

The Land Acquisition and Obstruction Removal Draft Environmental Assessment is for progress review only. The Federal Aviation Administration has yet to approve this version of the document.

Next steps include FAA review and response to FAA comments, agency review comments, and FMAA comments. These steps are required before FAA releases the Environmental Assessment for the 30-day open Public Comment period. It is only during the open public comment phase that comments will be taken on the document.

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FRIEDMAN MEMORIAL AIRPORT

LAND ACQUISITION AND OBSTRUCTION REMOVAL

ENVIRONMENTAL ASSESSMENT

AIP # 3-16-0016-044-2017

Prepared for the Friedman
Memorial Airport (SUN) and the
Federal Aviation Administration
Prepared by T-O Engineers

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Chapter 1. **Background and Proposed Action**

A Master Plan Update was completed for the Friedman Memorial Airport in the spring of 2017 (SUN, 2017a). The Master Plan was prepared per Federal Aviation Administration (FAA) guidance including applicable Advisory Circulars, Orders, Federal Aviation Regulations, and State guidelines to ensure Airport development occurs in a manner consistent with current and future aviation demand, as well as facility design standards for the upcoming planning horizon (approximately 20 years). Proposed development to meet demand is shown on the Airport Layout Plan (SUN, 2017b) submitted with the Master Plan Update. The Proposed Action that is analyzed in this Environmental Assessment (EA) was developed from features recommended in the 2017 Master Plan Update.

This document is written per the guidance and requirements of FAA Order 1050.1F *Environmental Impacts: Policies and Procedures* and FAA Order 5050.4B: *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions* (FAA, 2006a). These orders ensure compliance with requirements set forth in the Council on Environmental Quality (CEQ) regulations for implementing the provisions of the NEPA of 1969, 40 Code of Federal Regulations (CFR) Parts 1500-1508; U.S. Department of Transportation (DOT) Order 5610.1C, *Procedures for Considering Environmental Impacts*; and other related statutes and directives (FAA, 2015).

The Friedman Memorial Airport (SUN) is located in Blaine County in the City of Hailey, Idaho. The Airport is located in Hailey, fourteen miles south of Sun Valley, Idaho and sixty-nine miles north of Twin Falls, Idaho. As of the 2010 census, the population of Hailey was 7,960 and the population of Blaine County was 21,376. Blaine County is located in Central Idaho, and contains portions of the Sawtooth National Recreation Area and Craters of the Moon National Monument as well as the Sun Valley Ski Resort.

The Airport encompasses 209 acres, within the southern boundary of the City of Hailey (**Figures 1 and 2**). The Airport Reference Point coordinates are 43° 30' 14" north latitude and 114° 17' 44" west longitude. The Airport is co-owned by the City of Hailey and Blaine County. The Friedman Memorial Airport Authority (FMAA), formed through a Joint Powers Agreement between the City and County, currently operates and manages the Airport. Presently the Airport is classified as a "Commercial Service" airport by the FAAs National Plan of Integrated Airport Systems (NPIAS). The Idaho Transportation Department's (ITD) 2010 State Aviation System Plan identifies the SUN Commercial Service airport as needed to accommodate scheduled major/national or regional/commuter commercial air carrier service in addition to air cargo, business aviation, and all types of general aviation (ITD, 2010).

1.1 Existing Airport Conditions

This chapter details existing conditions at the Airport. This information serves as the baseline for determining future needs at the Airport.

1.1.1 Activities and Users

The Friedman Memorial Airport predominantly serves private multi-engine jet aircraft and commercial service aircraft but also routinely serves small single-engine aircraft. FAA NPIAS airports are required to be designed and built in accordance with the FAA classification system referred to as the Airport Reference Code (ARC). The ARC defines the operational requirements for the most demanding aircraft (i.e., “critical aircraft”) that are expected to have at least 500 operations per year at a given airport and is based on aircraft approach speed and wingspan. The Airport’s current ARC is C-III. This means the critical aircraft have approach speeds less than 141 knots, wingspans less than 118 feet, and tail heights less than 45 feet. Due to the strength of the runway pavement, the weight of aircraft using the runway is limited to 95,000 pounds. In the current fleet of active aircraft, the maximum wingspan for aircraft weighing less than 95,000 pounds is approximately 100 feet, and therefore the maximum wingspan for aircraft that currently use the airport is considerably less than the C-III maximum of 118 feet. Due to the geographic limitations of the airport site, the airport does not meet full standards for C-III. Based on the weight limitations of the airfield and the associated wingspan limitations, the airport has several approved Modifications of Standards in place. The following standards are modified at the airport:

- Runway Object Free Area
- Runway to Parallel Taxiway Separation
- Taxiway Object Free Area
- Runway Safety Area Transverse Grade
- Runway to Aircraft Parking Separation
- Parallel Taxiway Width

Principle activities at the Airport include corporate/business travel, recreational travel, medical transport, flight instruction, search and rescue and government firefighting. The Airport is expected to remain ARC C-III, with the Modifications of Standards discussed above, throughout the forecast period to 2034 (SUN, 2017a).

1.1.2 Existing Facilities

Existing facilities at SUN are described below and are shown on **Figures 2 and 3**:

Runway – The Airport operates with a single runway, Runway 13/31. The runway has a published pavement length of 7,550 feet. The runway length is modified, however, due to the constrained airport environment. The northern threshold of the runway is displaced 1,701 feet for landings, in order to keep the Runway Protection Zone (RPZ) on airport property and to clear obstructions on the approach. This displacement leaves Landing Distance Available (LDA) of 5,449’ on Runway 13. In order to keep Runway Safety Area on airport property, and to protect from obstructions on both ends of the runway, the airport has declared distances in place. The Takeoff Run Available (TORA) and Accelerate Stop Distance Available (ASDA) on Runway 13 is reduced to 7,150 feet, in order to keep the Runway Safety Area off the south end of the runway on airport property. The TORA for Runway 31 is reduced to 5,850 feet, in order to keep the RPZ on airport property and due to obstructions located to the north of the Airport. ASDA and LDA are also reduced to 6,631 feet for Runway 31, due to the Runway Safety Area on the north end of that runway. The significant use of declared distances is necessary due to limited

property available. If additional property was available on the south end of the airport, for example, a full Runway Safety Area would be available and the shortened runway lengths for takeoff operations on Runway 13.

The runway is 100 feet wide and its elevation is 5,320 feet above mean sea level. The asphalt pavement is designed for aircraft with weight bearing capacities of single-wheel gear (SWG) 65,000 pounds, dual-wheel gear (DWG) 95,000 pounds, and dual-wheel tandem (DWT) 150,000 pounds.

The runway is equipped with a High Intensity Runway Lighting (HIRL) system with Pilot Controlled Lighting. Runway 31 is equipped with a four box Precision Approach Path Indicator (PAPI). Three lighted wind cones exist along the east side of the Airport. The Airport perimeter is fully fenced with a 7-foot chain link fence. Access is limited to authorized users only, through electronic keypad access gates.

Runway Protection Zone (RPZ) – An RPZ is defined by the FAA as “An area at ground level prior to the threshold or beyond the runway end to enhance the safety and protection of people and property on the ground.” This area is critical to the safety of the public near the airport and, for this reason, the FAA emphasizes that airports have complete control of RPZ’s.

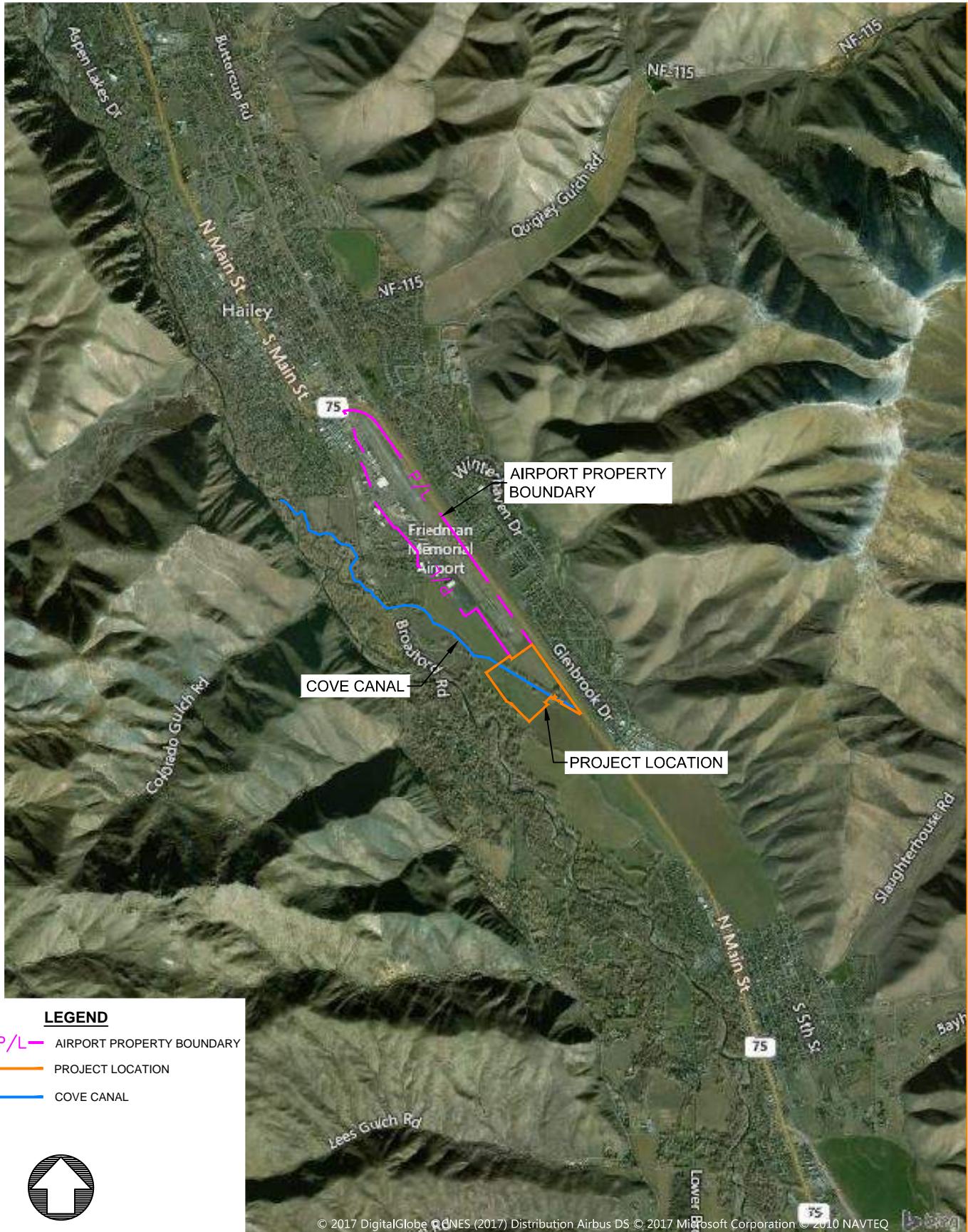
Only a small portion of the existing Runway 31 RPZ is owned by the Airport. The remainder is owned by a single landowner to the south. The privately owned portion of the RPZ is currently protected by an easement with the landowner, but the expiration of this easement is imminent. The land uses are controlled by zoning and land use policies by Blaine County as well as being within the City of Hailey area of impact, as shown on **Figures 3** and **4**. Blaine County has an overlay district, the Airport Vicinity Overlay Primary Zone, which controls existing and proposed land uses within the approach area. The base zoning is within Blaine County Agricultural-Residential zone which would allow limited development, subject to the overlay zone. The private ownership of the runway RPZ is owned by the Eccles Ranch, shown on **Figure 4**, the ranch is several hundred acres and is the only landowner subject to airport zoning and restrictions. The current control over the RPZ is not in compliance with FAA guidelines and complete control through fee simple ownership would correct this situation.

Approaches and Departures – Approaches and departures to the Airport are limited, due to terrain, obstructions and other factors. Terrain in the vicinity of the Airport limits instrument (i.e., low visibility) operations, because the terrain prevents aircraft from safely maneuvering out of the valley where the Airport is located when a pilot attempts to land and is unable to, due to poor visibility.

Obstructions – Obstructions are objects that impact flight by penetrating various imaginary surfaces defined by the FAA. Obstructions affect the operation of an airport primarily in approach to or departure from an airport, when the obstruction causes changes to the flight path (usually higher or lower). Significant obstructions exist south of SUN, impacting both approaches to and departures from the runway. These obstructions consist primarily of trees located on the property south of the airfield. These obstructions are currently lit with obstruction lighting that is maintained via an easement with the landowner. This obstruction lighting must

be in place and active, otherwise the FAA will not permit the use of approach procedures that allow pilots to fly in low visibility conditions. Additionally, the obstructions limit departures of aircraft, because they must be accounted for in flight planning, which often means lower passenger, fuel and/or cargo payloads.

In addition to existing obstructions, it is always in an airport's best interest to protect the approach area of the airport from incompatible land use. Residential land use is not compatible with airports, due to the impact of flight operations on people on the ground (noise, fumes, safety, etc.). Currently, the land use south of SUN is compatible, with the exception of the existing ranch house. As the Airport does not own the land, though, long term control of the land use is limited.



SCALE: 1"=4000'



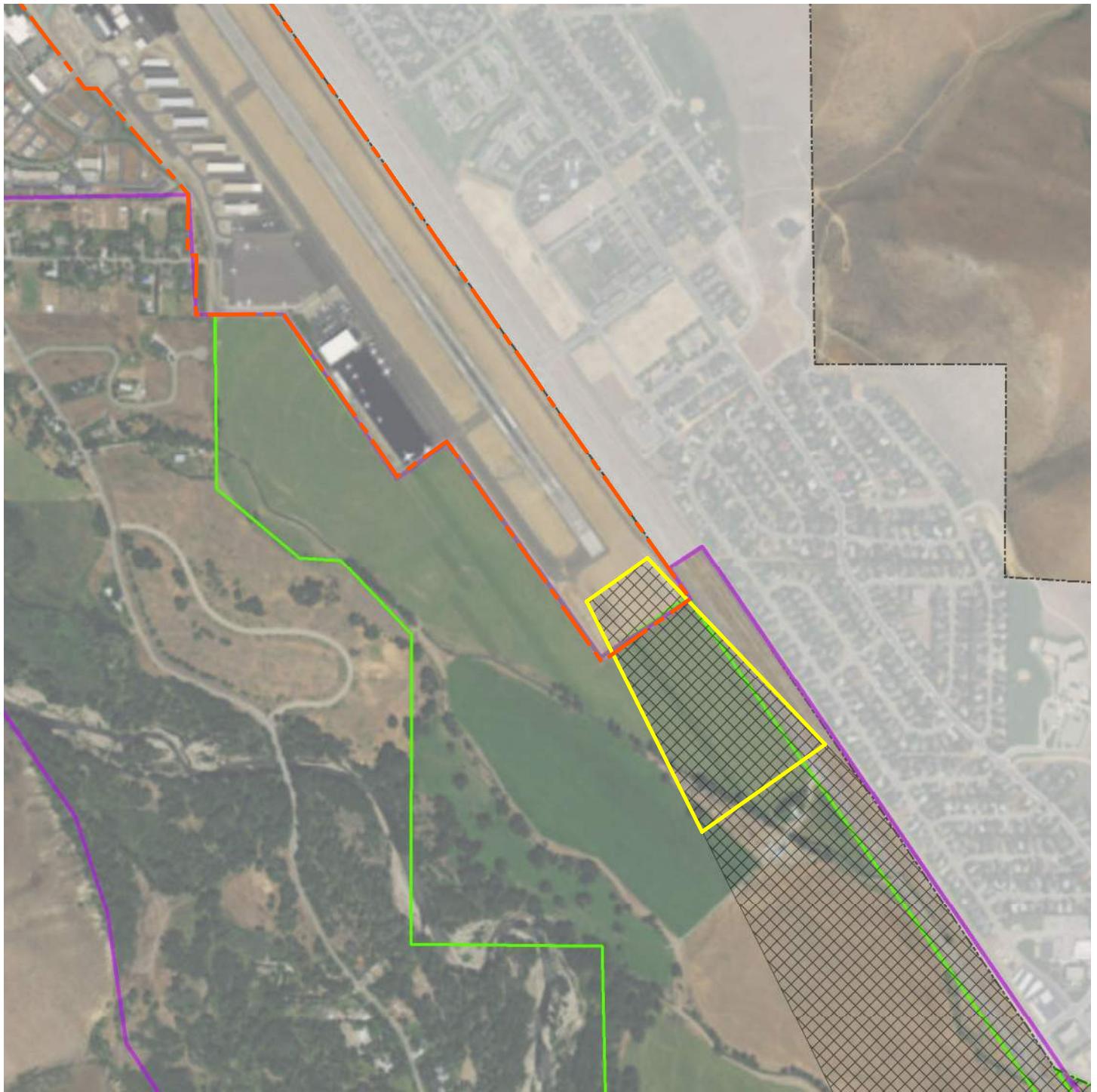
FIGURE 1: VICINITY MAP





Figure 2. Existing Site Map

Source: Mead & Hunt, SUN 2017



— SUN Airport Property Boundary

— SUN Airport RPZ

■ Airport Vicinity Overlay Primary Zone

■ Blaine County Ag/Residential Zone

■ City of Hailey Residential Zone

■ Eccles Ranch (Private Ownership)

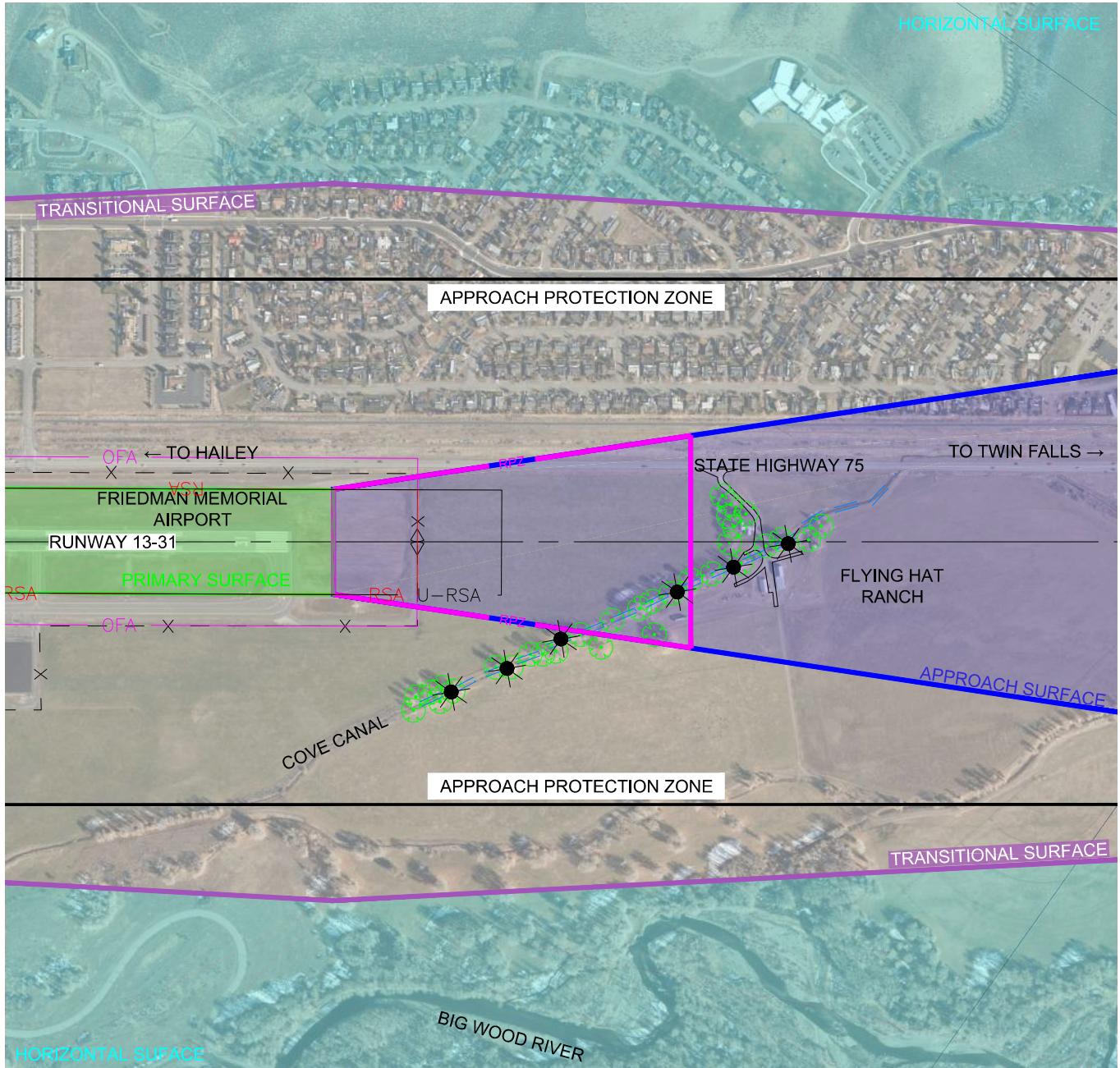


0 500 1,000 2,000
Feet



FIGURE 3: LANDUSE AND ZONING





LEGEND

PRIMARY SURFACE

APPROACH SURFACE

LIGHTS

TREE OR GROUP OF TREES

ACCESS GATE

TRANSITIONAL SURFACE

AFFECTED COVE CANAL

RUNWAY CENTERLINE

DEPARTURE RPZ

EXISTING FENCE/PROPERTY LINE



SCALE: 1" = 750'



FIGURE 4: PART 77 SURFACES

Design Standards Per FAA 150/5300-13



1.2 Aviation Activity Forecast

As part of the 2017 SUN Master Plan Update, aviation activity forecasts for both the number of based aircraft and total annual aircraft operations at the Airport through the year 2034 were calculated. 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 completed in early 2017, no additional evaluations for aviation activities are needed for this EA.

