

U.S. Department of Transportation
Federal Aviation Administration
Northwest Mountain Region
Denver Airports District Office

Written Re-evaluation of the
2018 Environmental Assessment

For the Runway & Terminal Area Improvement Projects
At the Aspen/Pitkin County Airport
Aspen, CO

August 2025

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I. Introduction

The Federal Aviation Administration (FAA) issued a Finding of No Significant Impact/Record of Decision (FONSI/ROD) for the *Aspen/Pitkin County Airport Runway & Terminal Area Improvement Projects Environmental Assessment (EA)* in 2018. This written re-evaluation (WR) evaluates whether a supplemental environmental analysis is needed to support the FAA's decision to unconditionally approve the portion of the Airport Layout Plan (ALP) that depict the Proposed Action subject to FAA review and approval pursuant to 49 U.S.C. § 47107(a)(16)(B); make determinations under 49 U.S.C. §§ 47101-47144 for eligibility of the Proposed Action for federal funding under the Airport Improvement Program (AIP) and under 49 U.S.C. 40117 to impose Passenger Facility Charges (PFC); approve and relocate navigational aids; and approve modifications to flight procedures to implement the proposed terminal and airfield improvement projects (Proposed Action) at the Aspen/Pitkin County Airport (ASE), owned and operated by Pitkin County (Airport Sponsor).

Per DOT Order 5610.1D, Section 18.c.(1), a WR is a document used to determine whether the contents of a previously prepared environmental document, such as an EA, remain valid, or if a new or supplemental environmental document is required. A WR is required for this project because major steps toward implementation of the Proposed Action have not commenced since the Final EA was issued in July 2018 (18.c.(3)).

The preparation of a supplemental EA is necessary if a major Federal action remains to occur, and (1) there are substantial changes to the proposed action that are relevant to environmental concerns; or (2) an Operating Administration decides, in its discretion, that there are substantial new circumstances or information about the significance of the adverse environmental impacts that bear on the proposed action or its impacts (DOT Order 5610.1D Section 18.d.). Approval of the ALP, determination of eligibility for federal funding under the AIP or PFC programs, relocation of navigational aids, and modifications to flight procedures are outstanding major Federal actions that still need to occur prior to project construction/implementation. This WR provides documentation that the contents of the 2018 Final EA (FEA) remain current and substantially valid and that the preparation of a new or supplemental EA is not required.

II. Background

ASE is a publically owned and operated commercial service airport located in Pitkin County, Colorado approximately three miles northwest of the City of Aspen's Central Business District and approximately 38 miles southeast of the City of Glenwood Springs. ASE is situated west of Colorado Highway 82 and east of Owl Creek Road on the northern limits of the Aspen Area Urban Growth Area. Airside facilities at ASE include Runway 15/33 (8,006 feet long by 100 feet wide), a taxiway system, aircraft parking aprons and associated visual and electronic navigational aids. Landside facilities include a terminal building, hangars, ground access routes, automobile parking areas, fuel farm and storage facilities.

The Airport Reference Code (ARC) is a coding system used by the FAA to relate airport design criteria to the operational and physical characteristics of the airplanes that currently and are forecasted to operate at an airport. The ARC has two components. The first component is depicted by a letter (A-E) and relates to the aircraft approach speed. The second component is depicted by Roman numeral (I-IV) and relates to physical characteristics (aircraft wingspan or tail-height). ASE is a D-III airport that does not fully comply with D-III standards. The non-standard conditions include the separation

distance between the runway and taxiway, the taxiway and parked aircraft, and runway and the holding position; runway width; and runway strength. As result, ASE has wingspan restriction that prohibits aircraft with a tip-to-tip wingspan of greater than 95' and landing weight in excess of 100,000 lbs. dual-wheel from operating at ASE.

In 2012, ASE completed a Master Plan Update and submitted an updated Airport Layout Plan (ALP) to the FAA. The Master Plan identified needed improvements on the east side area (including a passenger terminal replacement), a full parallel taxiway for the west side, and development for a potential second Fixed Base Operator (FBO). The Master Plan Update determined that the existing terminal configuration has resulted in many of the undersized areas that are unable to efficiently accommodate existing demand. The ALP was partially approved on a conditional basis in August of 2013 for projects on the east side, but not for projects on the west side. The conditional basis of the ALP approval was subject to subsequent NEPA compliance. No runway changes were recommended in the Master Plan because of the existing restrictions in place at ASE.

In 2014, Pitkin County commissioned an Air Service Study in response to changes that were starting to occur in the aircraft fleet. That study found that the regional jets with wingspans less than 95 feet would be phased out by commercial operators by 2028. Airlines are changing their aircraft fleet in response to air travel demand, and it is expected that the aircraft serving ASE that meet the current restrictions will eventually be withdrawn from service in favor of larger aircraft with more seating. As a result, the airlines would not be able to provide similar scheduled commercial passenger air service at ASE in the future because the aircraft contained in their fleet would not meet those specifications. The Air Service Study analyzed options for ASE to retain commercial passenger service consistent with what exists today and the recommendations from that study were used to update the ALP in 2015 and were brought forward in the 2018 EA.

After the FAA issued the FONSI/ROD for the FEA in 2018, the Pitkin County Board of County Commissioners (BOCC) established an Airport Vision Committee as part of a public consultation process to provide input on the future development of ASE. After nearly fifteen months of study and deliberations, the Committee submitted their recommendations, known as "Common Ground Recommendations," to the Pitkin County BOCC. The Committee maintained many of the Proposed Action elements listed within the 2018 FEA, and recommended modifications, including a decrease in size of the proposed new passenger terminal and associated aircraft apron expansion. The COVID-19 pandemic further delayed implementation of the Proposed Action. ASE is now ready to move forward with the proposed runway and terminal area improvement projects.

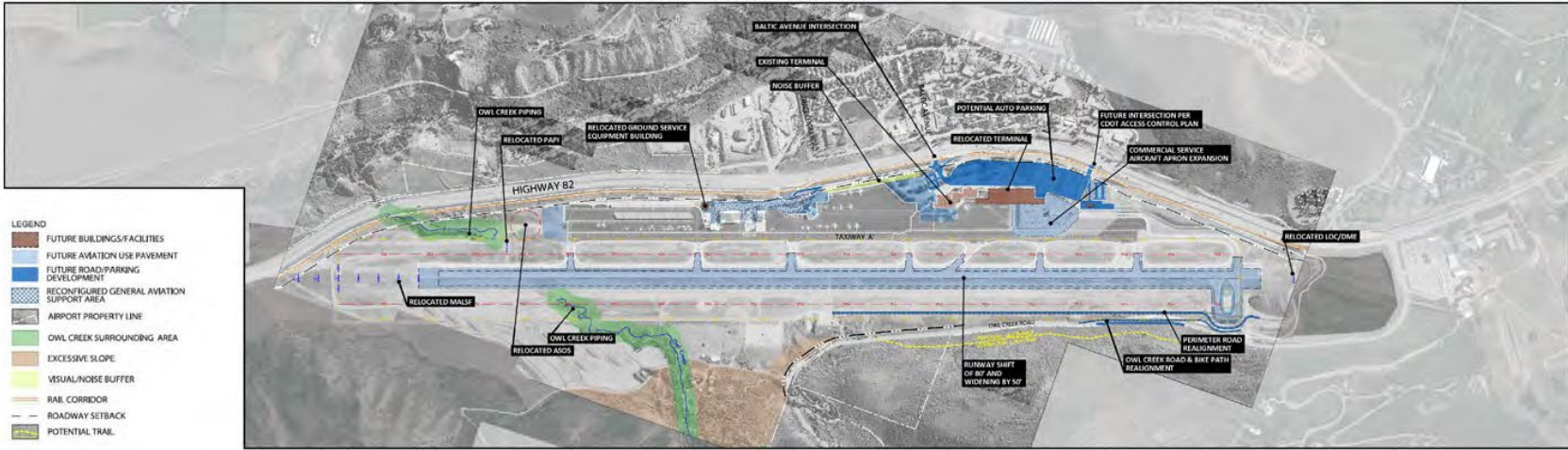
III. Proposed Action (Chapter 1 of the 2018 FEA)

The Proposed Action includes construction of a new passenger terminal, 80-foot shift of the runway, and other related improvements. The Proposed Action evaluated in this WR maintains the same projects approved in the 2018 EA with minor changes resulting from further community engagement and advanced designs. Table 1 contains a list of all Proposed Action elements included in the 2018 EA and identifies proposed changes considered in this WR. The Proposed Action elements are shown in Figure 1 and a comparison between the 2018 Final EA and this WR is shown in Figure 2.

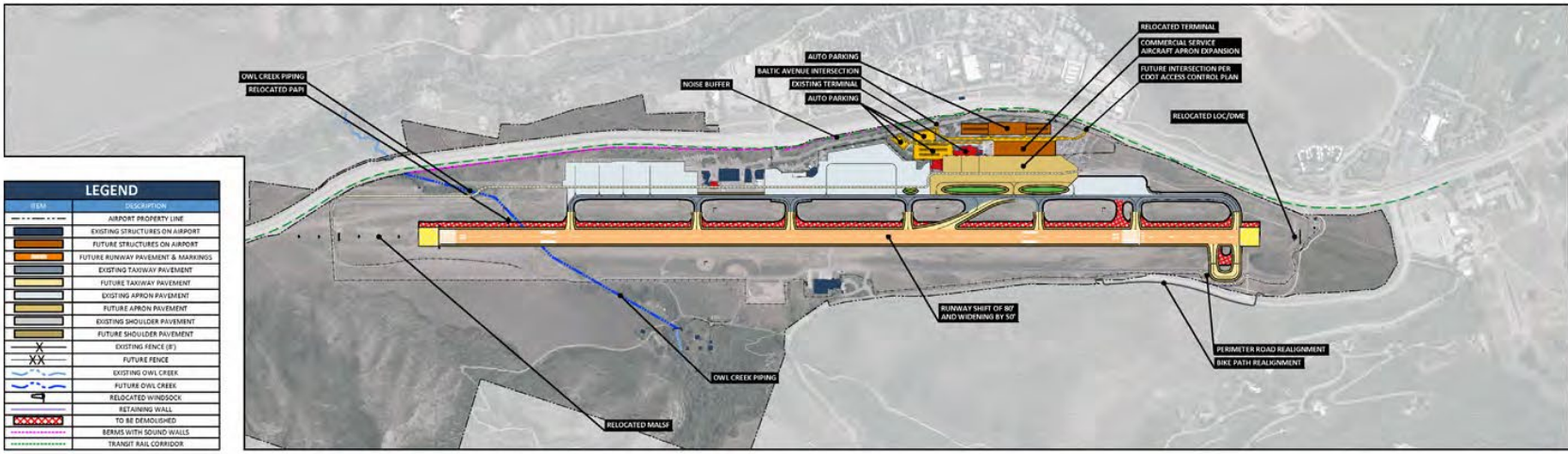
TABLE 1
LIST OF PROPOSED ACTION ELEMENTS

Original Project Element (2018 EA)	2025 WR
Airfield Improvements	
Shift Runway 15/33 80 feet west, widen runway to 150 feet, and strengthen runway to accommodate 150,000-pound landing weight	No Change
Realign the perimeter road, Owl Creek Road, and Bike Path within the Colorado Department of Transportation (CDOT) right-of-way	No Change
Relocate associated Navigational Aids (NAVAIDs) and runway/taxiway lighting	No Change
Remove current wingspan and weight limit restrictions	Revised to accommodate a maximum of FAA design group C-III aircraft
Piping of Owl Creek	No Change
Amend flight procedures to accommodate runway shift	No Change
Terminal Area Improvements	
Construct a new 140,000 square foot passenger terminal	Reduced to approximately 90,000 square feet
Construct associated 662-space parking lot	Reduced to a 515-space parking lot
Reconfigure terminal and recirculation roadways	No Change
Integrate passenger terminal with public transit	No Change
Relocate ancillary facilities, such as rental car facilities	No Change
Demolish existing passenger terminal facilities	No Change
Expand commercial service aircraft apron to accommodate 8-11 aircraft spots	No Change
Construct noise barrier along GA apron area	Increased length of noise barrier

Sources: 2018 EA; Aspen/Pitkin County Airport, 2025.

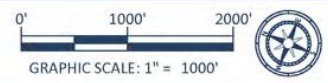


- LEGEND**
- FUTURE BUILDINGS/FACILITIES
 - FUTURE AVIATION USE PAVEMENT
 - FUTURE ROAD/PARKING DEVELOPMENT
 - RECONFIGURED GENERAL AVIATION SUPPORT AREA
 - AIRPORT PROPERTY LINE
 - OWL CREEK SURROUNDING AREA
 - EXCESSIVE SLOPE
 - VISUAL/NOISE BUFFER
 - RAIL CORRIDOR
 - ROADWAY SETBACK
 - POTENTIAL TRAIL



- LEGEND**
- | SYM | DESCRIPTION |
|-----|-----------------------------------|
| --- | AIRPORT PROPERTY LINE |
| --- | EXISTING STRUCTURES ON AIRPORT |
| --- | FUTURE STRUCTURES ON AIRPORT |
| --- | FUTURE RUNWAY PAVEMENT & MARKINGS |
| --- | EXISTING TAXIWAY PAVEMENT |
| --- | FUTURE TAXIWAY PAVEMENT |
| --- | EXISTING APRON PAVEMENT |
| --- | FUTURE APRON PAVEMENT |
| --- | EXISTING SHOULDER PAVEMENT |
| --- | FUTURE SHOULDER PAVEMENT |
| --- | EXISTING FENCE (F) |
| --- | FUTURE FENCE |
| --- | EXISTING OWL CREEK |
| --- | FUTURE OWL CREEK |
| --- | RELOCATED WINDSOCK |
| --- | RETAINING WALL |
| --- | TO BE DEGRADED |
| --- | BERMS WITH SOUND WALLS |
| --- | TRANSIT RAIL CORRIDOR |

No.	Date	Revisions	Notes



EA COMPARISON
ASE EA COMPARISON

Plotted On: 2/20/2025 2:03 PM - Layout: COMPARISON (D)
 File Path: C:\GIS\2025\20250220\20250220_01_Aspen Pitkin County Airport EMDCA EA_COMPARISON_12252025_V1\EA_COMPARISON_12252025_V1

Drawn: CP Approved: AO Date: 10-22-2024

Figure 2 – 2018 EA Project and Proposed Action

Source: Jacobsen Daniels, 2025; Adapted by ESA, 2025.

