



ENVIRONMENTAL ASSESSMENT





ENVIRONMENTAL ASSESSMENT

DURANGO-LA PLATA COUNTY AIRPORT

Durango, La Plata County, Colorado

FINAL REPORT

April 2019

Prepared for:

Federal Aviation Administration

This Environmental Assessment becomes a federal document when evaluated, signed, and dated by Responsible FAA Official.

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April 26, 2019

Responsible Official

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US DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION Northwest Mountain Region – Denver Airports District Office Finding of No Significant Impact

Introduction

This document serves as the Federal Aviation Administration's (FAA) Finding of No Significant Impact (FONSI) and provides final agency determinations and approvals for the federal actions necessary to implement the proposed terminal project at the Durango-La Plata County Airport (DRO), co-owned by the City of Durango and La Plata County (Airport Sponsor). This FONSI is based on the information and analysis contained in the Final Environmental Assessment (FEA), dated March 2019, which is hereby incorporated herein by reference. This FEA has been prepared in accordance with the guidelines and requirements set forth by the Council on Environmental Quality (CEQ) and the FAA to implement the environmental review and disclosure provisions of the National Environmental Policy Act of 1969 (NEPA).

Proposed Federal Action (Chapter 1 of the FEA)

The Durango-La Plata County Airport (DRO) proposes to:

- Expand or construct new:
 - Terminal building;
 - o Terminal Apron; and
 - Automobile parking area.
- Utility Improvements
- Realign or construct new terminal loop road
- Other improvements as needed

Purpose and Need (Chapter 2 of FEA)

The purpose and need for the Proposed Action is to accommodate existing and future demand. Airport facilities do not and/or will not meet existing and future demand. The existing passenger demand has outgrown the current terminal space. The level of service within terminal areas, including the passenger departure lounge, ticket counters, security screening checkpoints and baggage areas, will continue to degrade as passenger levels increase.

Alternatives (Chapter 3 of FEA)

The EA identified and evaluated four alternatives:

- No Action: This alternative would use the existing facilities to meet current and future demand. Passenger level of service would continue to decline under this alternative.
- Alternative 1: This alternative proposes to renovate and expand the existing terminal building. The existing terminal building would be expanded to approximately 80,000 square feet. The existing building would need to be incorporated into the new construction and be completely reconfigured, involving a complete remodel of existing interior and exterior finishes. Due to the age and capacity of building systems, existing systems would be

replaced with new equipment sized to serve the needs of the entire building and meeting latest energy efficiency standards. Complex phasing would be required during construction to maintain functionality for passengers and airlines and minimize impacts to normal operations. However, a decreased level of service will be unavoidable at times. The aircraft parking apron would be reconstructed to remove non-aircraft rated pavement and replace it with aircraft rated pavement to accommodate five aircraft parking positions. Existing automobile parking areas would be expanded by relocating the terminal loop road. The primary utility corridor would be reconstructed and relocated to accommodate the expanded terminal.

- Alternative 2: This alternative proposes to construct a new terminal building on the west side of the Airport, next to the existing terminal building, and seeks to use the existing airfield and landside infrastructure to the greatest extent possible with a new building. The existing terminal building would be demolished after the new building is completed and the site reused for auto parking. High-performance modern systems would be used to capture the benefits of sustainable design principles and reduce operating costs of the new building. Phasing would be needed to minimize impacts to the normal airport operations, primarily because there is very little space available for contractors to stage equipment and materials. The aircraft parking apron would be reconstructed to remove non-aircraft rated pavement and replace it with aircraft rated pavement to accommodate five aircraft parking positions. Existing automobile parking areas would be expanded by relocating the terminal loop road. The primary utility corridor would be reconstructed and relocated to accommodate the new terminal.
- Alternative 3: This alternative involves construction of all new terminal facilities on the east side of the airfield on undeveloped land. Construction of a new terminal, aircraft parking apron, partial parallel taxiway, auto parking, and access roadways to CR 309A would be required. The former terminal location would then be made available for lease or redevelopment for aeronautical purposes given the proximity to the active airfield.

Terminal Alternatives 1, 2, and 3 were carried forward in the draft EA and evaluated for environmental impacts. Additionally, the No Action Terminal Alternative was carried forward and served as the basis of comparison for each alternative's environmental impacts. After careful analysis and consultation with various resource agencies, the Airport Advisory Commission unanimously voted on January 24th, 2019 to select the combination of Alternative 1 and 2 as the Proposed Action. This alternative satisfies the purpose and need while minimizing impacts.

Environmental Consequences and Mitigation (Chapter 5 of the FEA)

Environmental impact categories identified in FAA Orders 1050.1F and 5050.4B were evaluated in the FEA. No thresholds of significance are expected to be exceeded with the Proposed Action. Most impacts would be minimal and occur during construction. Those categories impacted by the Proposed Action are discussed below. Information on the other categories and the thorough analysis completed can be found in the FEA. The Proposed Action will result in a slight increase in air emissions during construction but the impacts will be temporary. Best Management Practices (BMPs) will be utilized to minimize any temporary impacts.

