



# Appendix A

## **Environmental Evaluation**

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DAVID EVANS  
AND ASSOCIATES INC.

MEMORANDUM

**DATE:** May 4, 2021

**TO:** Samantha Peterson, Aviation Planner  
Century West Engineering  
421 N. Pearl St. #206  
Ellensburg, WA 98926

**FROM:** Casey Storey, DEA

**SUBJECT:** Joseph Airport Master Plan Preferred Alternative Environmental Evaluation

**PROJECT:** CWEX00000026  
Joseph Airport Master Plan & AGIS

## 1. Introduction

This memorandum presents a preliminary evaluation of the potential environmental impacts that could result from implementation of the Preferred Alternative for the Joseph State Airport Master Plan. This evaluation is based on the Preferred Alternative description as provided by Century West Engineering coupled with analysis and review of environmental baseline conditions at the Joseph Airport Master Plan study area that were completed in support of a July 2020 Environmental Baseline memorandum prepared by David Evans and Associates (DEA). This evaluation area includes the existing Joseph State Airport (Airport) facility, the Preferred Alternative Area of Potential Effect (APE), and the surrounding environment – including adjacent habitats and immediate watersheds. The primary resource impact topics analyzed in this document include Land Use; Hazardous Materials and Solid Waste; Biotic Resources (including terrestrial and aquatic species and their habitats); Section 4(f) Resources; Federally Listed Endangered and Threatened Species; Wetlands and Waters of the United States; Floodplains; Air Quality; and Stormwater and Water Quality.

## 2. Preferred Alternative

The improvements associated with the Preferred Alternative would include operational changes, construction of both airside and landside improvements, and acquisition of land adjacent to the Airport to accommodate development of portions of the Preferred Alternative. No changes to the existing runway or west parallel taxiway configuration are proposed. Proposed Airport improvements are shown in Appendix A and summarized as follows:

### Runway/Taxiway System

- Development of Non-Precision Instrument Approach with Circling Procedure.
- Grading of taxiway object free area (TOFA) at north end of west parallel taxiway.
- Pavement removal adjacent to aircraft fueling apron and parallel taxiway to address potential runway incursion in compliance with FAA standards.

### South Apron Area Improvements

- New hangar infill construction (7 conventional hangars proposed).
- Replacement/relocation of existing pilot building with mixed use building, with potential for including community use space.



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- Expansion of existing aircraft apron to provide hangar access and large aircraft parking, including medevac aircraft.
- Elimination of 12 small airplane tiedowns to accommodate hangars and large aircraft parking.
- Reconfigured vehicle access and parking.
- Relocated/upgraded (electronic) south and west vehicle gates
- Expanded aircraft fueling apron.

#### **West Hangar Area**

- Acquisition of approximately 1.9 acres of City of Joseph-owned land with direct access to airfield.
- Construction of new taxiway connection to west parallel taxiway.
- New hangars (4 conventional hangars and one 8-unit T-hangar proposed).
- New vehicle parking.
- New fencing and vehicle gates.
- Relocation of existing City solid waste recycling station on site.
- Preserve (relocate) existing access to City-owned parcel, including recycling station and gravel pit extraction.

#### **East Hangar Development Reserve**

- Areas identified for potential aviation use facilities with access to the runway.

### **3. Potential Environmental Impacts of the Preferred Alternative**

The following sections describe the potential impacts of the Preferred Alternative on the environmental resources listed in Section 1 above. Please refer to the July 2020 Environmental Baseline memo for additional detail on the environmental resources present on and near the Airport property. The analysis below does not include potential impacts to historic, cultural and archaeological resources. Potential impacts to these resources will be addressed in a separate memo to be prepared by Historical Research Associates, Inc. (HRA).