IV. Purpose and Need (Chapter 2 of the 2018 FEA)

The purpose and need for the proposed runway and terminal improvements remains the same as discussed in the 2018 Final EA. Thus, the purpose and need discussion in the 2018 FEA remains valid for this WR.

A. Airfield Improvements

The purpose and need for the proposed runway improvements is to enable ASE to accommodate anticipated future aircraft and bring the airfield into compliance with the FAA standards and recommendations.

B. Terminal Area Improvements

The purpose and need for improvements to the passenger terminal at ASE are related to deficiencies in the current terminal, issues associated with the current roadway configuration and passenger parking, and deficiencies in the apron area where aircraft park. The existing terminal is unable to efficiently accommodate existing demand. Runway 15/33 Improvements

C. Piping of Owl Creek Outside of Runway Improvements

The purpose and need for the piping of Owl Creek outside of the runway improvements is to reduce the attraction of hazardous wildlife to Owl Creek. The 2012 wildlife hazard management plan (WHMP) identified Owl Creek as a hazardous wildlife attractant within the critical zone (area within 10,000 feet of an aircraft operation area).

V. Agency Actions and Approvals

The FAA actions, determinations, and approvals necessary for this project to proceed include:

- Unconditional approval of the ALP to depict those portions of the Proposed Action subject to FAA review and approval pursuant to 49 U.S.C. § 47107(a)(16)(B).
- Determination of project eligibility for Airport Improvement Program (AIP) funding in accordance with 49 U.S.C. §§ 47101-47144.
- Determination of project eligibility to impose Passenger Facility Charges in accordance with 49 U.S.C. § 40117.
- Modifications to existing aircraft procedures.
- Approval of an amendment to the Airport's Certification Manual per 14 C.F.R.139 (Aircraft Rescue and Firefighting Requirements) and 49 U.S.C. 44502(b).
- Relocation or upgrade of existing NAVAIDs per 49 U.S.C. 44502(a)(1).

VI. Alternatives (Chapter 3 of 2018 FEA)

The alternatives analysis provided in the 2018 FEA remains valid for this WR.

A. Alternatives Examined but Eliminated from Further Study

The following alternatives were considered during the planning process and were dismissed from further consideration because they were determined not to be feasible and/or did not meet the Purpose and Need.

1. Other Modes of Transportation

- Travel by Automobile/Bus
- Substitute Telecommunication Technology for Air Travel.

2. Use of Other Area Airports

Grand Junction Regional Airport and Eagle County Regional Airport are the two closest commercial service airports to ASE that could provide service. The added travel time and unreliable winter roadway conditions make this alternative unrealistic.

3. Terminal Area Improvement Alternatives

▪ Upgrade Existing Terminal in Present Location

Passengers and employees would experience significant inconveniences during construction and the age of the terminal building would make it difficult to resolve facility deficiencies identified in the FEA.

▪ Construction of a Parking Garage to Accommodate 1,300 Parking Spots

Due to a lack of financial feasibility, this alternative was not brought forward. The terminal planning will include the potential for a future parking garage to allow construction of the garage in the future if it becomes financially feasible.

▪ Offsite Parking

Offsite parking was considered but tabled given the expected City and County parking study that will consider parking solutions for the Roaring Fork Valley, including ASE.

4. Runway Alternatives

An Air Service Study examined multiple alternatives that would correct the existing non-standard conditions, allowing ASE to meet FAA design standards. The Study examined 18 different alternatives for achieving the design standards (Pages 3.4-3.5 of the FEA).

5. Piping of Owl Creek Alternative

Continued mowing and tree trimming along Owl Creek located on either side of the runway. Hazardous wildlife is still attracted to Owl Creek even with the maintenance being completed by ASE. Therefore, this alternative was eliminated from further consideration.

B. Alternatives Carried Forward for Analysis in FEA

1. No Action Alternative

Consists of retaining ASE facilities as they exist today. The existing 95-foot wingspan restriction and the Modification to Standards would be kept in place. Commercial service is anticipated to still exist under this Alternative with the use of smaller, older turboprops; however, it would likely be greatly reduced. This Alternative would not allow ASE to accommodate existing and future passenger and operational needs in the terminal area and would not address the FAA design standard deficiencies; however, pursuant to NEPA, this alternative was carried forward for environmental analysis.

2. Terminal Alternatives

Two terminal alternatives were carried forward for evaluation in the FEA. Both alternatives include the relocation and expansion of the terminal, reconfiguration of the terminal area roadways and parking, an expansion of the air carrier apron, relocation of ancillary facilities such as rental car facilities, and a noise wall over by the GA apron. It would also include the demolition of the existing terminal facilities. The differences between the two terminal alternatives are related to architectural features – the size and footprint are the same for both alternatives.

Terminal Alternative 1: A split-level terminal that fits within the landscape where all functions are generally on a single level.

Terminal Alternative 2: A hybrid of the nested/two-story concept that includes a setback appearance to make it less conspicuous within the landscape and a stack of the levels to allow for flexibility of space expansion in the future.

These alternatives were combined into one Terminal Alternative for consideration in the FONSI/ROD that focuses on the footprint of the proposed building.

3. Runway Alternative

This alternative includes shifting the runway 80 feet to the west, widening to 150 feet and strengthening to accommodate up to 150,000 pounds; piping of Owl Creek; relocating navigational aids and runway/taxiway lighting; updating flight procedures; and relocating the perimeter road, Owl Creek Road, and Owl Creek Bike Path. This alternative would remove the wingspan and aircraft weight restriction policy, allowing ASE to fully meet FAA D-III standards.

VII. Affected Environment (Chapter 3 of the 2018 FEA)

The affected environment remains largely the same as discussed in the 2018 FEA (no substantial changes or alterations have occurred in the study area). Thus, the discussion of the affected environment in the 2018 FEA remains valid for this WR. Any substantive changes to the affected environment since publication of the 2018 FEA are noted in the discussion of environmental consequences, as appropriate.

VIII. Reevaluation of Environmental Consequences (Chapter 4 of the 2018 FEA)

Chapter 4 of the 2018 FEA determined that the Proposed Action would not result in impacts to: Coastal Resources; Farmlands; Children's Health and Safety; and Wild and Scenic Rivers. No substantial changes to these impact categories have occurred since publication of the 2018 FEA. Accordingly, these environmental impact categories are not carried forward for reevaluation in this WR. This WR focuses on the potential environmental impacts that could result from the change in the forecast for ASE (both in operations and fleet mix), and the extensive updates to models used to analyze air and noise.

A. Aviation Emissions and Air Quality (Sections 4.1 and 4.3 of the 2018 FEA)

Aviation emissions and air quality impacts would be comparable to what is described in the 2018 FEA. The FAA's review of current National Ambient Air Quality Standards (NAAQS) found that some standards have been revised since the publication of the 2018 FEA (Table 2). A review of current air quality data indicates that Pitkin County is now in attainment for all criteria pollutants. Construction and operational emissions associated with the Proposed Action would not exceed applicable *de minimis* thresholds, would not increase the frequency or severity of any existing exceedances of the NAAQS, and would not create a new exceedance of one or more of the NAAQS for any of the time periods analyzed. Therefore, impacts would not be significant when compared to the No Action Alternative.

The 2018 FEA construction emissions analysis assumed that the terminal would be constructed first (2018-2023) followed by runway construction (2023-2027). ASE is now proposing to construct the runway first (2026-2027) followed by the terminal (2028-2030). As indicated in Table 3, there is a change in construction emissions associated with the condensed construction schedule, updates to modeling software, and changes in how construction emissions are calculated. The emissions would still be orders

of magnitude below the applicable *de minimis* thresholds for each year of construction. As such, there would be no change in the conclusions of the 2018 FEA.

The proposed changes to the project would not affect the operational emissions of the Proposed Action. However, the changes in the forecast and updates to modeling software could affect the operational emissions of the Proposed Action. Therefore, an updated operational emissions analysis was completed. As indicated in Table 4, the updated analysis reported lower emissions for CO, NO_x, SO_x, PM₁₀, and PM_{2.5} and slightly higher emissions for VOCs compared to the 2018 FEA. These differences are due to the change in model used and fleet mix. There would be no change in the conclusions of the 2018 FEA.

TABLE 2
NATIONAL AMBIENT AIR QUALITY STANDARDS

Pollutant [links to historical tables of NAAQS reviews]	Primary/ Secondary	Averaging Time	Level	Form	
Carbon Monoxide (CO)	primary	8 hours	9 ppm	Not to be exceeded more than once per year	
		1 hour	35 ppm		
Lead (Pb)	primary and secondary	Rolling 3 month average	0.15 µg/m ³ ⁽¹⁾	Not to be exceeded	
Nitrogen Dioxide (NO₂)	primary	1 hour	100 ppb	98th percentile of 1-hour daily maximum concentrations, averaged over 3 years	
	primary and secondary	1 year	53 ppb ⁽²⁾	Annual Mean	
Ozone (O₃)	primary and secondary	8 hours	0.070 ppm ⁽³⁾	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years	
Particle Pollution (PM)	PM _{2.5}	primary	1 year	9.0 µg/m ³	annual mean, averaged over 3 years
		secondary	1 year	15.0 µg/m ³	annual mean, averaged over 3 years
	PM ₁₀	primary and secondary	24 hours	35 µg/m ³	98th percentile, averaged over 3 years
		primary and secondary	24 hours	150 µg/m ³	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide (SO₂)	primary	1 hour	75 ppb ⁽⁴⁾	99th percentile of 1-hour daily maximum concentrations, averaged over 3 years	
	secondary	1 year	10 ppb	annual mean, averaged over 3 years	

(1) In areas designated nonattainment for the Pb standards prior to the promulgation of the current (2008) standards, and for which implementation plans to attain or maintain the current (2008) standards have not been submitted and approved, the previous standards (1.5 µg/m³ as a calendar quarter average) also remain in effect.

(2) The level of the annual NO₂ standard is 0.053 ppm. It is shown here in terms of ppb for the purposes of clearer comparison to the 1-hour standard level.

(3) Final rule signed October 1, 2015, and effective December 28, 2015. The previous (2008) O₃ standards are not revoked and remain in effect for designated areas. Additionally, some areas may have certain continuing implementation obligations under the prior revoked 1-hour (1979) and 8-hour (1997) O₃ standards.

(4) The previous SO₂ standards (0.14 ppm 24-hour and 0.03 ppm annual) will additionally remain in effect in certain areas: (1) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and (2) any area for which an implementation plan providing for attainment of the current (2010) standard has not been submitted and approved and which is designated nonattainment under the previous SO₂ standards or is not meeting the requirements of a SIP call under the previous SO₂ standards (40 CFR 50.4(3)). A SIP call is an EPA action requiring a state to resubmit all or part of its State Implementation Plan to demonstrate attainment of the required NAAQS.

TABLE 3
CONSTRUCTION EMISSIONS INVENTORY COMPARISON

2018 FEA (Total Construction Duration – Short Tons)							
	CO	VOC	NOx	SOx	PM ₁₀	PM _{2.5}	GHG ¹
Terminal	29.9	5.9	6.0	0.1	0.6	0.3	5,340
Runway	24.0	26.7	3.7	0.1	1.4	0.2	5,385
Updated Aviation Emissions and Air Quality Analysis (tons per year)							
2027	61.67	3.20	5.41	0.08	14.60	3.63	19,223.42
2028	38.85	1.55	2.60	0.05	5.23	1.50	10,321.58
2029	33.73	1.60	2.63	0.04	4.90	1.42	10,139.58
2030	2.67	0.09	0.24	0.00	0.33	0.09	637.83
Runway	61.67	3.20	5.41	0.08	14.60	3.63	19,223.42
Terminal	75.25	3.24	5.47	0.09	10.46	3.01	21,098.99

¹ The differences in GHG emissions between the 2018 FEA and current analysis are due to the change in how construction emissions were modeled and updates to the modeling software. GHG emissions are provided for disclosure purposes only.

TABLE 4
OPERATIONAL EMISSIONS INVENTORY COMPARISON

2018 FEA (tons per year)							
	CO	VOC	NOx	SOx	PM ₁₀	PM _{2.5}	GHG ¹
2033 NA	263.1	53.8	24.1	5.2	1.9	1.9	11,117
2033 PA	265.8	42.2	50.2	7.9	2.1	2.1	16,714
Difference	2.7	-11.6	26.1	2.7	0.2	0.2	5,597
Updated Aviation Emissions and Air Quality Analysis (tons per year)							
2035 NA	265.6	48.0	55.3	8.8	1.9	1.9	17,636
2035 PA	261.2	47.8	58.6	8.7	1.6	1.6	17,618
Difference	-4.4	-0.2	3.3	-0.1	-0.3	-0.3	-18

¹ The differences in GHG emissions between the 2018 FEA and WR due to the change in fleet mix, and updates to the modeling software. GHG emissions are provided for disclosure purposes only.

B. Biological Resources (Section 4.2 of the 2018 FEA)

Impacts on biological resources would be comparable to the impacts described in the 2018 FEA. An updated species list was obtained from the U.S. Fish and Wildlife Service’s Information for Planning and Consultation website. Though there are four species on the list that were not included in the 2018 FEA (Table 5), the impacts are not expected to change from what was disclosed in the 2018 FEA. The data and analyses related to biological resources contained in the 2018 FEA remain substantially valid, and the Proposed Action would not have a significant impact on biological resources.