There are no construction activities proposed in New Mexico meadow jumping mouse (endangered species) occupied habitats. Construction that occurs between May and October near occupied habitat could have potential effects such as short-term avoidance of an area due to noise or human activity. This potential impact however is expected to be minimal as current human activity in the immediate area have been persistent for years. Expansion of the airport facilities within the current property boundaries are not expected to indirectly affect the jumping meadow mouse due to the distance between proposed facilities expansion areas and occupied habitats. The proposed action **may affect, is not likely to adversely affect** the New Mexico meadow jumping mouse.

The small sections of suitable southwestern willow flycatcher habitat identified are not expected to be directly impacted by the Proposed Action. There would be no construction activities in any of these small habitat patches. Consequently, no habitat would be lost as a result of developing the proposed action. Construction activities occurring between May and September could have potential effects to migrating birds if present. These short-term effects could include avoidance of an area. There is the potential that sedimentation or accidental spills or leaks of hazardous materials could indirectly affect the quality of potential habitat and the prey base for southwestern willow flycatchers. Best management practices will be included during construction to reduce the potential for these spills/leaks. The proposed action **may affect, is not likely to adversely affect** the southwestern willow flycatcher.

Five archaeological sites on airport property were determined to be eligible for listing on the National Register of Historic Places. The Proposed Action will not result in any direct/indirect impacts to the sites. The FAA determined that the Proposed Action would have No Adverse Effect on the five sites.

The Proposed Action will increase the amount of impervious surface, which will result in an increase in stormwater runoff. The amount of stormwater runoff will be minimized by the use of onsite detention and Best Management Practices (BMPs).

After review of the FEA, the FAA determined that a FONSI was justified for the proposed airport improvements. As a result, FAA will not prepare an Environmental Impact Statement (EIS) for this action.

Public and Agency Coordination (Chapter 6 of the FEA)

Public involvement is a vital component of the NEPA process. DRO held numerous meetings with the public during the development of the Draft EA. The Draft EA was released for public and agency review from November 13, 2018 through December 27, 2018. A Notice of Availability of the Draft EA and public hearing information was published in the Durango Herald on November 12, 2018, December 5 and December 10, 2018. The Draft EA was available online and at DRO and the Durango Public Library. A public hearing was held on December 13, 2018 at the Durango City Hall. A meeting with nearby landowners also took place on December 13, 2018. Two public comments were received at the landowners meeting.

Environmental Finding and Approval

After careful and thorough consideration of the facts contained herein, the undersigned finds that the proposed Federal action is consistent with existing national environmental policies and objectives as set forth in Section 101 of NEPA and other applicable environmental requirements and will not significantly affect the quality of the human environment or otherwise include any condition requiring consultation pursuant to Section 102(2)(C) of NEPA.

APPROVED:

DATE: APRIL 26, 2019

John Bauer, Manager Derver Airports District Office Manager



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1. INTRODUCTION

The Durango-La Plata County Airport (DRO or the Airport) is proposing development that would require federal actions/approvals by the Federal Aviation Administration (FAA). FAA actions/approvals include possible funding and Airport Layout Plan (ALP) approval. This Environmental Assessment (EA) has been prepared to comply with the requirements of the National Environmental Policy Act (NEPA). This EA has been prepared in accordance with FAA Orders 5050.4B¹ and 1050.1F,² as well as applicable Executive Orders, Council on Environmental Quality (CEQ) regulations implementing NEPA, and other federal, state, and local requirements. For this EA, the required content and required information is organized in the following manner:

Chapter 1, Introduction: Provides a brief overview of the Airport and structure of the EA.

Chapter 2, Purpose and Need: Provides a brief description of the problems the project is intended to address (i.e., the Purpose) and the data that substantiates that a problem exists (i.e., Need). The chapter also discusses the actions DRO is requesting of the FAA to meet the Purpose and Need.

Chapter 3, Alternatives: Provides an overview of the various solutions to the problems the Airport is facing and how those alternatives were selected (or rejected) for further analysis in this EA.

Chapter 4, Affected Environment: Describes the existing environmental conditions within the project study area, as well as the past, present, and reasonably foreseeable actions that will be used in the EA's cumulative impact analysis.

Chapter 5, Environmental Consequences: Describes the potential environmental effects that the No Action, Proposed Action, and each reasonable alternative would have on the affected environment. Pursuant to regulations in 40 Code of Federal Regulations (CFR) Sections 1508.7 and 1508.25(a)(2), as well as CEQ guidance documents,³ this chapter also discusses cumulative impacts. This discussion focuses on the effects the Proposed Action would have on some environmental resources, in combination with the effects of past, present, and reasonably foreseeable actions.

Chapter 6, Public Outreach: Discusses the coordination and public involvement associated with the EA process. The chapter also presents a list of federal, state, and local agencies and other interested parties that have been involved in EA coordination efforts.

Chapter 7, Glossary and Acronyms: Contains terms and acronyms used in this EA.

Chapter 8, References: Contains a list of all references used in the development of this EA.

Chapter 9, List of Preparers: Contains a list of names and the qualifications of individuals who prepared, contributed to, and reviewed this EA.

Chapter 10, Appendices: The relevant material, analyses, and technical reports that were used to prepare this EA.

³ CEQ, Considering Cumulative Effects, January 1997, and Guidance on the Consideration of Past Actions in Cumulative Effects Analysis, June 24, 2005.



¹ Federal Aviation Administration, Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions, April 26, 2006.

² Federal Aviation Administration, Order 1050.1F, *Environmental Impacts: Policies and Procedures*, July 16, 2015.



