have been earmarked or identified for consideration in the reasonable future by the Friedman Memorial Airport Capital Improvement Program)

9. Rehabilitate Aprons, Sections 1, 2 and 4. Mill and overlay, crack seal and seal coat aircraft parking aprons on the Airport (2020).
10. Terminal Expansion – Security Checkpoint and Concourse (2020).
11. Construct Tower. Construct a new aircraft control tower and remove the existing tower at the Airport (2021).
12. Rehabilitate Taxiway B and Section 3 Apron. Crack seal and seal coat Taxiway B and aircraft parking apron Section 3 (2022).
13. Rehabilitate Runway 13-31. Mill and overlay the Airport's runway (2022).
14. General Aviation Apron Expansion and New Hangar Area (2023).

4.15.2 Environmental Impact Category Analysis

The following subsections analyze the potential cumulative impacts for each environmental resource category in which the implementation of the Proposed Action might contribute to cumulative impacts when considered with other past, present, and reasonably foreseeable future actions. The Proposed Action in conjunction with other implemented or proposed projects, identified in **Section 4.15.1**, may together yield significant impacts, even though the direct and indirect impacts from the Proposed Action alone are not significant[139].

[139] FAA. 2015. 1050.1F Environmental Desk Reference, Chapter 15, Cumulative Impacts. May 2, 2018 at https://www.faa.gov/about/office_org/headquarters_offices/apl/environ_policy_guidance/policy/faa_nepa_order/desk_ref/media/15-cumulative-impacts.pdf

As detailed earlier in this chapter, the following resources are not present in the project area and will not be affected by the Proposed Action and, therefore, would not contribute to significant cumulative impacts, and will not be addressed further:

- Coastal Resources
- Floodplains
- Wild and Scenic Rivers

Air Quality

A significant impact to air quality could occur if the Proposed Action, when considered with past, present, and reasonably foreseeable future actions, caused an exceedance of one or more NAAQS. Currently, all of Blaine County is in attainment for NAAQS criteria pollutants. The Proposed Action is not likely to cause or create an increase in aircraft operations at the Airport, and therefore will result in no long-term emissions increases. Temporary air quality impacts during construction will be short-term and determined to be de minimis. In addition, none of the past, present, and reasonably foreseeable future projects examined are anticipated to have substantial long-term impacts on air quality.

Most of the projects listed are short-term construction projects designed to improve operational traffic flow, meet FAA safety requirements, and perform general maintenance. While the construction of one new apron and expansion of a second apron will accommodate additional aircraft, the construction of apron space at SUN may actually result in a reduction of operations. During peak times of the season, aprons are full, and aircraft arrive at SUN, drop off passengers, and then return at a later time to pick them up. With additional apron space, the need to leave and return could be eliminated. This could result in a slight reduction in operations and less impact to air quality. Overall, implementation of the Proposed Action in addition to other reasonably foreseeable projects would result in **no significant cumulative impacts** to air quality.

Biological Resources

Threatened and Endangered Species

A literature review of species listed as threatened, endangered, or candidate under the ESA in conjunction with information obtained from the USFWS and the field investigation found that no suitable habitat exists for Canada lynx, North American wolverine or YBCC within the project area or general vicinity. Therefore, there are **no significant cumulative impacts** regarding threatened, endangered, or candidate species when considered with other past, present, and reasonably foreseeable future actions.

State Sensitive Species

The literature review and analysis for species listed as sensitive found that no suitable habitat exists for the olive-sided flycatcher in the project area. Therefore, there are **no significant cumulative impacts** to the olive-sided flycatcher or their habitat when considered with other past, present, and reasonably foreseeable future actions.

Suitable habitat does exist for the long-billed curlew in the form of irrigation pasture. Under the Proposed Action, the acquired irrigated pasture will be leased for continued use and the

removal of trees that are obstructions may benefit long-billed curlew, as they choose nesting locations void of trees. Disturbance from construction is expected but will be temporary and ample habitat exists within the vicinity of the project area. All projects examined are short-term, limited to the current Airport property, and unlikely to significantly impact long-billed curlew. Therefore, the Proposed Action will result in **no significant cumulative impacts** to the long-billed curlew or their habitat when considered with other past, present, and reasonably foreseeable future actions. (The analysis for red-tailed hawk is included in the Migratory Bird section below).