Two separate forecasts were completed; a “based aircraft” forecast and an “aircraft operations” forecast. The based aircraft forecast projects the total number of aircraft that will be based at SUN through the planning period. The aircraft operations forecast projects the total number of operations (take-offs or landings) that will occur at the Airport through the planning period.

The based aircraft forecast used three methods to compare different growth scenarios, including:

- Projection of historic growth,
- Idaho Airport System Plan (IASP) modified projections, and
- Market share approach.

The average projected growth rate (1.78 percent) from these three methods was used to project the total number of aircraft based at the Airport in the future.

Table 1 shows forecasted increases in based aircraft and general aviation operations during the planning period. 157 based aircraft and 28,480 aircraft operations are projected in 2034, an increase of 37% and 32% respectively when compared to the base year calculations (SUN, 2017a). It is important to note that the forecasts used to project growth at the Airport are based on historic growth of the Airport and population growth of the state, and do not consider the presence or absence of facilities necessary to accommodate that growth. Facility improvements at the Airport are not expected to change the number of based aircraft or general aviation operations, but should allow for more safe and efficient operations at the Airport.

The existing conditions noted in **Chapter 1.2** will not be greatly impacted by the forecasted changes to aircraft traffic at the airport. In other words, deficiencies and limitations at the airport today will remain in the future – nothing in the forecast indicates that changes in the use of the airport will decrease the impact of the airport’s limitations.

Table 1: Friedman Memorial Airport Aviation Forecast through 2034				
Activity Measure	2014	20 Year Increase	2034	Primary Facility Considerations
Passenger Enplanements	66,409	98%	131,630	Terminal Building and Associated Facilities
Based Aircraft	157	37%	213	Aircraft Storage and Fixed-Base Operator (FBO) Services
Aircraft Operations				
Air Carrier	2,840	57%	4,453	Airfield and Commercial Apron
Air Taxi and Commuter	5,185	5%	5,450	GA Aprons and FBO Services
General Aviation	20,310	36%	27,564	GA Aprons and FBO Services
Military Operations	145	0%	145	N/A
Total Aircraft Operations	28,480	32%	37,612	

1.3 Previous Airport Planning

The 2017 Master Plan Update assessed the Airport's condition with respect to its community role and FAA and ITD guidelines for airports that serve similar functions. Information collected during the assessment phase was used to develop goals for the Airport that shaped recommended development features. These recommendations were developed with a proactive planning approach meant to assist with logical and orderly development over the planning period (1-20 years) and beyond. Development features were categorized into a short-term (1-5 years), mid-term (6-10 years) or long-term (11-20 years) development plan. Multiple development alternatives to meet demand were analyzed in the Master Plan Update. During the Master Plan Update process, it was determined that the existing Airport property was not sufficient to meet long-term needs. One of the deficiencies identified was the lack of control of land uses in the RPZ and approach area south of the airport, along with the presence of the tree obstructions on that property.

1.4 Proposed Action

The Proposed Action Alternative consists of acquiring property for the RPZ on the south side of Runway 13/31, the Runway Safety Area (RSA) and approach/departure protection and compatibility. Furthermore, these areas contain numerous obstructions including both natural and man-made appurtenances, which create hazards for airport services. Natural obstructions include approximately 40 groups of Cottonwood, Pine, and hardwood trees, some reaching heights of over 100 feet, as shown in **Figure 5**. Following acquisition, these obstructions will be removed.

The existing RPZ is currently controlled through an aviation easement with the current landowner, although it is strongly preferred and encouraged by the FAA that the RPZ be acquired and that the incompatible land uses removed, so that the Airport has control over the land use and can protect the public on the ground and in the air. This Proposed Action includes the acquisition of approximately 64.75 acres of land, most which is active pasture land used to graze cattle. The Cove Canal flows through in the RPZ and contains the majority of the obstructions requiring removal. The length of the Cove Canal within the Approach Protection Zone and RPZ is 2,668 feet. It traverses from a location that is northwest of the Runway 31 RPZ diagonally to the south and the east to where the Cove Canal crosses under Highway 75. With this alternative, the property between the canal and State Highway 75 would likely become an uneconomical remnant and has therefore been included in the acquisition. The alternative that is being proposed includes the acquisition and removal of all trees as well as the acquisition of the farmhouse. By doing this, the RPZ and all obstructions would be under the ownership of the Airport sponsor.

The Preferred Alternative does not include acquisition of the pump house, barn nor shop building and does not use any aviation easements per the property owner's request. This alternative satisfies the project need by complying with the FAA Standards for RPZ length and protection. Likewise, this alternative keeps all RPZ land under the Airport sponsor's control.

Chapter 3 includes a detailed evaluation of all alternatives including the Proposed Action. **Appendix A** provides a synopsis of the evolution from projects recommended in the 2017 Master Plan Update to the alternatives considered in this EA.



Figure 5 – Obstructions and incompatible land uses in the Runway 31 RPZ and approach.

Chapter 2. Purpose and Need

This EA has been prepared to meet the requirements of NEPA. The purpose of NEPA is to ensure that all environmental, social, and economic factors have been taken into consideration when developing Federal-aid projects. This EA was prepared as required by federal laws and regulations and pursuant to the requirements and standards of the CEQ regulations (Title 40 CFR Parts 1500-1508) and in accordance to FAA Order 1050.1F, Environmental Impacts: *Policies and Procedures and FAA Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions.*

2.1 Background

A series of RSA improvement projects at SUN were completed in 2006 for Runway 13/31. Included with the RSA projects was an aviation easement allowing the installation of several obstruction lights was negotiated with the property owner for a period of ten years. After acquiring the aviation easement, the Airport installed multiple obstruction lights in the trees to mitigate the airspace penetrations. This easement recently expired but has been temporarily extended. Since 2006 these trees have been growing and are between 10 to 20 feet taller than they were during RSA improvements, causing further intrusion into the approach surface.

As discussed above, SUN recently completed an Airport Master Plan Update which guides development at the airport over the next 20 years. One of the improvements identified in the 2017 Master Plan Update is to improve the land use controls of the Runway 13/31 RPZ at the south end of the airport, in accordance with FAA guidelines and to ensure that the Airport has control of the RPZ to ensure the safety of the public on the ground and in the air.

In addition to RPZ control, the Airport requires additional land to protect the approach area of the airport by removing obstructions and incompatible land uses, and by controlling the future use of the land. FAA guidance recommends that land within 1,250 feet either side of the runway centerline and 5,000 feet beyond the runway end be owned by an airport, in order to protect the approach areas of the airport. This proposed action at SUN includes acquisition of only a portion of that land at this time, with a focus on controlling the RPZ and the critical approach area, while also removing the obstructions.

An approved Airport Layout Plan (ALP) from 2014 identifies the land needed for acquisition and the draft ALP from the 2017 Master Plan Update supports these findings and outlines a variety of necessary improvements at the Airport. The Airport currently faces numerous design and reliability constraints, including but not limited to non-compliance with FAA design standards related to size of aircraft operating at the airport, surrounding mountainous terrain that limits aircraft approaches and departures and an airport property footprint that may limit its ability to meet potential long-term needs (SUN, 2017).

2.2 Purpose

The purpose of the Proposed Action is to acquire the RPZ in accordance with FAA guidance and to ensure Airport control to maintain safety, and to acquire additional rights or property to

maintain clear airspace in accordance with FAA Advisory Circular (AC) 150/5300-13A and FAA Order 5100.38D.

2.3 Need for the Proposed Action

The need for the Proposed Action is for SUN to ensure the safe and efficient use of the airport and surrounding navigable airspace and to protect people on the ground near the airport. Acquisition of property for an RPZ will increase safety at the Airport and allow for controls to ensure compatible land uses. Considering current and future aviation demands and the FAA's design and safety standards and guidelines, the Proposed Action is designed to provide a safer environment for current and forecasted operations while accounting for the Airport's ARC C-III, "sufficient airport property to meet safety standards under the 14 CFR Part 77 for the RPZ and expansion of the existing and future facilities developments" (SUN, 2017a). Currently, the Airport has limited control of the RPZ and approach land through an easement. This easement has expired but has been extended on a temporary basis by the landowner. This leaves the Airport with limited control over the land and, when the temporary easement expires, no control. Additionally, maintenance of the obstruction lights will be impossible without the easement, which would result in severe operational limitations at the airport.

Justification for RPZ's and Approach Land

Currently, significant portions of the Runway 13/31 RPZ and multiple obstructions are located off airport property and are owned and maintained by private land owners which conflict with FAA design standards and land use policies. In addition, the FMAA currently maintains approach lighting to mark obstructions within and adjacent to the RPZ in order to enhance safety at the airport and to meet FAA design standards outlined under AC 150/5300-13A, Airport Design, Section 310. A summary of the needs and deficiencies identified in the 2017 Airport Master Plan Update are shown in **Table 2**.

Table 2: FAA Design Standards at SUN

FAA Design Standard	Definition	Status	Recommendation
Runway Safety Area (RSA)	A defined surface surrounding the runway, prepared or suitable for reducing the risk of damage to airplanes in the event of an undershoot, overshoot or an excursion from the runway.	Meets dimensional standards.	Needs 1,000-foot length beyond runway Ultimate RSA is located on property not controlled by FMA
Runway Approach Protection Area	An area on the ground centered on the runway centerline provided to enhance the safety of aircraft operations. No above-ground objects are permitted in the Approach Protection Area, except for objects that need to be located in the Approach Protection Area for air navigation or aircraft ground maneuvering purposes	Meets dimensional standards	Supports safety measures for RSA and RPZ land acquisitions

Runway Protection Zone (RPZ)	An area off the runway end to enhance the protection of people and property on the ground.	Non-compliant	Acquire land or easements to protect RPZ
CFR Part 77 Surfaces	CFR Part 77 surfaces are intended to establish standards for determining obstructions in navigable airspace that include the following surfaces: primary, transitional, approach, horizontal and conical.	Non-compliant	Remove obstructions Needs 1,250 foot minimum approach protection threshold width

RPZ and CFR Part 77 imaginary surfaces, including approach surfaces and transition surfaces exist to provide for the safe navigation of aircraft and for the safety of those on the ground. An RPZ is an area at ground level off the ends of the runways, designed (based on aircraft type) to allow for clear zones for landings and take-offs. Approach and transitional 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 potential for injury to people in an RPZ in the event of an accident is greatly decreased if developments that attract people or other incompatible uses are minimized or eliminated.

FAA Advisory Circular 150/5300-13A states as follows: “*All... existing and planned airport elements including the following should be on airport property. (A) Object Free areas, (B) Runway Protection Zones (C) Areas under the 14 CFR Part 77 Subpart C airport imaginary surfaces...; and (D) Areas, other than those which can be adequately controlled by zoning, easements, or other means to mitigate potential incompatible uses*” . The document further states, “*The RPZ’s function is to enhance the protection of people and property on the ground. This is achieved through airport owner control over RPZ’s*” (FAA, 2012a). Likewise, the FAA’s *Interim Guidance on Land Uses within a Runway Protection Zone* states: “*Airport owner control over the RPZ land is emphasized to achieve the desired protection of people and property on the ground*” (FAA, 2012).

FAA Order 5100.38D, Airport Improvement Program (AIP) Handbook, Appendix Q indicates that acquisition of fee title of land within approach surfaces, including CFR Part 77 surfaces and RPZs, is justified. The current zoning does not adequately control land use in the areas described in FAA AC 150/5300-13A. Without the fee simple and/or easement acquisition of nearby property, the Airport does not have control of future development around the Airport and cannot guarantee land use compatibility with airport operations.

The existing RPZs, approach surfaces and transitional surfaces at SUN are not fully controlled by the airport. As a result, property and aviation easement acquisition is necessary to maintain consistency with FAA standards for protection of CFR Part 77 airspace and RPZs, as well as accommodate air traffic and demand in a safe and efficient manner. Varying land acquisition options were discussed to meet FAA policy needs. Acquisition of property to achieve the purpose and need will also accomplish the following objectives:

- Control of land uses within the Runway 13/31 RPZ, RSA, and
- Control of land uses within the Approach Protection Area, and

- Control of land uses adjacent to the Airport, including the approach and transitional surfaces as defined in 14 CFR Part 77, and
- Removal of obstructions to air navigation.

Environmental Analysis Prerequisites associated with any future AIP funding application have been followed with this review pursuant to 49 U.S.C § 47101.

Chapter 3. Alternatives Analysis

3.1 Introduction

The alternatives considered in this EA are a product of recommendations in the 2017 Master Plan Update and subsequent planning which is summarized in **Appendix A** and guided by CFR Part 77 Airspace and RPZs.

Airspace protection requirements, developed by FAA, are used to design and protect public-use airports. These requirements are described in CFR Part 77, Safe, Efficient Use, and Preservation of the Navigable Airspace. CFR Part 77 defines several “imaginary” surfaces including the Primary Surface, Approach Surface, Transitional Surface, Horizontal Surface and Conical Surface that should be maintained clear of obstructions for safe and efficient use of airspace around airports. These surfaces are shown in **Figure 3** and defined as follows:

- *Primary Surface* – A rectangular surface longitudinally centered on the runway. For hard-surfaced runways such as Runway 13/31 at SUN, the surface extends 200 feet beyond each runway end. Its elevation is the same as the nearest point on runway centerline. The width of the Primary Surface is set by the most demanding type of approach exiting or planned for either end of the runway. The Primary Surface at the Friedman Memorial Airport is 500 feet wide; 250 feet on both sides of the runway centerline.
- *Approach Surface* – The Approach Surface begins at the ends of the Primary Surface and slopes upward and outward. An Approach Surface is applied to each runway end and is based upon the type of approach planned for that runway end. SUN surfaces are different for each end of Runway 13/31 and so different imaginary surfaces apply to each end of the runway. The Runway 31 end has a non-precision approach surface that is greater than $\frac{3}{4}$ of a mile. The inner width is therefore 500 feet, the length is 10,000 feet, the outer width is 3,500 feet and the slope of the approach surface is 34:1.
- *Transitional Surface* – A surface extending outward and upward, at right angles to the runway centerline and extended runway centerline. The SUN Transitional Surface begins at the edge of the Primary Surface and slopes upward at a ratio of 7:1 until it intersects the Horizontal or Conical Surface.
- *Horizontal Surface* – An oval-shaped, horizontal plane situated 150 feet above the airport elevation, the perimeter of which is established by swinging arcs of specified radii from the center of each end of the Primary Surface of each runway and connecting the adjacent arcs by lines tangent to those arcs. The radius of each arc is dictated by the runway type.

- *Conical Surface* – A surface, which extends upward and outward from the limits of the Horizontal Surface. At SUN, this surface extends outward for a distance of 4,000 feet measured horizontally, while sloping upward at a 20:1 ratio resulting in an additional 200 feet in height above the Horizontal Surface.
- *Runway Protection Zone* – RPZs are defined areas on the ground beyond the end of the runway that are normally maintained clear of incompatible objects and activity in order to protect persons and property from collision hazards. The RPZs associated with Runway 13/31 are sized to accommodate FAA design standards and have inner widths of 500 feet, outer widths of 1,010 feet and lengths of 1,700 feet. The RPZ, RSA, and Approach Protection Area (all CFR Part 77 surfaces) are shown on **Figure 4**.

CFR Part 77 surfaces for the Friedman Memorial Airport are shown on **Figure 4**.

3.2 Recommendations from the 2017 Master Plan Update and Subsequent Planning

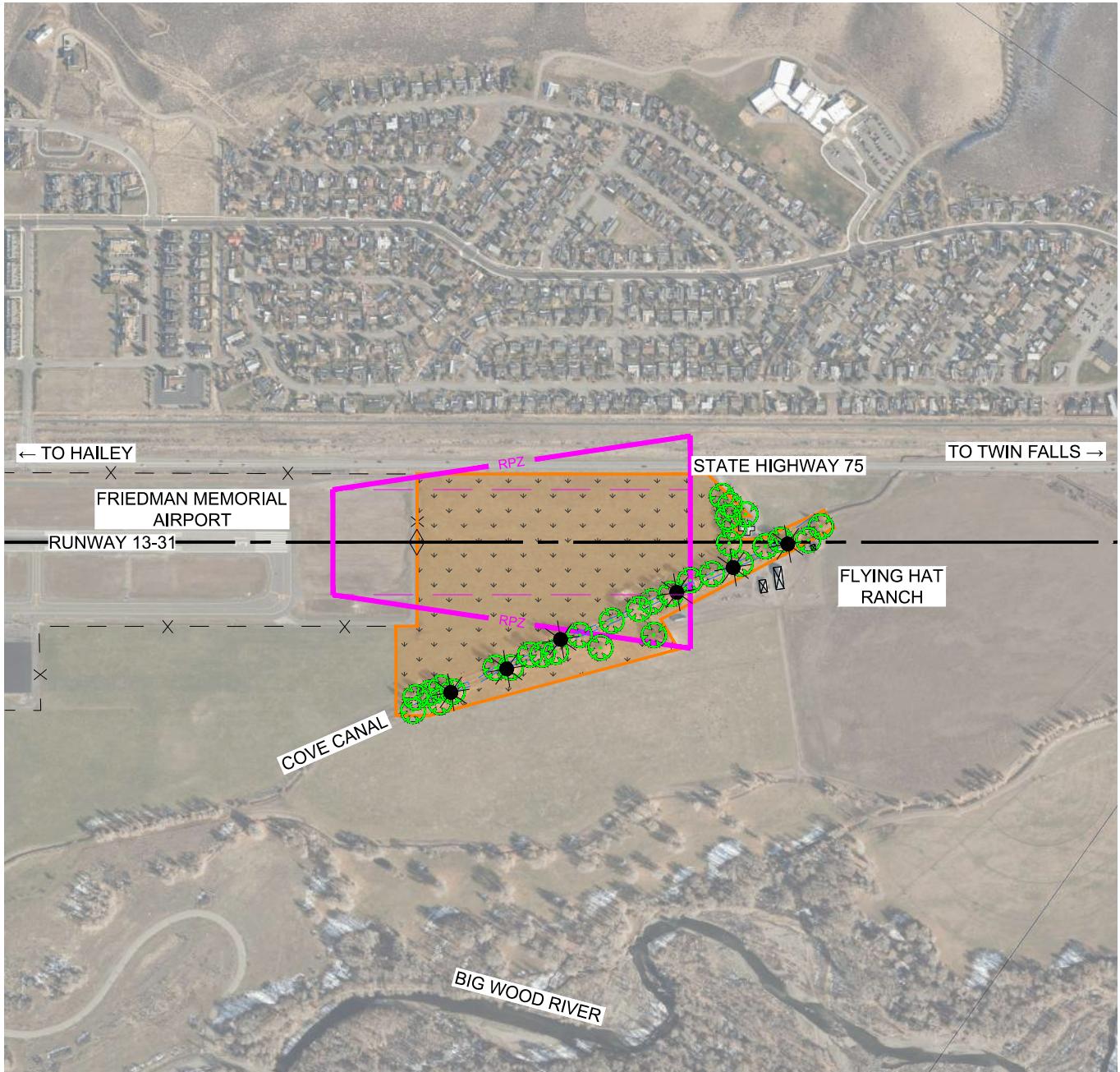
3.2.1 Land Acquisition

The Master Plan Update recommended land acquisition within the Runway 13/31 RPZ. It also suggests that acquisition of CFR Part 77 airspaces is a proactive way to control land use adjacent to the Airport. FAA Advisory Circular 150/5300-13A (FAA, 2012a) and FAA Interim Guidance (FAA, 2012b) state that RPZs and areas under CFR Part 77 imaginary surfaces should be owned by the Airport. Control of land use adjacent to the Airport and protection of CFR Part 77 surfaces is limited to the areas surrounding the Airport; therefore, alternatives for land acquisition are limited to not acquiring the adjacent land, as described in the No Action Alternative, or acquiring the adjacent land, as described in the Proposed Action Alternative in **Chapter 3.3**. The acquisition, while listed in the 2017 Master Plan Update, has been guided by design criteria with selection criteria based on discussions with the FMAA board and public involvement. As a result, the analysis presented here is consistent with the information in the 2017 Master Plan Update.