TABLE 5
UPDATED LIST OF THREATENED AND ENDANGERED SPECIES

Species	Scientific Name	Status	Impact	2018 FEA	WR
Canada Lynx	Lynx canadensis	Threatened	No Effect	X	X
North American Wolverine	Gulo gulo luscus	Threatened	No Effect	X	
Gray Wolf	Canis lupus	Experimental	No Effect		X
Mexican Spotted Owl	Strix occidentalis lucida	Threatened	No Effect	X	X
Yellow-billed Cuckoo	Coccyzus americanus	Threatened	No Effect	X	X
Bonytail	Gila elegans	Endangered	No Effect	X	X
Colorado Pikeminnow	Ptychocheilus lucius	Endangered	No Effect	X	X
Humpback Chub	Gila cypha	Threatened	No Effect	X	X
Razorback Sucker	Xyrauchen texanus	Endangered	No Effect	X	X
Monarch Butterfly	Danaus Plexippus	Proposed Threatened	No Effect		X
Silverspot	Speyeria nokomis nokomis	Threatened	No Effect		X
Suckley's Cuckoo Bumble Bee	Bombus suckleyi	Proposed Endangered	No Effect		X
Ute Ladies'-tresses	Spiranthes diluvialis	Threatened	No Effect	X	X

C. Department of Transportation Act Section 4(f) (Section 4.5 of the 2018 FEA)

Impacts to DOT Act Section 4(f) resources would be comparable to those disclosed in the 2018 FEA. The runway improvements require a shift of approximately 1,657 linear feet of the Owl Creek Bike Path 13-58 feet to the west. During construction, there would be temporary access restrictions to the bike path, but there is likely room in the CDOT ROW to either build a temporary bike path or allow users to use the road for a small section to minimize impacts. Complete closure is estimated to be about 6-9 months but with phasing and temporary routing, the bike path should be able to remain open during most of this time to minimize impacts. Additionally, adequate notice would be provided prior to closure of the trail. ASE coordinated with users/owners of the bike path and found that the relocation of the bike path would not constitute a negative effect on the bike path, its uses, or its users. The FAA determined that the Proposed Action would result in a *de minimis* impact to the Owl Creek Bike Path. A *de minimis* impact is one that, after considering any measures to minimize harm (such as avoidance, minimization, mitigation or enhancement measures), results in a determination that the project would not adversely affect the activities, features, or attributes qualifying the resource for protection under Section 4(f). The FAA informed Pitkin County of the intent to make a *de minimis* impact determination and Pitkin County concurred with the determination in an email dated March 4, 2018 (Appendix 4 of the FEA).

The data and analyses contained in the 2018 FEA remain substantially valid, and the Proposed Action would not have a significant impact on DOT Act Section 4(f) protected properties.

D. Hazardous Materials, Solid Waste, and Pollution Prevention (Section 4.7 of the 2018 FEA)

The data and analyses related to hazardous materials, solid waste, and pollution prevention contained in the 2018 FEA remain valid, and the Proposed Action would not be expected to have a significant impact related to hazardous materials, solid waste, and pollution prevention. The storage, use, and disposal of hazardous materials utilized during construction would meet all federal, state, and local regulations. Construction activities would create temporary increases in construction and demolition waste; however, this increase would be short-term, would not put undue strain on land disposal services, and would be reduced through best management practices and the use of ASE's Sustainable Construction Management Plan. There is also a potential for removal of fill from the site. Per the Sustainable Construction Management Plan, the contractor may be able to re-use this fill in the area. If such a re-use is not found, the contractor would likely need to truck it to a disposal site down valley at an appropriately permitted facility.

E. Historical, Architectural, Archeological and Cultural Resources (Section 4.8 of the 2018 FEA)

Historical, architectural, archeological, and cultural resource impacts would be comparable to those impacts described in the 2018 FEA. There is one property that is eligible for inclusion on the NRHP, Airport Ranch. This property is located outside the physical footprint of the Proposed Action. The 80-foot lateral shift of the runway would cause a shift in noise contours 80 feet closer to the Airport Ranch. However, since Airport Ranch is currently on ASE property and is subject to the noise and activity associated with ASE, the change in noise would not change the character of the property. The FAA issued a No Historic Properties Affected finding on November 17, 2016. The Colorado SHPO requested additional information on the Airport Ranch in relation to the Proposed Actions. The FAA provided this information in an updated No Historic Properties Affected finding on January 31, 2017. The SHPO concurred with the finding in a letter dated February 6, 2017 (Appendix 3 of the FEA). The data and analyses contained in the 2018 FEA remain valid, and the Proposed Action would not have a significant impact on historical, architectural, archeological, or cultural resources.

F. Land Use (Section 4.9 of the 2018 FEA)

Land use impacts would be comparable to those impacts described in the 2018 FEA. The impacts disclosed in the 2018 FEA are still valid. Implementation of the Proposed Action would not result in the disruption of a community, the relocation of residences or businesses, or result in any changes to existing or planned land uses. The Terminal Alternative would provide more direct connectivity to the existing mass transit stops, which is a positive impact of the proposed terminal project. The Runway Alternative would require a slight relocation of Owl Creek Road and the Owl Creek Bike Path, which is located on CDOT property. Realignment of approximately 1,657 feet of the bike path 13 to 58 feet west of the existing path would not be considered to have a negative effect on the bike path or its users. No changes to existing land use or zoning codes are anticipated. Accordingly, the data and analyses contained in the 2018 FEA remain substantially valid, and the Proposed Action would not have a significant impact on land use.

G. *Natural Resources and Energy Supply (Section 4.10 of the 2018 FEA)*

Impacts related to natural resources and energy supply would be comparable to those impacts described in the 2018 FEA. Construction of the Proposed Action would require the use of building materials, fuel, and water. Materials would be sourced locally, if possible; however, due to the remote nature of the valley, the proposed improvements could result in minor increases in fuel consumption for those materials that must be transported into the valley. The use of fuel to transport materials in combination with fuel used to power construction vehicles is not anticipated to exceed the existing capacity or future availability of fuel in the area. With the construction of the new terminal, aircraft would taxi to a location approximately 193 feet closer on average than the current terminal, which would result in a minor reduction in the amount of fuel used. The shift of the runway 80 feet to the west would result in a slightly longer taxi distance (160 feet on average for total taxi distance). However, this increase in taxiing distance would not significantly impact fuel use. The data and analyses contained in the 2018 FEA remain substantially valid, and the Proposed Action would not have a significant impact on natural resources and energy supply.

H. *Noise and Compatible Land Use (Section 4.11 of the 2018 FEA)*

The data and analyses contained in the 2018 FEA remain substantially valid. The 2018 FEA did not include a construction noise analysis. A construction noise analysis was completed for this WR. As depicted in Figure 3, the construction noise analysis did not identify any impacts to noise sensitive receivers off airport property. The change in the forecast for ASE (both in operations and fleet mix), and the extensive updates to the tools used to model noise impacts triggered the need to complete an updated noise analysis. The noise contour is slightly smaller than what was provided in the 2018 FEA. Figure 4 provides both the 2018 FEA contours and the WR contours for comparison. The difference in contours is likely due to the change in fleet mix and the use of an updated model. The Proposed Action would not increase noise by 1.5 dB or more for a noise-sensitive area within the 65 DNL or higher contours given there are no noise sensitive land uses located in the 65 or greater DNL contour; therefore, there would be no significant impact.

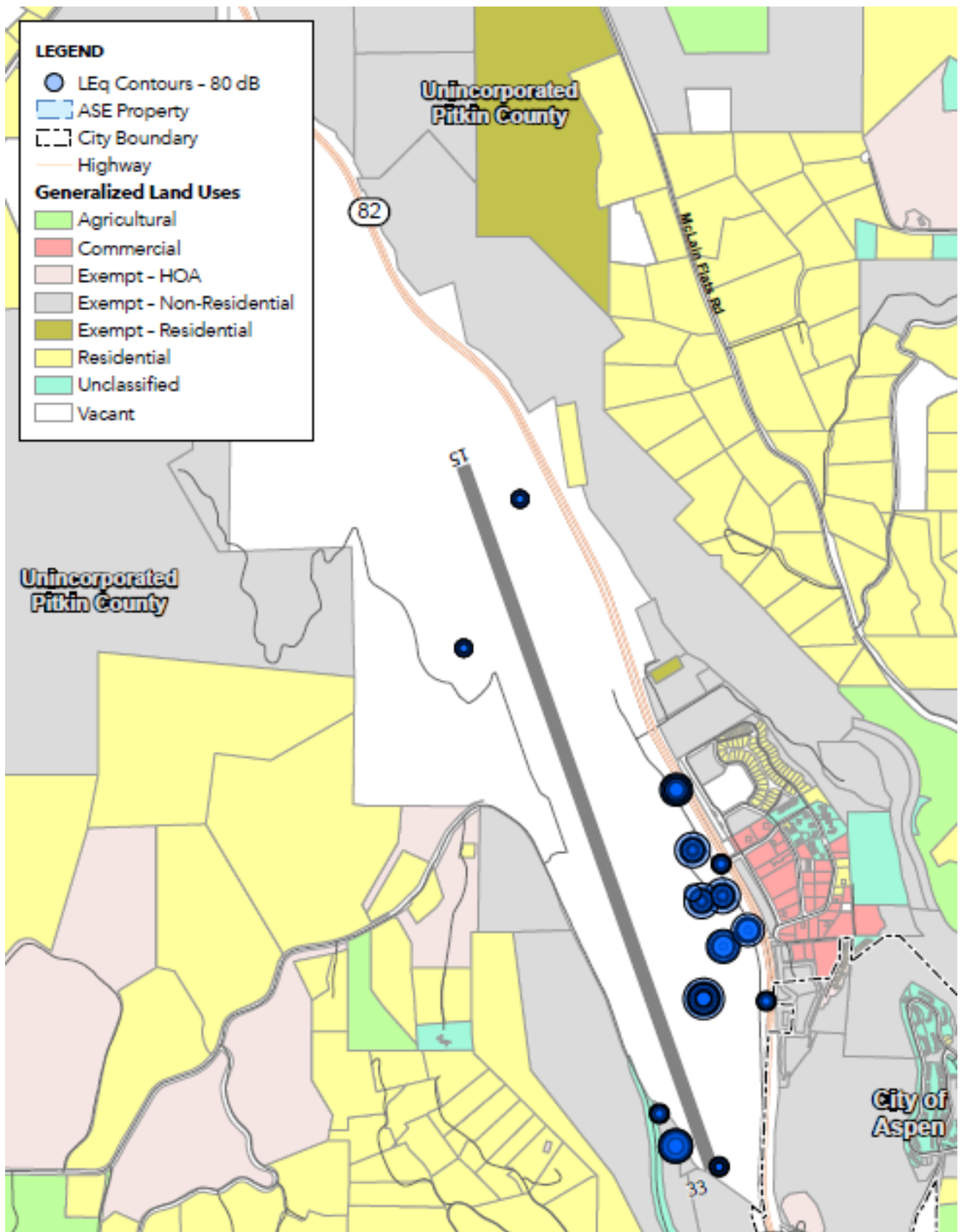
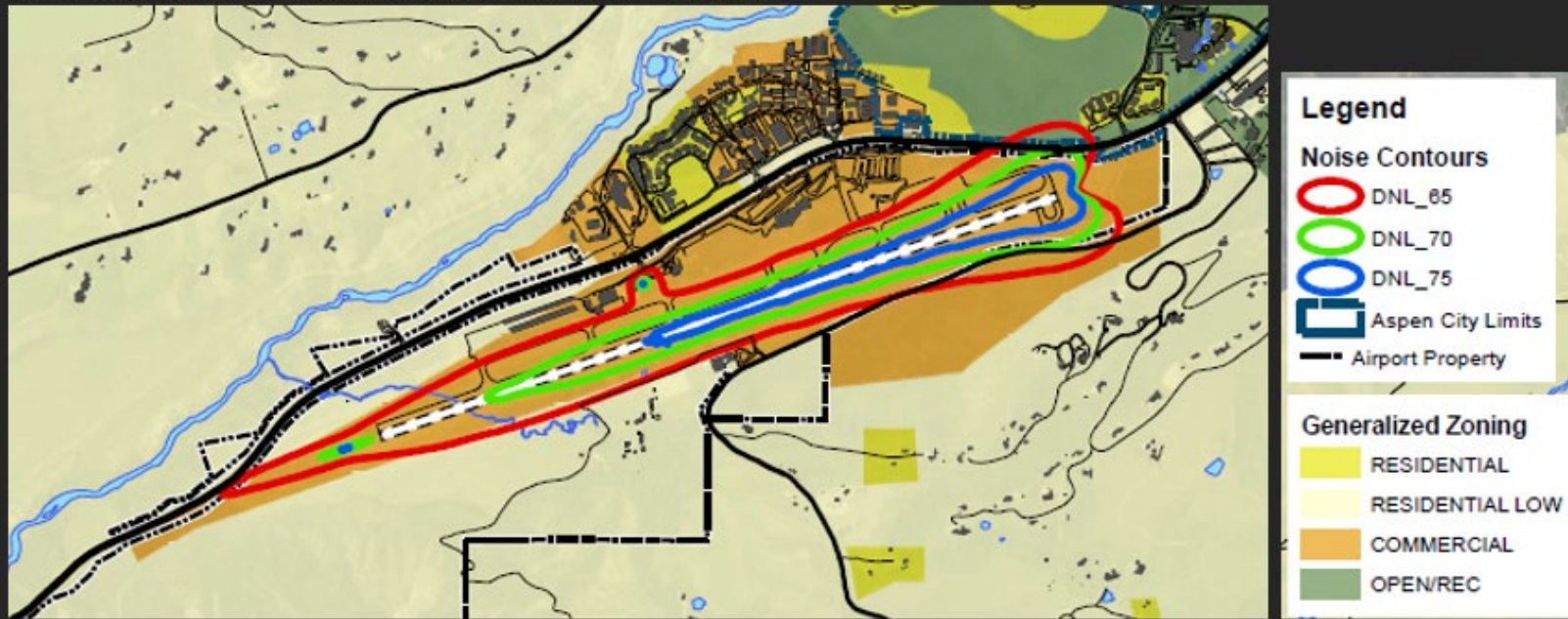


Figure 3 – Construction Noise Analysis

2033 DNL Contour from approved EA with project – Using INM



Updated 2035 DNL Contour with project – Using AEDT

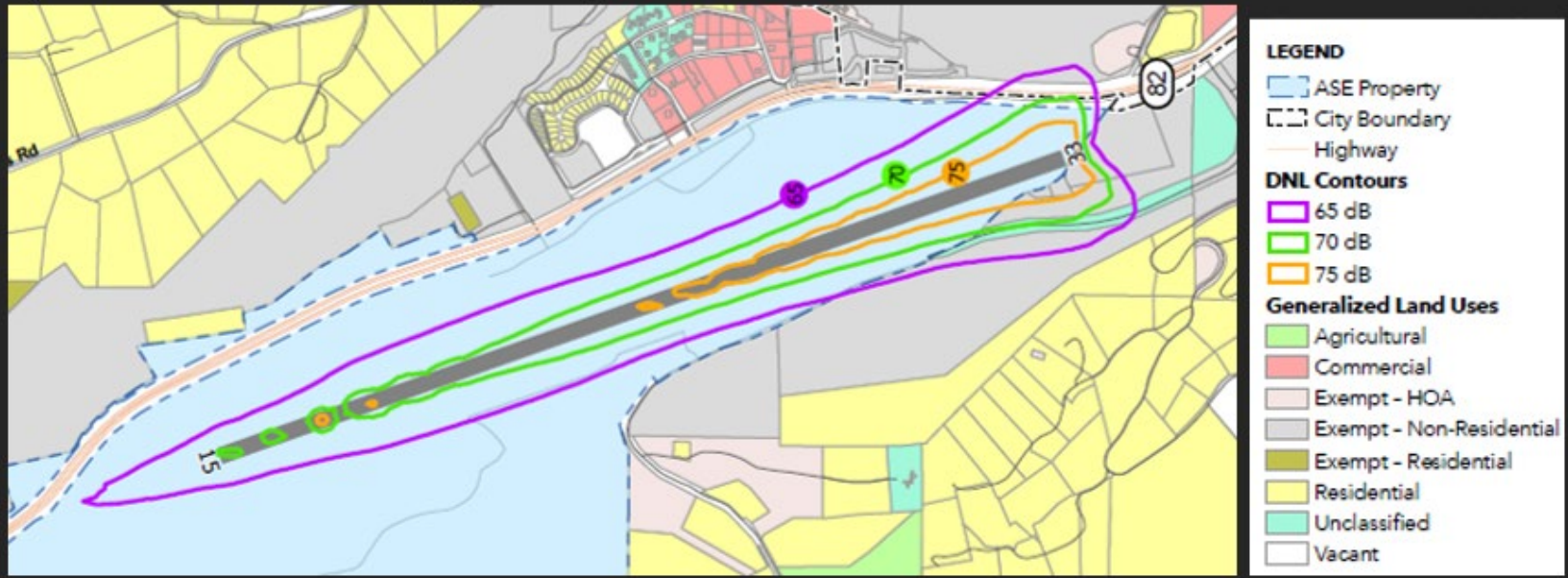


Figure 4 – 2018 EA Noise Contour and WR Noise Contour

I. Socioeconomic Impacts (Section 4.12 of 2018 FEA)

Impacts related to socioeconomics have not changed from what is described in the 2018 FEA. The data and analyses contained in the 2018 FEA remain substantially valid, and the Proposed Action would not have a significant impact related to socioeconomics.