General wildlife and vegetation

Tree removal under the Proposed Action will permanently remove potential nesting and foraging habitat for some bird and wildlife species but is small compared available habitat along the Big Wood River. Pasture, grassland, and emergent wetland habitat will remain intact following the obstruction removal. Temporary disturbance from construction is expected but is planned outside the nesting season. Overall, the Proposed Action may impact individuals, but will not likely contribute to a trend towards federal listing for any species or loss of viability for general wildlife and vegetation. All projects examined are short-term, limited to the current Airport property, and unlikely to significantly impact general wildlife and vegetation. Therefore, the Proposed Action will result in **no significant cumulative impacts** to general wildlife or vegetation when considered with other past, present, and reasonably foreseeable future actions.

Migratory Birds

Suitable nesting habitat for migratory birds, including red-tailed hawk, is present within the project area. Tree removal under the Proposed Action will permanently remove potential nesting and foraging habitat for some bird and wildlife species, but the loss of habitat is small when compared available habitat along the Big Wood River. Pasture, grassland, and emergent wetland habitat will remain and will be protected from future development. Temporary disturbance from construction is expected but is planned outside the nesting season. Overall, the Proposed Action may impact individuals, but will not likely contribute to a trend towards federal listing or loss of viability for migratory bird species. All projects examined are short-term, limited to the current Airport property, and are unlikely to significantly impact migratory birds. Therefore, the Proposed Action will result in **no significant cumulative impacts** to migratory birds when considered with other past, present, and reasonably foreseeable future actions.

Climate

The Proposed Action is not likely to cause or create an increase in aircraft operations at the Airport, and thus will result in no long-term increase in greenhouse gas emissions. Some temporary emissions are expected from equipment used during construction; BMPs will be implemented to minimize emissions. In addition, none of the projects examined are anticipated to result in a significant long-term increase in emissions.

The projects listed for the Airport are all short-term construction projects designed to improve operational traffic flow, meet FAA safety requirements, and perform general maintenance. While the construction of one new apron and expansion of a second apron will accommodate additional aircraft, the construction of apron space at SUN may actually result in a reduction of operations. During peak times of the season, aprons are full, and aircraft arrive at SUN, drop off

passengers, and then return at a later time to pick them up. With additional apron space, the need to leave and return could be eliminated. This could result in a slight reduction in operations and less impact to air quality and climate at SUN. Therefore, the Proposed Action will result in **no significant cumulative impact** on climate when considered with other past, present, and reasonably foreseeable future actions.

Department of Transportation Act, Section 4(f)

Development in the Wood River Valley, including those projects listed in **Section 4.15.1**, continues to change the landscape of the area. The Proposed Action includes the removal of the windrow tree line, which is a contributing element to the Eccles Flying Hat Historic District, resulting in an "adverse effect" to the historical setting and "direct use" of Section 4(f) resource.

While the Proposed Action will adversely affect the Eccles Flying Hat Ranch Historic District, all of the past, present and reasonably foreseeable future projects listed will occur on Airport property and are not anticipated to affect Section 4(f) resources. The Proposed Action will result in **no significant cumulative uses** to Section 4(f) resources.

Farmlands

Incremental acquisitions and conversions of farmland to urban has occurred over the past 20 years since the housing and commercial development on the east side of State Highway 75 was incorporated into the City of Hailey. The agricultural region has slowly been eroded by urban development and has shifted its center to south of the City of Bellevue where open ranching becomes more prevalent. Under the Proposed Action, 58.1 acres of land acquired will continue to be irrigated and used for agriculture, remaining "Prime Farmland". The 6.5 acres fenced to protect the RSA and ROFA will no longer be irrigated and will convert to "Not Prime Farmland". All past, present and reasonably foreseeable future projects examined are short-term and limited to the current Airport property, having no impact on farmland. While the Proposed Action will remove 6.5 acres within the RSA and ROFA, it will preserve 58.1 acres of farmland for continued use for agriculture. Therefore, there will be **no significant cumulative impacts** to farmlands from this project.