Table 3. Evaluation of Alternatives Considered

	Brief description of Alternative	Evaluation for This EA
Alternative 1 (No Action Alternative)	No change. Easement for obstruction lighting expires October 2018.	Incompatible land uses remain. Obstructions remain. Does not meet purpose and need for recommended FAA design standards such as Approach Protection Area, RSA, and RPZ control, and for CFR Part 77 surfaces.
Alternative 2	Includes acquisition of 34.3 acres land, 2,274 feet of Cove Canal, Shop Building and Barn. Removal of all trees (obstructions), Shop Building, and Barn. Residence is privately owned	This alternative was designed to meet the minimum standards to allow safe and efficient Airport operations with respect to RPZ and Approach Protection Zone clear areas. It is meant to extend the declared distances to the end of the runway to remove incompatible uses, place land use control of the RPZ to SUN and removal all obstructions from the RPZ and Approach Protection Area on Runway 13/31. The alternative was rejected from further analysis as the noise, vibrations and lights associated with the airport would increase exposure with removal of the trees. The residence would continue to be an incompatible land use. Likewise, control of the Cove Canal to Hwy 75 for maintenance and

		removal of trees which may regrow on property and have the possibility to become obstructions. Concern for secondary impacts to farm operations due to removal of buildings and operating infrastructure.
Alternative 3	<p>Includes acquisition of 42.7 acres land, 2,274 feet of Cove Canal, Shop Building and Barn.</p> <p>Land acquisition of 4.3 acres.</p> <p>Removal of all trees (obstructions), Shop Building, and Barn.</p> <p>Residence is privately owned</p>	This alternative is designed to accomplish the same goals as Alternative 2, but uses easements to maintain areas around farm residence, and extends the Approach Protection Zone to the west to 900 feet (the current easement extent). The alternative was rejected from further analysis as the noise, vibrations and lights associated with the airport would increase exposure with removal of the trees. It was further not preferable to FMAA to establish continued easements. The residence would continue to be an incompatible land use. Concern for secondary impacts to farm operations due to removal of buildings and operating infrastructure.
Alternative 4	<p>Includes acquisition of 52.3 acres land, 2,691 feet of Cove Canal, Shop Building, Property Residence, Pump House, and Barn.</p> <p>Removal of all trees (obstructions), Shop Building, Property House, Pump House and Barn.</p> <p>Increases the acquisition of Cove Canal from Approach Protection Area to Hwy 75.</p> <p>Residence is acquired by Airport</p>	This alternative is designed to allow safe and efficient Airport operations with respect to RPZs. It is meant to extend the declared distances to the end of the runway to allow full use, place full control of the RPZs in the hands of the Airport sponsor and removal all obstructions from the RPZ and Approach Protection Zone on Runway 13. The alternative was rejected from further analysis as the acquisition of all the buildings is unlikely.
Preferred Alternative	<p>Includes acquisition of 64.75 acres land, 2,668 feet of Cove Canal and Property House.</p> <p>Removal of all trees (obstructions).</p> <p>Residence is acquired by Airport,</p> <p>Increases the acquisition of Cove Canal from Approach Protection Area to Hwy 75. Farm retains Shop, Barn, Pump house, Access, and Infrastructure required to irrigate.</p>	<p>This alternative is designed to allow safe and efficient Airport operations with respect to RPZs. It is meant to extend the declared distances to the end of the runway to allow full use, place full control of the RPZs in the hands of the Airport sponsor and removal all obstructions from the RPZ and Approach Protection Zone on Runway 13.</p> <p>Acquisition of residence eliminates incompatible land uses.</p>



LEGEND

QUANTITY AFFECTED

 	PROPOSED LAND ACQUISITION	±34 ACRES
 	ACTIVE PASTURE AREA	±27 ACRES
●	LIGHTS	6 TOTAL
●	TREE OR GROUP OF TREES	APPROX. 40
◇	ACCESS GATE	
 	REMOVE BUILDING	NONE
—	AFFECTED COVE CANAL	±2273 LF
—	RUNWAY CENTERLINE	
—	RPZ	DEPARTURE RPZ
—	X	EXISTING FENCE/PROPERTY LINE

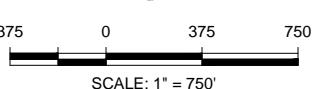
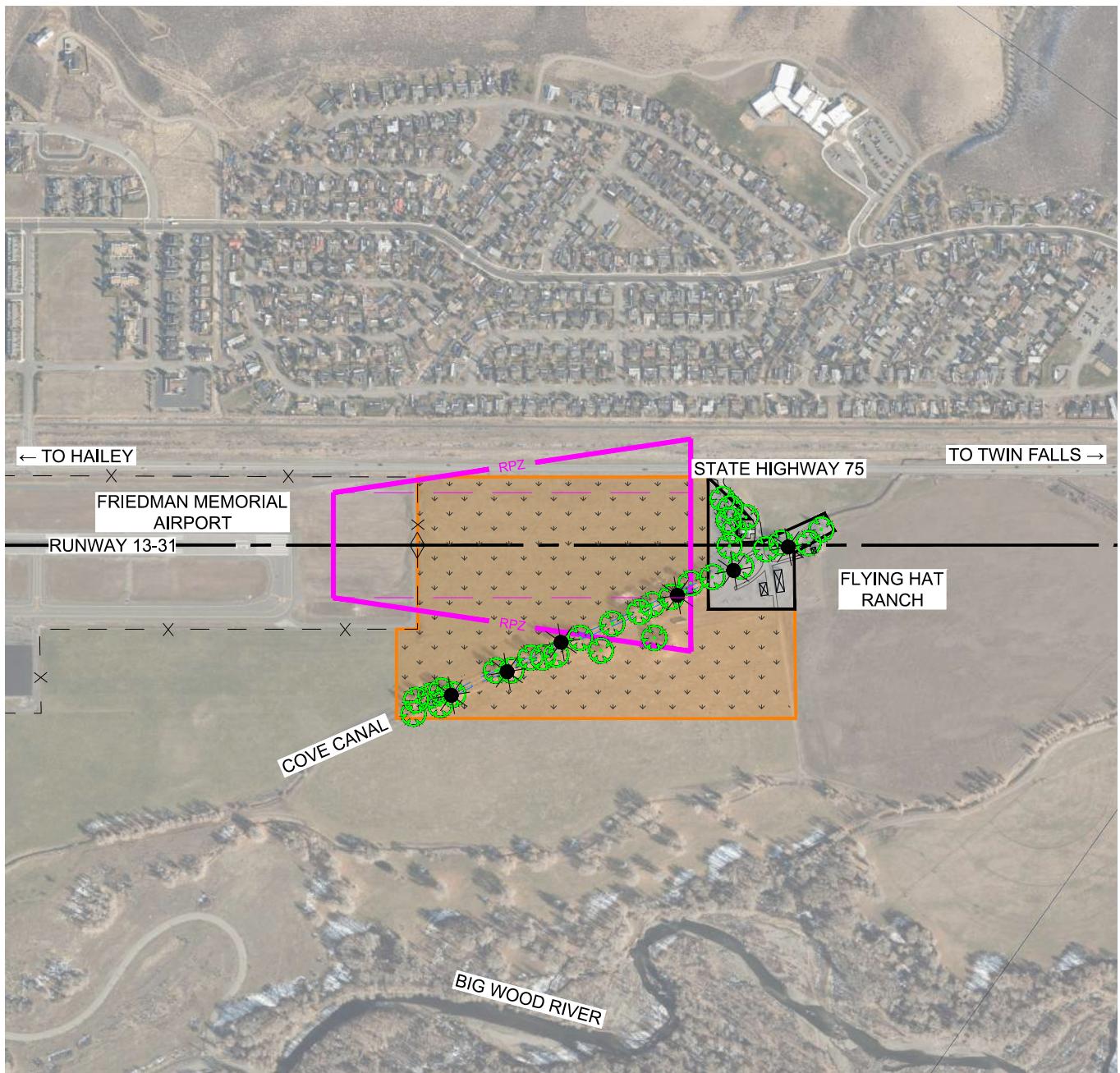


FIGURE 6: ALTERNATIVE 2





LEGEND

QUANTITY AFFECTED

- | | | |
|---------|-------------------------------|------------|
| | PROPOSED LAND ACQUISITION | ±42 ACRES |
| | PROPOSED EASEMENT/ACQUISITION | ±4 ACRES |
| | ACTIVE PASTURE AREA | ±37ACRES |
| | LIGHTS | 6 TOTAL |
| | TREE OR GROUP OF TREES | APPROX. 40 |
| | ACCESS GATE | |
| | REMOVE BUILDING | NONE |
| | AFFECTED COVE CANAL | ±1629 LF |
| — — — | RUNWAY CENTERLINE | |
| | DEPARTURE RPZ | |
| -- X -- | EXISTING FENCE/PROPERTY LINE | |

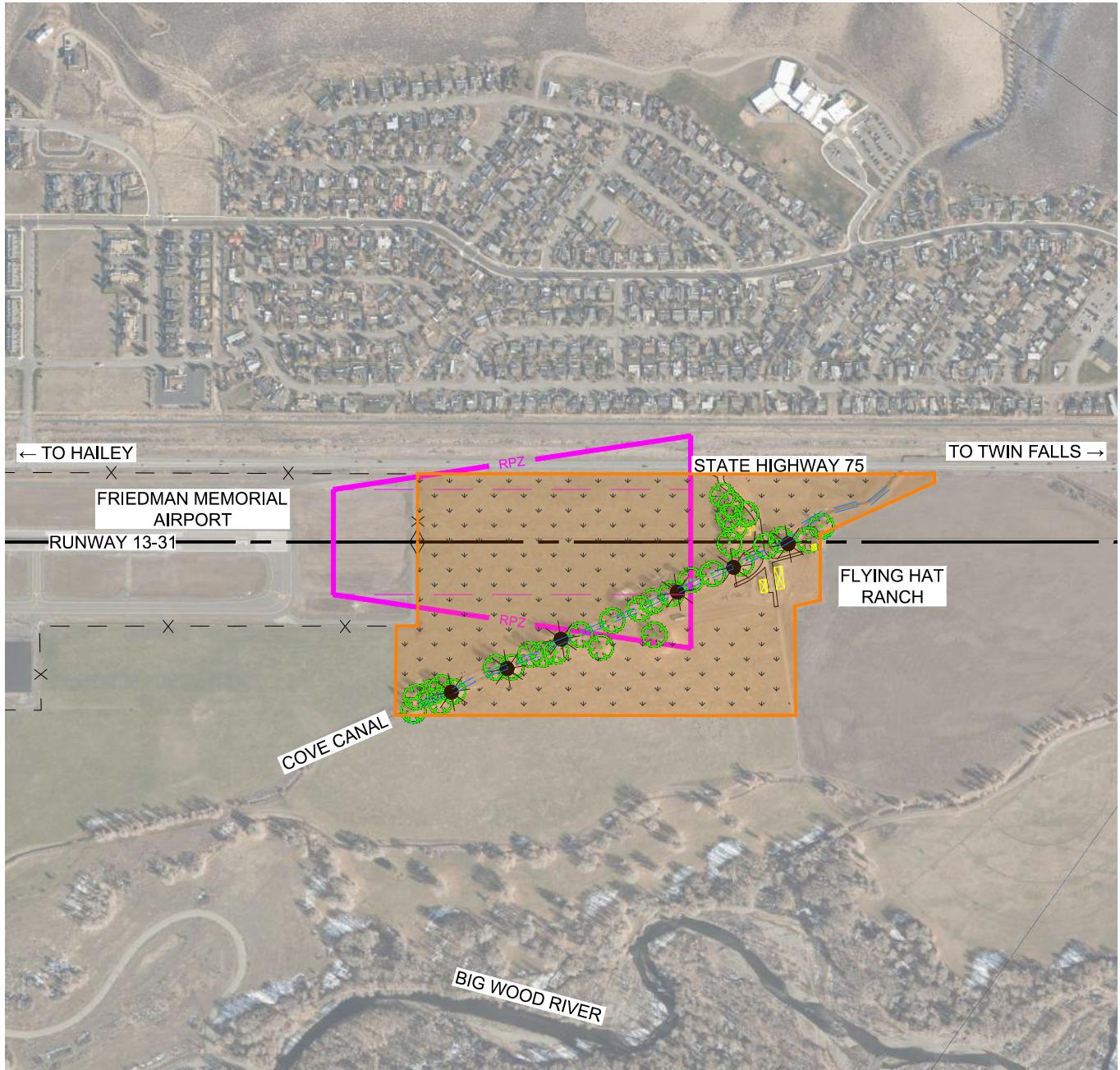


A scale bar diagram with tick marks at 375, 0, 375, and 750. The distance between the first 375 and the 0 is labeled "SCALE: 1" = 750'".



FIGURE 7: ALTERNATIVE 3





LEGEND

QUANTITY AFFECTED

 	PROPOSED LAND ACQUISITION
 	ACTIVE PASTURE AREA
	LIGHTS
	TREE OR GROUP OF TREES
	ACCESS GATE
	REMOVE BUILDING
	AFFECTED COVE CANAL
	RUNWAY CENTERLINE
 	RPZ
X	EXISTING FENCE/PROPERTY LINE

±52 ACRES

±40 ACRES

6 TOTAL

APPROX. 40

NONE

±2668 LF

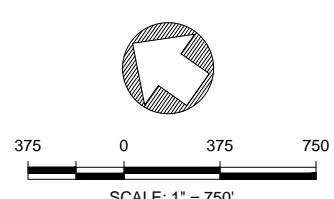


FIGURE 8: ALTERNATIVE 4



3.2.2. Public Involvement for Selection of Preferred Alternative

Public comment is not only required under the EA process but was encouraged by the FMAA board to ensure full disclosure on all information regarding the project. A public information meeting was held on August 8, 2017 in Hailey, Idaho for concerned residents to voice their comments and ask questions on the information presented. A public notice postcard was sent out on July 20, 2017 to 168 residents and 32 agencies and businesses that have a vested interest in the airport and are within 1,000 feet of the projected project area. The information about the public meeting and the project was provided on the Friedman Memorial Airport website as well for those unable to attend the public informational meeting.

FMAA held their monthly meeting August 8, 2017 in Hailey, Idaho after the public outreach meeting where the three alternatives and the Preferred Alternative were presented. The public was open to attend the board meeting and voice their comments; one public comment was received in favor of the No Action Alternative. No other comments were received by email, mail or phone. The board was in favor of the Preferred Alternative. The following FMAA board meeting took place September 5, 2017 where the Preferred Alternative shown in **Figure 9** was presented and approved. The Preferred Alternative was therefore evaluated, and eventually selected as the alternative carried forward for environmental evaluation in **Chapter 4**.

3.3 Alternatives Evaluated in this EA

An alternatives evaluation process concluded with presentation of the operational ranking criteria shown in **Table 3** to the FMAA board. The board agreed that none of the three alternatives and no action alternative were acceptable and the preferred alternative was developed. The preferred Alternative was developed using operational, environmental, and potential agricultural impact criteria in combination with FAA design preferences to meet the purpose and need and present minimal disruption to the agricultural operations. The following chapter describes the results of the alternatives development process and includes the alternatives evaluated in **Chapter 4** of this EA.

No Action Alternative

In addition to the action alternatives studied in order to meet the purpose and need, a “No Action” Alternative also exists in which the airport may choose to maintain the existing condition, with control of the RPZ and approach area and maintenance of obstruction lights only through an easement. The existing RPZ easement will expire October of 2018 and following this the RPZ will not be owned or controlled by the airport owner, putting safety of people on the ground and in the air in jeopardy. The primary result of this alternative would be that the Airport would not have control over the RPZ and approach area and the existing obstructions would remain, without means to maintain the obstruction lighting. Additionally, this would not be in compliance with FAA guidance on the subject. Ultimately, this could result in severe restrictions to the operational capability of the airport, such as a further shortened runway and cancellation of existing approach procedures.

Even if the easement remains in place, the current expense of the easement renewal every year is costly. If any of the action alternatives are chosen and land is purchased, the initial cost will be high but the overall expense on that property will decrease drastically. Likewise, the No Action

Alternative is inconsistent with the management and development policies of the FAA as well as the FAA's design standards to ensure safe and efficient public air transportation which is socially, environmentally and economically sustainable. Although this alternative does not meet the purpose and need outlined in NEPA and CEQ regulations require consideration of a No Action Alternative. When compared with other alternatives, the No Action Alternative serves as a reference point to evaluate impacts of the Proposed Action.

Proposed Action Alternative

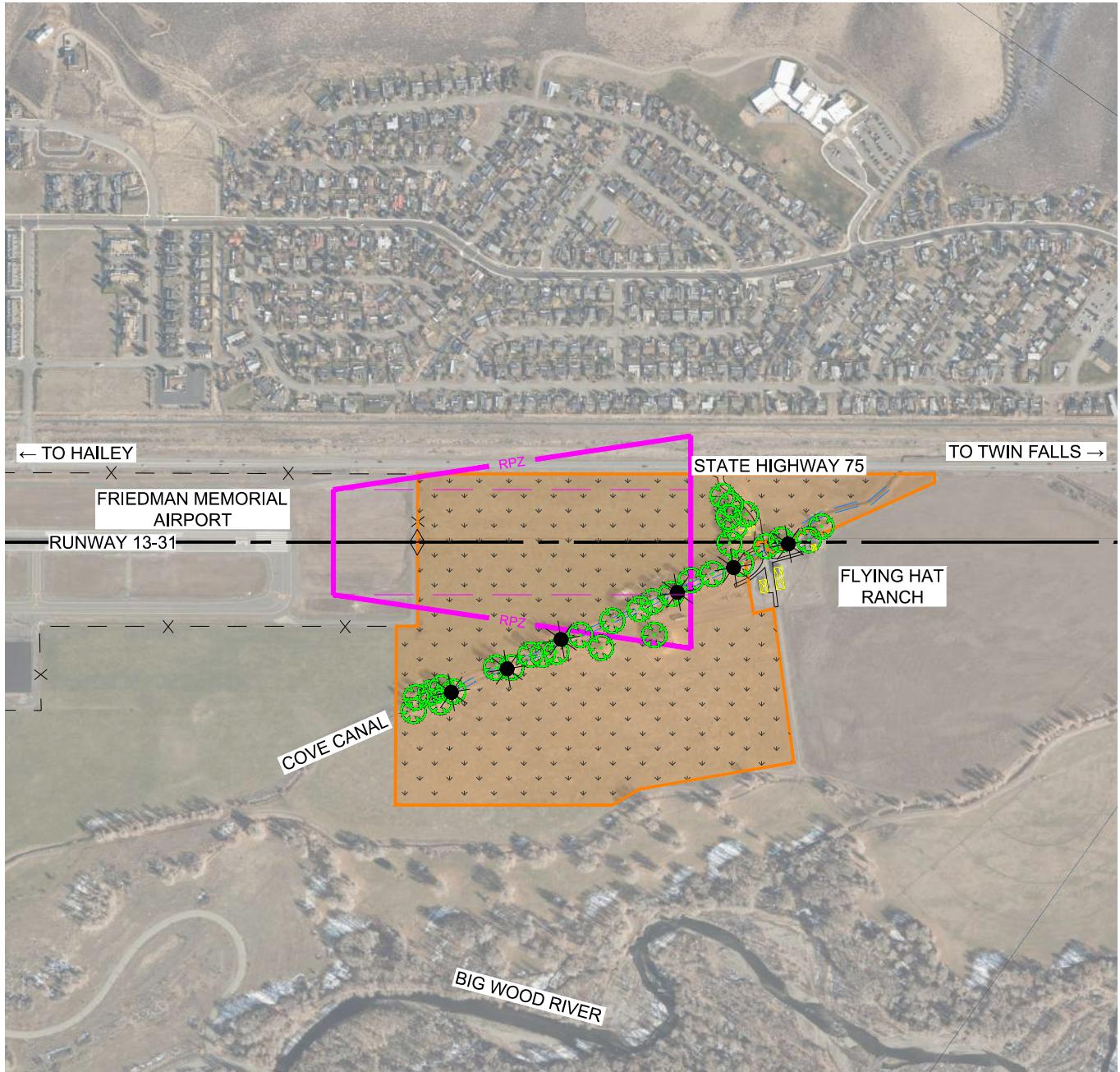
The Proposed Action Alternative includes land acquisition and obstruction removal as discussed in **Chapter 1.5**. The land will provide protection of the CFR Part 77 approach and Runway 13/31 RPZ.

The Proposed Action consists of acquiring property for the RPZ on the south side of Runway 13/31, the RSA, and approach/departure land use compatibility. Furthermore, these areas contain numerous obstructions including both natural and man-made appurtenances into the CFR Part 77 protected surfaces and Approach Protection Zone, creating hazards for airport services. Natural obstructions include approximately 40 groups of Cottonwood, Pine, and hardwood trees, some reaching heights of over 100 feet. The existing RPZ has been temporarily mitigated through an easement with the current landowner, although it is preferred for those areas to be acquired so the airport has full control of the property, and the incompatible land uses can then be removed.