The Proposed Action is not anticipated to have any negative direct or indirect socioeconomic impacts during construction. Access to businesses on the east side of ASE and at the Airport Business Center (ABC) would be maintained through construction and the existing terminal would remain open. Therefore, the businesses within the terminal would not be significantly affected. Traffic on Owl Creek Road from construction activities could be affected temporarily, but it would not affect any businesses. There would be temporary positive socioeconomic impacts during construction by increasing employment opportunities and expenditures on local services and materials.

Once construction is completed, the Proposed Action would provide minor long-term positive socioeconomic impacts due to expanded concessions and increased visitor use. The traffic analysis determined that the Proposed Action would not have a significant impact on the surrounding surface transportation network. Since the project is not expected to significantly increase the number of employees who work at ASE, no appreciable burden on the existing housing inventory is anticipated. There is limited room to accommodate additional visitors in the existing lodging inventory based on historic occupancy data. However, additional lodging facilities have received development approvals in both Aspen and Snowmass Village. In addition, there has been significant growth in the number of Rent-By-Owner (RBO) units. Comparing the combined monthly practical capacity shows that the capacity of the RBO units and the future lodging units is nearly double the number of potential new lodging guests, even for the peak months in 2033. Therefore, the Proposed Action would not exceed the future capacity of the Aspen/Snowmass Area lodging inventory and would not create development pressure for additional lodging units.

J. Visual Effect (Section 4.15 of the 2018 FEA)

Impacts related to visual effects have not changed from what is described in the 2018 FEA. The data and analyses contained in the 2018 FEA remain substantially valid, and the Proposed Action would not have a significant impact related to visual effects.

K. Water Resources (Section 4.14 of the 2018 FEA)

Impacts on water resources would be comparable to those described in the 2018 FEA. The Proposed Action would result in a slight change to drainage patterns and slight increase in impervious surface. These changes would not impact the existing drainage system or the aquifers on or near ASE property. The design and permitting would account for the change in impervious surface. The NPDES Permit and the SWMP would need to be updated to reflect the changes. The Proposed Action would not impact water quality standards, contaminate public drinking water, or contaminate an aquifer used for public water. All necessary permits and approvals for the project would be obtained before construction activities take place.

The piping of 1,670 feet of Owl Creek, a Water of the US, would result in the loss of open water and disturb vegetation. Since the piping of Owl Creek will reduce sedimentation and wildlife

hazards, this is viewed as beneficial. However, piping Owl Creek will reduce access to 1,670 LF of Owl Creek. Organisms that cannot access the piped section of the creek are likely to migrate to habitat adjacent to the piped section. Impacts to Owl Creek warrant an Individual Permit under the Clean Water Act, per discussions with USACE, due to the length of stream that will be placed in a culvert.

The piping would also result in direct impacts on the Owl Creek floodplains. The piping would be designed to maintain the conveyance and storage capacity of the existing floodplain. Coordination with FEMA will be maintained throughout the project to avoid and minimize impacts to floodplains. Despite the proposed floodplain modifications, the existing drainage patterns downstream of ASE (i.e., Roaring Fork) will not be changed. The Proposed Action would not result in significant impacts to the floodplain because they would not result in (1) a considerable probability of loss of human life, (2) likely future damage associated with the encroachment that could be substantial in cost or extent, or (3) a notable adverse impact on the floodplain's natural and beneficial floodplain values.

The data and analyses contained in the 2018 FEA remain substantially valid, and the Proposed Action would not have a significant impact on water resources.

IX. Environmental Mitigation (*Chapter 4 of the 2018 FEA*)

The following mitigation included in the 2018 FEA remains in effect for the Proposed Action:

- Complete pre-construction surveys and spatial/seasonal buffers would be utilized to minimize construction impacts to common wildlife and migratory birds.
- Obtain an individual permit for all work within Waters of the US that fall under the jurisdiction of the USACE. All mitigation included in the permit that is approved by the USACE will be completed in accordance with the terms of the permit.
- Ensure no vehicle or material storage occurs in wetland areas or other sensitive areas.
- Utilize phasing and temporary routing to minimize closures to the Owl Creek Trail and/or Owl Creek Road. Adequate notice will be provided prior to any closure of the Owl Creek Trail and/or Owl Creek Road.
- Design the piping of Owl Creek to maintain flood storage capacity on ASE property.
- Include Best Management Practices (BMPs) to limit construction impacts. The contractor would be required to carry out dust and erosion control procedures, such as watering to control dust, seeding with a temporary cover crop in work areas that are temporarily inactive, and installation/maintenance of silt fence. This also includes the installation of silt curtains and berms, to the extent possible, to isolate the work area during fill placement to prevent temporary impacts on water quality in Owl Creek. These requirements would be included in the project drawings and specifications under the FAA standard specification Item P-156, "Temporary Air and Water Pollution, Soil Erosion, and Siltation Control" (AC 150/5370-10).
- Update the SWMP in association with the NPDES Construction Permit.
- Mitigate water quality impacts including flow control and treatment BMPs in accordance with federal, state, and local regulations.

- Design all water drainage/treatment features to meet FAA AC 150/5200-33B (*Hazardous Wildlife Attractants On or Near Airports*).
- All phases of construction would be performed in accordance with FAA AC 150/5370-10, Standards for Specifying Construction of Airports.
- Contaminated soil and water will be handled and disposed of in accordance with applicable federal, state and/or local regulations.
- If cultural or archaeological resources are discovered during construction, all work will stop until ASE notifies SHPO and the FAA Denver Airports District Office (DEN ADO). ASE shall protect the area until cultural/archaeological resource concerns have been appropriately addressed, and ASE shall take action to comply with the National Historic Preservation Act, the Native American Graves Protection and Repatriation Act, and the Archaeological Resources Protection Act, as appropriate.
- During construction, if previously unknown contaminants are discovered or if a reportable spill occurs, work shall cease until ASE notifies appropriate local, state, and Federal agencies.

X. Conclusion

The 2018 FEA examined the potential for significant environmental impacts and defined the regulatory setting for impacts associated with approving the ALP, approval of further processing of an application for federal assistance and/or approving an application to impose and use Passenger Facility Charges, modifying flight procedures, and relocating navigational aids at ASE. The areas evaluated for environmental impacts in this WR include aviation emissions and air quality; biological resources (including fish, wildlife, and plants); Department of Transportation Act, Section 4(f); hazardous materials, solid waste, and pollution prevention; historical, architectural, archaeological, and cultural resources; land use; natural resources and energy supply; noise and noise-compatible land use; socioeconomics, and water resources.

Based on the above review and in conformity with DOT Order 5610.1D (Section 18.d.), the FAA has concluded that the data and analysis contained in the 2018 FEA remain substantially valid, that there are no significant environmental changes, and that all pertinent conditions and requirements of the prior approval have been met or will be met in the current action. Therefore, the preparation of a supplemental or new environmental document is not necessary to support the Proposed Federal Actions.

Kandice Krull
Environmental Protection Specialist
FAA Northwest Mountain Region



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technical memorandum

date August 8, 2025
to Kandice Krull, FAA
from Dominic Scarano and Autumn Ward, ESA
subject Aspen/Pitkin County Airport Improvements Written Re-Evaluation Air Quality Analysis

Introduction

This memorandum provides an overview of the operational and construction air quality analyses that were completed in support of the *Aspen/Pitkin County Airport Improvements Written Re-Evaluation* (WRE).

Regulatory Setting

The United States Environmental Protection Agency (EPA) has established National Ambient Air Quality Standards (NAAQS) for the following criteria pollutants: carbon monoxide (CO), lead (Pb), nitrogen dioxide (NO₂), ozone (O₃) and its precursors such as oxides of nitrogen (NO_x) and volatile organic compounds (VOCs), particulate matter (PM₁₀ and PM_{2.5}), and sulfur dioxide (SO₂). In complying with the National Environmental Policy Act (NEPA), the FAA must determine if a Federal Action would cause criteria pollutant concentrations to exceed the NAAQS.

FAA will evaluate if the emissions caused by the Proposed Project would result in a significant impact under the FAA's NEPA threshold.

Exhibit 4-1 of the FAA's 1050.1 Desk Reference provides the FAA's significance thresholds for air quality:

“The action would cause pollutant concentrations to exceed one or more of the [NAAQS], as established by the [EPA] under the [CAA], for any of the time periods analyzed, or to increase the frequency or severity of any such existing violations.”

Attainment Status and Significance Thresholds

The Airport is located in Pitkin County, CO. Pitkin County is classified as attainment for all criteria air pollutants. Exhibit 4-1 of FAA Order 1050.1F¹ provides the FAA’s significance threshold for air quality, which states, “The action would cause pollutant concentrations to exceed one or more of the NAAQS, as established by the EPA under the CAA, for any of the time periods analyzed, or to increase the frequency or severity of any such existing violations.” Since Pitkin County is designated as attainment for all criteria air pollutants, the General Conformity Rule (Section 176(c)(1) of the CAA) does not apply to the Proposed Project.

Methodology

Operational Emissions

Operational emissions were evaluated using the Aviation Environmental Design Tool (AEDT) Version 3g, the most current version of the model at project onset. As described in the noise analysis, aircraft operations were modeled based on the approved aviation demand forecast. The model fleet mix was developed using existing data from the ASE Noise and Operations Monitoring System (NOMS). Aircraft types included in the model fleet mix were mapped to the appropriate AEDT airframe and engine type or approved substitution contained within the model.

AEDT default ground support equipment (GSE), aircraft auxiliary power units (APU), and taxi-in and taxi-out times were used for this analysis. GSE and APU were assigned to AEDT ANP aircraft types with default settings available within the AEDT.

Using the same model fleet mix and operations described in the noise analysis, criteria air pollutant and greenhouse gas (GHG) emissions were evaluated for the five modeling scenarios:

- 2025 Existing Conditions
- 2030 No Action Alternative
- 2030 Proposed Project
- 2035 No Action Alternative
- 2035 Proposed Project

A comparison between the operational emissions and GHG inventories prepared for this Written Re-Evaluation and the 2018 *Aspen/Pitkin County Airport Improvements EA* are provided in the following section.

¹ FAA Order 1050.1F was replaced by FAA Order 1050.1G on June 30, 2025. As this Written Re-Evaluation began prior to June 30, 2025, it will continue under FAA Order 1050.1F.

Construction Emissions

Construction activity levels were estimated using the Airport Cooperative Research Program's (ACRP) Airport Construction Emissions Inventory Tool (ACEIT) for the Proposed Project components. The ACEIT was originally designed to provide emission estimates for common airport projects, without the need to run a highly detailed and costly analysis. However, since its original publication, the tool's emission factors have become outdated and are no longer recommended for use by the FAA. As such, the tool's sole purpose for this analysis was to serve as an aid in developing equipment activity levels. The current version of the EPA Motor Vehicle Emissions Simulator (MOVES), MOVES 5.0, was used to establish the appropriate emission factors.

Activity data used with the modeled EPA MOVES outputs was calculated using the ACEIT, based on construction data provided by Jacobsen|Daniels. Construction activity emissions are calculated based on the MOVES run output and the project specific anticipated activity profile assumptions that are provided for both on-road and non-road equipment. Non-road activity data includes details such as the year of construction, type of construction activity, equipment used, activity size in square feet (SF), activity rate, and hours of activity. Equipment types provided by the ACEIT were matched to the closest equipment list from the MOVES model. Construction equipment was categorized into specific equipment types used in MOVES for construction related activities. The activity, in hours, for each equipment type and phase of work is calculated as the product of the project-specific development area and the activity rate (hours per square foot) estimated by the ACEIT.

Additionally, information is included on on-road equipment categorized by year, equipment type, on-road activity, fuel type, number of non-road equipment, and round-trip distance in miles. For on-road equipment, all employee travel was assumed to be in passenger vehicles, and all other on-road activity were classified as either single use short-haul trucks or combination short-haul trucks. All on-road vehicle miles traveled were assumed to occur at 55 miles per hour.

A comparison between peak year construction emissions inventories prepared for this Written Re-Evaluation and the 2018 *Aspen/Pitkin County Airport Improvements EA* are provided in the following section.

Results

Operational Emissions Comparison

Table 1 compares operational emissions prepared for this Written Re-Evaluation and the 2018 *Aspen/Pitkin County Airport Improvements EA* for each modeling scenario.