Hazardous Materials, Pollution Prevention, and Solid Waste

Within the project area, the Hazardous Materials Evaluation – Phase 1 Report found no evidence of RECs, HRECs, or CRECs; all historic agricultural materials were determined de minimis and incidental. Proper use, storage, inspection, and maintenance of equipment used to remove obstructions under the Proposed Action will prevent potential releases of petroleum or other hazardous materials.

In addition, none of the projects examined are likely to encounter or affect hazardous materials, solid waste, and pollution prevention activities. The projects listed for the Airport are all short-term construction projects in which BMPs are in place to prevent spills and ensure proper care of hazardous materials, such as petroleum products. There are no known risks of encountering hazardous materials other than materials used during normal agricultural or Airport operations that would contribute to present or future cumulative effects. Therefore, it is anticipated that the Proposed Action will result in **no significant cumulative impacts** to hazardous materials, pollution prevention, or solid waste when considered with other past, present, and reasonably foreseeable future actions.

Historical, Architectural, Archaeological and Cultural Resources

The Proposed Action involves the removal of the windrow tree line which is a contributing element to the Eccles Flying Hat Historic District resulting in an "adverse effect" to the historical setting of the District. Additionally, there will be a reduction in acreage of the Historic District by approximately 64.6 acres. Most of the character-defining historic elements and the distinctive characteristics of the settlement period during the early 20th century will be retained.

All of the past, present, and reasonably foreseeable future projects listed take place on Airport property and are not anticipated to affect NRHP-listed or eligible properties/buildings. With the reduction of total acreage of the Historic District by approximately 64.6 acres, the Proposed Action will cause impacts to Section 106 historic resources, but when viewed with all past, present, and reasonably foreseeable future projects, **no significant cumulative impacts** are expected.

Land Use

Under the Proposed Action, the Airport will acquire land currently used for agriculture and pasture and lease the majority of that land for continued agricultural use, which is compatible with City of Hailey and Blaine County zoning regulations. The removal of obstructions and extension of the fence will not change the land use within the area and is also compatible with zoning ordinances that specify the need to prevent encroachment on airspace.

All of the projects examined will be implemented on Airport property and are compatible with zoning ordinances. Therefore, the Proposed Action will result in **no significant cumulative impacts** to land use when considered with other past, present, and reasonably foreseeable future actions.

Natural Resources and Energy Supplies

The Proposed Action is not likely to cause or create an increase in aircraft operations. The removal of declared distances will allow airlines to use the runway's full useable length in performance calculations and may result in the airlines ability to stop reducing their take-off weight during hot summer days at SUN due to the declared distances and potentially take on additional fuel. However, fuel resources are not in short supply in Blaine County, and no significant effect on natural resource and energy supplies is expected. Construction materials for the fence line, temporary fuel requirements for construction of fence extension, and tree removal will be required over a period of approximately 20 days; these resources are readily available in the region. BMPs will be implemented to reduce energy consumption.

All of the projects examined will require natural resources for construction materials and increase short-term energy consumption. There are no known natural resource or energy resource shortages in the region. When considered cumulatively these projects would result in minor increases to energy consumption, but these increases would have very little impact on local supplies and would be insignificant when considered on a local or regional scale. Therefore, the Proposed Action will result in **no significant cumulative impacts** to natural resources and energy supplies when considered with other past, present, and reasonably foreseeable future actions.

Noise and Noise-Compatible Land Use

The Proposed Action is not likely to cause or create an increase in aircraft operations, and thus noise, at the Airport beyond normal projections. The removal of trees will likely lead to a slight increase in noise and vibrations to the farmhouse and surrounding property, as the trees will no longer act as a buffer to noise. However, as shown in **Figure 4-7**, the trees identified as known obstructions lie outside the DNL 65 db noise contour; and therefore, removal of the trees will not change the DNL 65 db noise contour. Temporary increases in noise are expected during construction but will be short-term and within a 60-foot buffer of the construction area.