This option includes the acquisition of 64.75 acres of land, 56 of which is active pasture land. The Cove Canal is located in the Approach Protection Zone and this alternative will acquire 2,668 feet of the canal. Acquisition of the property containing the canal is essential to allow the airport to perform maintenance and prevent regrowth of trees as obstructions. Acquisition will include removal of all obstructions as well as the acquisition of the farmhouse to remove the incompatible land use of residential occupancy on the runway centerline. With the acquisition of property, the RPZ, RSA, obstructions and incompatible land uses would be under the ownership and control of the Airport Sponsor.

The property between the Cove Canal and State Highway 75 south of the farm house would become an uneconomical remnant and has therefore been included in the acquisition. The Preferred Alternative does not include the acquisition of the pump house, barn and shop building and it does not include any avigation easements per the property owner's request. This alternative satisfies the project need by complying with the FAA Standards for RPZ length and protection. Likewise, this alternative keeps all RPZ land under the Airport Sponsor's control.

The Proposed Action Alternative was selected because it is the only alternative that meets the Purpose and Need of the project within the property available for acquisition with the current property owner. Purchase of adjacent property is necessary to allow the Airport to gain control of adjacent land for protection of CFR Part 77 airspace and RPZs and provide control of the Approach Protection Zone. Ownership of the property would also allow the Airport to regulate land uses to activities compatible with airport operations.



LEGEND

QUANTITY AFFECTED

 	PROPOSED LAND ACQUISITION
 	ACTIVE PASTURE AREA
●	LIGHTS
●	TREE OR GROUP OF TREES
◇	ACCESS GATE
X	REMOVE BUILDING
—	AFFECTED COVE CANAL
—	RUNWAY CENTERLINE
—	RPZ
— X —	EXISTING FENCE/PROPERTY LINE

±65 ACRES

±55 ACRES

6 TOTAL

APPROX. 40

NONE

±2668 LF

375 0 375 750

SCALE: 1" = 750'



FIGURE 9: PREFERRED ALTERNATIVE



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Chapter 4. Affected Environment and Environmental Consequences

4.1 Introduction

The Federal Aviation Administration (FAA) is the lead Federal agency to ensure compliance with NEPA for this Proposed Action; therefore, this EA has also been prepared in accordance with FAA Order 1050.1F Policies and Procedures for Considering Environmental Impacts (July 16, 2015) (FAA, 2015a) and FAA Order 5050.4B (FAA, 2006) NEPA Implementing Instructions for Airport Actions. This chapter identifies all resources listed under FAA Order 1050.1F and provides policies and procedures for compliance with NEPA and for implementing regulations issued by CEQ.

Some resources do not apply to the project area either due to its location in the inland Rocky Mountains or that the resources are not present in the area. Guidance on impacts to climate are currently being updated and are discussed in air quality. Technical specialists for specific resources have been consulted to determine presence and effects for biologic resources, cultural and historic resources, and wetlands and waters of the U.S. These resources were reviewed for applicability and where resources were not located in the project area or the project would have no effects, a brief summary is provided in this chapter. FAA-specific requirements for assessing impacts to the following categories are discussed in detail in the 1050.1F Desk Reference.

- 4.2 Air quality
- 4.3 Biological resources (including fish, wildlife, and plants)
- 4.4 Department of Transportation Act, Section 4(f)
- 4.5 Farmlands
- 4.6 Hazardous materials, solid waste, and pollution prevention
- 4.7 Historical, architectural, archeological, and cultural resources
- 4.8 Land use
- 4.9 Natural resources and energy supply
- 4.10 Noise and compatible land use
- 4.11 Socioeconomics, environmental justice, and children's environmental health and safety risks
- 4.12 Visual effects (including light emissions)
- 4.13 Water resources (including wetlands, floodplains, surface waters, groundwater, and wild and scenic rivers)

Additional detailed information for resources has been provided in **Appendix A to E**.

4.1.1 Affected Environment

This chapter section is outlined to evaluate the existing condition of the environment which is known as the Affected Environment. The affected environment is defined as the ecological, cultural, social, aesthetic and economic conditions of the area that the proposed alternatives could potentially impact. The affected environment is the baseline to which project impacts are then compared.

4.1.2 Environmental Consequences

Environmental consequences of each of the impact categories and mitigation measures to minimize negative impacts are discussed after the resource has been defined in the Affected Environment. The Environmental Consequences analysis is to determine the impacts (or lack of) associated with the Proposed Action Alternative when compared to the No Action Alternative.

The Environmental Consequences chapter section evaluates the various types of impacts; direct, indirect, and cumulative effects, which are considered for each of the relevant environmental impact categories. The CEQ defines each type of impact as follows: direct effects as those that “are caused by the action and occur at the same time and place”, indirect effects are those that “are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable”. For this evaluation, direct and indirect impacts are discussed in the second resource section under Environmental Consequences while cumulative impacts are discussed separately in a third resource section.

4.1.3 Cumulative Impacts

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.

Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 CFR 1508.7). This analysis highlights project-related effects that could potentially contribute to cumulative impacts in these resource categories. To properly assess cumulative impacts, the analysis identifies all projects in the recent past, present, and reasonably foreseeable future actions. Future projects, those occurring beyond five years such as the mid- and long-term projects described below were reviewed, but were not evaluated because they are not currently funded and in the general planning phases; therefore not considered reasonably foreseeable.

Cumulative effects may occur when the impacts of an airport action are considered with the actions of Tribes, private developers, or the FAA, among others. When considering action which may contribute to cumulative effects, other projects using Federal-Aid money, such as FAA Airport Improvement Program (AIP) funds that support SUN airport capital improvement projects (CIP, 2017) or the Idaho Transportation Department (ITD) Statewide Transportation Implementation Plan (STIP) (ITD, 2017) which identifies future transportation projects which have potential to contribute to the cumulative impacts in the vicinity of this project. Federal funding used in the vicinity of the project as well as any recent or proposed private developments within the local jurisdictions (may or may not contribute impacts) are used as a baseline for establishing cumulative parameters.

Not all resources are applicable to cumulative and secondary impacts which may be present in the project area. These are discussed following the environmental consequences for each resource category (if applicable). Based on a review of projects in the vicinity of the proposed action, the following projects were identified and evaluated for cumulative impacts:

Past Projects, those occurring generally within the past five years and within the vicinity of the project are considered for cumulative impacts analysis.

1. Relocate Hangar Taxi lanes/Apron Improvements (2013-14), Friedman Memorial Airport: Overlay GA 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), Friedman Memorial Airport: This project relocated and extended Taxiway B while removing Taxiway A, grading the safety area and construction three new connection 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): Friedman Memorial Airport. Terminal aircraft parking was previously located on the east side of the terminal, but was moved to the north side during this effort, in order to move the parking outside of the Runway Object Free Area. 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): Friedman Memorial Airport. The airport's existing administration office and ARFF/Snow Removal Equipment building needed to be relocated as part of the overall effort. This project constructed a new facility to house these functions in one building. The new facility is much more efficient and suited to the needs of airport operations staff, especially for snow removal equipment storage and maintenance.
5. Construct Terminal Airport (2014): Friedman Memorial 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 completed this analysis as part of the project design.
6. Relocate Taxiway B, Grade RSA and Remove Taxiway A (North) (2015): 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): Friedman Memorial 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, which have been publicly funded, privately permitted, or under construction during development of this EA, (2017-2018).

8. Friedman Memorial Airport, Terminal Apron Expansion and Access Road Realignment: \$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, has been funded and is scheduled for construction in 2018.

Future Projects, which funding has been earmarked or needs assessment has identified the projects for consideration in the reasonable future.

9. Fiscal Year 2020 –Friedman Memorial Airport Capital Improvement Program:
Rehabilitate Aprons, Sections 1, 2 and 4. Mill and overlay, crack seal and seal coat aircraft parking aprons on the airport.
10. Fiscal Year 2021 – Friedman Memorial Airport Capital Improvement Program: Construct Tower. Construct a new aircraft control tower and remove the existing tower at the airport.
11. Fiscal Year 2022 – Friedman Memorial Airport Capital Improvement Program:
Rehabilitate Taxiway B and Section 3 Apron. Crack seal and seal coat Taxiway B and aircraft parking apron Section 3.
12. Fiscal Year 2022 - Friedman Memorial Airport Capital Improvement Program:
Rehabilitate Runway 13-31. Mill and overlay the airport's runway.

4.1.4 Mitigation

FAA Order 1050.1F establishes thresholds, for each resource evaluated, beyond which impacts are considered significant. An EA may include reasonable mitigation measures to reduce potential impacts of a proposed action. If impact thresholds are still significant after implementation of mitigation measures, an Environmental Impact Statement may be required. Mitigation measures are not necessary for categories with no anticipated adverse impacts and therefore not all resource categories will include a mitigation chapter section.

4.2 Air Quality

Air quality concerns are regulated by the Clean Air Act (CAA). The CAA established National Ambient Air Quality Standards (NAAQS) for six criteria pollutants: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), ozone (O₃), particulate matter (PM_{2.5} and PM₁₀), and sulfur dioxide (SO₂). The NAAQS set thresholds for outdoor levels of each pollutant that are safe for human health, public welfare, and the environment.

States are required to adopt air quality plans, known as state implementation plans (SIPs) to achieve NAAQS for each pollutant. The CAA requires that Federal actions conform to the appropriate SIPs, and the General Conformity Rule establishes criteria for determining whether certain Federal actions conform. The rule only applies in areas designated by U.S. Environmental Protection Agency (USEPA) as non-attainment areas or maintenance areas. A non-attainment area is any geographic area that experiences a violation of one or more NAAQS. A maintenance area is any geographic area previously designated non-attainment and subsequently re-designated as an attainment area. The rule does not apply in attainment areas, which are areas that do not exceed NAAQS for any of the criteria pollutants.

4.2.1 Affected Environment

Air Quality Regulatory Environment

No state designated non-attainment or maintenance areas are located in Blaine County, therefore the entire county is considered to be in an attainment area and the General Conformity Rule does not apply. The closest non-attainment areas are the Fort Hall non-attainment area and the Portneuf

Valley maintenance area for PM10 in Pocatello, Idaho, over 90 miles southeast of the airport along with the Northern Ada County Maintenance Area for PM10 and CO, Ada and Canyon County Area of Concern for PM2.5 and O₃ over 80 miles southwest of the airport.

The Proposed Action is to acquire 64.75 acres of land and remove natural obstructions which impede the safe operation of the airport. Land acquisition and obstruction removal are listed in the Emissions and Air Quality Handbook and are not likely to cause an increase in emissions. These actions are also listed on the FAA guidance for administration of the CAA lists a range of projects which have demonstrated over time to not contribute to the degradation of air quality; this is generally known as the Federal Presumed to Conform Actions under General Conformity (FAA, 2007b).

The FAA Order 1050.1F and the FAA Aviation Emissions and Air Quality Handbook (FAA, 2015b) provide guidance on when and how to conduct air quality emissions analyses for airport activities. Projects that will likely not cause an increase in emissions generally do not require an analysis because they have little potential to significantly impact air quality by causing an exceedance of the NAAQS. De minimis impacts are those which have no impact or no noticeable impacts when compared to background conditions which are often temporary and have no permanent effects on air quality.

Climate and Greenhouse Gases

FAA Order 1050.1F states that greenhouse gases (GHGs) and climate change should be considered and evaluated as an impact category in FAA environmental documents, including both EAs and Environmental Impact Statements.

GHGs are gases that trap heat in the atmosphere. They are primarily a result of burning fossil fuels and include gases such as carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). 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.

4.2.2 Environmental Consequences

No Action Alternative

Under the No Action Alternative, no changes would occur at the Airport beyond normal projected growth. Therefore, no increase in emissions would occur, and there would be no increase in aviation emissions.

Proposed Action Alternative

As outlined in the affected environment, the Proposed Action falls into two categories on the Presumed to Conform list provided by FAA guidance, land acquisition and maintenance. Land Acquisition is number 5 on the exempt list as “Actions (or Portions Thereof) Associated With Transfers of Land...”. Obstruction removal falls under two sections, the first as Maintenance which is number 2 on the exempt list for landscaping and vegetation management, the second is

number 14 for “...adopting approach, departure, and enroute procedures for air operations” and specifically identifies vertical obstructions in its determination for air craft emissions.

Land acquisition is not an operational change at the airport and results in no emissions increase or an increase in emissions that have demonstrated to be consistently de minimis. Therefore, no emissions increases are anticipated as a result of land acquisition. Land acquisition is listed as an exempt action under general conformity and has been determined that this action would not adversely affect air quality and therefore, further air quality analysis is not required.

As there are many trees which will be acquired and require trimming, cutting, and removal to maintain the approach protection area, some emissions are expected from equipment used to remove the obstruction. As most of the trees requiring maintenance are cottonwood or other riparian softwoods, equipment such as chainsaws, chippers, and tracked vehicles anticipated to be used. These types of two-stroke engines can cause emissions to increase during periods of heavy use. Initial tree removal would be a several week long process where ongoing, likely, annual maintenance would follow. Planned maintenance activities for obstruction removal would fall within the de minimis impacts category. Maintenance is listed as “presumed to conform” and while the action to remove the obstructions will cause increases in engine emissions during construction, the duration will be temporary and remain within de minimis levels. Therefore, no significant, adverse, nor long term impacts to air quality are anticipated as a result of the Proposed Action.

4.2.3 Cumulative Impacts

A cumulative impact to air quality could occur if the Proposed Action, when considered with past, present, and reasonably foreseeable actions, caused an exceedance of one or more NAAQS. None of the past, present, and reasonably foreseeable projects examined are anticipated to have substantial long-term impacts on air quality. ITD projects listed are short-term construction projects and would not have substantial or lasting impacts to air quality, including those associated with airport operations. Because no increases to fuel consumption or GHGs are expected due to implementation of the Proposed Action, cumulative impacts to air quality are not expected when the Proposed Action is considered cumulatively with other past, present, and reasonably foreseeable future actions.

4.2.4 Mitigation

The project specifications will include temporary control measures to minimize the effects to air quality by the project during construction activities. Project construction activities will have similar effects to air quality as the resident agricultural activities that are active on the property and adjoining properties. No increases from the project would occur from airport Temporary control measures will include implementation of Best Management Practices (BMPs) to minimize airborne dust resulting from ground-disturbing activities and making sure all equipment is maintained in good working conditions.

4.3 Biological Resources - Fish, Wildlife, and Plants

Section 7(a)(2) of the Endangered Species Act (ESA) requires that Federal actions do not jeopardize the continued existence of any Federally listed threatened, endangered, or candidate species or result in the destruction or adverse modification of critical habitat. FAA Order

1050.1F requires adherence to the ESA and numerous other Federal statutes related to conservation of fish, wildlife, plants, and their habitats. Several of the statutes, including The Sikes Act of 1974 and the Fish and Wildlife Coordination Act, require consistency with state programs regulating wildlife conservation. Fish species, Wildlife, and Plant communities are all considered in this section.

4.3.1 Affected Environment

A biologic resource survey and habitat assessment of the project area was completed to determine the presence of and potential impacts to fish, wildlife, and plants on the properties subject to the Proposed Action. Particular 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. This chapter section summarizes the findings of the resource survey and habitat assessment; the full report is included as **Appendix D**.

Research of fish, wildlife, and plants was conducted by literature review, field investigations, and consultation with state and federal wildlife management agencies. Information contained in the Idaho Fish and Wildlife Information System (IFWIS) (IDFG, 2017a) database was accessed to review reported observations of species inhabiting or migrating through the project vicinity.

The US Fish and Wildlife Service- Idaho Fish and Wildlife Office Endangered, Threatened, Proposed, and Candidate Species with Associate Proposed and Critical Habitats was reviewed for the presence of federally-listed threatened, endangered, proposed, and candidate wildlife species in Blaine County (USFWS, 2017). Three wildlife species were listed with one candidate species; the Canada lynx (*Lynx canadensis*) listed Threatened, the Yellow-billed Cuckoo (*Coccyzus americanus*) listed Threatened, the Bull Trout (*Salvelinus confluentus*) listed Threatened, and the North American wolverine (*Gulo gulo luscus*) proposed Threatened, shown in **Table 4**.

Table 4: Endangered Species in Blaine County				
Type of Animal/Plant	Name	Habitat	Status	Likelihood of appearance at project site*
Mammal	Canada Lynx	Moist forests with conifer trees and cold, snowy winters	Federally Listed Threatened	2
Mammal	North American Wolverine	Cold locations with high winter precipitation	Federally Proposed Threatened	2
Bird	Yellow-billed Cuckoo	Wooded habitat with dense cover and nearby water, low scrubby vegetation and farmland	Federally Listed Threatened	1
Fish	Bull Trout	Stable stream channels, gravel, complex and diverse cover with unblocked migratory	Federally Listed Threatened with	1

		corridors	Critical Habitat	
Conifer	Whitebark Pine	N/A	Candidate	1-3

*Ranking System: 1 = not likely to find, 3 = likely seasonal appearances, 5 = likely consistent appearances

Source: IPaC 2017

Fish

The nearest habitat is within the Big Wood River, which is 183.7 miles long and runs north to south through the Wood River Valley and eventually becoming impounded in the Magic Reservoir, approximately 17 miles downstream. The Big Wood River is located approximately 1 mile west of the site. There are eight fish species in the Big Wood River, five of which are game fish, three of which are native to Idaho, none of which are of conservation concern or endangered species within the state of Idaho (IDFG, 2017b). Bull Trout are not observed, nor expected in this reach of the river (USFWS 2010).

The Cove Canal originates at the Big Wood River approximately 1.77 miles northwest from the proposed action. 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.

Federally Listed Threatened- Bull Trout

Bull trout was the only listed aquatic species and is classified as threatened with critical habitats established in Blaine County. The USFWS provides critical habitats for bull trout (USFWS, 2010) which show that the habitats exist only in the north portion of Blaine County and not in the Big Wood River drainage.

State Fish Species with Special Conservation Status

Six fish species were listed as under special conservation status for Idaho, all identified in the Snake River Basin or in the Kootenai River (IDFG 2017c). The only fish with the habitat present in Blaine County is the Bull Trout; the other fish species listed as threatened, endangered or sensitive are not present. The State of Idaho lists bull trout as an S3 species; vulnerable and at moderate risk. There is no suitable habitat for any of the state fish species listed, including the Bull Trout. The species would not be found in the project location through the Cove Canal or the Big Wood River.

Wildlife

A variety of wildlife exists in Blaine County and Magic Valley. Examples of large mammals in the county are moose, elk, deer, mountain lions, wolves and black bears. Small mammal examples include foxes, coyotes, raccoons, porcupines, rabbits, beavers, otters, gophers and skunks. Various songbirds can be found in the county as well as larger birds like ducks, geese, sand hill cranes, turkeys, grouse and pheasants. The abundance of rangeland, the Big Wood River (and its wetland/riparian characteristics), and open space surrounding Hailey Idaho provides ample habitat for waterfowl and other wildlife (IDFG, 2017d).

Federally Listed Threatened- Canada Lynx

Canada lynx were listed as Threatened in 2000 by the USFWS under authority of the ESA. 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. Lynx habitat can generally be described as boreal forest above 4,000 feet in elevation with cold snowy winters (Quinn and Parker, 1987).

Federally proposed Threatened- North American Wolverine

Wolverine require special habitats due to their dense fur and foraging habitats, specifically alpine climates with thick forests of conifer trees into the chaparral and tundra woodlands. Due to the sub-alpine nature of the Wood River Valley and its connection north to the Sawtooth Mountains, some potential for wolverine to occur in the project area may exist. 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.

Federally Listed Threatened- Yellow-billed Cuckoo

The Yellow-billed Cuckoo is a long, slim bird with a flat head, long tail and large yellow bill. They are brown and white in coloration and are found in most of the western states of America. This migratory bird migrates through Central and South America in the winter. The Yellow-billed Cuckoo needs large mature stands of riparian willow, closed canopy riparian forest with an understory of dense brush (50 acres minimum patch size). These riparian forests are usually composed of various species of willows and cottonwoods. Due to the presence of these riparian areas associated with the Big Wood River and the dominant riparian trees associated with the Cove Canal a detailed survey for Yellow-billed Cuckoo, including a species description, biological requirements, and baseline conditions was conducted. The complete survey can be found in **Appendix D**.

State Wildlife Species with Special Conservation Status

Six fish species were listed as under special conservation status for Idaho. The only fish with the habitat present in Blaine County is the Bull Trout; the other fish species listed as threatened, endangered or sensitive are not present. There is no suitable habitat for all of the state fish species listed, including the Bull Trout, within at least five miles of the project area and limited possibility that they would ever occur in the project area. The species are likewise not reachable from the project location through the Cove Canal or the Big Wood River. As a result, these species are not discussed further in this document.