#### **3.1. Land Use**

The Airport is located adjacent to and west of the Joseph city limits in unincorporated Wallowa County. The Airport property is dedicated to airport-related uses, while adjacent properties are characterized by industrial and light industrial uses. Low-density residential uses exist immediately west of Airway Road, to the west of the Airport. A City of Joseph recycling transfer facility and a gravel pit are located on a city-owned parcel immediately adjacent to the Airport on its west side, between the Airport property and Airway Road.

Parcels immediately adjacent to the Airport, including the City of Joseph owned property to be acquired as part of the West Hangar Area improvements, are zoned M-1 (Industrial) by the Wallowa County Comprehensive Land Use Plan (Wallowa County 2005). Properties to the west of Airway Road are zoned R-1 (Rural Residential). The Airport and adjoining properties are also located within the Airport Protection Zone overlay. This protection zone prohibits the establishment of air space obstructions in airport approaches and surrounding areas through height restrictions and other land use controls deemed essential to reduce potential safety hazards.



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The improvements proposed under the Preferred Alternative would include construction of additional airport-related uses within the boundaries of the Airport property and construction of airport-related uses on the property where the recycling transfer facility and gravel pit currently exist. The Airport will acquire the latter property from the City of Joseph to construct the West Hangar Area improvements and will relocate the recycling transfer facility on site. Access to the recycling facility and gravel pit will be relocated but preserved; therefore, no displacement of existing uses would result under the Preferred Alternative. The proposed uses would be compatible with existing uses on the Airport property and adjacent sites. The West Hangar Area improvements would be consistent with the allowable uses in the M-1 district and no change in zoning will be required. In light of the above, the Preferred Alternative is not expected to have impacts on land use.

### **3.2. Hazardous Materials and Solid Waste**

Queries of the Oregon DEQ Leaking Underground Storage Tank (LUST) and Environmental Cleanup Site Information (ESCI) were conducted in support of DEA's July 2020 Environmental Baseline Memo (DEQ 2020a; DEQ 2020b). These searches identified no records of environmental cleanup sites and no indications of spills, leaking tanks, or areas of known contamination within or adjacent to the Airport property. Several areas of suspected contamination where further investigation may be recommended were identified on or adjacent to the Airport.

Phase I Environmental Site Assessments are advised prior to ground disturbing activities proposed as part of the Preferred Alternative. Completion of a Phase I Environmental Site Assessment will be required for the acquisition of the parcel adjacent to the Airport where the recycling transfer facility is currently located and construction of the West Hangar Area improvements would take place. In all instances where initiated, Phase I Environmental Site Assessments evaluate past and current documentation, existing conditions, and current hazardous materials risks to or from subject parcels.

### **3.3. Biotic Resources**

Vegetation in the area surrounding the Airport is characterized by agricultural fields, native bunchgrass associations, scattered mixed conifer stands, shrubs and scrub communities, and mixed herbaceous cover. Common plant species within the Airport vicinity include trees such as ponderosa pine (*Pinus ponderosa*), lodgepole pine (*Pinus contorta*), Douglas-fir (*Pseudotsuga menziesii*), black cottonwood (*Populus trichocarpa*) and quaking aspen (*Populus tremuloides*). Shrub species common to the area include serviceberry (*Amelanchier alnifolia*) and white alder (*Alnus rhombifolia*). Herbaceous species common in the area include Idaho fescue (*Festuca idahoensis*), bluebunch wheatgrass (*Agropyron spicatum*), and a mix of introduced pasture grasses. Invasive species found throughout the study area include spotted knapweed (*Centaurea stoebe*) and various species of thistle. One federally listed plant species, the threatened Spalding's catchfly (*Silene spaldingii*), has been previously documented near the Airport. Spalding's catchfly is discussed further in Section 3.5 below.

The Airport lies between two streams: Hurricane Creek to the west and northwest, and the Wallowa River to the east. A third stream, Newby Creek, which is a small tributary of the Wallowa River, lies adjacent to the southeast corner of the Airport property. These streams support a variety of aquatic species, both native and



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introduced. Critical Habitat for bull trout (*Salvelinus confluentus*) and steelhead (*Oncorhynchus mykiss*), Snake River Basin distinct population segment (DPS), both federally listed as threatened, is designated in Hurricane Creek and the Wallowa River. These species are discussed further in Section 3.5 below. All three streams are located outside the footprint of the Preferred Alternative.