TABLE 1. OPERATIONAL EMISSIONS INVENTORY COMPARISON (TONS)

Scenario	CO	VOC	NO _x	SO _x	PM ₁₀	PM _{2.5}
2025 Existing Conditions	251.1	44.6	52.0	8.3	1.9	1.9
2015 Existing Conditions	302.2	45.4	42.8	6.9	2.2	2.2
Difference (WRE – 2018 EA)	-51.1	-0.8	+9.2	+1.4	-0.3	-0.3
2030 No Action Alternative	255.8	46.0	53.3	8.6	1.9	1.9
2028 No Action Alternative	263.8	48.3	32.8	6.1	2.0	2.0
Difference (WRE – 2018 EA)	-8.0	-2.3	+20.5	+2.5	-0.1	-0.1
2030 Proposed Project	253.9	46.1	50.8	8.1	1.7	1.7
2028 Proposed Project	258.1	43.1	39.4	6.8	2.0	2.0
Difference (WRE – 2018 EA)	-4.2	+3.0	+11.4	+1.3	-0.3	-0.3
2035 No Action Alternative	265.6	48.0	55.3	8.8	1.9	1.9
2033 No Action Alternative	263.1	53.8	24.1	5.2	1.9	1.9
Difference (WRE – 2018 EA)	+2.5	-5.8	+21.2	+3.6	-	-
2035 Proposed Project	261.2	47.8	58.6	8.7	1.6	1.6
2033 Proposed Project	265.8	42.2	50.2	7.9	2.1	2.1
Difference (WRE – 2018 EA)	-4.6	+5.6	+8.4	+0.8	-0.5	-0.5

SOURCE: 2018 Aspen/Pitkin County Airport Improvements EA, AEDT, Environmental Science Associates, 2025.

NOTES:

CO = carbon monoxide

VOC = volatile organic compound

NO_x = oxides of nitrogen

SO_x = oxides of sulfur

PM₁₀ = particulate matter less than or equal to 10 microns in diameter

PM_{2.5} = particulate matter less than or equal to 2.5 microns in diameter

Table 2 compares operational GHG inventories prepared for this Written Re-Evaluation and the 2018 *Aspen/Pitkin County Airport Improvements EA* for each modeling scenario.

TABLE 2. OPERATIONAL GHG EMISSIONS INVENTORY COMPARISON (METRIC TONS CO₂E)

Written Re-Evaluation Scenario	CO ₂ e	2018 EA Scenario	CO ₂ e	Difference (WRE – 2018 EA)
2025 Existing Conditions	16,545	2015 Existing Conditions	14,199	+2,346
2030 No Action Alternative	16,958	2028 No Action Alternative	12,860	+4,098
2030 Proposed Project	17,796	2028 Proposed Project	14,347	+3,449
2035 No Action Alternative	17,636	2033 No Action Alternative	11,117	+6,519
2035 Proposed Project	17,618	2033 Proposed Project	16,714	+904

SOURCE: 2018 Aspen/Pitkin County Airport Improvements EA, AEDT, Environmental Science Associates, 2025.

NOTES:

CO₂e = carbon dioxide equivalent

GHG emissions are shown for the aircraft LTO cycle only.

Construction Emissions Comparison

Table 3 compares estimated peak year (50% of total) construction emissions from on-road, non-road, and fugitive sources prepared for this for this Written Re-Evaluation and the 2018 *Aspen/Pitkin County Airport Improvements EA*.

TABLE 3. PEAK YEAR CONSTRUCTION EMISSIONS INVENTORY COMPARISON (TONS)

Source	CO	VOC	NO _x	SO _x	PM ₁₀	PM _{2.5}
WRE	68.5	3.2	5.4	0.1	12.5	3.3
2018 EA	27.0	16.4	4.9	0.1	1.0	0.3
Difference	+41.5	-13.2	+0.5	-	+11.5	+3.0

SOURCE: 2018 Aspen/Pitkin County Airport Improvements EA, MOVES, Environmental Science Associates, 2025.

NOTES:

CO = carbon monoxide

VOC = volatile organic compound

NO_x = oxides of nitrogen

SO_x = oxides of sulfur

PM₁₀ = particulate matter less than or equal to 10 microns in diameter

PM_{2.5} = particulate matter less than or equal to 2.5 microns in diameter

Conclusion

Project-related operational and GHG emissions estimated for this Written Re-Evaluation are largely similar to operational emissions estimated for the 2018 *Aspen/Pitkin County Airport Improvements EA*. Differences in No Action Alternative emissions are generally a result of the loss of commercial jet service anticipated in the 2018 EA under the No Action scenarios. Differences in construction emissions are generally attributable to an increase in estimated on-road passenger car trips associated with Project construction.

Pitkin County is classified as attainment for all criteria air pollutants. As such, General Conformity Rule (Section 176(c)(1) of the CAA) is not applicable to the Proposed Project. Were the General Conformity Rule to apply, project-related emissions would not exceed *de minimis* thresholds for any criteria air pollutant.

Table SUM-1: Summary of Annual Emissions from Project Construction

Year	Emission Totals (US Short tons / yr)						Emission Totals (Metric Tons / yr)			
	NOx	VOC	CO	SOx	PM2.5	PM10	CO2	N2O	CH4	CO2e
2027	5.41	3.20	61.67	0.08	3.63	14.60	19,179.73	0.13	0.18	19,223.42
2028	2.60	1.55	38.85	0.05	1.50	5.23	10,304.98	0.05	0.11	10,321.58
2029	2.63	1.60	33.73	0.04	1.42	4.90	10,121.62	0.05	0.10	10,139.58
2030	0.24	0.09	2.67	0.00	0.09	0.33	634.80	0.01	0.01	637.83
De Minimis Threshold	100	100	100	100	100	100				
De Minimis Threshold Exceeded for ANY Year?	No	No	No	No	No	No				

Note: CO2e calculated using the IPCC's 4th Assessment Report GWPs; 298 for N2O and 25 for CH4.

Table SUM-2: 2027 Annual Emissions from Project Construction

Source	Emission Totals (US Short tons / yr)						Emission Totals (Metric Tons / yr)			
	NOx	VOC	CO	SOx	PM2.5	PM10	CO2	N2O	CH4	CO2e
Mobile Sources	2.89	1.68	55.02	0.04	1.53	6.03	5,501.57	0.13	0.16	5,544.66
NONROAD (Off-road Equipment) Sources	2.52	0.57	6.65	0.04	2.10	8.57	13,678.16		0.02	13,678.76
Fugitive VOC Emissions from Hot-Mix Asphalt		0.95								
Total	5.41	3.20	61.67	0.08	3.63	14.60	19,179.73	0.13	0.18	19,223.42
De Minimis Threshold	100	100	100	100	100	100				
De Minimis Threshold Exceeded?	No	No	No	No	No	No				

Note: CO2e calculated using the IPCC's 4th Assessment Report GWPs; 298 for N2O and 25 for CH4.

Table SUM-3: 2028 Annual Emissions from Project Construction

Source	Emission Totals (US Short tons / yr)						Emission Totals (Metric Tons / yr)			
	NOx	VOC	CO	SOx	PM2.5	PM10	CO2	N2O	CH4	CO2e
Mobile Sources	1.32	1.05	35.16	0.03	0.86	3.39	3,275.12	0.05	0.10	3,291.42
NONROAD (Off-road Equipment) Sources	1.27	0.26	3.69	0.02	0.64	1.84	7,029.85		0.01	7,030.17
Fugitive VOC Emissions from Hot-Mix Asphalt		0.23								
Total	2.60	1.55	38.85	0.05	1.50	5.23	10,304.98	0.05	0.11	10,321.58
De Minimis Threshold	100	100	100	100	100	100				
De Minimis Threshold Exceeded?	No	No	No	No	No	No				

Note: CO2e calculated using the IPCC's 4th Assessment Report GWPs; 298 for N2O and 25 for CH4.

Table SUM-4: 2029 Annual Emissions from Project Construction

Source	Emission Totals (US Short tons / yr)						Emission Totals (Metric Tons / yr)			
	NOx	VOC	CO	SOx	PM2.5	PM10	CO2	N2O	CH4	CO2e
Mobile Sources	1.30	0.90	29.90	0.02	0.77	3.04	2,866.23	0.05	0.08	2,883.87
NONROAD (Off-road Equipment) Sources	1.33	0.28	3.83	0.02	0.65	1.85	7,255.39		0.01	7,255.71
Fugitive VOC Emissions from Hot-Mix Asphalt		0.42								
Total	2.63	1.60	33.73	0.04	1.42	4.90	10,121.62	0.05	0.10	10,139.58
De Minimis Threshold	100	100	100	100	100	100				
De Minimis Threshold Exceeded?	No	No	No	No	No	No				

Note: CO2e calculated using the IPCC's 4th Assessment Report GWPs; 298 for N2O and 25 for CH4.

Table SUM-5: 2030 Annual Emissions from Project Construction

Source	Emission Totals (US Short tons / yr)						Emission Totals (Metric Tons / yr)			
	NOx	VOC	CO	SOx	PM2.5	PM10	CO2	N2O	CH4	CO2e
Mobile Sources	0.18	0.08	2.49	0.00	0.08	0.32	272.44	0.01	0.01	275.46
NONROAD (Off-road Equipment) Sources	0.06	0.02	0.18	0.00	0.01	0.01	362.35		0.00	362.37
Fugitive VOC Emissions from Hot-Mix Asphalt		0.00								
Total	0.24	0.09	2.67	0.00	0.09	0.33	634.80	0.01	0.01	637.83
De Minimis Threshold	100	100	100	100	100	100				
De Minimis Threshold Exceeded?	No	No	No	No	No	No				

Note: CO2e calculated using the IPCC's 4th Assessment Report GWPs; 298 for N2O and 25 for CH4.



History Colorado

December 30, 2024

Clayton D. Knudson
Environmental Protection Specialist
Federal Aviation Administration
Denver Airport District Office
26805 E. 68th Ave., Ste. 224
Denver, CO 80249-6361
clayton.d.knudson@faa.gov

RE: Runway Expansion and Other Improvements, Aspen-Pitkin County Airport / KASE, Aspen, Pitkin County (HC #85512)

Dear Mr. Knudson

Thank you for your recent correspondence dated December 20, 2024, received by our office December 26, 2024, requesting review of the above referenced undertaking under Section 106 of the National Historic Preservation Act (NHPA) and its implementing regulations 36 CFR part 800. Our office has reviewed the submitted materials, and we offer the following comment.

Identification of Historic Properties

Airport Ranch (5PT.538) remains eligible for listing on the National Register of Historic Places. We concur that this segment of U.S. Highway 82 (5PT.1363.1) remains non-supportive of the overall resource.

Assessment of Effects

We concur with your finding that the undertaking as described will result in no adverse effect (as described in 36.CFR.800.5(b)) to Airport Ranch.

Should unidentified historic properties or unanticipated effects to historic properties be discovered in the course of the undertaking, work must be interrupted in order to complete consultation with our office and other consulting parties pursuant to 36.CFR.800.13. Also, should the consulted-upon scope of the work change please contact our office for continued consultation under Section 106 of the National Historic Preservation Act.

We request being involved in the consultation process with the local government, which as stipulated in 36 CFR 800.3 is required to be notified of the undertaking, and with other consulting parties. Additional information provided by the local government or other consulting parties might cause our office to re-evaluate our eligibility and potential effect findings. Please note that our compliance letter does not end the 30-day review period provided to other consulting parties.

Thank you for providing the opportunity to comment. If you have any questions, please feel free to contact Joseph Saldibar, Architectural Services Manager at (303) 842-5619 or by email at joseph.saldibar@state.co.us.

Sincerely,

(for) Dawn DiPrince
State Historic Preservation Officer



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technical memorandum

date August 8, 2025
to Kandice Krull, FAA
from Dominic Scarano and Autumn Ward, ESA
subject Aspen/Pitkin County Airport Improvements Written Re-Evaluation Noise Analysis

Introduction

This memorandum provides an overview of the aircraft noise analysis that was completed in support of the *Aspen/Pitkin County Airport Improvements Written Re-Evaluation*.

Methodology

The information described in this memorandum was compiled and incorporated into the FAA's Aviation Environmental Design Tool (AEDT) Version 3g, the most current version of the model at project onset. The AEDT was used to develop day-night average sound level (DNL) 65 decibel (dB), 70 dB, and 75 dB noise exposure contours, and determine if any significant or reportable noise increases would occur over noise sensitive areas as a result of the Proposed Project. The DNL contours were prepared using existing operational data as well as the FAA-approved aviation demand forecast for ASE.

This noise analysis was developed and disclosed in accordance with FAA Order 1050.1F¹, *Environmental Impacts: Policies and Procedures*, FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*, and the *1050.1 Desk Reference*.

Five modeling scenarios were evaluated:

- 2025 Existing Conditions
- 2030 No Action Alternative
- 2030 Proposed Project
- 2035 No Action Alternative
- 2035 Proposed Project

¹ FAA Order 1050.1F was replaced by FAA Order 1050.1G on June 30, 2025. As this Written Re-Evaluation began prior to June 30, 2025, it will continue under FAA Order 1050.1F.

Aircraft Fleet Mix and Operational Forecasts

Aircraft operations were modeled based on the approved aviation demand forecast. The model fleet mix was developed using existing data from the ASE Noise and Operations Monitoring System (NOMS). Total aircraft operations and model fleet mix for each scenario are shown in **Attachment A**. Aircraft types included in the model fleet mix were mapped to the appropriate AEDT aircraft noise and performance (ANP) aircraft type or approved substitution contained within the model. As military aircraft operating at ASE are of similar nature to general aviation fleet, model military aircraft operations were distributed amongst the various general aviation operational categories. The overall day/night split for each operational category were developed using existing NOMS data.

Runway Utilization

ASE NOMS flight track data was used to develop day and night runway utilization percentages for each operational category.

Flight Track and Flight Track Utilization

ASE NOMS flight track data was used to develop model arrival, departure, and touch & go flight tracks. This flight track data was also used to determine the appropriate utilization and weighting percentage for each flight track.

Stage Length

ASE NOMS destination data was used to assign departure stage lengths to AEDT ANP aircraft types that support stage lengths greater than 1. All arrival operations were assigned a stage length of 1.

Aircraft Profiles

AEDT standard arrival and departure profiles were assigned to each AEDT ANP aircraft type.

Weather and Terrain

AEDT default meteorological parameters and 1/3 arcsecond terrain data from the United States Geological Survey (USGS) National Map Viewer was used with the terrain feature of the AEDT in generating the noise contours.

Aircraft Noise Modeling Results

The information described above was compiled and incorporated into the AEDT, which calculates aircraft noise exposure using a defined network of grid points at ground level around an airport. It computes the noise generated by each aircraft operation, by aircraft type, and engine thrust level along each flight track. The noise exposure levels for each aircraft are then summed at each grid point. The cumulative noise exposure levels at all grid points are then used to develop noise exposure contours for selected values (e.g., DNL 65, 70, and 75 dB). Using the results of the grid point analysis, noise contours of equal noise exposure can then be plotted.