1.1 Overview of the Airport

DRO is a public-use airport located approximately 14 miles southeast of the Central Business District of Durango (**Figure 1-1**) and within the Southern Ute Indian Reservation. Its elevation is 6,689 feet above mean sea level (MSL) and occupies approximately 1,382 acres. The original 257 acres were purchased in 1947; the other 1,125 acres were purchased between 1959 and 1992.

DRO is co-owned by the City of Durango and La Plata County and is overseen by the Airport Board of Commissioners. Through an intergovernmental agreement (IGA), DRO functions as a City department with direct oversight by the City of Durango. Pursuant to the IGA, the Airport Board of Commissioners serves in an advisory capacity and is made up of nine board members (four members appointed by the City Council, four members appointed by the Board of County Commissioners, and one joint member). The City and County jointly own and maintain the airport facilities, and have ultimate responsibility for all airport policy considerations, as well as compliance with all federal, state, and local regulations.

The FAA's National Plan of Integrated Airports System (NPIAS) classifies the Airport as a non-hub primary airport.⁴ According to the NPIAS, airports of this size enplane less than 0.05 percent of all commercial passenger enplanements but have more than 10,000 annual enplanements.

DRO's facilities (as shown in **Table 1-1**) include the airfield (runway, taxiways, and aprons), terminal area, parking areas, navigational/visual aids, Fixed-Based Operator (FBO), and hangars. More specifically, the airfield includes Runway 3/21 (9,201 feet long by 150 feet wide and constructed of asphalt); parallel Taxiway A and connector Taxiways A1 through A8 and C; and commercial and general aviation aprons.

Figure 1-2 depicts DRO's existing layout.



⁴ Federal Aviation Administration, *National Plan of Integrated Airports System*. Available at: <u>http://www.faa.gov/airports/planning_capacity/npias/reports/</u> Accessed: October 2015.

Item	Description				
Runway 3/21	 9,201 feet by 150 feet 25-foot Paved Shoulders Consists of Dense Graded Grooved Asphalt Published Strength: 95,000-lb Single Wheel Gear (SWG), 150,000-lb Dual Wheel Gear (DWG), 210,000-lb Dual Tandem Wheel Gear (DTG) 				
Taxiways	 Parallel Taxiway A Connector Taxiways A1 through A8 and C 				
Aprons	 Commercial: 25,168 square yards General Aviation (GA) / FBO: 53,724 square yards North GA: 25,263 square yards U.S. Forest Service: 21,780 square yards 				
Navigational Aids (NAVAIDs)	 Instrument Landing System (ILS) - Runway 3 VHF Omnidirectional Range (VOR)/Distance Measuring Equipment (DME) Area Navigation (RNAV) 				
Visual Aids	 High Intensity Runway Lights (HIRL) Precision Markings (3 and 21) Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights (MALSR) – Runway 3 Precision Approach Path Indicators (PAPI) – Runway 3 Visual Approach Slope Indicators (VASI) – Runway 21 Runway End Identifier Lights (REIL) – Runway 21 Airport Rotating Beacon Runway & Taxiway Edge Lights Runway Distance Remaining Signs (RDR) Runway & Taxiway Guidance Signs Segmented Circle / Wind Cone (lighted) 				
FBO (AvFlight) Hangars	 Hangars (3) – 32,400 square feet Apron – 53,724 square yards (includes south GA apron) 				
Terminal Building	 41,500 square feet (includes temporary departure lounge) 				
Parking	 Employee – 60 spaces Credit Card Lot – 267 Spaces Main Lot – 385 Spaces Rental Car – 219 Spaces Overflow Lots – 342 				

TABLE 1-1 – AIRPORT FACILITIES

Source: Jviation



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FIGURE 1-1 – LOCATION MAP DURANGO DRO BAYFIELD 550 DRO -(172) 0.5 0 Miles IGNACIO BONDAD Colorado ALLISO 151 511 New Mexico 12 16 Miles





FIGURE 1-2 - DRO EXISTING LAYOUT



Source: Jviation Note: Not to scale



1.2 Background Information

1.2.1 Terminal Development

The 2017 Master Plan's 10-year forecast shows a growth in DRO's total operations from 27,928 in 2015 to 34,439 operations in 2025 (**Table 1-2**). This forecast is based on different growth rates for commercial operations and GA operations. The recommended operations forecast is higher than the FAA Terminal Area Forecasts (TAF) five-year forecast by 1.0 percent and the 10-year forecast by 6.4 percent. This difference is primarily due to the FAA TAF showing a low growth rate for GA operations (0.7 percent) and no growth for military operations, whereas the recommended growth rate for GA operations is 1.4 percent. It should be noted that the actual operations numbers differ from what is shown in the TAF as commercial operations changed significantly in 2013 due to loss of an air carrier. The TAF began to reflect this change in 2014; however, DRO experienced the initial operation decline in 2013.