Plants

Plants at the project site are largely influenced by the historic conversion of the subject properties from floodplain to open agricultural land. As a result, all proposed land is dominated by the herb and forb strata. The predominant forb observed at the site was reed canarygrass (*Phalaris arundinacea*) followed by yellow sedge (*Carex L. flava L.*). Trees observed onsite included Black Cottonwood (*Populus Balsamifera L. ssp. Trichocarpa*) and Russian Olive (*Elaeagnus Angustifolia L.*) associated with the Cove Canal. The remaining species are pasture grasses such as alfalfa, orchard grass, and smooth brome used for feeding cattle.

Federally Proposed Threatened- Whitebark Pine

The Whitebark Pine (*Pinus albicaulis*) is a foundation species found historically in large numbers across the rocky mountain region. It is found in dense stands at high sub-alpine elevations in cold windswept areas typically unsuitable for other pine species. The Whitebark Pine has been proposed for threatened status due to blister rust disease and damage from the mountain pine beetle.

State Plant Species with Special Conservation Status

The Idaho Fish and Game (IDFG) database was reviewed for the presence of plant species with special conservation status in Blaine County. Six species with a state rank of S1 to S3 were listed. All species require some form of undisturbed habitats in order to propagate. Due to active grazing, rangeland management practices and urbanization, these species are not likely to be found in the project area and are not discussed further in this document.

Migratory Birds and Eagles

Suitable nesting habitat for birds subject to the MBTA, including red-tailed hawk, is present within and adjacent to the survey area. Suitable nesting habitat includes the ranch outbuildings trees and standing snags adjacent to Cove Canal (Riparian area), adjacent irrigated pasture, and the offsite Big Wood River riparian corridor. Nesting birds identified near the survey area are expected to be acclimated to disturbance from the airport, highway, and ranch activities.

4.3.2 Environmental Consequences

FAA Order 1050.1F states that impacts to fish, wildlife, and plants must be addressed to ensure that significant impact thresholds are not exceeded. Significant impacts occur when a proposed action would jeopardize the continued existence of a species or result in the destruction of critical habitat in the area. Impacts to fish, wildlife, plants and migratory birds and eagles were considered during completion of a biological assessment, which is included as **Appendix D**.

No Action Alternative

Under the No Action Alternative, no changes to baseline conditions would occur and there would be no effect to fish, wildlife, plant communities, migratory birds or general wildlife other than normal fluctuations with seasonal changes.

Proposed Action Alternative

The IFWIS database was reviewed for the presence of fish, wildlife, bird/eagle and plant species with a special conservation status in Blaine County (IDFG, 2017c and USFWS, 2017). Geographic Information System (GIS) shapefiles of documented observations of species were obtained from IFWIS to determine if any of species with state rank S1 to S3 have been observed in close proximity to the project site. None of the listed species have been observed near the airport property and the pr.

Fish

Due to the lack of connectivity to the Big Wood River, the seasonal drying of the Cove Canal, and the lack of fish species in the project vicinity, the Proposed Action will have no effects on fish species, nor the Bull Trout as a result of the project.

Wildlife

Wildlife using the riparian areas near the Cove Canal may be impacted during obstruction removal. These impacts are expected to be temporary and species identified during field surveys are highly adaptable to urban and aviation environments. As suitable replacement habitats exist along the Big Wood River and in surrounding open spaces the anticipated effects to general wildlife species are expected to be minor.

Canada lynx and Wolverine are unlikely to occur within the vicinity of the project area as the habitat near the project site is neither high elevation or forested. This type of habitat does not exist in the project area and the Proposed Action would have no effect on the Federally listed Canada lynx or the Federally Proposed Wolverine as a result of the project.

A Yellow-billed Cuckoo study was performed including call back surveys per USFWS protocol, with no birds being present. Furthermore, the stands of cottonwoods proposed for obstruction removal are not sufficiently dense in order to support the cuckoo's preferred habitats. For these reasons, the Proposed Action will have no effect on Yellow-billed Cuckoo or its habitat as a result of the project.

Plants

The removal of the cottonwood trees with planned ongoing maintenance with the acquisition of the Cove Canal will eliminate their ability to grow back at that location. After removal of the cottonwood trees and their shaded canopy, the area is expected to regrow as a different classification of wetlands. The general habitats of the area are dependent on the Cove Canal and other species of emergent wetland vegetation and associated upland grasses will replace the trees being removed. This will modify the area and the wetland and riparian areas will transition to lower growing species compatible with aviation uses.

The only federally proposed threatened plant species in Blaine County is the Whitebark Pine (*Pinus albicaulis*). Within the site area there have been no documented occurrences and the area is more arid than those typically occupied by sub-alpine species. For this reason, the Proposed Action will have no effect on Whitebark Pine as a result of the project.

Migratory Birds and Eagles

The USFWS policies govern activities within 0.5 miles of an active bald eagle nest which may cause abandonment. No known nests are within 0.5 miles of the Proposed Action (IDFG, 2007), and therefore, not likely to impact eagles. Even so birds nest annually and young adults will establish nests when new breeding pairs are formed. While nesting eagles were not observed USFWS policies for nesting surveys will be revisited prior to obstruction removal. With the surrounding wetland and wooded areas along the Big Wood River, there are adequate locations for nesting to occur.

Several birds were observed roosting and possibly nesting in the trees identified for removal as obstructions. The Red-tailed Hawk, which is protected under the MBTA, was identified to have nested during the habitat surveys outlined in Appendix D. Prior to removal of trees, the presence of any nests will be confirmed, removal of the nest and trees during non-nesting season is the preferred method, as well as harassment or creating a nuisance so as not to allow nesting in other trees identified for removal. The Proposed Action Alternative would remove a small amount of

avian habitat and adequate trees suitable for relocated nests can accommodate any nesting birds, as a result the Proposed Action will have little or no noticeable effects on Eagles or species protected by the MBTA.

4.3.3 Cumulative Impacts

Avian species are the only category which may have potential for cumulative effects as they are the most likely to appear in the project area. The projects planned for future construction are largely reconstruction or relocation of existing features. Federal-aid money subject to NEPA considers fish and wildlife through their environmental evaluation and takes measures to reduce or eliminate significant impacts from their projects. Therefore, cumulative impacts of the past, present, reasonably foreseeable future projects, when considered with the Proposed Action are not likely to have any cumulative effects.

4.3.4 Mitigation

No mitigation measures are required for the proposed action as no impacts to ESA listed threatened, endangered, or neither candidate species, nor state listed sensitive species have been identified and no effects to species are expected. Prior to construction the site will be reviewed for nesting species subject to protection for migratory birds or nesting eagles, if nests are observed the IDFG will be consulted and appropriate policies for construction will be implemented.

Impacts to MBTA protected species can be avoided by utilizing BMPs included in the recommendations in Appendix D and shown in Table 5.

Table 5: Biological Resources and Habitat Assessment for SUN Airport Runway Extension Project			
Biological Resource	Avoidance Buffer	Preconstruction Survey Information	Published Avoidance and Minimization Measures
Eagles (Bald and Golden Eagle Protection Act)	Minimum quarter mile. (1/4 mile)	No nests Identified. Verify onsite prior to obstruction removal	Yes
Special-status Bird Species (e.g., Migratory Bird Treaty Act, red tailed hawk)	Minimum 50 feet	Nest survey to be conducted 14 days prior to ground disturbance of construction during nesting season (February 1 – September 15)	Yes

4.4 Department of Transportation Act, Section 4(f)

Section 4(f) of the Department of Transportation Act of 1966 states that DOT agencies, including the FAA, “will not approve any program or project that requires the use of 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 as determined by the officials having jurisdiction thereof, or any land from an historic structure of national, state, or local significance as so determined by such officials unless:

- There is no feasible and prudent alternative to the use of such land,
- The project includes all possible planning to minimize harm resulting from the use".

Section 4(f) properties include:

- Parks and recreational areas of national, state, or local significance that are both publicly owned and open to the public;
- Publicly owned wildlife and waterfowl refuges of national, state, or local significance that are open to the public; and
- Historic sites of national, state, or local significance in public or private ownership regardless of whether they are open to the public.

4.4.1 Affected Environment

Implementation of the Proposed Action which could 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

Resources in close proximity to the Airport were identified to set the boundaries of the Affected Environment. For Section 106, due to the rural nature of the project, "close proximity" is approximately one-half mile of the project (the approximate distance of the noise contour-the furthest reaching effect). Figure 10 shows the Section 4(f) resources within the vicinity of the Proposed Action.

A Section 106 evaluation was completed for the project area to identify all historic, architectural, archaeological, and cultural resources within the project vicinity. The archaeological survey resulted in no resources identified. The historic survey identified three previously recorded sites which were further investigated and documented as appropriate under the National Historic Preservation Act (NHPA). These sites were documented as eligible for listing on the National Register of Historic Places (NRHP). There were no sites listed on the NRHP which were within 1/4 mile of the project.

The following Section 4(f) historic resources were identified within the project vicinity:

- Cove Canal (10BN1126) – within the project action
- State Highway 75 (13-16171) – adjacent to the project action
- Halfway Ranch/Eccles Flying Hat Ranch (13-16207) – within the project action

The following Section 4(f) recreational resources are within the project vicinity:

- Wood River Trail – 0.1 miles
- Werthheimer Park – 0.3 miles
- Toe of the Hill Trail Heads (2) – 0.5 miles



Legend

- Red Box: Halfway Ranch/Eccles Flying Hat Ranch
- Yellow Line: RPZ
- Orange Box: Project Location
- Blue Line: Cove Canal
- Green Line: Parks and Recreation Areas



0 1,000 2,000 4,000
Feet



**FIGURE 10:
DOT SECTION 4(F) PROPERTIES**



4.4.2 Environmental Consequences

The use of a Section 4(f) property, as defined in 23 CFR 774.17, occurs when one of the following applies:

- Land is permanently incorporated into a transportation facility.
- Temporary occupancy is determined to be adverse to the functions and activities of the property.
- A constructive use is determined.

When project impacts constitute a use of a Section 4(f) property, there are two levels of determination per FAA guidance:

- de minimis impact
- Individual Section 4(f) evaluation

A de minimis impact on a Section 4(f) property is one that, after taking into account any measures to minimize harm (such as avoidance, minimization, mitigation or enhancement measures), results in either:

- A Section 106 finding of ‘no adverse effect’ or ‘no historic properties affected’ on a historic site; or
- A determination that the project would not permanently adversely affect the activities, features, or attributes qualifying a park, recreation area, or refuge for protection under Section 4(f).

When a project would involve the use of a Section 4(f) property and the FAA cannot make a de minimis impact determination, the FAA must prepare a Section 4(f) evaluation. If a use is determined then the Section 4(f) evaluation must include measures to show that alternatives have been considered and all measures to minimize or mitigate for effects have been taken.

No Action Alternative

Under the No Action Alternative, no property acquisition or other direct uses nor constructive uses would occur as there would be no changes to the existing environment.

Proposed Action Alternative

Several Section 4(f) recreational resources located in the vicinity of the project within the city of Hailey, the closest being the Wood River Trail (0.1 miles away), these recreation sites are not within the land acquisition proposed and would not experience a direct or constructive “use” as no changes would occur when compared to the existing conditions . Therefore, effects of the Proposed Action on recreational resources would be de minimis and no further evaluation is required.

Two historic Section 4(f) resources located adjacent to and within the APE are the Cove Canal and State Highway 75. State Highway 75 was evaluated during ITD project review in 2009 for future highway planning and was determined to be historic for its contribution to development of the Wood River Valley. The Proposed Action has “no historic resource effect” on State Highway 75 and therefore does not have any “use” as defined by Section 4(f), no further evaluation is required.

The Cove Canal (10BN1126) would experience a “de minimis” impact. The Cove Canal is historic for its contribution to agricultural development within the Wood River Valley and Idaho in general. These linear resources stretch for miles and are commonly crossed during project developments. The Section 106 evaluation determined that “no adverse effect” would occur as a result of the Proposed Action. While the obstructions being removed are within and adjacent to the Cove Canal, the overall function of the canal to move water and perform as an irrigation feature would not be affected by the project. Therefore, the temporary occupation to remove obstructions from the canal bank would constitute a “de minimis” impact and no further evaluation is required.

Halfway Ranch/Eccles Flying Hat Ranch (13-16207)

As outlined in **Chapter 4.7**, an adverse effect per the Section 106 historic evaluation would occur from the Proposed Action with the acquisition and eventual removal of the farmhouse in the main farmstead area, a contributing resource to the eligibility of the Flying Hat Ranch (13-16207). An adverse effect is always a “use” per Section 4(f) guidance which requires an individual evaluation.

The Halfway Ranch/Eccles Flying Hat Ranch, shown on Figure 10, is considered a historic district as defined by NRHP guidelines. This means the entire 750-acre ranch is considered one resource which also contains three separate development areas and historic resources dating as far back as 1883. The ranch originated with two, separate, early 1880s Desert Lands Act claims. The historic core of the ranch property was known as the Halfway Ranch as early as 1910 and historically encompassed about 640 acres primarily on the west side of present-day SH 75, as it does today. Halfway Ranch/Eccles Flying Hat Ranch appears to be eligible for listing in the NRHP as a historic district for significant trends to contribute to local history (Criterion A) and it retains sufficient integrity to communicate its historic associations with the agricultural development of the Wood River Valley. At the Halfway Ranch/Eccles Flying Hat Ranch contributing resources include the farmhouse, well, barn, and the equipment shed, also contributing is the setting, including the agricultural fields and the Cove Canal. No archaeological resources were found within the areas studied on the Halfway Ranch / Eccles Flying Hat Ranch

The farmhouse is of unique nature in its location. While it is contributing to the historic district, it is in conflict with airport sponsor required compatible land use best practices around airports. Specifically, residential uses are considered incompatible in proximity to a runway end, including the proposed approach protection area(s). In addition, the trees surrounding the farmhouse are penetrations to CFR Part 77 surfaces, are also considered incompatible to airport operations. The farmhouse, obstructions (trees), and the Airport Vicinity Overlay Protection Zone of Blaine County’s Zoning Code, which does not permit residential uses, are shown on Figure 3

Per Section 4(f) guidance, an alternatives evaluation process and voluntary public involvement meeting occurred during the development of the preferred alternative, this memorandum can be viewed in Appendix A. The results of the evaluation process concluded:

- Alternative 2, which kept farmhouse with the farm historic district - did not meet the purpose and need, did not accomplish control over all property with airspace obstructions and allowed incompatible uses in protected areas
- Alternative 3, which used an easement to remove obstructions, retained the farmhouse met the purpose and need, but was not preferable as the easement would require annual payments and potential terms for expiration, the SUN board found this to be an unnecessary burden on normal airport operations.
- Alternative 4, which acquired all of the main farm area, met the purpose and need and cleared all obstructions and incompatible land uses. This alternative was found by the SUN board to be too intrusive and potentially damaging to the farmstead as an operating ranch.

After all preliminary alternatives were considered, none of them were selected during the public involvement and environmental review period. Instead, the Proposed Action Alternative was developed using design criteria to allow the ranch operations to continue, remove the obstructions, remove and control the land uses in the approach protection areas, and minimize impacts to historic resources.

Based on the alternatives evaluation and development of the Proposed Action Alternative the FAA finds:

- The farmhouse is an incompatible land use per applicable compatible land use guidance around airports including FAA and ITD Division of Aeronautics guidance which identify what land uses are normally considered compatible (agricultural, commercial, and industrial uses)
- The farmhouse is an incompatible use per Blaine County zoning controls
- Alternatives were evaluated, including alternatives which did not “use” the main farmstead area, no alternative was selected
- The Proposed Action Alternative was developed as a “compromise” to all known issues
- Mitigation planning was considered throughout the public involvement process and the Proposed Action alternative was presented for comment at a public meeting
- The purpose and need of the project are satisfied with the Proposed Action Alternative
- The majority of the contributing features to the historic farm district Halfway Ranch/Eccles Flying Hat Ranch remain intact and are not “significantly impacted” by the Proposed Action Alternative

For these reasons, FAA intends to make a finding that there is no feasible and prudent alternative that would avoid the use of Section 4(f) property and that the project includes all possible planning to minimize harm resulting from the use.

4.4.3 Cumulative Impacts

Development in the Wood River Valley, including those projects listed in section 4.1.3 continues to change the landscape of the area. Acquisition of the farmhouse, as a contributing resource to the eligible farm district would constitute one more loss to the historic nature of the area. The overall landscape will not be affected as the RPZ being protected will remain as pasture/grasses and could be leased back to the ranch for agricultural uses, which would be considered compatible with aviation uses. As the historic purpose of the area is farming or ranching, this

use would not change, nor would the farm historic district be compromised, and subsequently only minor incremental changes to Section 4(f) resources would occur cumulatively as a result of the proposed action alternative.

4.4.4 Mitigation

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. Consultation between FAA and SHPO is recommended to identify mitigation options related to the proposed removal of the farmhouse. Possible stipulations in an Memorandum of Agreement (MOA) could include the following:

- Historic American Buildings Survey (HABS)-level documentation of the Halfway Ranch/Eccles Flying Hat Ranch;
- Development of public interpretation of the Halfway Ranch/Eccles Flying Hat Ranch;
- Updated ISHI form for the ranch to be completed at the end of the project
- Relocation of the farmhouse elsewhere on the ranch property outside the runway approach surface.

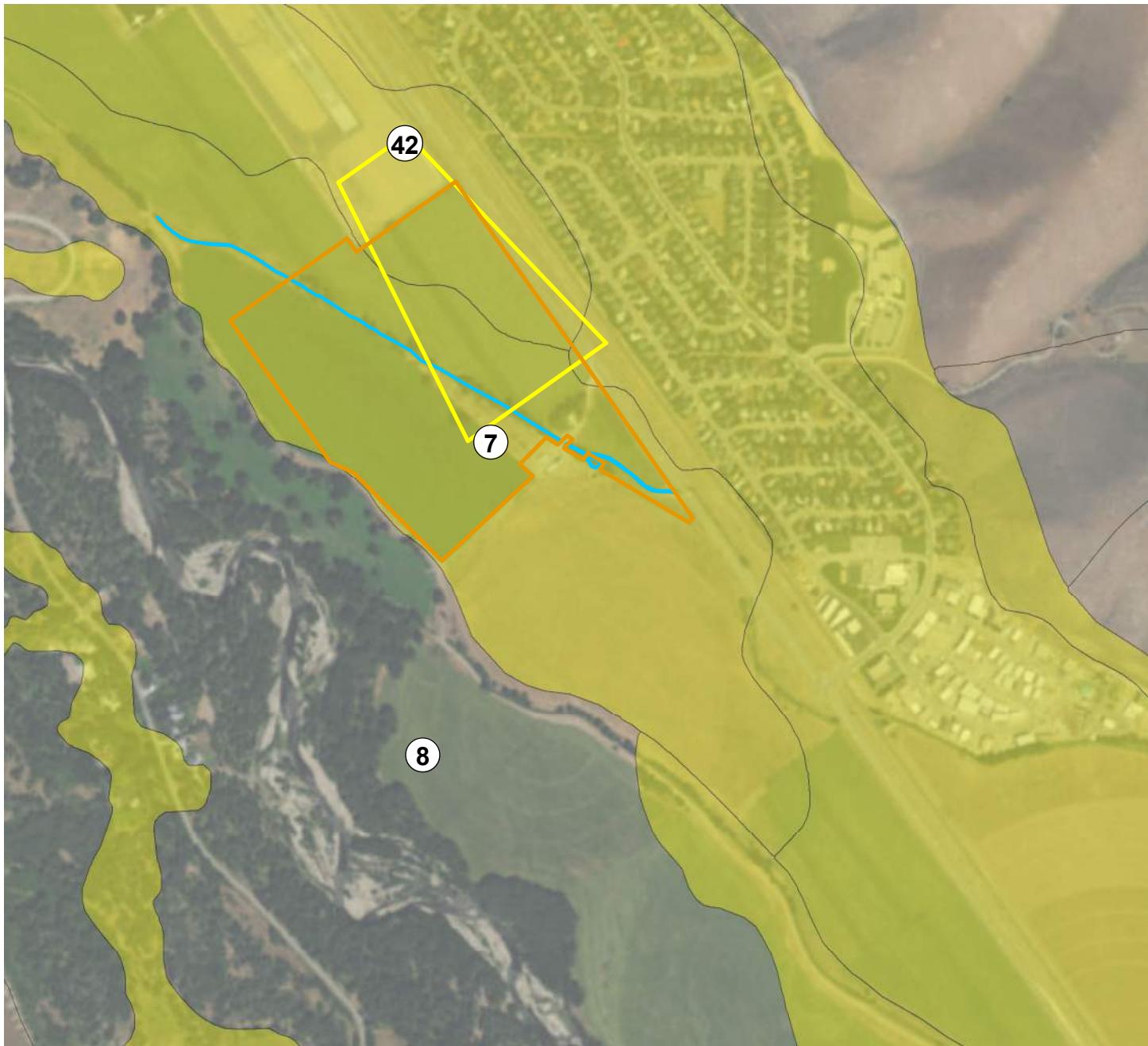
4.5 Farmlands

The Farmland Protection Policy Act (FPPA) was implemented in 1994 to minimize the impact Federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. Farmlands subject to the FPPA includes prime farmland, unique farmland, and land of statewide or local importance.