The DNL 65, 70, and 75 dB contours for 2025 Existing Conditions, 2030 No Action Alternative, and 2030 Proposed Action are shown in **Figure 1**, **Figure 2**, and **Figure 3**, respectively. The 2035 No Action Alternative and Proposed Action DNL contours are shown in **Figure 4** and **Figure 5**, respectively.

As shown in each figure, the DNL 65 contour is primarily contained within the Airport property boundary, extending outside the boundary and onto undeveloped land uses only at the Runway 33 end in each modeling scenario. There are no noise sensitive sites or significant 1.5 dB noise exposure increases located within the 65 DNL contour in any scenario. The noise contours are similar in size and shape to the noise contours prepared for the 2018 *Aspen/Pitkin County Airport Improvements EA*.

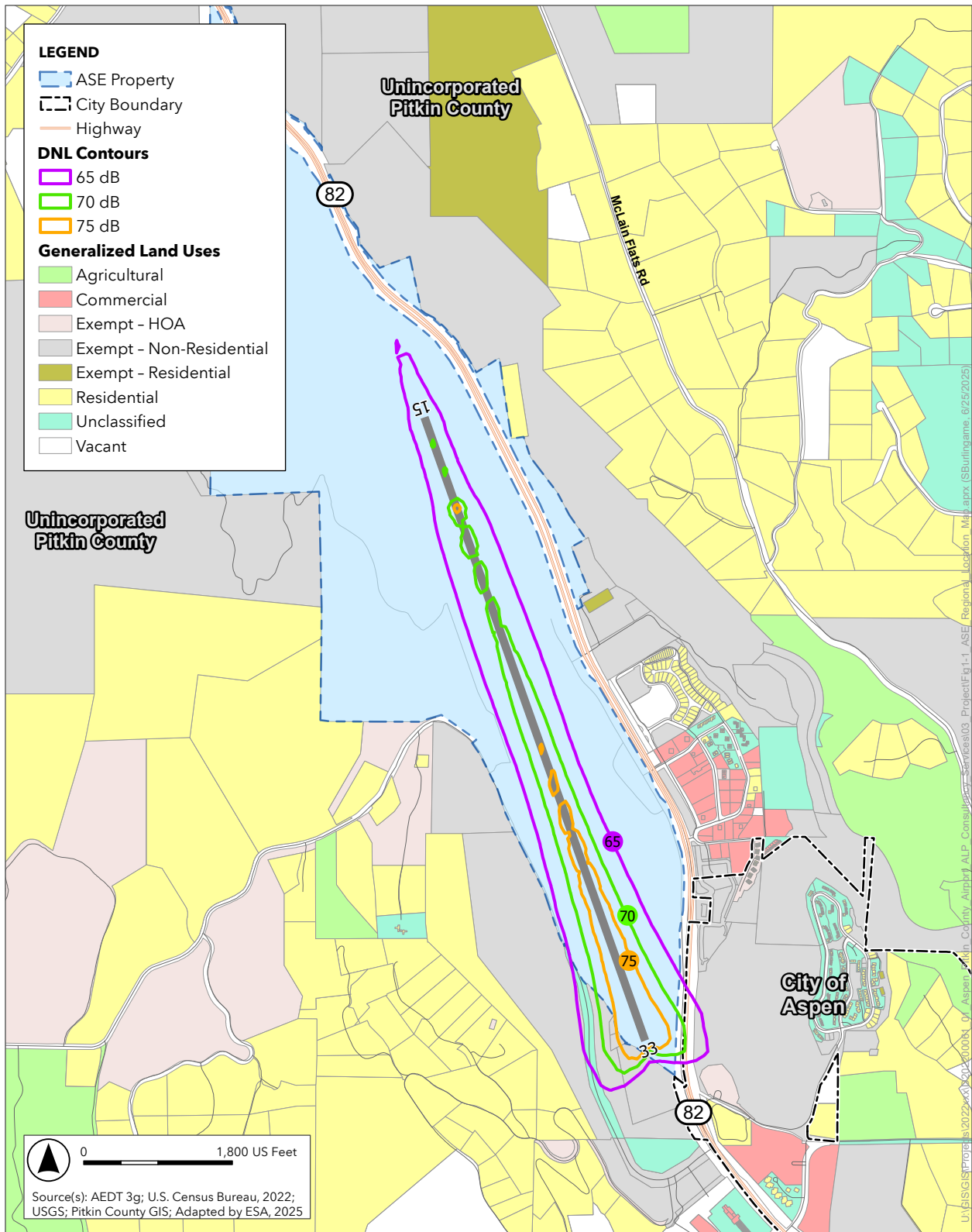


Figure 1
Existing Conditions DNL Contours and Generalized Land Uses
Aspen/Pitkin County Airport

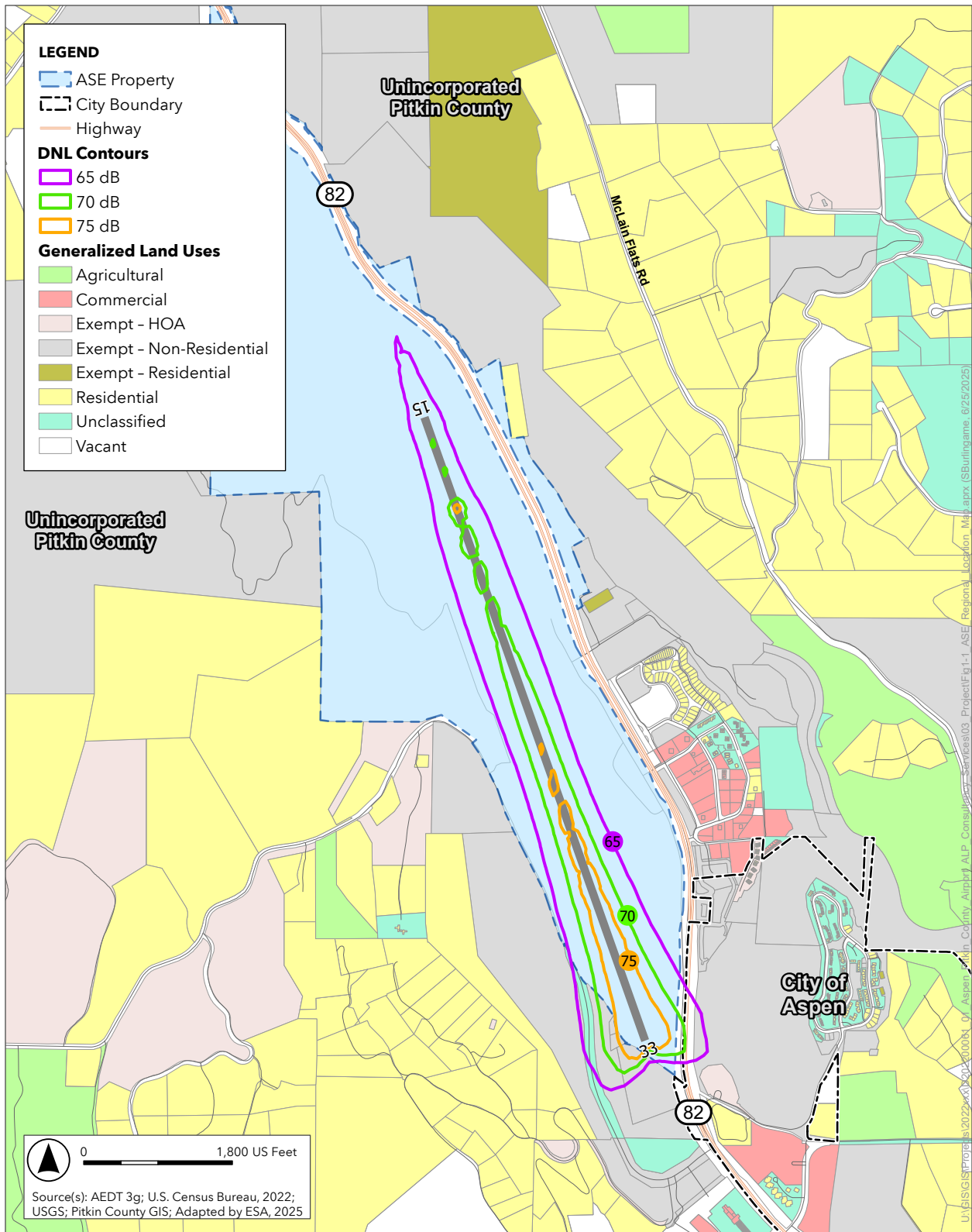


Figure 2
 2030 No Action DNL Contours and Generalized Land Uses
 Aspen/Pitkin County Airport



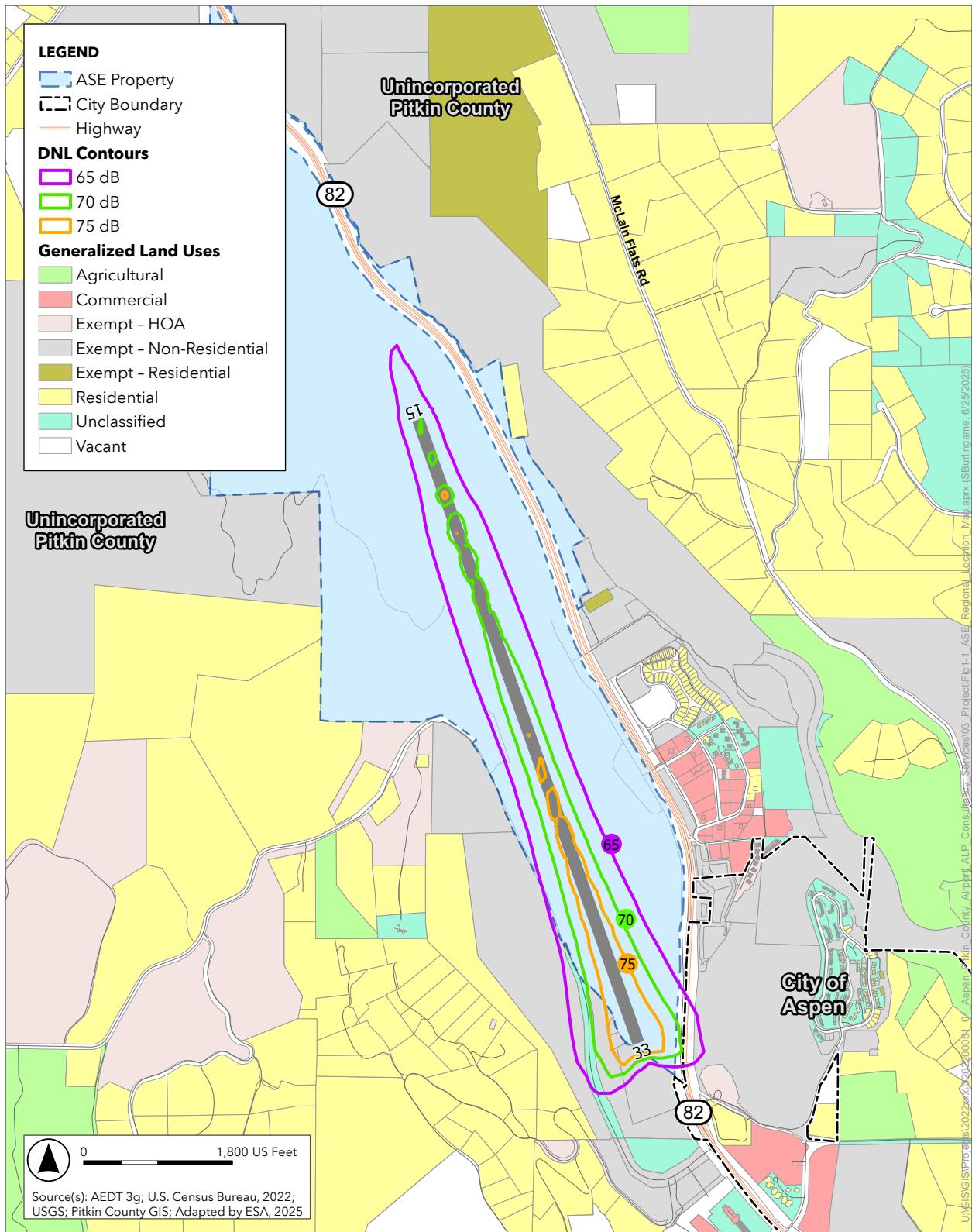


Figure 3
 2030 Proposed Project DNL Contours and Generalized Land Uses
 Aspen/Pitkin County Airport

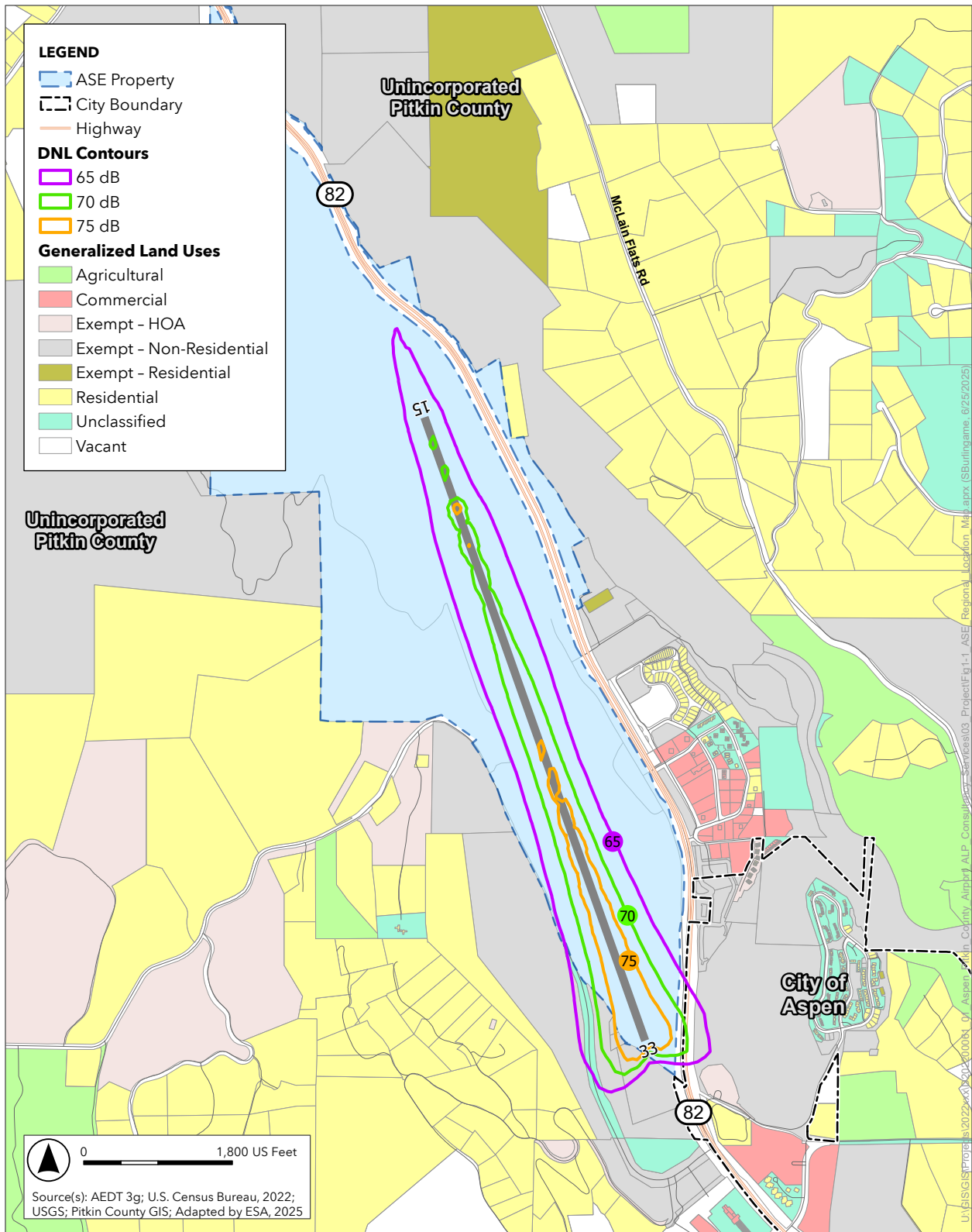


Figure 4
 2035 No Action DNL Contours and Generalized Land Uses
 Aspen/Pitkin County Airport