Year	ltinerant Commercial	Itinerant GA	ltinerant Military	GA Local	GA Total	Total Forecasted Operations	Total Actual Operations
2013	7,128	6,902	500	13,398	20,300	27,928	27,928
2015	7,965	7,132	500	13,844	20,976	29,441	29,734
2020	8,471	8,045	500	14,942	22,987	31,958	NA
2025	9,010	8,974	500	15,955	24,929	34,439	NA

TABLE 1-2 - DRO TOTAL OPERATIONS FORECAST

Source: Jviation and FAA TAF (published January 2018)

The 2017 Master Plan⁵ recommends a preferred forecast of 283,505 enplanements by 2025 (see **Table 1-3**). The recommended enplanement forecast is higher than the five-year FAA TAF by 4.4 percent and the 10-year forecast by 11.9 percent. A primary factor driving forecasted passenger enplanement growth is the continued trend in larger regional aircraft that will serve markets such as DRO, the conversion of existing seasonal frequency in favor of year-round service, plus the probable addition of one or more new destinations and additional frequency to existing destinations in the future. Most recently, the Four Corners Regional Airport in Farmington, NM, ceased commercial service flights; subsequently, DRO is now the only airport still offering commercial service to the Four Corners Region.

TABLE 1-3 - DRO PASSENGER ENPLANEMENT FORECAST

	Year	DRO Forecast	TAF	AF/TAF (% Difference)
	2013	192,797	192,797	0.0%
Base year	2015	205,594	205,594	0.0%
Base year + 5 years	2020	241,427	231,186	4.4%
Base year + 10 years	2025	283,505	253,344	11.9%
Base year + 20 years	2035	390,941	304,784	28.3%

Source: Durango-La Plata County Airport 2017 Master Plan

⁵ Jviation, Durango-La Plata County Airport Master Plan, Chapter 3, Forecast, 2017



The DRO forecast, as presented in the 2017 Master Plan, also discusses existing and future commercial operations, total airport operations, and based aircraft. These forecasts are not directly related to the terminal building expansion; however, they can be found in **Appendix A**, **Durango-La Plata County Airport 2017 Master Plan**.

The FAA, along with the International Air Transportation Association (IATA), has developed standards for analyzing airport space requirements. IATA defines standards in relation to the "Level of Service" that should be maintained by the airport operator.⁶ These service levels are discussed to assess the ability of the particular areas to comfortably perform their intended purpose. The service levels are as follows:

- A Excellent level of service. Conditions of free flow, no delays, and excellent levels of comfort.
- B High level of service. Conditions of stable flow, very few delays, and high levels of comfort.
- C Good level of service. Conditions of stable flow, acceptable delays, and good levels of comfort.
- D Adequate level of service. Conditions of unstable flow, acceptable delays for short periods of time, and adequate levels of comfort.
- E Inadequate level of service. Conditions of unstable flow, unacceptable delays, and inadequate levels of comfort.
- F Unacceptable level of service. Conditions of cross-flows, system breakdowns, and unacceptable delays; an unacceptable level of discomfort.

The 2017 Master Plan found the existing level of service (LOS) for the DRO terminal to be a "D during peak periods due to the current constraints experienced throughout the terminal;" however, it is desired that DRO have a LOS of "B." To meet the LOS "B," the Airport needs additional terminal space, specifically for airlines, TSA, and general public space as shown in **Table 1-4**. This assessment was made during several site visits to DRO during the 2017 Master Plan to observe passenger flows, combined with a detailed analysis of the facility using industry standard planning factors. Using these planning factors as a tool for analysis, the varying demands placed on the different components of the terminal can be studied. **Figure 1-3** is a graphic representation of the most significant "hot spots" – areas where the DRO terminal frequently experiences constraints.

⁶ International Air Transportation Association's *Airport Terminal Reference Planning Manual*, 9th Edition, 2004.



Type of Occupancy	Existing Space (square feet)	Need as of 2015
Airline Space	17,000	26,924
Transportation Security Administration Space	2,500	14,830
Concessions	4,200	3,500
Public Space	13,500	28,160
Airport Administration	2,400	5,000
Utilities and Support Spaces	1,900	3,686
Total Terminal Area (Rounded)	41,500 ¹	82,100

TABLE 1-4 – DRO	TERMINAL	FACILITY	REQUIREN	IENTS	SUMMARY
DIDEE 1 DIG		17.012111			0011111111111111

Source: Durango-La Plata County Airport 2017 Master Plan

Note: ¹The areas described above are approximate based on available archived drawings and CAD files for the existing terminal building, therefore rounded totals were used for the existing facility.



FIGURE 1-3 - TERMINAL HOT SPOTS/EXISTING CONSTRAINTS

Existing Constraints Source: RS&H, Inc.



1.3 Other Considerations

In late 2017, DRO was notified that the owners of the "Crossfire Property" were interested in selling their property. The property is located west of the existing terminal building and adjacent to the current airport boundary. Given that DRO was unsure if they would be able to acquire the property and how the property would be used, a Categorical Exclusion was completed just for the land acquisition and approved by the FAA in August 2018 (**Appendix B, FAA Land Acquisition CATEX Approval**). There is the potential that this property, if acquired, could be used in connection with Alternative 1 or Alternative 2. However, future use is currently undetermined. Additional NEPA will be completed once the land is acquired and a future use is determined.





2. PURPOSE AND NEED

The Purpose and Need for a proposed action is identified by describing the current problems and the proposed objectives. The Purpose and Need is used as the primary foundation to develop reasonable alternatives as required by NEPA and FAA Orders 1050.1F and 5050.4B.

2.1 Statement of Purpose and Need

Airport facilities do not and/or will not meet existing and future demand. As passenger activity grows, current congestion will be exacerbated and spread to additional facilities. The level of service within terminal areas, including the passenger departure lounge, ticket counters security screening checkpoints and baggage areas, will continue to degrade as passenger levels increase. The purpose of the proposed project is to accommodate the expected demand such that the level of service is acceptable.