Most of the projects listed are short-term construction projects designed to improve operational traffic flow, meet FAA safety requirements, and perform general maintenance, which are not modeled with the FAA noise software and are not the type of projects that create louder conditions (i.e. takeoff of aircraft). While the construction of one new apron and expansion of a second apron will accommodate additional aircraft, the construction of apron space at SUN may actually result in a reduction of operations. During peak times of the season, aprons are full, and aircraft arrive at SUN, drop off passengers, and then return at a later time to pick them up. With additional apron space, the need to leave and return could be eliminated. This could result in a slight reduction in operations and less impact to noise at SUN. Therefore, it is anticipated that the Proposed Action will result in **no significant cumulative increases** in aircraft-related noise over noise sensitive areas when considered with other past, present, and reasonably foreseeable future actions.

Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks

The Proposed Action is not likely to cause or create an increase in aircraft operations beyond normal projections and land use will remain largely the same following acquisition, and will therefore have no effect on economic activity, employment, income, housing, public services, social conditions, or low income or monitory populations in the vicinity of the Airport. The obstruction removal and fence line extension will not have a significant effect on air quality, climate, hazardous materials, noise, and water resources, and will therefore have no effect on the individual or cumulative environmental health of low income and minority populations, or children's environmental health and safety.

All of the projects listed are short term construction projects limited to the Airport property designed to improve operational traffic flow, meet FAA safety requirements, perform general maintenance, and accommodate additional aircraft, which are unlikely to affect socioeconomics, environmental justice, or children's environmental health and safety. Therefore, the Proposed Action will result in **no cumulative impacts** to socioeconomics, environmental justice, or children's health and safety when considered with other past, present, and reasonably foreseeable future actions.

Visual Effects

The Proposed Action does not include the installation of new lighting facilities and is not likely to cause or create an increase in aircraft operations that may result in increased light emissions. The removal of six lighted beacons as part of the obstruction removal will slightly decrease light emissions. The Proposed Action includes the removal of the windrow tree line, which is a contributing element to the Eccles Flying Hat Historic District, leading to an adverse effect on

the Historic District under Section 106. However, the landowner was a concurring signatory on the Section 106 MOA, which was developed to mitigate these effects through 4(f) considerations and the Section 106 process that were discussed in **Section 4.5** and **Section 4.8**, respectively. Coordination with the landowner resulted in the inclusion of planting low-growing shrubs into the MOA, which will replace the trees that will be removed between the farmhouse and the end of the runway.

All the projects listed are short-term construction projects located on Airport property designed to improve operational traffic flow, meet FAA safety requirements, perform general maintenance, and/or accommodate additional aircraft. Increases in light emissions from these projects are anticipated to be minor and limited to Airport property. The visual impacts of these projects are also limited to the Airport and consistent with current land use within the Airport. Therefore, the Proposed Action will result in **no significant cumulative impacts** to visual effects when considered with other past, present, and reasonably foreseeable future actions.

Water Resources

Wetlands

The Proposed Action will acquire approximately 3.7 acres attributed to the Cove Canal (approximately 2,691 linear feet) and remove of up to 200 trees along the canal, which will result in the conversion of PFO and PSS wetlands to PEM wetlands. The conversion of wetland types does not qualify as a wetland impact as determined by the USACE under the CWA and the remaining PEM wetlands will be preserved.

All of the projects examined will be implemented on Airport property where wetlands are not present. Therefore, the Proposed Action will result in **no significant cumulative impacts** to wetlands when considered with other past, present, and reasonably foreseeable future actions.

Surface Waters

Under the Proposed Action, the majority of the acquired land will be leased for continued pasture and agricultural use, along with water rights to the Cove Canal. The removal of up to 200 trees will result in the conversion of PFO and PSS wetlands to PEM wetlands, which is unlikely to affect water quality over the long term. Implementation of BMPs during construction to prevent and minimize water quality impacts.

All of the projects listed are short-term construction projects located on Airport property that are designed with BMPs to prevent spills and minimize water quality impacts. Therefore, it is anticipated that the Proposed Action will result in **no significant cumulative impacts** to surface waters when considered with other past, present, and reasonably foreseeable future actions.