4.5.1 Affected Environment

The Natural Resources Conservation Service (NRCS) Web Soil Survey website was accessed to determine the classification of soils within the proposed project area. All lands within existing Airport boundaries and within the parcels proposed for acquisition are classified as Balaam-Adamson complex and Gimlett very gravelly sandy loam. These soils are considered Prime Farmlands – if irrigated. The ranch has an extensive irrigation system from the Cove Canal, and all soils would be considered Prime. Farmland soil classifications are shown in **Figure 11**.

Because the FPPA does not apply to land already committed to urban development or water storage, or land that is located within urban areas that are developed, specifically with impermeable (paved) surfaces, the existing Airport property is exempt from the FPPA. However, the parcels proposed for acquisition are not exempt and are therefore subject to FPPA requirements.



- Preferred Alternative Land Acquisition
- RPZ
- Cove Canal

- 7 Balaam-Adamson complex
- 8 Balaam-Adamson-Riverwash
- 42 Gimlett-Very Gravelly

NRCS Farmland Classification

- Not Prime Farmland
- Prime Farmland - if Irrigated

0 500 1,000 2,000
Feet



FIGURE 11:
NRCS SOILS CLASSIFICATIONS



4.5.2 Environmental Consequences

Impacts to farmland are determined by completing the NRCS Farmland Conversion Impact Rating Form (Form AD-1006) to establish a farmland conversion rating score. If impacts to farmlands score above 160 points, the project sponsor should consider alternatives. Combined scores below 160 points do not require further analysis. The Form AD-1006 and associated correspondence with NRCS is included as Appendix F.

Each factor is assigned a score and all scores are summed along with a “Relative Value of Farmland to Be Converted” score assigned by NRCS. According to 7 CFR 658.4, if the total score is below 160 points, the sites to be converted need not be given further consideration for protection and no additional sites need to be evaluated. Sites receiving scores of 160 or more should be given increasingly higher levels of consideration for protection.

No Action Alternative

Under the No Action Alternative, no existing farmland would be converted to nonagricultural uses. There would be no impacts to farmland. Due to the pace of urban growth in the Wood River Valley, farmlands and agriculture is anticipated to become lesser of a dominant land use. The center for agricultural uses would be expected to shift further south, away from the recreational and urban centers. The conversion of agriculture to urban use has been ongoing and would occur with or without the project.

Proposed Action Alternative

The Farmland Conversion Rating Impact Form was completed for the Proposed Action Alternative, with a score of 54 points. Since this score is below 160 points, no further analysis is necessary and no consideration for mitigation or protection is required. The Proposed Action will remove approximately 55 acres of active farmland/pasture from private ownership and transfer to the airport sponsor. As the airport intends to use this area for compatible uses and land use controls, it is likely that the airport could lease these fields back to the ranch or another agricultural producer. Only that portion of RPZ and the future ultimate safety area within the approach protection area would be fenced to exclude all uses, including agriculture, for safety of aircraft and persons and property on the ground, shown on Figures 4 and 9.

4.5.3 Cumulative Impacts

The land proposed for acquisition is from on the Eccles Flying Hat Ranch property. The land is currently used as irrigated farmland, seasonally mowed and baled for hay and then pasture for cattle the remaining portions of the year. Acquisitions would include would be converted to open space for present and future RPZ and approach protection. Incremental acquisitions and conversions of this area from rural to urban have been occurring 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. The proposed action would contribute incrementally the removal of that acreage within the ultimate RSA, although it would preserve some of the 55 acres of irrigated fields for agriculture as urban developments are not compatible within the RPZ and approach protection areas. Remaining agricultural uses would be further protected by the Airport Overlay Primary Zone shown on Figure 3.

4.5.4 Mitigation

There are no significant impacts to farmlands, therefore, no mitigation measures are proposed.

4.6 Hazardous Materials, Pollution Prevention, and Solid Waste

FAA Order 1050.1F defines hazardous materials as any substances or materials that have been determined to be capable of posing an unreasonable risk to human health or the environment. These include hazardous substances and hazardous wastes. Hazardous substances are listed in 40 CFR Part 302 and include substances that are ignitable, corrosive, reactive, or toxic. Once hazardous substances are thrown away they become hazardous wastes.

Various Federal statutes that address hazardous materials are relevant to typical FAA construction, operational, and navigational actions. The two most prominent programs include the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the Resource Conservation and Recovery Act (RCRA).

CERCLA (also known as Superfund) is managed by USEPA and provides funding and oversight for cleanup of abandoned or uncontrolled hazardous waste sites. Once a hazardous waste site is identified, the USEPA's Hazard Ranking System is used to determine the level of threat to public health. If a site scores high enough, it can be placed on the National Priorities List (NPL) and become eligible for cleanup funding through CERCLA.

RCRA is also managed by USEPA and governs the generation, treatment, storage, and disposal of hazardous wastes. RCRA regulations established a “cradle to grave” system to govern hazardous waste from the point of generation to the point of disposal. Although RCRA is a Federal statute, many states are the local implementing authority. In Idaho, IDEQ's Waste Management and Remediation Division serve that role.

In addition to implementing RCRA, IDEQ manages several other hazardous waste programs including leaking underground storage tanks (LUST), solid waste sites, and general remediation sites, among others.

4.6.1 Affected Environment

Environmental Data Resources, Inc. (EDR) was contracted to perform a search of hazardous material sites within $\frac{1}{2}$ mile of the airport. Numerous databases were searched and research was conducted in accordance with 40 CFR Part 312, *Standards and Practices for All Appropriate Inquiries* and ASTM E1527-13, *Standard Practice for Environmental Site Assessments*.

No RCRA or CERCLA sites were identified within $\frac{1}{4}$ mile of the Airport. Only the airport and two other hazardous materials users are located within $\frac{1}{4}$ mile of the project. All UIC sites found within the area are listed as active while the UST and Financial Assurance sites are listed as closed. As reported from EDR, all of the records were updated within the last two years as shown in Table 6.

Table 6: Hazardous Material Sites within ¼ Mile of the Project Site

Map ID	Site Name	Program(s)	Distance & Direction from Airport	Comments
A1	Friedman Memorial Airport	UIC	Target Property	
A2	Friedman Memorial Airport	UST, ALLSITES, Financial Assurance	Target Property	2 total tanks. Tank status is closed.
3	Woodside Elementary School	UIC	0.0125 miles	
4	Jay Smith Inc.	Hist. Cleaner	0.094 miles	Historical Carpet and Upholstery Cleaning from 1998-2004

Source: EDR, Inc., 2017.

The existing use of the property is agricultural. Known materials used during routine production 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. As this site has over 100-years of legacy, it can be understood that spills are likely to have occurred. Similarly the residence has both an individual sewer treatment system and an above ground storage tank for propane/heating oil as shown in **Exhibit 1**. The farm house is of an age (1910-1940) where known hazards may be present, such as lead paint, lead fittings on plumbing, and various asbestos containing materials (insulation, shingles, tile, etc).

A site investigation was conducted on July 26, 2017 where several resources of concern were identified. The first site is a repository of used agricultural equipment and abandoned vehicles. Located on the west side of the Cove Canal, as shown in **Exhibit 2**. The equipment shed west of the Cove Canal crossing contained several areas where residues indicated former spills or historical use of petroleum products. The equipment shed also has two outside fueling tanks, likely diesel and gasoline for agricultural use, and a historical outhouse. The pump house, used for irrigating the farm, had several lubricant stains and containers used for routine pump maintenance. This pump house also had the majority of the electrical supply, breakers, and infrastructure needed to operate equipment needed for irrigation of 640 acres.



Exhibit 1 - Farmhouse showing propane tank



Exhibit 2 – Agricultural Debris in fence line west of Cove Canal



Legend

- RPZ
- Project Location
- ★ Hazardous Materials Users per EPA Permits



0 500 1,000 2,000
Feet



FIGURE 12: HAZARDOUS MATERIALS



4.6.2 Environmental Consequences

No Action Alternative

The No Action Alternative would have no impacts to properties and would not impact known hazardous materials sites nor generate solid waste. Existing conditions would remain, including the residence within the approach protection zone, this leaves remaining unknown hazards in the protected zone in the unlikely case of a safety event.

Proposed Action Alternative

The Proposed Action Alternative would have minimal likelihood to encounter hazardous materials, other than routine agricultural and household chemicals associated with historic operations. There is low likelihood to impact known hazardous materials site and none of those listed on the EDR report are of concern for this project.

As the project is for land acquisition and obstruction removal, there will be no involvement or interaction with the observed petroleum and chemical uses associated with the farm. During the alternatives evaluation process the electrical equipment and infrastructure were designed to remain with the agricultural property. Furthermore, the historic barn, equipment shed, and outhouse also remain with the agricultural property.

The fence line with many years of agricultural debris will need to be removed before the obstructions can be cleared. Debris clean-up will occur either as a result of the airports acquisition of the property, during obstruction removal, or during negotiations with the landowner. An estimated several hundred cubic yards of debris remain embedded in the fence line, including pipe- both metal and PVC, water tanks, fence parts – wood, metal, and wire, and obsolete irrigation and agricultural equipment. As a result of the project, this area will be cleared of both obstructions and general agricultural debris. This debris is likely to be hauled to the nearest licensed landfill. Trees identified as obstructions will be removed and either chipped or sawn and hauled away. Typically cottonwood trees are poor suppliers for firewood or reusable as they are a soft wood, therefore, the most likely option would be to chip on site as mulch in the upland areas.

4.6.3 Cumulative Impacts

Past, present, and reasonably foreseeable actions include proposed developments and reconstruction projects on or near Airport property. Projects located on Airport property are related to infrastructure improvements and redevelopment to accommodate aircraft and improve safety operations. As these projects will only occur on airport property they would not contribute to any known hazardous material clean up or RCRA site. 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.

As the Proposed Action is not expected to produce any of the consideration factors above, it is anticipated that no cumulative impacts to hazardous materials, pollution prevention, or solid waste would occur with the Proposed Action when combined with past, present, and reasonably foreseeable projects.

4.6.4 Mitigation

Standard operating procedures for handling unknown encounters with hazardous materials will be a part of the construction contracting. Based on the historic use of the site as agriculture, the distance to known regulated sites, and separation from the sites by the Highway; it is unlikely that hazardous materials will be found and no specific mitigation is required.

Due to its age, the farmhouse should be reviewed by a qualified professional for presence of asbestos and lead paint. The water supply well should be abandoned according to Idaho Department of Water Resources standard procedures in order to prevent groundwater contamination. Similarly, the individual sewer treatment system (septic) should be properly abandoned. All fuels, household chemicals, and lubricants encountered during the acquisition of the residence and during obstruction removal should be properly categorized and disposed of at the nearest approved facility.

Mitigation measures proposed under other environmental impact categories would help ensure compliance with pollution control statutes during construction. The contractor selected would be required to prevent or minimize the release of any hazardous substances. A spill response plan would be required by the contractor.

4.7 Historical, Architectural, Archaeological, and Cultural Resources

The National Historic Preservation Act of 1966 (NHPA) was enacted to preserve historical and archaeological sites. Section 106 of the NHPA requires Federal agencies to consider the effects of their actions on properties on or eligible for inclusion in the National Register of Historic Places (NRHP). Compliance with Section 106 requires consultation with the Advisory Council on Historic Preservation (AChP), the State Historic Preservation Officer (SHPO) and/or and the Tribal Historic Preservation Officer (THPO) if there is a potential adverse effect to historic properties on or eligible for listing on the NRHP. These and numerous other statutes listed in FAA Order 1050.1F require that impacts to historical, architectural, archaeological, and cultural resources be considered.

4.7.1 Affected Environment

Following background research, an intensive field survey was completed to observe any historic, cultural or archaeological artifacts on Airport property and on the parcels proposed for acquisition. The survey was completed by walking the Airport property proposed for acquisition as well as extensive research on nearby sites to determine the historical and cultural site possibilities. The cultural resources report, found in **Appendix B**, analyzed the property under Sections 106 and 110 of NHPA which require federal agencies to take into account the effects of these undertakings on historic properties afford the Advisory Council on Historic Preservation (AChP) a reasonable opportunity to comment and specify the obligations of federal agencies with historic properties under their jurisdiction. Within the projected area, all cultural resources were identified and evaluated per guidance provided by FAA and SHPO to determine eligibility for listing on the NRHP. The known and listed historical sites within 1 mile of the airport boundary are generally located north of the airport in the historic core of the city of Hailey; the following sites are listed on the NRHP:

- Pound Homer House – 0.55 miles

- St. Charles of the Valley Catholic Church and Rectory – 0.55 miles
- Blaine County Courthouse – 0.65 miles
- Emmanuel Episcopal Church – 0.7 miles
- Fox J.C. Building – 0.7 miles
- Werthheimer Building – 0.75 miles
- Matt W.H. Building – 0.8 miles
- The Rialto Hotel – 0.8 miles
- Hailey Masonic Lodge – 0.9 miles
- Fox- Worswick House – 0.9 miles
- Chase, Eben S. and Elizabeth S. House – 0.9 miles

The projected action area was investigated by an archaeologist and an architectural historian in July 2017 to determine if archaeological or historical sites are on or within the vicinity of the proposed site. Known resources included the Eccles Flying Hat Ranch property and the Cove Canal. The cultural resources report (which can be found in **Appendix B**) summarizes the history of the area as well as specifics of the two sites.

Settled in 1879, the town of Hailey began with the focus of mining, agriculture and ranching. The property now known as the Eccles Flying Hat Ranch was claimed in the early 1880's by JB Oldham and JR Wilson as part of the Desert Land Act. The Cove Canal was established between 1882 and 1884 by Marcus A. Miner who then was transferred the certificates of Oldham and Wilson's property in 1888 for irrigating the property. Another canal, the Rockwell-White Power Plant Canal, was created in 1907 that carried water from the Big Wood River to the site of the former power plant the canal was named after. It supplied water for electricity for the mining community of Bellevue until it was decommissioned for industry in 1945. The Eccles Flying Hat Ranch was names the Halfway Ranch as early as 1910, and has been used as a ranch ever since. The land has consisted of roughly 640 acres since its initial establishment in 1910. The Eccles family then purchased the land in 1969 and has owned it ever since.

Friedman Memorial Airport opened in 1932 thanks to the gracious Friedman family who donated the acreage to start the development. The airport originally consisted of a 0.75-mile dirt airstrip aligned in the same pattern it is today between the Big Wood River and State Highway 75 (then U.S. Highway 93), as well as a 100 foot compass with a flag pole in the center. The airport was not considered developed until 1945 with the construction of its first hangar and airfield improvements. Following World War II, many airport activities became the purview of the Civil Aeronautics Administration and come 1968, the FAA helped SUN expand in size, improve paving and lights, widen the runway to 100 feet as well as install a terminal building. Over the years, more improvements and changes surfaced from the Airline Deregulation Act of 1978 until the airport reached its current configuration.

A Section 106 evaluation was completed for the project area to identify all historic, architectural, archaeological, and cultural resources within the project vicinity. The archaeological survey resulted in no resources identified. The historic survey identified three previously recorded sites which were further investigated and documented as appropriate under the National Historic Preservation Act (NHPA). These sites were documented as eligible for listing on the National

Register of Historic Places (NRHP). There were no sites listed on the NRHP which were within 1/4 mile of the project, defined as the project Area of Potential Effect (APE).

The cultural and historic resources study identified the following historic resources within the project vicinity, as shown on Figures 10 and 13:

- Cove Canal (10BN1126) – within the APE
- State Highway 75 (13-16171) – adjacent to the APE
- Halfway Ranch/Eccles Flying Hat Ranch (13-16207) – within the APE

4.7.2 Environmental Consequences

The following discussion outlines the Section 106 process for assessing the effects an undertaking would have on historic properties. Resources that are listed in or eligible for the NRHP are considered in the Section 106 process. A qualified professional with coordination by the FAA officials will make a Section 106 effect determination recommendation to 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 APE 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.

No Action Alternative

The No Action Alternative would have no impacts to known archaeologic, cultural, or historic resources as it would not change the area or the historical sites that are present.

Proposed Action Alternative

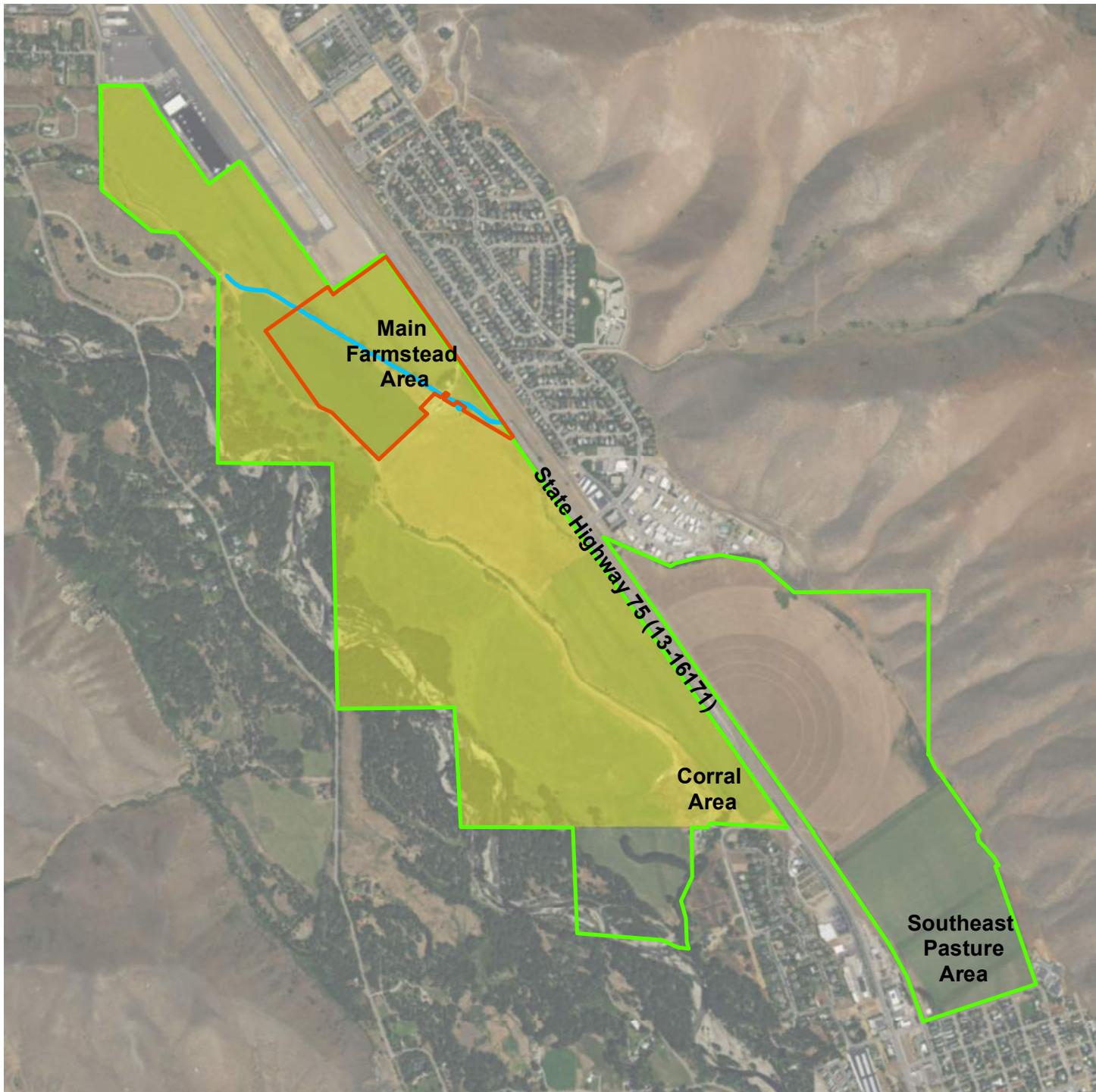
There would be no impacts to known archaeologic resources or existing NRHP listed resources as a result of the Proposed Action. The project will not exceed the limits of the property in Figure 9 and therefore will not have far reaching effects and will have “no effect” on State Highway 75 (13-16171). The cultural and historic study completed in Appendix B discusses the findings of the NRHP eligible resources being affected. Proposed Action Alternative will have effects determinations for two NRHP eligible sites, the Cove Canal and the Eccles Flying Hat Ranch/Halfway Ranch.

The Cove Canal (10BN1126) and its function as a historic waterway for irrigation and agricultural development will not experience significant effects, through the acquisition nor by removing trees on its banks. The total area affected by the project is less than four percent of the total canal length and as such will remain integrally intact with “no adverse effect” from the Proposed Action.