2.2 Support for Purpose and Need

DRO's terminal building was originally constructed in 1987, with a temporary tent structure added in 2013 to accommodate the increased enplanements and expansion of the Transportation Security Administration's (TSA) security checkpoint (**Figure 2-1**). The original building consists of three concourses, shown in **Figure 2-2**.



FIGURE 2-1 - DRO TERMINAL BUILDING

Source: Jviation, 2017







Source: Jviation, 2017 Note: Not to scale

As identified in **Chapter 4**, **Facility Requirements**, of the 2017 Master Plan, the existing terminal building, terminal parking area, and terminal apron do not meet the existing passenger demand due to the size and aging infrastructure.

In general, the terminal is an aging building and in need of improvement. The terminal has undergone routine maintenance to keep the essential systems functional; however, despite the continual maintenance, the everincreasing passenger loads on this facility are apparent in the deterioration and poor condition of many of the public spaces. There continue to be portions of the ceiling and gypsum soffits showing water marks indicative of leaks, and the plumbing systems within the walls have sprung leaks requiring significant maintenance. The flooring, countertops, display cases and kiosks, and paint throughout the building are all worn and in need of replacement. All of these factors contribute to the perceived comfort of the passengers utilizing the facility.

In addition to the aging facilities, the existing passenger demand has outgrown the current terminal space. **Table 2-1** details the passenger enplanement forecast and **Table 2-2** provides further details on the existing and needed terminal space.



	Year	DRO Forecast	TAF	AF/TAF (% Difference)
	2013	192,797	192,797	0.0%
Base year	2015	205,594	205,594	0.0%
Base year + 5 years	2020	241,427	231,186	4.4%
Base year + 10 years	2025	283,505	253,344	11.9%

TABLE 2-1 – DRO PASSENGER ENPLANEMENT FORECAST

Source: Durango-La Plata County Airport 2017 Master Plan

TABLE 2-2 – DRO TERMINAL FACILITY REQUIREMENTS SUMMARY

Type of Occupancy	Existing Space (square feet)	Current Need 2015	
Airline Space	17,000	26,924	
Transportation Security Administration Space	2,500	14,830	
Concessions	4,200	3,500	
Public Space	13,500	28,160	
Airport Administration	2,400	5,000	
Utilities and Support Spaces	1,900	3,686	
Total Terminal Area (Rounded)	41,500 ¹	82,100	

Source: Durango-La Plata County Airport 2017 Master Plan

Note: ¹ The areas described above are approximate based on available archived drawings and CAD files for the existing terminal building, therefore rounded totals were used for the existing facility.

These constrained facilities lead to decreased levels of service during peak periods. As stated in the 2016 DRO Terminal Area Master Plan:

"The deficiencies experienced by passengers occur in several areas within the terminal, especially the ticket & baggage claim lobbies, TSA passenger screening, and the passenger departure lounge. The existing ticket lobby operates at a depth of roughly 28 feet, which significantly limits both the ticket counter active area and ticket counter queuing area. Currently the ticket counter queuing area encroaches on the circulation space of passengers passing through the ticket lobby. Similarly, on the other side of the terminal, the rental counter queuing space interrupts the circulation path of arriving passengers on their way to baggage claim. Passengers operate within one fifth (1/5) the required TSA space, straddled between the terminal's landside circulation core and airside departure lounge. The queue for passenger screening frequently extends into the circulation core, blocking access to restroom facilities, land side concessions and other support facilities. The undersized deplaning corridor also encroaches into this landside circulation core. The existing passenger departure lounge, a portion of which is occupied by TSA passenger screening, is also undersized, requiring a temporary hold room tent just south of the terminal building.

The deficiencies experienced by airport operations occur both within and outside the existing terminal, including the airline ticket offices (ATO), ground service equipment (GSE), and administrative & TSA Offices. The ATOs currently operate with one quarter (1/4) the required space, limiting the efficiency of certain operations. The GSE is stored outside and uncovered, causing increased maintenance and preparation times due to exposure to the elements (snow, ice, etc.). Airport administration is currently operating out of an office space on the



second floor which is half the required size. Additionally, much of this office space is shared with TSA, limiting both the office operations of the Airport and TSA. Though these deficiencies primarily affect airport operations, they have a direct impact on the passenger experience. For example, in winter months, unsheltered GSE often requires longer startup times and more frequent maintenance, causing delays in ground services and longer wait times at bag claim."

The FAA, along with IATA, developed standards for analyzing airport space requirements. IATA defines standards in relation to the LOS that should be maintained by the airport operator.¹ The LOS indicator for DRO's overall passenger terminal is estimated to be a "D during peak periods due to the current constraints experienced throughout the terminal." This assessment was made from several site visits to observe passenger flows combined with a detailed analysis of the facility using industry standard planning factors. A "D" LOS is considered an adequate level of service, with conditions of unstable flow, acceptable delays for short periods of time, and adequate levels of comfort.

DRO's significant growth is anticipated to continue, consistent with the growth experienced by the surrounding communities. DRO is the welcome gate to the Four Corners Region and is the first impression for many visitors to the area. This region includes the southwestern corner of Colorado, the northwestern corner of New Mexico, the northeastern corner of Arizona, and the southeastern corner of Utah. The new or redeveloped terminal would be an improved first impression from the existing facilities, a desire the City, County, and Planning Advisory Committee (PAC) expressed during the completion of the 2017 Master Plan.