Vegetated habitat on the Airport property is disturbed and managed in support of safe airport operations. Vegetated areas of the Airport property consist of runway safety area (RSA), taxiway safety area (TSA), and areas adjacent to landside operations that are characterized by mowed grasses and forbs. Wildlife expected to occur on or near the Airport property are largely typical of those found in developed areas of Wallowa county, including rodents and other small mammals such as various species of mice, voles, rats, ground squirrels, rabbits, and moles; two species of deer (*Odocoileus hemionus*, and *O. virginianus*); and coyotes (*Canis latrans*). Birds that may occur on the Airport property include species such as killdeer (*Charadrius vociferus*), western meadowlark (*Sturnella neglecta*), horned lark (*Eremophila alpestris*), savannah sparrow (*Passerculus sandwichensis*), and potentially other ground-nesting migratory species.

Because terrestrial habitat on the Airport property is disturbed and no aquatic habitat exists within the Preferred Alternative footprint, construction associated with the Preferred Alternative is generally not expected to have impacts on unique or special biotic resources. As discussed in Section 3.5 below, vegetation surveys are recommended to determine the possible presence of Spalding's catchfly (*Silene spaldingii*). If it is determined during project design that additional stormwater runoff from the Preferred Alternative improvements could reach nearby receiving waters, treatment will need to be incorporated to address potential impacts on listed fish species. This is discussed further in Section 3.5 and 3.9 below. Additionally, if construction is proposed during the nesting season for bird species likely to be present on the Airport property, pre-construction nest surveys would be required to ensure compliance with the Migratory Bird Treaty Act (MBTA).

### **3.4. Section 4(f) Resources**

Section 4(f) of the the U.S. Department of Transportation Act of 1966 provides for consideration of park and recreation lands, wildlife and waterfowl refuges, and historic sites during transportation project development. Research conducted in support of the DEA July 2020 Environmental Baseline Memo determined that no Section 4(f) properties occur within the Airport property. As a result, no impacts on Section 4(f) properties are anticipated under the Preferred Alternative.

The Hurricane Creek Cemetery, adjacent to the Airport property, likely requires additional evaluation as potentially eligible for inclusion in the National Register of historic Places (NRHP). Cultural and historic resources will be addressed as part of a separate deliverable to be prepared by HRA. The Hurricane Creek Cemetery would not be impacted by the Preferred Alternative.

### **3.5. Federally Listed Threatened and Endangered Species and Habitats**

Queries of the Oregon Biodiversity Information Center (ORBIC) and USFWS IPaC databases were conducted in support of DEA's July 2020 Environmental Baseline memorandum, to determine the presence of state and federally endangered or threatened species, designated Critical Habitat, and species' likelihood of occurrence in the Airport vicinity (ORBIC 2020, USFWS 2020a). Sensitive or listed terrestrial species are not expected to occur



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due to lack of suitable habitat at the Airport property, which is disturbed and managed in support of safe airport operations. One federally threatened plant species, Spalding's catchfly has been previously identified adjacent to the Airport property within the boundaries of the Hurricane Creek Cemetery (Valerie Thompson, DEA Biologist, personal communication, July 8, 2020). No designated Critical Habitat for any federally listed terrestrial species is located at or in the vicinity of the Airport.

Three federally listed fish species, all Threatened, occur in streams adjacent to or near the Airport property: bull trout, steelhead,, Snake River Basin distinct population segment (DPS), and Chinook salmon (*Oncorhynchus tshawytscha*), Snake River Spring/Summer-run evolutionarily significant unit (ESU). Critical Habitat for bull trout and steelhead is designated within Hurricane Creek, which flows to the west of the Airport and is adjacent to the Airport property on its northwest corner, and the Wallowa River, approximately 0.25 mile east of the Airport.