Halfway Ranch/Eccles Flying Hat Ranch appears to be eligible for listing in the NRHP as a historic district for significant trends to contribute to local history (Criterion A) and it retains sufficient integrity to communicate its historic associations with the agricultural development of the Wood River Valley. At the Halfway Ranch/Eccles Flying Hat Ranch contributing resources include the farmhouse, well, barn, and the equipment shed, also contributing is the setting, including the agricultural fields and the Cove Canal. No archaeological resources were found within the areas studied on the Halfway Ranch / Eccles Flying Hat Ranch

The Eccles Flying Hat Ranch/Halfway Ranch is a historic district containing multiple features, including the farmhouse, located in the Main Farmstead area is the location of concern. The house itself is from circa 1920, 1955 and 1991 is not individually eligible because of the alterations over the years, although it retains sufficient integrity in tandem with the agricultural development of the property. The integrity of materials, design and workmanship (discussed further in **Appendix B**) make the farmstead all together part of the ranch's history and significance. If the farmhouse was removed, it would damage the entire authenticity of the ranch and thus would consist of an adverse effect.

Nevertheless, the Proposed Action Alternative does not include the removal of the farmhouse but rather just the acquisition of it. By acquiring the house, the airport is ensuring there are no people in the RPZ area that are at risk while still keeping the structural integrity of the farmstead as a whole. Future projects may discuss the necessity of removing the house, but for the Proposed Action Alternative, there will be no adverse effects for acquisition alone.



Legend

- Project Location
- 10BN1126 Cove Canal
- 13-16207 Eccles Ranch Property
- Historic Core of Halfway Ranch



0 1,000 2,000 4,000
Feet



**FIGURE 13: Historic Resources
13-16207 Eccles Flying Hat Ranch**



4.7.3 Cumulative Impacts

The farmhouse itself is a “contributing” resource and is not individually eligible. Therefore, it is not a historic resource of importance for preservation. The Halfway Ranch/Eccles Flying Hat Ranch historic district would change as a result of the project, contributing to cumulative effects of urbanization/progress in the Wood River Valley. This effect is anticipated to be minor as the main core of eligible and listed properties on the NRHP are in the city of Hailey downtown core, more than $\frac{1}{2}$ mile north of the project, therefore cumulative effects of removal of the contributing farmhouse to the historic district are anticipated to be minor when compared as a whole.

Effects from other projects in the vicinity of the airport and projects planned in the Friedman Memorial Airport Master Plan are currently not anticipated to contribute to effects on NHRP listed or eligible properties/buildings. NRHP eligible resources were not identified on the existing Airport property during the parallel Section 110 planning effort completed, Appendix B. Since projects listed in Chapter 4.1 are primarily reconstruction, it is unlikely that they would discover new resources or have a significant effect. Likewise there are plenty of resources to use when considering the cultural impacts of a project that further study will help mitigate in the future.

4.7.4 Mitigation

As the acquisition and subsequent removal of the farmhouse would be considered an adverse effect on NRHP-eligible resources, the mitigation measures suggested by the architectural historian include:

- Historic American Building Survey (HABS) level documentation of the Halfway Ranch/Eccles Flying Hat Ranch;
- Development of public interpretation of the Halfway Ranch/Eccles Flying Hat Ranch;
- Update the Idaho Historic Sites Inventory (IHSI) form for the ranch to be completed at the end of the project; and/or
- Relocation of the farmhouse elsewhere on the ranch property outside of the runway approach surface.

Unexpected discoveries are possible anytime subsurface excavation occurs (as referenced in **Appendix B**). In the event that an unanticipated historical, architectural, archaeological, and cultural resources discovery is made, work would stop and the FAA, SHPO, and THPO would be contacted immediately. A protocol for unanticipated discoveries should be developed prior to construction.

4.8 Land Use

Land use regulations in the vicinity of airports typically address airspace, safety, and noise considerations. Land use regulations should discourage or prevent land uses that are generally incompatible with airports. FAA Order 1050.1F states that an airport sponsor is required to assure that “appropriate action, including the adoption of zoning laws, has been or will be taken, to the extent reasonable, to restrict the use of adjacent land or in the immediate vicinity of the airport to activities and purposes compatible with normal airport operations”. A project must also

be “consistent with plans (existing at the time the project is approved) of public agencies for development of the area in which the airport is located”.

Idaho Senate Bill 1265 became effective July 1, 2014 and amended Idaho Code Title 21, Chapter 5, Airport Zoning Act, and Title 67, Chapter 65, Local Land Use Planning. The bill is aimed at requiring more proactive land use compatibility planning around the state’s airports by city and county entities through the local comprehensive planning process. The new legislation will result in closer collaboration between local zoning authorities, local airport authorities and ITD Division of Aeronautics in the interest of flight and community safety.

4.8.1 Affected Environment

Existing Land Use and Zoning

Blaine County land uses in the vicinity of the Airport are classified as agricultural/residential. The majority of surrounding land is zoned agricultural/residential under County jurisdiction. A single family farmhouse is located in the RPZ area and is associated with the larger Eccles Flying Hat Ranch as previously mentioned, and as shown in Figures 10 and 13. Blaine County Code, Title 9, Chapter 18, Airport Vicinity Overlay District establishes a district to prevent encroachment on airspace, to prevent interference from light and electromagnetic sources on runway approaches, and to prevent intensive human use of runway approaches. The ordinance created the airport overlay district to correspond with the CFR Part 77 airspaces and compatible land uses as shown on Figures 3 and 4. The airport vicinity overlay primary zone limits the uses within the area, subject to review and comment by FMAA.

The City of Hailey Zoning ordinance was updated in 2015 (Hailey, 2015) as Ordinance 1191 by the City of Hailey codifying the existing municipal code, the subdivision ordinance and the zoning ordinance. The zoning for city of Hailey establishes all city districts including the residential, commercial and industrial districts including the airport and properties east of the airport. The primary zoning in these areas is general residential, with the purpose to provide for a variety of residential uses and a limited number of retail and business uses compatible with residential development. The airport zoning provides for aviation uses and is associated with industrial zoning for manufacturing and limited retail sales. The intent of the airport and industrial is to group these intrusive (noise, light, smells) uses together and provide regulations to preserve the integrity of the industrial uses while separation from sensitive users.

Future land uses and Comprehensive Planning

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 (AOI) Agreement approved and adopted in 1994. Both jurisdictions have recognized that Airport activity and future growth of the Airport will impact the city. The City’s Comprehensive Plan was adopted in 2012 (Hailey, 2012) and the County’s Comprehensive Plan (Blaine County, 2015). The City of Hailey identifies the areas south of the airport, as “Open Space, Green Space, Greenways and Scenic Corridors” with goals to maintain the area as open space “The community and city decision makers have expressed the desire to maintain open space between the City of Hailey and the City of Bellevue.” (Hailey, 2012, P29)

4.8.2 Environmental Consequences

FAA Advisory Circular 150/5300-13 states that compatible land use within an RPZ is generally restricted to specific uses that involve no congregations of people or construction of buildings or other obstructions. It says: “*The following land use criteria apply within the RPZ: (a) While it is desirable to clear all objects from the RPZ, some uses are permitted, provided they do not attract wildlife, are outside the Runway OFA, and do not interfere with navigational aids... (b) Land uses prohibited from the RPZ are: residences and places of public assembly (churches, schools, hospitals, office buildings, shopping centers, and other uses with similar concentrations of persons typify places of public assembly).*” However, in cases where land is already developed or is too expensive to acquire in a few cases, “*the RPZ land use standards have recommendation status for that portion of the RPZ not controlled by the airport owner.*”

No Action Alternative

Under the No Action Alternative, no property acquisition and no construction related impacts would occur. Obstructions and incompatible uses would remain within the areas of concern for airport uses. The residence, obstructions (both manmade and natural) and potential wildlife attractants would remain in the Airport Vicinity Overlay Primary Zone, inconsistent with local regulations and FAA policies.

Proposed Action Alternative

The purpose of the Proposed Action is to correct incompatible land uses and protect the approach areas including the RPZ, implementation of the Proposed Action removes the incompatible land uses from the project area. Noise is outlined in section 4.10 of this chapter and FAA Order 1050.1F lists noise thresholds for several land uses including residential, public use, commercial use, manufacturing and production, and recreational. Agriculture is the current land use in the proposed acquisition area, and as the area does not contain any non-acquired obstructions and does not consist of public assembly areas, it is considered an acceptable land use. The parcels proposed for acquisition provide a net benefit by assuming the RPZ into the airport controlled property, whereby eliminating non-compatible land uses. No changes to agricultural operations would occur and safety and compatibility will maintained per FAA policy.

The south side of the Friedman Memorial Airport is privately owned and is known as the Eccles Flying Hat Ranch, the ranch property can be seen in both **Figures 3 and 9**. Noise, vibration, light, and visible intrusions are impacts of primary consideration for compatible land use planning in the vicinity of airports.

Agriculture is the existing land use in the areas proposed for acquisition. There are two incompatible land uses per FAA safety regulations (FAA 2015a). The first is the Eccles Flying Hat Ranch farmhouse, a residence located on the centerline of the airport runway (an area generally considered incompatible for residential use activity in proximity to the runway end), and within the Airport Vicinity Primary Overlay District. The second are the obstructions, the farmhouse also classifies as a potential obstruction, as a structure in the approach protection area, and the trees impeding the CFR Part 77 imaginary surfaces located along the Cove Canal.

The residence is within the primary safety zone of the Airport Vicinity Overlay District. Residences are not permitted by nor the Blaine County Code (County Code 2015) and as such is considered an incompatible land use. The trees along the canal are also an incompatible land use in the Airport Vicinity Overlay District due to their height. The trees can reach heights of over 100-feet tall. As such, the trees are considered an incompatible land use that for safety policies must be removed. The Proposed Action accomplishes the purpose and removes the incompatible land uses while retaining the acceptable land uses per comprehensive planning. The area of acquisition will be retained as agriculture and “open space” under the guidance of FMAA. The Proposed Action will support local zoning and future comprehensive plan goals and policies.

As a result of the Proposed Action there will no longer be an issue of noise-incompatible land use as there will be no residents within the areas deemed unacceptable for residential use. After the obstructions are removed, there will be less wildlife habitat, including nesting habitat for birds, which in turn creates safer flying conditions.

4.8.3 Cumulative Impacts

The proposed property acquisition for this project would not reduce or change the land uses at or surrounding the airport to incompatible uses. Therefore, no far reaching or cumulative effects on land uses would occur cumulatively as a result of the Proposed Action. As a result of protecting the RPZs through property acquisition, no further mitigation is proposed.

4.8.4 Mitigation

Changes to zoning or land use controls are not required. Implementation of the Proposed Action Alternative adds additional airport controls to the CFR Part 77 surfaces, protecting the RPZ and approach areas. The project supports the adequate zoning which is already established, no further mitigation is required.

4.9 Natural Resources and Energy Supply

Airport development actions have the potential to change local energy consumption and requirements, although not typically to the point that significant impacts would occur. Executive Order 13123, *Greening the Government through Efficient Energy*, encourages Federal agencies to expand the use of renewable energy. FAA Order 1050.1F states that the development of facilities should exemplify the highest standards of design including principles of sustainability. The FAA has not established a significance threshold for consumable natural resources and energy supply. Significant impacts would occur when a proposed action’s construction or operation would cause demand for scarce consumable natural resources and energy to exceed available or future supplies.

4.9.1 Affected Environment

The area around SUN is a well-developed urban and sub-urban area with adequate access to natural resources for facility operation, aircraft operations, and construction projects. Energy sources are not in short supply in the Wood River Valley from Bellevue to Sun Valley. The agricultural facilities require electricity and propane gas for lighting, cooling, and heating. These conditions are provided by Idaho Power and local propane providers. Idaho Power is primarily a hydropower user with upwards of 50% of its power supply from hydroelectric dams in Idaho, the nearest being Anderson Ranch dam, approximately 50 miles to the west. Also the Magic

Reservoir independent power generates electricity from the Big Wood River, approximately 25 miles to the south. There is no shortage of renewable (hydroelectric, wind, and solar) nor other power supplies (coal and natural gas) as Idaho Power uses a wide variety of generation to meet its variable needs.

4.9.2 Environmental Consequences

Energy requirements associated with airport improvements generally consist of either: 1) those related to existing facilities (terminal and airfield lighting requirements), or 2) air/ground vehicle movement requiring fuel consumption. Acquisitions would increase the energy demands by transferring private or other needs to the airport. Impacts are only considered significant in extreme cases here demand exceeds supply.

No Action Alternative

Under the No Action Alternative, no changes would occur at the Airport beyond normal projected growth. Therefore, no increase in the consumption of natural resources would occur.

Proposed Action Alternative

The land acquisition includes the residence but the power lines to the farmstead for irrigation are not included. As a result, power to the farmstead is not a cost to the Airport. The obstruction removal will also include the removal of six solar lights in the trees at the property. There are no additional infrastructure requirements with the Proposed Action as the acquisition is only for RPZ safety standards and will not require additional natural resources or energy supply. Natural Resource impacts are considered significant in extreme cases where demand exceeds supply, as the Proposed Action will reduce electrical demand it would not be considered a significant change.

4.9.3 Cumulative Impacts

Cumulative projects noted in Section 1.3.3 will increase short-term energy consumption during construction, but will not result in long term increases in consumption. 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.

4.9.4 Mitigation

Natural resources and energy supply would not be significantly impacted if the Proposed Action is implemented. No mitigation measures are proposed.

4.10 Noise and compatible land use

Noise is generally defined as unwanted sound. Noise can have many negative health effects including noise-induced hearing impairment; interference with speech communication; disturbance of rest and sleep; psychological, physiological, mental-health and performance effects; effects on residential behavior and annoyance; and interference with intended activities (Berglund et. al, 1999). Within an airport's noise impact areas, residential and public facilities such as schools, churches, public health facilities, and concert halls are sensitive to high noise levels and can affect the development of the airport.

Noise is measured in decibels (dB) on a logarithmic scale. For every 10 dB increase, a sound is 10 times more powerful. Noise levels that can impact human health begin as low as 30 dB, which is the level where sleep may be affected. Interference with speech begins at 35 dB. Sixty-five (65) dB is the level where physiological functions may begin to be affected from long-term exposure. Permanent hearing loss can occur with long or repeated exposure to sounds in excess of 85 dB (NIH, 2017). Airports are recognized as a common contributor to noise pollution. Regulations in 14 CFR Part 150, Airport Noise Compatibility Planning, established acceptable thresholds of noise for certain land uses. Yearly Day Night Average Sound Level (DNL) is the metric used to quantify noise levels and represents the 365-day average, in dB, of the day and night average sound level. Sixty-five (65) DNL is considered a significant threshold because land uses are considered compatible by FAA policies with noise levels below 65 DNL.

4.10.1 Affected Environment

The regulations in 14 CFR Part 150 also 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 Integrated Noise Model (INM), which uses inputs such as runway use, aircraft operations, and flight track geometry to produce noise contour maps (FAA, 2015b). A noise analysis was prepared for the master planning update and applied to this environmental evaluation using the FAA's INM process (SUN 2017a). Aviation forecasts from the Master Plan Update were used as input into the model and are shown in Table 7. Noise contours were developed for the base year (2014) only, to show the configuration of the existing DNL contour.

Table 7: Airport Operations		
Year	Total Projected Annual Operations	FAA Terminal Area Forecast (TAF)
2014	28,480	29,738
2034	37,612	37,995

Source: T-O Engineers, 2017

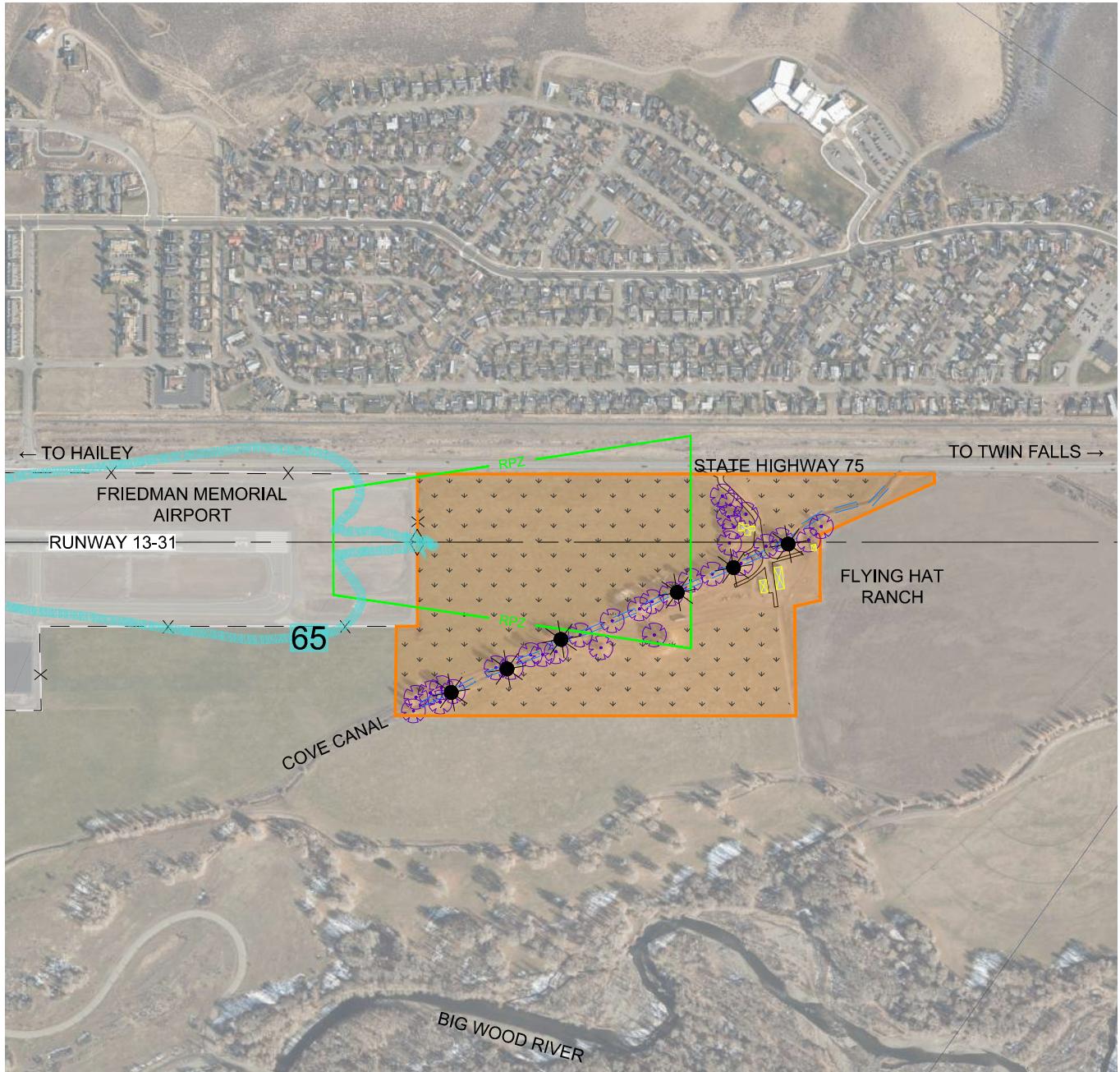
As shown in Figure 14, the noise contours extend beyond the existing property lines of the Airport. Land uses within the sensitive noise areas are mostly agricultural, but the other land use includes the single family residence on the farmstead.

The INM model indicated that the airport noise is projected to reach over top of the residential property and the other farm buildings on the parcel, but below the regulatory level of 65DNL. When the obstructions are removed, the home and property are expected to have slightly more noise and vibration without the trees as a buffer. Noise level increases in the future years however are due to projected increases in air traffic that this project does not include. The acreage encompassed by the contour is not increasing from what was discussed with the Master Plan. The difference in the noise contour is that the property within the contour will now be controlled RPZ and managed by the airport. Noise sensitive land uses within the 65 DNL contour currently includes only the airport property; however, DNL is an average noise for sound levels and approaching or departing aircraft can exceed the 65dB outside the airport property including the house and the farm in the RPZ area, as well as residential uses further to the south. This is the

reason why the Airport Vicinity Primary Overlay District, shown on Figure 3, covers the ranch and farmhouse. Figure 14 displays the existing DNL noise contours at the airport as well as where the obstructions and the farm residence is located.

Incompatible airport land uses include residential development, schools, community centers and libraries, hospitals, and buildings used for religious services and tall structures, smoke and electrical signal generators landfills and other bird/wildlife attractants. Agriculture is a land use that is compatible with airport operations as long as the use is not a wildlife attractant.

Agricultural use of land near an airport permits the owner of the property to efficiently use land while providing an additional benefit to the community for airport protection. FAA has published guidelines for land use compatibility in FAR Part 150 which identify what land uses are normally considered compatible (for example, agricultural, commercial, and industrial uses) and those that are normally considered incompatible (such as residential areas, schools, and churches) (FAA, 2017).