2.3 Proposed Action

The Proposed Action consists of:

- New or expanded:
 - o Terminal building
 - Automobile parking
 - o Terminal apron
- Utility improvements
- New or realigned terminal loop road
- Partial parallel taxiway (east side terminal option only)
- New access road (east side terminal option only)

2.4 **Proposed Federal Actions and Time Frame**

DRO is the project sponsor for these Proposed Action, and the FAA is the federal lead agency for the proposed federal actions. DRO is requesting the following federal actions from the FAA:

- Approval of the Proposed Actions as shown on the Airport Layout Plan
- Potential funding for construction of various elements of the Proposed Actions

¹ International Air Transportation Association's *Airport Terminal Reference Planning Manual*, 9th Edition, 2004





3. ALTERNATIVES ANALYSIS

3.1 Introduction

This chapter provides a summary of the analysis completed to identify the most reasonable alternatives for evaluation in this Environmental Assessment (EA). As discussed in **Chapter 2, Purpose and Need**, the primary purpose of the Proposed Actions is to better meet the Durango-La Plata County Airport's (DRO or the Airport) existing service and facility needs in a manner that allows for future growth and development of the terminal building, parking, and apron. This chapter discusses reasonable alternatives for the terminal building (and associated projects). Additionally, in compliance with FAA guidance and regulations associated with the NEPA, "No Action" alternatives are included.

3.2 Terminal Alternatives

From the information gathered in the 2017 Master Plan, the future size of the terminal was determined and based on facility needs at two Planning Activity Levels (PALs) as shown in **Table 3-1** and **Table 3-2**.

Planning Activity Level	Enplaned Passengers ^{/a/}		
Existing (2015)	205,000		
PAL 1 (2025)	284,000		
PAL 2 (2035)	391,000		

TABLE 3-1 – DRO PAL AND ENPLANEMENTS

Source: Durango-La Plata County Airport 2017 Master Plan Note: ^{/a/}Rounded to nearest thousandth

Type of Occupancy	Existing Space (square feet)	Current Need (2015)	PAL 1 (2025)	PAL 2 (2035)
Airline Space	17,000	26,924	34,131	42,758
Transportation Security Administration Space	2,500	14,830	16,080	19,524
Concessions	4,200	3,500	5,600	7,200
Public Space	13,500	28,160	44,560	56,230
Airport Administration	2,400	5,000	5,000	5,000
Utilities and Support Spaces	1,900	3,686	5,376	6,804
Total Terminal Area (Rounded)	41,500 ¹	82,100	110,800	137,600

TABLE 3-2 – DRO TERMINAL FACILITY REQUIREMENTS SUMMARY

Source: Durango-La Plata County Airport 2017 Master Plan

Note: ¹The areas described above are approximate based on available archived drawings and CAD files for the existing terminal building, therefore rounded totals were used for the existing facility.

Following the presentation of the preferred terminal concepts in the 2017 Master Plan process, concerns were raised regarding funding availability. As a result, the alternatives were further refined, reduced in size, and PAL 0 was created based on the current (2014) needs of the Airport. It was determined that the new terminal, to meet current needs (PAL 0 - 2014), should be at least 80,000 square feet, parking spaces for 1,500 surface vehicles, four aircraft gates, and one remain overnight parking position. PAL 1 and PAL 2 were found to be beyond the reasonable planning period for this EA and unreasonable due to cost constraints. Further, the enplanements used as the basis for PAL 1 and PAL 2 have not increased as anticipated. As of the end of 2017,





the enplanements at DRO were at approximately 187,000¹. It is expected that the development needs to accommodate PAL 0 will remain viable and usable for at least ten years from opening day. If in the future it is determined that the terminal, parking, and apron needs of PAL 1 and PAL 2 are needed, both the east and west side of the Airport have the space needed for expansion as discussed in the 2017 Master Plan; however, the costs associated with those expansions is significant.

3.2.1 Terminal Alternative Development

The terminal alternatives identified in the 2017 Master Plan were developed through a process that considered the overall site plan of DRO and its future needs. Through this process it was found that the existing terminal building is operating beyond its capacity and needs renovation and expansion or replacement. Several meetings were held to gather input and concerns on the type and location of the future terminal project. Meetings included elected officials from the City of Durango and La Plata County, Airport Board of Commissioners, the Airport Master Plan Planning Advisory Committee (PAC), and the general public. Additionally, a survey was given to the PAC, Airport passengers, airlines, DRO tenants, and local business owners.

The following quantitative and qualitative evaluation criteria were developed from the meeting and survey results:

Qualitative:

- Promotes safety and efficiency of airport operations
- Enhances security of airport and airline operations
- Improves customer satisfaction/convenience
- Fosters Durango/Four Corners' image
- Minimizes construction phasing impacts to tenants and users
- Incorporates sustainable design elements where appropriate
- Sensitive to environmental resources

Quantitative:

- Complies with FAA safety and design standards
- Maximizes operational efficiency
- Meets the 20-year facility requirements with room to grow
- Balances benefits with costs

Three reasonable terminal building alternatives were identified through the evaluation criteria:

- 1. Renovate and Expand the Existing Terminal
- 2. Construct New Terminal Adjacent to Existing Terminal
- 3. Construct New Terminal on East Side of Runway

These alternatives were recommended for evaluation in this EA and are discussed in the following sections, along with a No Action Alternative.