Groundwater

The Proposed Action does not involve any permanent construction (i.e. structures, impervious surfaces) or excavation activities that would have a potential to affect groundwater. Groundwater modeling indicates that the depth-to-groundwater is high within the general vicinity of the project area, making it unlikely for the Proposed Action's activities to encounter or affect groundwater. BMPs implemented during construction will prevent and minimize spills that could reach groundwater through infiltration.

All of the projects listed are short-term construction projects that are designed with BMPs to prevent spills and minimize water quality impacts. The construction of one new apron and expansion of a second apron will increase impervious surfaces at the Airport but are unlikely to significantly affect groundwater. Therefore, the Proposed Action will result in **no significant cumulative impacts** to groundwater when considered with other past, present, and reasonably foreseeable future actions.

4.15.3 Conclusion

Based on the review and findings of known ongoing, planned and proposed projects in the vicinity of the Airport, it is concluded that the Proposed Action when added to past, present, and reasonably foreseeable future projects will result in **no significant cumulative impacts** to the following resources: air quality; biological resources; climate; coastal resources; Department of Transportation, Section 4(f) resources; hazardous materials, pollution prevention and solid waste; land use; natural resources and energy supply; noise and noise-compatible land use; socioeconomic impacts, environmental justice, and children's environmental health and safety; visual effects; and water resources. This conclusion was reached because:

- These projects are being implemented on Airport property and do not affect lands in the immediate vicinity of the Airport;
- The projects result in no effects or de-minimis (so small as to be negligible or insignificant) effects;
- The impacts associated with the construction activity of the projects is temporary in nature; and/or
- Mitigation measures are proposed for the projects that, when implemented, will result in no cumulative impacts.

The Proposed Action when added to past, present, and reasonably foreseeable future projects will contribute to cumulative impacts on farmland resources by removing 6.5 acres within the RSA and on historic resources by reducing total acreage of the Eccles Flying Hat Ranch Historic District by approximately 64.6 acres. While there may be cumulative impacts on farmland resources, **no substantial cumulative impacts** are anticipated. Given the location of the Eccles Flying Hat Ranch Historic District and associated farmland directly off the end of Runway 13/31, there are no practicable measures to entirely avoid these resources. The Proposed Action is necessary to provide safe, navigable airspace in the vicinity of the Airport and to remove and prevent incompatible land uses per FAA regulations and policies.

Future federal projects will be subject to review under NEPA to determine whether significant environmental impacts are likely and to identify mitigation measures for any identified adverse effects. Through the land use planning process and associated regulations, the City of Hailey and Blaine County are able to control many potential cumulative effects associated with any new growth and development.

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Chapter 5 RECORD OF AGENCY COORDINATION AND PUBLIC INVOLVEMENT

5.1 AGENCY COORDINATION

Agency coordination occurred over the course of a year and a half period from June of 2017 – December of 2018. **Table 5-1** documents agency coordination over that period.

TABLE 5-1: AGENCY COORDINATION FROM JUNE 2017 THROUGH DECEMBER OF 2018.

Name/Agency	Date of Coordination	Reference Section
Frank Edelmann, Idaho Department of Fish and Game, Magic Valley Office	June 2017, October 2018 December 2018	Section 4.2. Coordination regarding yellow-billed cuckoo, red-tailed hawk and migratory birds.
Public Notice of Meeting regarding project alternatives	July 2017	All Sections. Public notice postcard was sent to 168 residents and 32 agencies and business that have a vested interest in the airport and are within 1,000 feet of the project area.
Bob Kibler, U.S. Fish and Wildlife Service	July 2018, October 2018 December 2018	Section 4.2. Coordination regarding yellow-billed cuckoo “no effect” determination.
Greg Burak, U.S. Fish and Wildlife Service	May 2017	ESA Survey Permit Application and background information YBCC.
Patti Hurley, U.S. Department of Agriculture	November 2017	Section 4.6. Farmland conversion impact rating consultation.
Mathew Halitsky, Idaho State Historic Preservation Office (SHPO)	May 2018, November 2018	Section 4.8. SHPO concurred with the recommended determinations of eligibility of the Cove Canal, Eccles Flying Hat Ranch, and individually-eligible barn. SHPO considers the windrow trees that grow near the main farmstead as a contributing element of the Eccles Flying Hat Ranch. SHPO was a signature on the MOA (**Appendix G**).
Advisory Council on Historic Preservation (ACHP)	May 2018	Section 4.8. FAA notices ACHP to provide information and an invitation to participate in the Section 106 consultation. Invitation declined in letter dated June 12, 2018 unless circumstances change.
James Joyner, U.S. Army Corp of Engineers	August 2017	Section 4.14. Consultation regarding jurisdictional wetland determinations and impacts.