The Preferred Alternative is not expected to impact any federally listed terrestrial species because of a lack of suitable habitat at the Airport. Because Spalding's catchfly has been previously identified on an adjacent property, vegetation surveys are recommended prior to any disturbance of vegetated areas in order to determine if this species is present.

The Preferred Alternative is not expected to impact federally listed fish species or their habitat because no aquatic habitats exist within the Preferred Alternative footprint and additional stormwater generated under the Preferred Alternative is expected to infiltrate on site without reaching nearby waters. If project design of the Preferred Alternative is determined to result in the discharge of stormwater to nearby receiving streams, then project design may need to incorporate stormwater treatment measures to address NMFS requirements for protection of listed salmon and steelhead under their jurisdiction and consultation with this agency and the USFWS may be required

### **3.6. Wetlands and Waters of the United States**

Three streams surround the Airport property: Hurricane Creek, which flows to the west of the Airport and adjoins the northwest corner of the property; the Wallowa River, approximately 0.25 east of the Airport; and Newby Creek, a minor tributary of the Wallowa River, adjacent to the southeastern corner of the Airport property. The National Wetland Inventory (NWI) map classifies these streams as Riverine Wetlands (USFWS 2020b). Three small ponds are located on the property adjacent to the Airport on the east. Two of these ponds are labeled as Palustrine, Unconsolidated Bottom, Semi-permanently Flooded, Excavated (PUBFx) and one is labeled as Palustrine, Unconsolidated Bottom, Permanently Flooded, Excavated (PUBHx). One small pond is located on the property adjacent to the Airport on the west and is classified as Palustrine, Unconsolidated Bottom, Semi-permanently Flooded, Excavated (PUBFx) (USFWS 2020b, Figure 2). The pond indicated to the west appears to be erroneously designated by the NWI and is associated with a quarry-created depression. The ponds mapped to the east are presumed to be seasonally wet, likely holding water in the spring after snowmelt or heavy rains.



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All construction activities associated with the Preferred Alternative would take place in upland areas. No wetlands or Waters of the U.S. are located within the Preferred Alternative footprint as currently proposed. As a result, the Preferred Alternative would not be expected to impact wetlands or waters of the U.S..

### **3.7. Floodplains**

The Airport is located in an upland area on a broad, gently sloping plain and the FEMA National Flood Hazard Layer (NFHL) does not identify mapped floodplains, floodways, or other flood hazard areas within or adjacent to the Airport property (FEMA 2020). According to FEMA Flood Insurance Rate Map (FIRM) number 41063C0614B, effective February 17, 1988, the Airport is located in Flood Hazard Zone X. Zone X denotes areas that are determined to be outside the 500-year floodplain.

None of the actions associated with the Preferred Alternative would take place within or otherwise affect a floodplain. Therefore, no impacts on floodplains are expected to result from implementation of the Preferred Alternative.

### **3.8. Air Quality**

The U.S. Environmental Protection Agency (EPA) established National Ambient Air Quality Standards (NAAQS) for a limited number of "criteria" pollutants with the enactment of the Clean Air Act (CAA) of 1970 and the Amendments of 1975 and 1977. The CAA defines geographic regions that do not meet the NAAQS primary and secondary criteria for certain air pollutants as "non-attainment areas."

The Joseph Airport is outside of designated air quality maintenance and air quality non-attainment areas as regulated and administered by the Oregon Department of Environmental Quality (DEQ). Therefore, the General Conformity Rule (42 United States Code [USC] 7506(c)) does not apply. The Airport is in an attainment area that meets state and federal standards for all regulated air pollutants.

Construction activities associated with the Preferred Alternative would result in short-term, localized adverse air quality impacts from fugitive dust and emissions from construction vehicles and equipment. These impacts would take place only during the construction period and could be minimized through the use of measures such as covering soil stockpiles and watering gravel areas to minimize dust, and ensuring that construction equipment is properly maintained and equipped with mufflers and air filters.