¹ FAA, CY 2017 Passenger Boarding Data, 2017

3.2.2 No Action Terminal Alternative

The No Action Terminal Alternative means no significant improvements or changes would be made to the existing terminal building, terminal parking, terminal apron, airfield system, utilities, or any other airport facilities (**Figure 3-1**). Thus, the No Action Terminal Alternative would not allow DRO to better meet the existing service and facility needs, thereby maintaining the current level "D" LOS (an adequate level of service, with conditions of unstable flow, acceptable delays for short periods of time, and adequate levels of comfort.).

As discussed in the 2017 Master Plan's **Chapter 3**, **Aviation Activity**, enplanements will continue to increase over the next 20 years, with an approximate increase of 28 percent by 2035. Under the No Action Terminal Alternative, the existing terminal building would continue to operate inefficiently, and the level of service would decrease as passenger loads increased. Further, the No Action Terminal Alternative would result in a considerable increase in maintenance costs to keep the existing terminal building working, as well as inadequate parking for both autos and aircraft.

Although the No Action Terminal Alternative would not meet the Purpose and Need for the Proposed Action, this alternative was retained for further analysis in this EA. The No Action Alternative is kept in the analysis for environmental baseline comparative purposes, to fulfill Council on Environmental Quality (CEQ) regulations (40 CFR Part 1502) implementing NEPA, and to comply with FAA Orders 1050.1F² and 5050.4B³.



FIGURE 3-1 - NO ACTION TERMINAL ALTERNATIVE

Source: Jviation, 2016 Note: Not to scale

² FAA, Order1050.1F, Environmental Impacts: Policies and Procedures, 2015

³ FAA, Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions, 2006



3.2.3 Common Elements of Terminal Alternatives 1 and 2

The following elements are included in Terminal Alternatives 1 and 2. To reduce redundancy, the elements are discussed here rather than in each alternative's independent section.

Terminal Apron

The aircraft parking apron would be reconstructed to remove non-aircraft rated pavement and replace it with aircraft rated pavement. Alternative 2 also includes an apron expansion to accommodate the relocation of the terminal. Both alternatives provide space for five aircraft parking positions: four gates and one remain overnight.

Terminal Parking and Realigned Terminal Loop Road

Existing auto parking, already operating at a deficiency, would be further impacted by the terminal expansion/relocation. Expansion of the existing lots is limited as the west side of the airfield is at the edge of the mesa top. However, the spaces needed to meet current demand can be accommodated by expanding existing surface lots. The expansions would account for any parking lost due to terminal expansion/relocation and additional demand. To expand the lots, the terminal loop road would be relocated to the mesa edge and most of landscaping within the loop road would be removed. There are approximately 1,100 existing paved parking spaces; approximately 1,500 spaces would be available after the expansion.

Utility Improvements

The primary utility corridor is underneath the apron directly east of the existing terminal building. This utility corridor includes wet and dry utilities such as water, sanitary sewer, natural gas, electric, and communication. These utilities would require reconstruction and relocation to accommodate the expanded or relocated terminal footprint and apron. A phased relocation and temporary installations to maintain utility services is expected during construction.

Borrow Site

Additional fill material is required to prepare the construction sites for the proposed development. The proposed borrow site is located southwest of the runway, as shown in **Figure 3-2**. The site is approximately 78,000 square yards and would provide enough fill for either alternative.

Staging Area (Batch Plant and Construction Equipment)

A staging area, required for construction equipment and an asphalt batch plant, will be located west of the runway and will be accessed via an existing vehicle service road (see **Figure 3-2**).

Maintenance

In both Terminal Alternative 1 and 2, DRO will be responsible for maintaining all pavement, to include both existing and future pavement.





FIGURE 3-2 - TERMINAL ALTERNATIVES 1 AND 2: LIMITS OF DISTURBANCE

Source: Jviation, 2017

Notes: Apron expansion only applies to Alternative 2 Not to scale

3.2.4 Terminal Alternative 1: Renovate and Expand Existing Terminal

Terminal Alternative 1 proposes the renovation and expansion of the existing terminal building. This alternative seeks to use the existing airfield and landside infrastructure to the greatest extent possible (see **Figure 3-3**).





FIGURE 3-3 - TERMINAL ALTERNATIVE 1: RENOVATE AND EXPAND EXISTING TERMINAL

The existing terminal building would be enlarged to accommodate additional depth and length of all terminal functions and areas to approximately 80,000 square feet. The existing building would need to be incorporated into the new construction and be completely reconfigured, involving a complete remodel of existing interior and exterior finishes. Due to the age and capacity of building systems, existing systems would be replaced with new equipment sized to serve the needs of the entire building and meeting latest energy efficiency standards. The existing building codes for fire protection would be implemented and integrated between old and new space. Concession areas meeting program requirements would be located on both sides of the security checkpoint and sized to offer passengers options for food, beverage, and sundries.

Complex phasing would be required during construction to maintain functionality for passengers and airlines and minimize impacts to normal operations. However, a decreased level of service will be unavoidable at times.