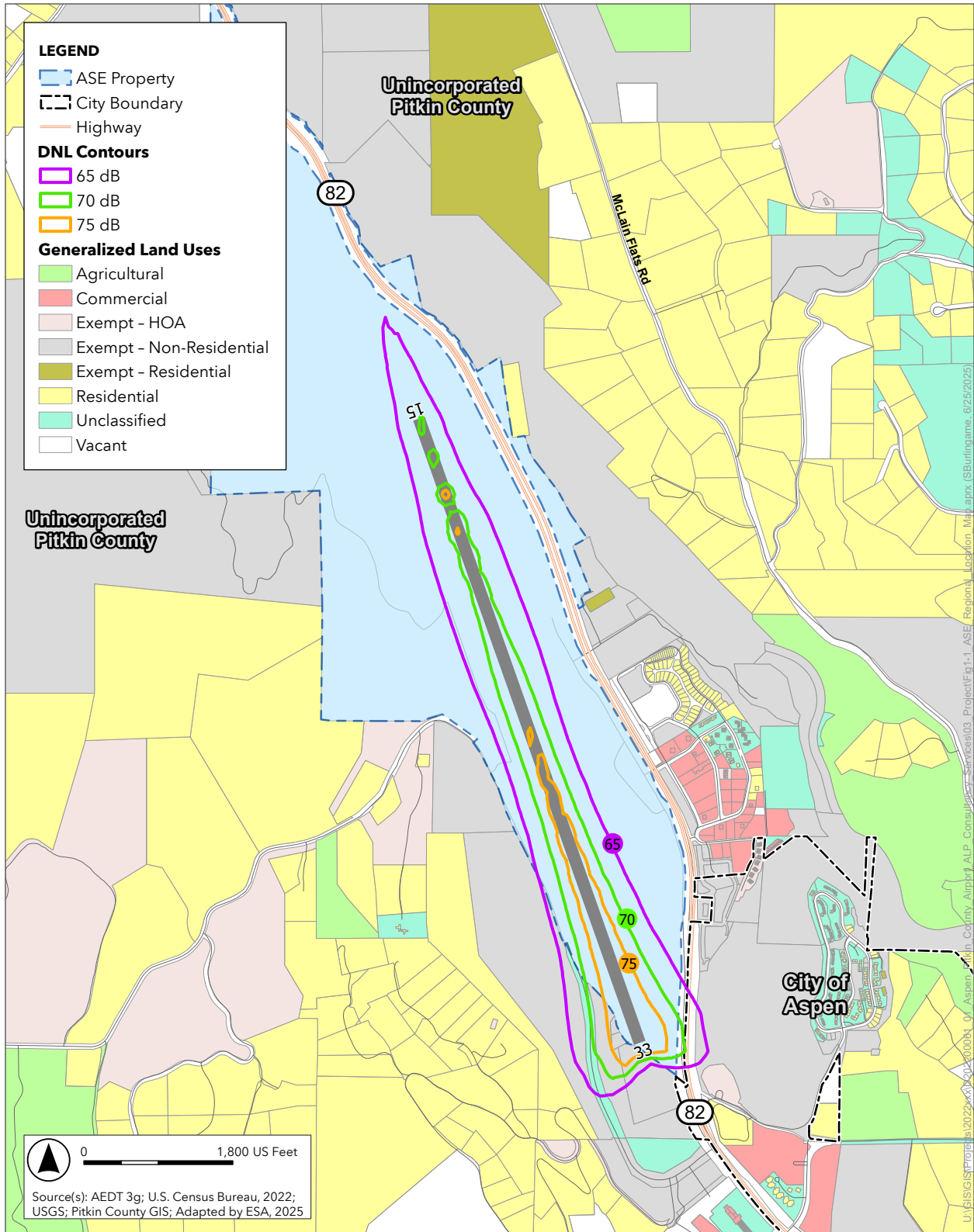


Figure 5
 2035 Proposed Project DNL Contours and Generalized Land Uses
 Aspen/Pitkin County Airport



Attachment A – Model Fleet Mix and Operations

Aircraft Operations and Fleet Mix ²			Forecast					
			2025 Existing Conditions (a)	2030 No Action	2030 Proposed Project	2035 No Action	2035 Proposed Project	
Air Carrier Aircraft	Wingspan < 95 ft.	CRJ700	9,165	10,111	3,245	5,779	0	
		E175	3,014	2,085	7,179	7,109	9,005	
	Wingspan > 95 ft.	A220-100/300	0	0	0	0	2,518	
		737 MAX	0	0	0	0	0	
	Subtotal Air Carrier Aircraft			12,178	12,196	10,424	12,889	11,523
GA and Air Taxi Aircraft	Single Piston	Diamond DA40	2,345	2,306	2,406	2,396	2,466	
		Cirrus SR22	971	956	997	993	1,022	
		Cessna T210	388	381	398	396	408	
		Piper PA28	167	165	172	171	176	
		Cessna C185	158	155	162	161	166	
		Cessna C182	148	146	152	152	156	
		Piper PA46	124	122	128	127	131	
		Beechcraft BE35	120	118	123	122	126	
		Mooney M20K	120	118	123	122	126	
		Beechcraft BE36	115	113	118	117	121	
		Cessna C172	91	89	93	93	96	
		Subtotal Single Piston			4,747	4,669	4,870	4,850
	Twin Piston	Diamond DA62	340	334	349	347	357	
		Cessna C340	93	91	95	95	97	
		Piper PA60	82	81	84	84	87	
		Cessna C421	62	61	63	63	65	
	Subtotal Twin Piston			576	567	591	589	606
	Single Turboprop	Pilatus PC12	1,978	2,025	2,112	2,212	2,281	
		Socata TBM9	275	282	294	308	317	
		Socata TBM7	228	233	243	254	262	
Subtotal Single Turboprop			2,480	2,540	2,648	2,774	2,861	
Twin Turboprop	Beechcraft BE20	719	736	767	804	829		
	Swearingen SW4	414	424	442	463	478		
	Beechcraft BE30	364	372	388	407	419		
	Saab SB20	313	320	334	350	361		
	Beechcraft B350	245	251	262	274	283		
	Cessna C441	161	165	172	180	185		
Subtotal Twin Turboprop			2,216	2,268	2,365	2,478	2,555	

² Subtotals may not sum due to rounding.

GA and Air Taxi Aircraft (Cont.)	Jet	Bombardier CL30	4,183	4,318	4,503	4,591	4,734	
		Cessna C680	3,086	3,186	3,322	3,387	3,493	
		Embraer E55P	2,477	2,557	2,666	2,718	2,803	
		Cessna C56X	1,647	1,700	1,773	1,808	1,864	
		Cessna C750	1,613	1,665	1,736	1,770	1,826	
		Cessna C25B	1,473	1,521	1,586	1,617	1,667	
		Bombardier GLEX	1,324	1,367	1,425	1,453	1,498	
		Bombardier CL60	1,050	1,084	1,131	1,153	1,189	
		Hawker H25B	970	1,001	1,044	1,064	1,097	
		Embraer E545	963	995	1,037	1,057	1,090	
		Gulfstream GLF4	954	985	1,027	1,047	1,080	
		Dassault F900	935	966	1,007	1,027	1,059	
		Cessna C700	914	943	984	1,003	1,034	
		Gulfstream G450	883	911	950	969	999	
		Dassault F2TH	827	853	890	907	936	
		Learjet LJ45	771	796	830	846	872	
		Embraer E135	656	677	706	720	742	
		Gulfstream GLF5	594	613	639	651	672	
		Gulfstream G550	590	610	636	648	668	
		Dassault FA7X	575	594	619	631	651	
		Learjet LJ60	544	561	585	597	616	
		Gulfstream G650	535	552	575	587	605	
		Gulfstream G280	525	542	565	576	594	
		Cessna C560	444	459	478	488	503	
		Cessna C25C	429	443	462	471	485	
		Dassault FA50	385	398	415	423	436	
		Embraer E550	379	391	408	416	429	
		Pilatus PC24	342	353	368	375	387	
		Beechcraft BE40	339	350	365	372	383	
			Subtotal Jet	30,407	31,391	32,732	33,371	34,414
			Helicopter	0	0	0	0	0
			Subtotal GA and Air Taxi Aircraft	40,426	41,435	43,208	44,063	45,429
Military Aircraft	Military Local	170	170	170	170	170		
	Military Itinerant	160	160	160	160	160		
Total Aircraft Operations		52,935	53,962	53,962	57,281	57,281		
Total Enplanements		310,797	313,608	332,315	323,395	355,323		

Source: Jacobsen|Daniels, ESA, 2025

Note: Totals may not sum due to rounding.



July 22, 2025

Ben Wilson-USACE
400 Rood Ave Ste 224
Grand Junction, CO 81501

Dear Mr. Wilson,

On July 15, 2025, Bio-Environs made a visual inspection of the ground surface at the following location:

Aspen-Pitkin County Airport (ASE)
Aspen, Colorado
Sections 34 & 3, T9S R85W
Pitkin County, CO
Figure 1

A completed and verified 2015/2016 delineation of aquatic resources within the airport property boundary is part of an Environmental Assessment that was conducted in association with the proposed development of additional Terminal Facilities and Runway Expansion (Figure 2, 3, 4, 4a). The approximately 385.0 acre project area includes existing infrastructure, terminal, parking areas, runway/taxiway, airport operations as well as the abandoned Sardy Ranch site to the west of the runway.

The verified Aquatic Resource Delineation was completed for the Airport for planning purposes in 2015 (Figures 4, 4a) (Wetland Delineation Report-Aspen/Pitkin County Airport-ASE Terminal Development EA, Bio-Environs 2015, 2016). Due to changes in USACE language that occurred at that time the delineation was revised in 2016 to reflect those changes as well as include an update to a wetland area (Wetland C) that was delineated at the south end of the runway in 2009. The USACE case number for the Aspen/Pitkin County Airport Aquatic Resource Delineation project area is SPK-2016-0581.

After several years of delay to the pursuit and initiation of the original proposed Terminal Improvements and Runway Expansion in 2015, the airport is working with the FAA to continue efforts toward the proposed development that was associated with the initial EA effort. Due to the expiration of the 2016 delineation, current conditions of areas identified as jurisdictional wetlands and water features in 2016 were updated and assessed within the identified 2025 Review Area (Figures 1, 2, 3) in association with a Supplement to the EA that is currently being

revised for this proposed project. Review of the identified features on site (Figures 2, 3) was conducted July 15, 2025 in order to determine whether there have been any alterations or natural changes to the identified wetlands, wetland boundary, local hydrology or water features since the 2015/2016 study (Figures 4, 4a).

As was done in 2015/2016, the wetlands and water features identified within the Review Area were examined for the existence of conditions that support regulated wetlands and aquatic resources per guidance provided by the *Corps of Engineers Wetland Delineation Manual (1987)*, along with the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region (Version 2.0) 2010*. This guidance includes investigating the presence of a dominance of wetland vegetation, presence of hydric soils and wetland hydrology, the presence of a channel that includes an Ordinary High Water Mark as well as the presence of a ground surface connection to “waters of the U.S” that are part of the Roaring Fork River Basin.

The identified wetland areas (Figures 2, 3) within the Review Area include: a 3.0 acre portion of a scrub-shrub wetland (Wetland A) that is part of the riparian area associated with the Owl Creek Stream channel and the Sardy Ranch site (Photographs 1, 2 and 3); a small 0.05 acre emergent wetland (Wetland B) located just west of an Airport Operations parking area (Photograph 4); and a 1.3 acre emergent wetland area (Wetland C) that was created near the south end of the runway as part of mitigation associated with a previous airport runway expansion in approximately 2009 (Photographs 5-7). The project area also includes non-wetland water features that consist of an approximately 4020 LF reach of Owl Creek running east and west of the runway (Photographs 2, 8-12), and approximately 4630 LF of irrigation ditches (Photographs 12-16). Owl Creek enters the project area from the northwest and supports Wetland A to the west of the runway. After Crossing under the runway, Owl Creek exits the northeast corner of the project area where it flows northeast to join the Roaring Fork River. The identified irrigation ditches include control features and provide waters to agricultural areas to the west of the airport perimeter, as well as convey some surface run-off and irrigation waters to Owl Creek within the project area. To assess any changes or altered conditions that may have occurred since the 2015/2016 delineation, a review of updated World Imagery and Mapping (Figures 2, 3) along with current photographs and a visual ground surface inspection was conducted for Wetlands A, B, C, the western and eastern reach of Owl Creek, and the ditches and channels that comprise the irrigation and drainage system within the project area.