In the long term, implementation of the Preferred Alternative would not by itself be expected to affect levels of air traffic at the Airport or vehicle traffic to the airport in a way that would measurably contribute to increased emissions. The Preferred Alternative would not be expected to result in levels of pollution that would exceed the NAAQS. As a result, no long-term air quality impacts would be expected from implementation of the Preferred Alternative.

### **3.9. Stormwater and Water Quality**

Stormwater treatment and conveyance infrastructure on the Airport property is limited to sheetflow conveyance to on-airport ditches and grassed infield and runway safety areas (RSA). No direct discharge points to nearby waterways or ditches draining to waterways occur or are associated with Airport stormwater conveyance.



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The Preferred Alternative would result in the addition of impervious areas on the Airport property in the form of paved surfaces and buildings, which would result in an increase in stormwater generated on the site. It is anticipated that stormwater would continue to sheetflow to on-airport ditches and grassed infield and RSA, infiltrating into the ground without directly discharging to nearby waterways. As a result, additional stormwater generated under the Preferred Alternative would not be expected to impact water quality in nearby waters.

If the Preferred Alternative is determined during project design to result in the potential discharge of stormwater to nearby receiving streams, then project design will need to incorporate stormwater treatment measures to address NMFS requirements for protection of listed fish under their jurisdiction or to avoid potential impacts to listed fish administered by NMFS and the USFWS.



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#### **4 References**

Federal Emergency Management Agency (FEMA). 2020. FEMA National Flood Hazard Layer online map viewer. <https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd>. Accessed July 6, 2020.

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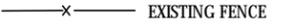
United States Fish and Wildlife Service (USFWS). 2020b. National Wetlands Inventory of surface waters and wetlands. <https://www.fws.gov/wetlands/data/Mapper.html>. Accessed January 2020.

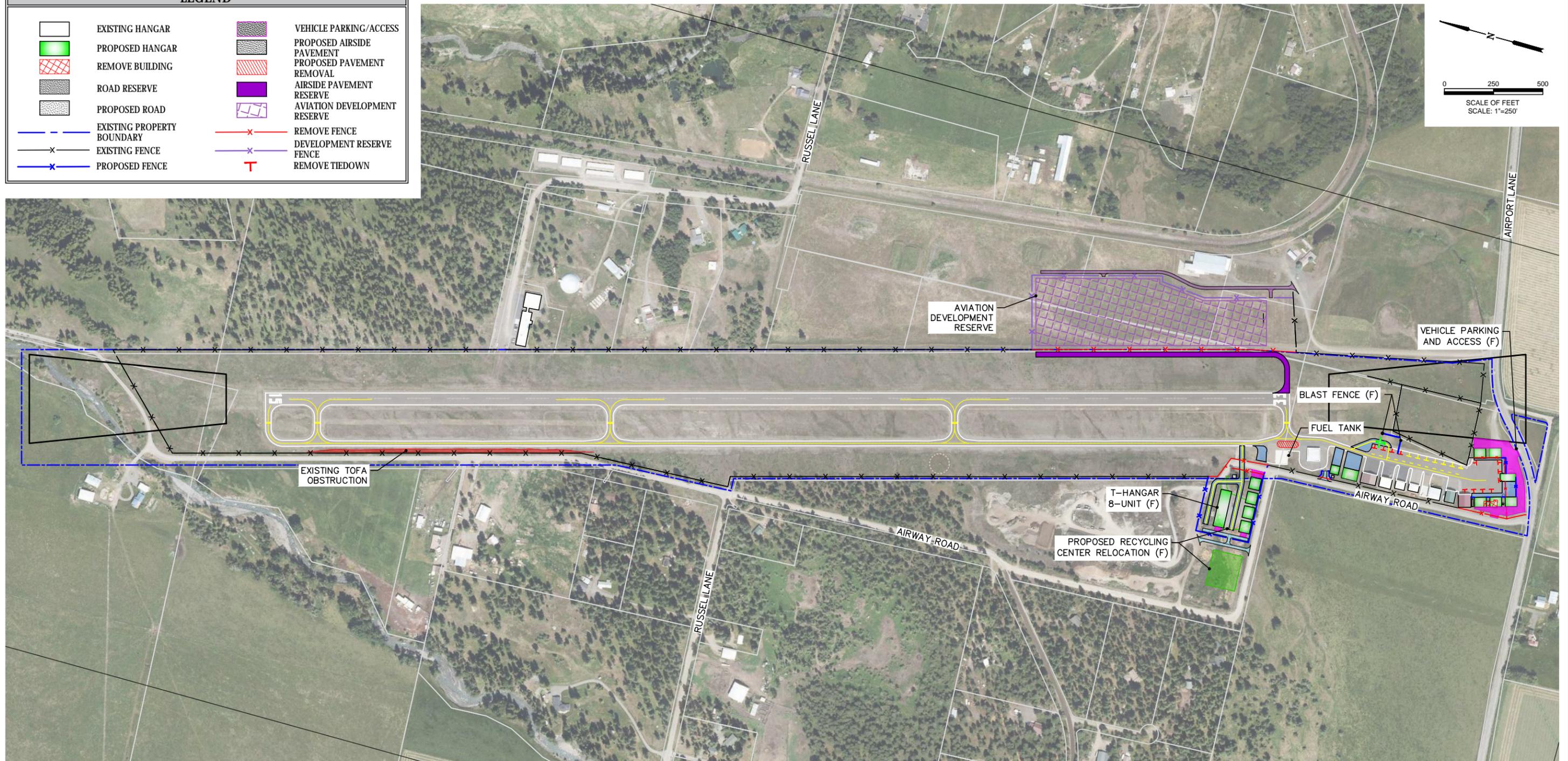
Wallowa County. 2005. Wallowa County Comprehensive Land Use Plan.