LEGEND

QUANTITY AFFECTED

AIRPORT BOUNDARY

PROPOSED LAND ACQUISITION

±52 ACRES

ACTIVE PASTURE AREA

±40 ACRES



LIGHTS

6 TOTAL



TREE OR GROUP OF TREES

APPROX. 40



ACCESS GATE

NONE

REMOVE BUILDING

±2668 LF

AFFECTED COVE CANAL

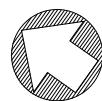
±2668 LF

RUNWAY CENTERLINE

RPZ

EXISTING FENCE

65 65DNL NOISE CONTOUR



375 0 375 750

SCALE: 1" = 750'



FIGURE 14:

65 DNL Noise Contour from Master Plan Update 2017



4.10.2 Environmental Consequences

FAA Order 1050.1F states that a significant noise impact would occur if analysis shows that a proposed action will cause noise sensitive areas to experience an increase in noise of DNL 1.5 dB or more at or above DNL 65 dB noise exposure when compared to the No Action Alternative for the same timeframe. Separate analyses were not completed for the No Action Alternative and Proposed Action Alternative because changes in Airport operations are expected to be the same for the two alternatives. The projected increase in Airport operations is based on growth trends and is not dependent on Airport facilities.

Noise levels would not change as a result of implementation of the Proposed Action Alternative nor the No Action Alternative. The purpose and need for land acquisition and obstruction removal does not increase nor change the existing or future noise at the airport.

No Action Alternative

Under the No Action the residence would remain as well as incompatible land uses would be allowed to continue. The no action would not support the purpose and need of the project nor follow current FAA policies and guidance for compatible land uses within the 60DNL contour.

Proposed Action Alternatives

Noise as a result of the Proposed Action is expected to be the same as those for the No Action as airport operations do not change as a result of the acquisition and obstruction removal. A slight increase in noise will be possible for the noise-sensitive land uses already located within the 65 DNL contour (SUN 2017a) from the existing condition to the 2034 planning horizon. However, these increases will occur with or without implementation of the Proposed Action. Therefore, no change in perceived noise levels is expected.

The proposed action accomplishes two goals for land use compatibility. Removal of the residence, or at a minimum the occupation of the residence in the noise sensitive areas, improves the area land use compatibility per FAA guidance. The second goal is the removal of the obstructions, the cottonwood trees were surveyed for wildlife, identified in Section 4.3, where the tall cottonwood trees provide nesting habitats for raptors and other bird species. Removal of the trees also improves the safety of the area as nesting birds would relocate elsewhere.

Overall, the Proposed Action Alternative improves the existing conditions for noise and land use compatibility per FAA standards, encourages continued compatible land uses (agriculture), and removes wildlife attractants from the project area.

4.10.3 Cumulative Impacts

Small changes to noise levels over time are predicted at the Friedman Memorial Airport as a result of increased projected air traffic. Changes are related solely to increased air traffic and are not expected to be different for the No Action Alternative or Proposed Action. Past, present, and reasonably foreseeable actions are not expected to increase the number of Airport operations, therefore, no cumulative impacts to noise are anticipated under the No Action Alternative or Proposed Action.

4.10.4 Mitigation

No changes to noise level are expected as a result of implementation of the Proposed Action. No mitigation measures are proposed.

4.11 Visual Effects including Light Emissions

Although there are no special purpose laws for light emissions and visual impacts and the FAA has not established a threshold for significance, FAA Order 1050.1F recommends that these factors be considered as impacts can be negative when found as impacts in other resource categories and subject to regulations such as the Migratory Bird Treaty Act, ESA, Section 106 of the NHPA and EO 12898 for impacts to sensitive populations. Visual effects are measured by the extent to which airport project contrasts 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

4.11.1 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. Airport lighting includes the nighttime obstruction lighting, where six locations of lighted beacons operate from the tree line along the Cove Canal in the mature vegetation as shown in Figures 4 and 9.

The Friedman Memorial Airport is located in a shallow valley surrounded by mountains on either side. The property immediately surrounding the Airport is direct highway to the north east with mostly residential across the highway, as well as some agricultural lots on the land south and west of the airport. Wood River Elementary School is located east of the Airport. The topography of the floodplain in the vicinity of the Airport is flat but to the east. As such the floodplain does not come close to reaching the airport property or the proposed acquisition. No major changes to the landscape have occurred in several decades.

The Eccles Flying Hat Ranch, as outlined in Section 4.7, is the major feature between Hailey and Bellevue. The ranch contains mature vegetation along the Cove Canal as well as multiple structures oriented toward operating the ranch, irrigating, and hay/alfalfa field harvesting. The view from Highway 75 is of open fields broken by fence lines and tree lines to the west including the Big Wood River floodplain.

4.11.2 Environmental Consequences

No Action Alternative

Under the No Action Alternative, the airport would be contained to its existing footprint without noticeable effect to light emissions or visual quality. Tree lighting for obstructions would remain until the avigation easement expires, during which time the airport would have negative effects for nighttime landings as well as continued intrusions into the airspace for landing aircraft.

Negative impacts to the airport safety and operations would only be expected to compound as the trees extended skyward with annual growth.

Proposed Action Alternative

Under the Proposed Action, none of the lights on the airport property will be changed. In the trees (obstructions) on the canal currently, there are six lights to help guide pilots over the obstructions. These lights would be removed with the trees and as such would help lower the light emissions on and around the airport property. Minimal emissions may be present during construction.

As outlined in section 4.7, the removal of the trees and farmhouse will open up the views of the farm. The change will be most viewed from vehicles on Highway 75 as the farm landscape will change. However, this will not change the overall landscape as an agricultural property. The irrigation equipment, Cove Canal, farm buildings, irrigated pastures and field, will all not change. Therefore, the change is expected to be temporary and minimal. After one season of growth and reestablishment of the dominant feature, the agricultural landscape, the Flying Hat Ranch will have an intact appearance. At that time, travelers on Highway 75 will not perceive any change to have occurred.

4.11.3 Cumulative Impacts

Existing and future projects considered include general safety and operational improvements on Airport property. Light emissions from those projects are anticipated to be minor with no significant changes in light emissions. Projects identified as reconstruction for roadway/bridge projects may have minor increases in light emissions due to safety lighting. Cumulative effects are not anticipated, any minor increase in light emissions would not be noticeable due to the distance to residences and the absence of sensitive resources.

4.12.4 Mitigation

To minimize light emissions, any security lighting installed as a part of the airport operations would be angled downward and/or use reduced wattage bulbs. No other mitigation is proposed.

4.12 Socioeconomic Impacts, Environmental Justice, and Children’s Environmental Health and Safety Risks

Socioeconomic impacts describe the social, economic conditions, and environmental justice issues resulting from the project actions. Regulations are in place to protect residents and businesses from effects and identify and assess environmental health and safety risks that may disproportionately affect children.

To meet the above requirements, baseline conditions are established in the following chapter sub-sections, which provide a socioeconomic profile of the community, proximity of children to the Airport, and current use of land proposed for acquisition. FAA Order 1050.1F requires an analysis of socioeconomic impacts, effects to minority and low income populations, and health effects to children when a Federal action is proposed. Socioeconomic impacts associated with relocation or other community disruptions must be considered. Impacts are considered significant when:

1. Extensive relocation of residents is required, but sufficient replacement housing is unavailable.
2. Extensive relocation of community businesses that would create severe economic hardship for the affected communities.
3. Disruptions of local traffic patterns that substantially reduce the levels of service of the roads serving the Airport and its surrounding communities.
4. A substantial loss in the community tax base.

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations directs federal agencies to take appropriate and necessary steps to identify and address disproportionately high and adverse effects of their projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. A disproportionate risk is defined as a risk to a certain segment of the population that is more severe or greater in magnitude than the same risk for a different segment of the population.

4.12.1 Affected Environment

Socioeconomic Profile - Population and Race

The 2010 US Census Bureau provided estimates for the population of Hailey at 7,960 and Blaine County as 21,376. The population of the city has increased more than 600% since the 1960's. The population of Blaine County has increased more than 400% since the 1960's. The population of Blaine County increased by 2,253 residents from the 2000 census to the 2010 census, an increase of 9.49%. This is very low when compared to the State of Idaho increasing by 273,629 residents over the same period of time, an increase of 21.1%. The 2010 Demographic Profile (US Census Bureau) for Blaine County shows that 84.9% of the total population is white. The largest minority are Some Other Race alone at 11.84%. Hailey contains a minority population of 16.3% has a minority population well above the State of Idaho average of 10.9%. However, the minority population of Blaine County at 15.06% is higher than the state average. These percentages are likely because Sun Valley is mostly a vacation and retirement destination and so has a very diverse population (U.S. Census Bureau, 2010).

Socioeconomic Profile – Employment and Income

The local economy is driven by recreation and tourism. The primary employment in Hailey is administrative and cleaning and maintenance; accommodation and Food Service are the primary private employing industries. Median household income for Blaine County was \$60,088 and Hailey's median household income was \$61,549 in 2015. An estimated 7.64% of Hailey's population is below the poverty line, just over half of the statewide poverty rate of 15.1% Hailey is also approximately \$13,000 more per capita income when compared to the state median household income of \$47,334 (DataUSA 2015).

Median household and per capita income are both above the state average and the poverty levels are lower than state averages for the city and county. The airport and parcels proposed for acquisition lie in Census tract 9400, Block 3 (U.S Census Bureau, 2015) which shows the minority and low-income population for these areas, are well below the same categories for the

State of Idaho and Blaine County. There are two low income housing apartment complexes across the freeway towards the East of town near the airport runway in Hailey; Balmoral Apartments and Snow Mountain Apartments. The complexes are near each other and in vicinity of the runway however, are across the highway and will not be affected any more by the Proposed Action as land acquisition will not affect traffic patterns or concentrations. Blaine County provides low income housing through the Blaine County Housing Authority (BCHA) located in Ketchum, Idaho. BCHA is not a governmental entity but does was created by Blaine County and has all the powers and authority bestowed upon a housing authority pursuant to Title 31, Chapter 42 and Title 50, Chapter 19 of Idaho Code. The two apartments in Hailey are run by the BCHA. Therefore, there are no indicators of (trailer parks, government housing programs, high minority, non-English speaking, low-income, or foreign-born populations) concentrations of low income or poverty populations within the immediate vicinity of the airport.

Children's Environment

Hailey Elementary School is located immediately north of the Airport and would be under the CFR Part 77 airspace transitional surface on the north if there was an RPZ on the north side. Enrollment as of November 2016 was 3,440 students (Blaine County, 2016). Alturas Elementary, Woodside Elementary and The Sage School are all in the town of Hailey in close proximity to the airport. None are in or around the RPZ land projected to be acquired.

Community Disruption

Identification of existing uses of land is necessary to determine the potential for community disruptions or other socioeconomic impacts if existing land uses are changed. Significant impacts would include extensive relocation of residents and community businesses, disruptions to local traffic patterns, loss in the community tax base, and development that is in conflict with local laws, regulations, or ordinances.

4.12.2 Environmental Consequences

No Action Alternative

Under the No Action Alternative, no changes to baseline conditions would occur and there would be no displacement of persons, community disruptions, or other socioeconomic impacts. No disproportionate impacts to minority populations, low-income populations, and children would occur.

Proposed Action Alternative

Socioeconomic Profile - Population and Race

In the reviewed Census tract 9400, Block 3 (U.S Census Bureau, 2015), there is no evidence of concentrations of minority populations within the immediate vicinity of the airport under the Proposed Action Alternative.

Socioeconomic Profile – Employment and Income

In the reviewed Census tract 9400, Block 3 (U.S Census Bureau, 2015), there is no evidence of concentrations of minority populations and employments within the immediate vicinity of the airport under the Proposed Action Alternative.

Children's Environment

Under the Proposed Action Alternative, no changes to the children's environment would occur. The closest property is Woodside Elementary School, located within half a mile of the proposed action area for acquisition. Again, as the proposed action is for land acquisition and obstruction removal, no impacts would occur to the school or children.

Community Disruption

The current land use of the projected acquisition area is agricultural/open space and residential, discussed more in **Section 4.8**. The estimated community disruption from the Proposed Action is the disruption of the Eccles Hat Ranch property and the commodities it produces as well as the removal of the residence from the tax revenues. The 65 acre loss associated with the Proposed Action is only a small portion of land out of all the Eccles Ranch property available. As a result, the disruption of the farm is not a community disruption. The open space disruption is likewise not a very large community loss as the area will remain in agriculture, other than those portions which will be incorporated into the Friedman Memorial Airport property. However, the space, as it is meant for RPZ protection, will be open space.

4.12.3 Cumulative Impacts

Past, present, and reasonably foreseeable actions do not consist of developments that would cause extensive relocation of residents or businesses, significant hardships to the local community, disruption of traffic, or substantial losses in the tax base. Transportation projects may provide some temporary impacts to local businesses and traffic during construction, but the project will remediate a contaminated site and provide positive long-term health and safety and environmental benefits. The proposed project would not indirectly or cumulatively affect population in the area and will facilitate airport development already provided for in the airport master plan.

4.12.4 Mitigation

Relocation of the property house occupant is the only mitigation expected for this project. The occupant and owner of the property have both agreed to a voluntary vacation of the house and a willingness to give the property to the airport. The occupant does not fall under a minority or child category as discussed in this chapter section and so is not an issue for the relocation.

4.13 Water Resources (including wetlands, floodplains, surface waters, groundwater, and wild and scenic rivers)

Wetlands are regulated by EO 11990, Order DOT 5660.1A, the Rivers and Harbors Act of 1899, and Section 404 of the CWA. These regulations require that Federal Actions are to evaluate the wetlands and to minimize the destruction, loss, or degradation of wetlands, and that facilities should be planned, constructed, and operated to insure the value of wetlands is considered in decision making.

Development in floodplains is regulated by Executive Order (EO) 11988, *Floodplains*, and Order DOT 5650.2, *Floodplain Management and Protection*. This executive order directs federal agencies to take action to reduce the risk of flood loss, minimize the impact of floods on human safety, health, and welfare, and restore and preserve the natural and beneficial values served by

floodplains. Agencies are required to ensure there are no practicable alternatives before developing in a 100-year floodplain. FAA Order 1050.1F states that if the only practicable alternative requires development in the floodplain, an encroachment analysis is needed to determine if significant impacts to the floodplain will occur.

The Federal CWA provides the framework to maintain the quality of the nation's waters by establishing water quality standards, controlling discharges, developing waste treatment management plans and practices, preventing or minimizing the loss of wetlands, identifying aquifers or sensitive ecological areas, and regulating other issues concerning water quality. These water quality standards apply to both surface and groundwater resources.

The National Wild and Scenic Rivers map was consulted (Rivers, 2017). The nearest river is the Middle Fork of the Salmon River, approximately 80 miles north of the project area; therefore these resources are not affected and will not be further discussed in this evaluation.

4.13.1 Affected Environment

Wetlands

The National Wetlands Inventory and soils data were reviewed and field observations confirmed the presence of wetlands in the project vicinity (USFWS, 2014a; NRCS, 2014). Wetland areas were located and investigated within the riparian area of the Cove Canal.

A Wetland Delineation was completed in July 2017 and coordination with the Army Corps of Engineers occurred on August 30, 2017 (Appendix E) for areas immediately surrounding the Proposed Action. A series of paired test plots that were sampled for vegetation, hydrology, and soils in accordance with the methods in the Wetland Delineation Manual (USACE, 1987) and the Regional Supplement (USACE, 2010). The study area included the agricultural fields and Cove Canal immediately south and west of Runway 31 and west of Idaho Highway 75 at milepost 114. The property is located within Sections 22 and 23, Township 2 North, Range 18 East. Field investigation found and delineated the preliminary boundaries of wetlands and Waters of the United States. The following wetlands and Waters of the United States were identified within the approximate 90-acre Wetland Study Area (WSA) as shown on Figure 15.

WL-1 Palustrine Emergent (PEM) – 1.93 acres

WL-2 Palustrine Forested (PFO) – 2.215 acres

WL-3 Palustrine Scrub-Shrub (PSS) – 0.29 acres

Floodplains

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panel #16013C0856E (FIRM, 2017) indicates that the south side of the Friedman Memorial Airport and the areas proposed for acquisition are not within a floodplain or regulated floodway as shown on Figure 16. The Big Wood River is the nearest feature with a regulated floodplain which is approximately $\frac{1}{2}$ mile west of the project. The Cove Canal does not contain a floodplain.



Legend

- RPZ
- Project Location
- ▨ Delimited Wetlands
- Wetland Survey Area
- Channel or Linear Wetland

- ▨ Freshwater Emergent Wetland
- ▨ Freshwater Forested/Shrub Wetland
- Riverine



0 500 1,000 2,000
Feet



FIGURE 16:
NATIONAL WETLAND INVENTORY





Legend

- Project Location
- RPZ
- 500-Year Floodplain
- 100-Year Floodplain
- Regulatory Floodway



0 500 1,000 2,000
Feet



FIGURE 15: FEMA FLOOD ZONES



Water Quality

The Cove Canal is the only surface water present in the proposed land acquisition. The canal is used during the agriculture season mostly for watering the Eccles Hat Ranch acreage. As the proposed action is just land acquisition and removal of trees, there should be a minimal effect on the canal itself and the water within it. By removing the trees and trash from around the canal, it will help promote flow.

4.13.2 Environmental Consequences

No Action Alternative

Under the No Action Alternative, no changes to baseline conditions would occur and there would be no impacts to surface water or groundwater.

Proposed Action Alternative

A wetland delineation was completed around the Cove Canal and the Eccles property. A complete wetland delineation and assessment will be required if future development is proposed on the parcels, the current proposed use is as RPZ and maintained as open space for the airport.

Wetlands

Acquisition of the Flying Hat Ranch will provide an airport controlled RPZ as recommended by the FAA, no development is currently proposed on the land and it may be considered for wetland mitigation. The wetlands to consider under the Proposed Action include the Freshwater Emergent Wetland around the Cove Canal where the obstructions (trees) are located in the project area. Executive Order 11990, which applies to both jurisdictional and non-jurisdictional (i.e., isolated) wetlands, requires Federal agencies to find: “*(1) that there is no practicable alternative to such [new] construction, and (2) that the proposed action includes all practicable measures to minimize harm to wetlands which may result from such use.*” In making this finding, FAA may take into account economic, environmental, and other pertinent factors.

Three other alternatives for RPZ control were proposed, however they all used the same location just a different configuration of land acquisition. The FMAA chose the now Proposed Action Alternative as it encompasses all of the obstructions to ensure no regrowth around the wetland area. The only construction within the wetland area is the obstruction removal. These impacts are minimal and will not involve the removal or minimization of the wetlands. Likewise by ensuring construction measures follow the SWPPP and BMPs, the reduction in runoff and sediment as well as protection of the overall integrity of the wetland will help to ensure its safety.

The Army Corps of Engineers was contacted and standard methods for tree removal were discussed (USACE, 2017). These methods included cutting at ground level, removing the woody vegetation, and treatment of the stumps to prevent regrowth. The wetlands would be temporarily impacted during tree removal and would be restored from forested wetlands to emergent wetlands. Emergent wetlands along the banks of the Cove Canal are consistent with the season wetland complex found along irrigation canals and drainage ditches. The Idaho Falls District of the Army Corps of Engineers agreed that these methods and the conversion from one wetland type to another do not constitute “permanent impact” under Section 404 of the Clean

Water Act. Therefore, there would be no significant impacts to wetlands as a result of the Proposed Action Alternative.

Floodplains

The proposed land acquisition and obstruction removal is not in a floodplain, therefore no impacts would occur.

Water Quality

Under the Proposed Action Alternative, no changes to baseline conditions would occur and there would be no impacts to surface water or groundwater as long as the mitigation measures are followed appropriately.

4.13.3 Cumulative Impacts

The proposed property acquisition and obstruction removal for this project would not reduce the water quality of the Cove Canal. As long as all mitigation measures and proper SWPPP is followed, during low flow conditions, there should be no impact to the water quality of the canal and therefore no cumulative impacts to it. This small section of wetland out of the surrounding area is insignificant to the area, and as such the loss of returning wildlife will not be harmful to the area's overall wetlands. The removal of vegetation will have the most cumulative impacts; however for the small section of the manmade canal, the loss is insignificant to the area.

4.13.4 Mitigation

BMP's are measures taken to reduce storm water volume and flows, reduce erosion, and minimize sedimentation. BMP's will be implemented to reduce or eliminate storm water discharges of pollutants into waterways. BMP's may include physical measures such as silt fences, seeding, and erosion control mats to keep sediment out of the canal if water is present. Construction is planned during low-flow or no-flow conditions which would eliminate the possibility for silt and suspended sediments to enter the Cove Canal. Other than standard BMP's for construction, no specific mitigation is required.

Construction within wetlands would require a CWA Section 404 permit only if there is work below ordinary high water mark (OHWM) and/or ground disturbance would occur to the wetlands. As the obstruction removal involves no construction below OHWM mulching and seeding, no permit is necessary (USACE, 2017) and other than standard BMP's for sediment control, no further mitigation is required.

Petroleum products and any other contaminated water generated would be managed and disposed of in accordance with applicable Federal, State and Local regulations. Therefore, no affects to groundwater or surface waters are anticipated with the implementation of the Proposed Action and no further mitigation is required.

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