Wetlands A, B, C

The wetland boundary and conditions associated with Wetlands A, B, and C (Figures 2, 3) has not changed and is consistent with 2015/2016 identification and mapping of the features (Photographs 1-7). Hydrology to these areas appears to be consistent with that of the 2015/2016 delineation with steady flows in the Owl Creek channel within Wetland A and saturation of soils within Wetlands B and C on the day of the 2025 review. Wetland A abuts Owl Creek and includes a continuous connection to the Roaring Fork River, a tributary to the Colorado River and “waters of the U.S.” through an identified perennial channel. Wetlands B and C, however, do not include a direct or continuous ground surface connection to other waters. Wetlands B and C are

associated with ditches and piped features that are part of the airport drainage system making the determination of hydrologic connection difficult.

Owl Creek (4060 LF)

Owl Creek is identified as a perennial stream channel and a tributary to the Roaring Fork River on USGS mapping (Figures 1 and 2A). The western reach of the stream channel is relatively natural and supports Wetland A as it extends towards the airport perimeter fence (Photographs 1-3). The stream course becomes channelized after entering the airport perimeter where it extends to a culvert that conveys waters underneath the runway to the channelized portion of the stream course east of the runway. After exiting the northeast runway perimeter, the channelized course enters a managed and trimmed non-wetland riparian area comprised of narrowleaf cottonwood dominated area that does not support wetland criteria, exhibiting a lack of wetland soils and limited hydrology (Photographs 8-11). The above conditions and extents are consistent with those found in the 2015/2016 investigation.

Ditches 1 and 2 (Approximately 1900 LF)

Ditches 1 and 2 convey irrigation to an agricultural area that is northwest of the airport perimeter fence. The ditches have been created in uplands and are associated with control features. These features are un-altered over time and the current conditions are consistent with the 2015/2016 delineation mapping (Figure 2). The ditches exhibit a shallow OHWM as is common with this type of irrigation carrier. These features are unchanged in function and form since the 2015/2016 investigation.

Ditches 3 and 4 (Approximately 2700 LF)

Ditches 3 and 4 appear to convey drainage and irrigation effluent/waters that originate to the west of the airport to Owl Creek where the course enters the runway perimeter (Figure 2). Ditch 4 enters Ditch 3 to the west of an airport equipment storage area. The ditches include a bed and bank with an inconsistent OHWM and are generally lined with vegetation and grass as they extend through the project area towards the confluence with Owl Creek (Photographs 13-17). The ditches include control features located west and outside of airport operations areas. Conditions associated with Ditches 3 and 4 are unchanged and consistent with conditions that existed during the 2015/2016 investigation.

Based on the review of updated aerial *World Imagery*, including a revised GIS rendering of the 2015/2016 wetland boundaries (Figures 2 and 3), and the ground surface inspection completed on July 15, 2025, there have been no changes to the identified-mapped wetland boundary or water features within the Review Area since the verified 2015/2016 delineation. Aspen/Pitkin County airport has maintained the original configuration of the site with minimal development and there have been no impacts or changes to site hydrology and landscape in association with the identified features. The extent and condition of wetlands and water features identified in the 2015/2016 Aquatic Resource Delineation remains consistent with present conditions observed on July 15, 2025.

In summary, the above factors indicate that there have been no alterations or natural changes to the identified wetland areas and water features within the 2025 Aspen/Pitkin County Airport Project and Review area. Wetland, hydrology, soils, vegetation, and drainage conditions within the review area remain consistent with those delineated, documented and mapped in the completed 2015/2016 Aquatic Resource Delineation for the described project area.

Please feel free to contact us with any questions.

Sincerely,

Tim Lapello
Bio-Environs
970 641 8749

C/C: Diane Jackson, Airport Director, Aspen/Pitkin County Airport (ASE), 1001 Owl Creek Road, Aspen, CO 81611,

Figures

Figure 1. General Location and USGS Topography-Aspen/Pitkin County Airport (ASE) Project Area

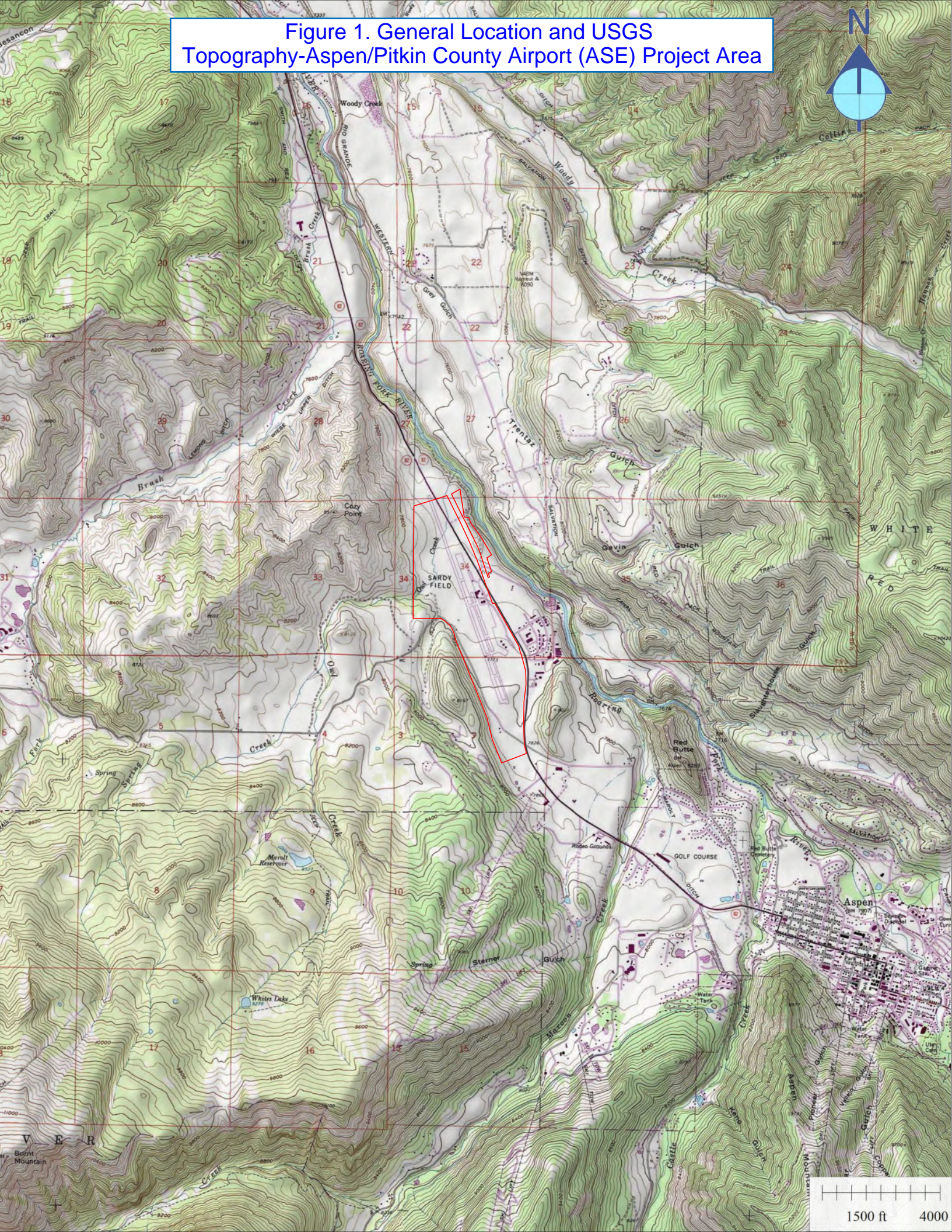
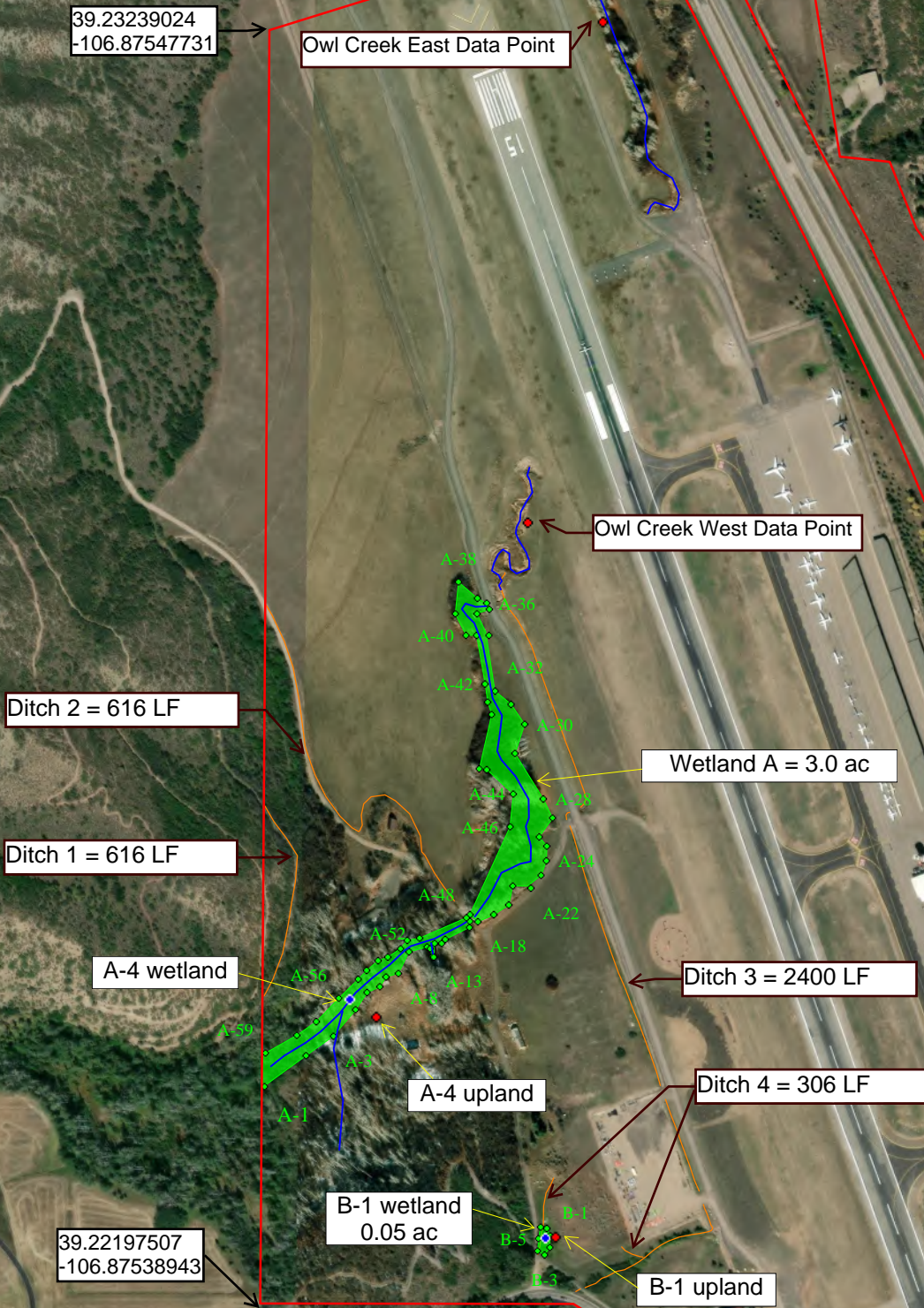


Figure 2. Aspen/Pitkin County Airport - ASE Phase 2 EA Supplement Updated Aquatic Resource Delineation - Northern Project Area Detail



Aquatic Resource Delineation Map - Aspen Airport - Northern Project Area

- Project Area = 385.0
- Wetland Area = 4.3 ac
- Non-wetland Water Feature - Irrigation Ditch - 4630 LF
- Non-wetland Water Feature - Owl Creek - 4020 LF
- UPLAND SAMPLE POINT
- Wetland Data Point
- WETLAND SAMPLE POINT

Source: 2025 World Imagery

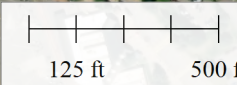


Figure 3. Aspen/Pitkin County Airport - ASE Phase 2 EA Supplement Updated Aquatic Resource Delineation - Southern Project Area Detail



39.2234531780
-106.8658850394

39.2085823593
-106.8658850394

Sample Pt. C wetland

Sample Pt. C upland

Wetland C- = 1.3 ac

Aquatic Resource Delineation Map - Aspen Airport - Southern Project Area

- Project Area = 385.0
- Wetland Area = 4.3 ac
- Non-wetland Water Feature - Irrigation Ditch - 4630 LF
- Non-wetland Water Feature - Owl Creek - 4020 LF
- UPLAND SAMPLE POINT
- Wetland Data Point
- WETLAND SAMPLE POINT

Bio-Environs, 2015 Updated July 20, 2025

Source: 2025 World Imagery

NAD 83

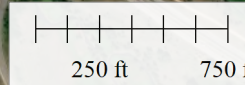


Figure 4. Aspen/Pitkin County Airport-ASE Phase 2
Wetland Delineation- North-Owl Creek Detail



39.23239024,-106.87547731

Owl Creek East Data Point

1,060 LF

Owl Creek within Project Area = 3562 LF

Owl Creek West 2 Data Point

609 LF

Source: World Imagery 2016

Owl Creek West 1

Wetland A = 3.0 ac

Ditch 2 = 1306 LF

A-4 wetland

Ditch 1 = 616 LF

D-2 = 50 LF

A-4 upland

1893 LF

D-1 = 410 LF

Wetland B = .05 ac

B-1 wetland

Ditch 4 = 306 LF

B-1 upland

Ditch 3 = 2400 LF

Ditch 4 Cont.

39.22197507048,-106.87538943

Wetland Delineation Map-Northern Project Area

- Project Area = 385.0 ac
- Wetland Area = 4.35 ac
- Non-wetland water feature = 8651 LF
- UPLAND SAMPLE POINT
- WETLAND SAMPLE POINT
- Wetland Data Point

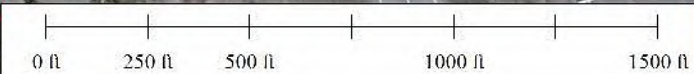


Figure 4a. Aspen/Pitkin County Airport-ASE Phase 2 Wetland Delineation- Southern Project Area Detail



Source: World Imagery 2016

39.2234531780
-106.8658850394

39.2085823593
-106.8658850394

Sample Pt. C wetland

Sample Pt. C upland

Wetland C = 1.3 ac

Wetland Delineation Map-Southern Project Area

- Project Area = 385.0 ac
- Wetland Area = 4.35 ac
- Non-wetland water feature = 8651 LF
- UPLAND SAMPLE POINT
- WETLAND SAMPLE POINT
- Wetland Data Point