5.2 PUBLIC INVOLVEMENT AND EA REVIEW

Public involvement is a vital component of the NEPA process. Public and agency coordination has been conducted during the NEPA process; the public has been previously contacted and involved throughout the process which is documented in **Appendix H**.

The Draft EA and 4(f) Evaluation were made available for public review for a period of 45 days (starting on March 20th, 2019). Notice of availability of the Draft EA was advertised in the legal section of the Idaho Mountain Express on March 20, 2019 and April 10, 2019. Copies of the Draft EA and 4(f) Evaluation were available to the public electronically on the Airport website at

http://www.iflysun.com. Hard copies were made available during regular business hours (between March 20th and May 3rd, 2019) at the following locations:

1. FAA, Helena Airports District Office
   2725 Skyway Drive, Suite 2
   Helena, MT 59602
2. Friedman Memorial Airport Manager's Office
   1616 Airport Circle
   Hailey, ID 83333
3. Hailey Public Library
   7 W Croy Street
   Hailey, ID 83333
4. Hailey City Hall
   115 South Main Street
   Hailey, ID 83333
5. Blaine County Clerk's Office
   206 South 1st Avenue
   Hailey, ID 83333

The FMAA held a public hearing that was facilitated on April 23, 2019 at 5:30 PM at the Blaine County Courthouse Meeting Room (Addressed at 206 South 1st Avenue, Hailey, ID 83333). This event provided an overview of the Draft EA (including the 4(f) Evaluation) and provided information to the public about the Proposed Action and potential economic, social, and environmental impacts of the Proposed Action. It also provided an opportunity for the public to comment on the Draft EA. A stenographer was present during the public hearing to record a transcript of the hearing (see **Appendix H**). Appendix H also contains the PowerPoint presentation shown during the Public Hearing, supporting exhibits, and the Public Hearing sign-up sheet, along with comments provided via email during the comment period.

Comments regarding the Draft EA and Section 4(f) Evaluation were accepted for a 45-day period as follows:

- Postmarked by May 3, 2019 if mailed to Vince Barthels at T-O Engineers, 121 W. Pacific Avenue, Suite 200, Spokane, WA 99201; or,
- Emailed by 5:00 p.m. PST on May 3, 2019 to vbarthels@to-engineers.com (a confirmation reply will be sent).

It should be noted that the 45-day comment period included 10 days following the public hearing.

Agency and public comments received during the 45-day comment period were considered in the development of the Final Environmental Assessment. During the public hearing, comments from four (4) parties/individuals were received, and an additional three (3) comments were received during the comment period following the public hearing. Thereby, a total of seven (7) parties/individuals provided comments.

Responses to all of the verbal and written comments received are provided in the Final EA in the Public Comment & Response Matrix contained in **Appendix J**.

As a result of final editing and response to public comments, the following changes were made to the Final EA as compared to the draft EA released for public review:

- The title of the EA was changed from “Environmental Assessment” to “Environmental Assessment and DOT Section 4(f) Evaluation”.
- The following sentence was added to Section 2.2.2: “The purpose of the Proposed Action is not to increase aircraft operations beyond current and forecasted demand in the foreseeable future or directly affect economic activity.”
- A typo was corrected in the last paragraph of Section 2.2.3 to change the sentence “…and for aborted takeoffs from Runway 31 (departure to the south)” to a corrected version: “…and for aborted takeoffs from Runway 13 (departure to the south).”
- Section 5.2 and Appendices J and H were updated to reflect the public comment period after the draft EA was released.