Attachments/Enclosures:

Appendix A. Preferred Alternative Proposed Improvements

***Appendix A: Preferred Alternative Proposed  
Improvements***

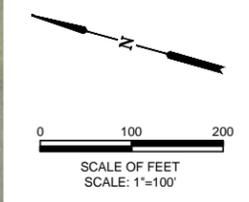
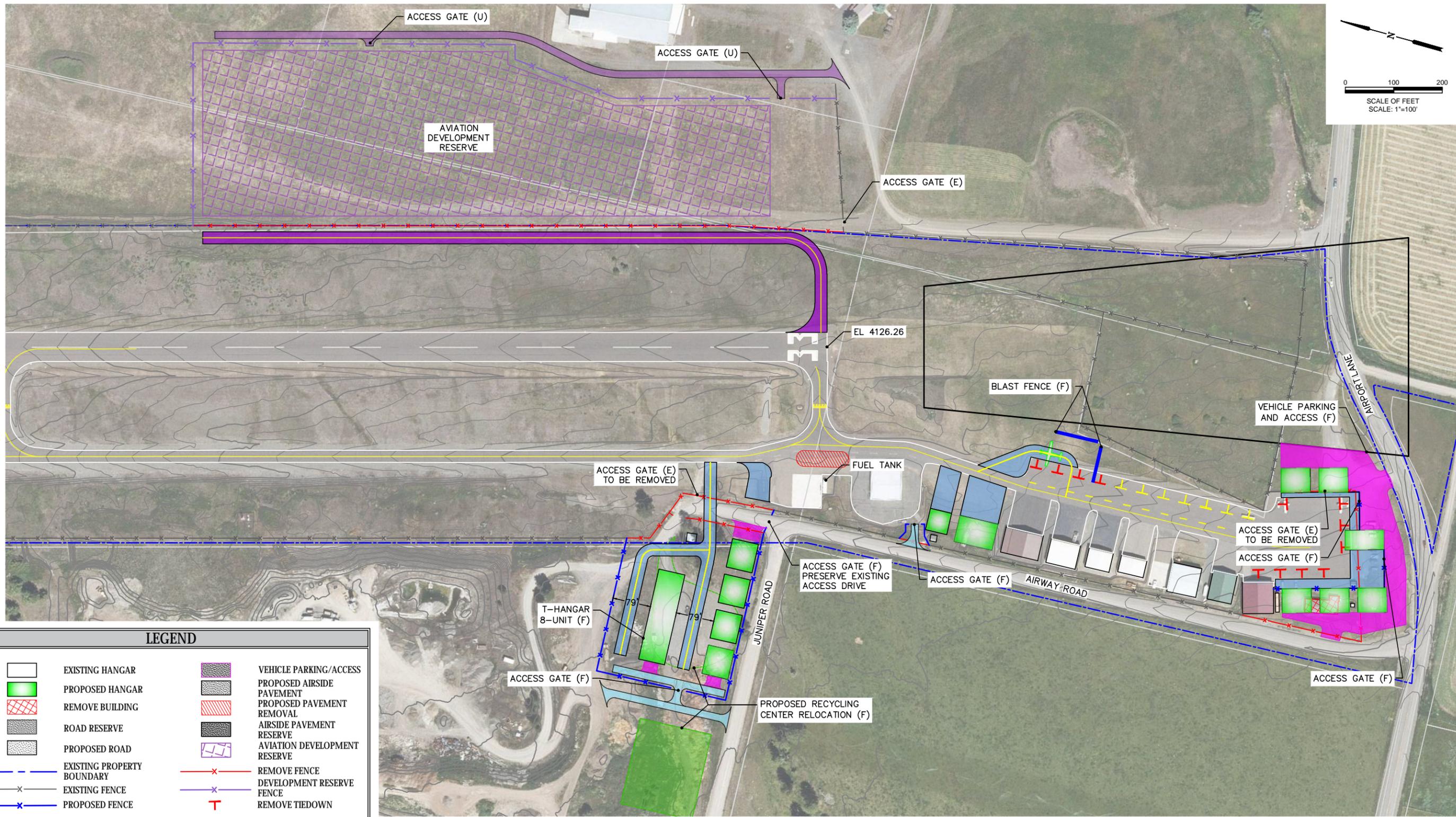
LEGEND			
	EXISTING HANGAR		VEHICLE PARKING/ACCESS
	PROPOSED HANGAR		PROPOSED AIRSIDE PAVEMENT
	REMOVE BUILDING		PROPOSED PAVEMENT REMOVAL
	ROAD RESERVE		AIRSIDE PAVEMENT RESERVE
	PROPOSED ROAD		AVIATION DEVELOPMENT RESERVE
	EXISTING PROPERTY BOUNDARY		REMOVE FENCE
	EXISTING FENCE		DEVELOPMENT RESERVE FENCE
	PROPOSED FENCE		REMOVE TIEDOWN



PREFERRED ALTERNATIVE

JOSEPH STATE AIRPORT  
OREGON DEPARTMENT OF AVIATION





LEGEND			
	EXISTING HANGAR		VEHICLE PARKING/ACCESS
	PROPOSED HANGAR		PROPOSED AIRSIDE PAVEMENT
	REMOVE BUILDING		PROPOSED PAVEMENT REMOVAL
	ROAD RESERVE		AIRSIDE PAVEMENT RESERVE
	PROPOSED ROAD		AVIATION DEVELOPMENT RESERVE
	EXISTING PROPERTY BOUNDARY		REMOVE FENCE
	EXISTING FENCE		DEVELOPMENT RESERVE FENCE
	PROPOSED FENCE		REMOVE TIEDOWN

**PREFERRED ALTERNATIVE**  
**TERMINAL APRON AND DEVELOPMENT AREAS**

**JOSEPH STATE AIRPORT**  
 OREGON DEPARTMENT OF AVIATION