3.2.5 Terminal Alternative 2: Construct New Terminal on West Side

Terminal Alternative 2 proposes to construct a new terminal building on the west side of the Airport, next to the existing terminal building, and seeks to use the existing airfield and landside infrastructure to the greatest extent possible with a new building (see **Figure 3-4**).



Source: Jviation, 2016 Note: Not to scale



FIGURE 3-4 - TERMINAL ALTERNATIVE 2: CONSTRUCT NEW TERMINAL ON WEST SIDE

The new terminal building would be constructed north of the existing terminal. The existing terminal building would be demolished after the new building is completed and the site reused for auto parking. Highperformance modern systems would be used to capture the benefits of sustainable design principles and reduce operating costs of the new building. Design elements that reflect Durango's image would be incorporated into the project. Phasing would be needed to minimize impacts to the normal airport operations, primarily because there is very little space available for contractors to stage equipment and materials. Concession areas meeting program requirements would be located at both sides of the security checkpoint and sized to offer passengers options for food, beverage, and sundries.

3.2.6 Terminal Alternative 3: Construct New Terminal on East Side of Runway

Terminal Alternative 3 involves construction of all new terminal facilities on the east side of the airfield on undeveloped land (see **Figure 3-5**), some of which was disturbed during initial airport construction. This alternative seeks to utilize Airport-owned land that is available for development but has not been considered accessible due to barriers such as utility extension and access. Construction of a new terminal, aircraft parking apron, partial parallel taxiway, auto parking, and access roadways to CR 309A would be required. The former terminal location would then be made available for lease or redevelopment for aeronautical purposes given the location and proximity to the active airfield.

Source: Jviation, 2016 Note: Not to scale



FIGURE 3-5 - TERMINAL ALTERNATIVE 3: CONSTRUCT NEW TERMINAL ON EAST SIDE OF RUNWAY



Source: Jviation, 2017 Note: Not to scale

Terminal Building

This alternative includes the construction of a new terminal building on the east side of the airfield. Highperformance modern systems would be used to capture the benefits of sustainable design principles and reduce operating costs of the new building. No phasing would be needed as airport operations would not be affected by construction. Concession areas meeting program requirements would be located at both sides of the security checkpoint and sized to offer passengers options for food, beverage, and sundries.

Terminal Apron

A new aircraft parking apron is included with the construction of the new terminal building on the east side of the runway. The apron would accommodate five aircraft parking spaces: four gate positions and one remain overnight. The new terminal building would be centered on the terminal apron and both the terminal and apron would have the ability to expand to the north and south.

Partial Parallel and Connector Taxiways

To provide terminal service on the east side of the runway, a new partial parallel taxiway, Taxiway B, would be constructed to allow for safe and efficient aircraft movement. Three connector taxiways would be constructed and edge lighting and airfield signage installed, with the required 400-foot taxiway-to-runway separation and various electronic navigational aids relocated outside of the safety areas. One notable design element is that the south end of Taxiway B would remain within a critical area for the glideslope antenna; hold lines are proposed on either side of the critical area to mitigate this issue. This approach allows for considerable savings because the area features sloping terrain that would otherwise require additional earthwork to construct around the critical area.

Although a full taxiway is not proposed, the partial parallel taxiway would accommodate existing and forecasted traffic without creating delays. The Airport currently operates under the recommended operational capacity and will continue to do so in the future as depicted in **Table 3-4**. The new partial parallel taxiway would


add capacity to the taxiway system as GA traffic would continue to use the west side full parallel taxiway (Taxiway A) and only commercial aircraft would use the new east side partial parallel taxiway. The prevailing winds at DRO are from the west and southwest, resulting in most aircraft using Runway 21 and landing to the south. Commercial traffic landing to the south, which is the majority of traffic, would avoid the west side completely and have a very short taxi time to the new terminal, while occasional traffic landing to the north would use Taxiway A and experience a longer taxiing time. Commercial aircraft taking off from Runway 21 would experience a longer taxi time; however, when considered with the short taxi time of aircraft landing on the same runway, the total taxi time will be comparable to the existing taxi time.

TABLE 3-3 – DRO	AIRFIFI D	DFMAND	VS CAPACITY
INDEE 0 0 DIG	/		

VFR ^{/a/} Hourly Capacity	IFR ^{/b/} Hourly Capacity	Annual Service Volume		
74	57	195,000		
	Airport Master Plan Forecast – Year 2035			
VFR Hourly Demand IFR Hourly Demand Annual Operations 32 16 61,566				
Because DRO is a non-towered airport, there are no records of actual peak hour operations. VFR hourly demand calculated based on Annual Operations × 10.4% (Peak Month) \div 30 (Average Day) × 15% (Peak Hour). IFR hourly demand calculated based on Annual Operations \div 2 × 10.4% (Peak Month) \div 30 (Average Day) × 15% (Peak Hour). Actual peak hour operations likely fluctuate by season and may also differ from calculations.				
Demand-Capacity Ratio				
43.2%	28%	31.6%		

Source: Durango-La Plata County Airport 2017 Master Plan

Notes: ^{/a/}VFR = Visual Flight Rules

^{/b/}IFR – Instrument Flight Rules

Auto Parking

Parking has been defined in three areas that have the potential to be expanded to the north and south to accommodate future growth. The storm water in these lots would be collected by a system of inlets and underground storm sewer pipes and conveyed to a new detention pond. Allowable ponding depths at inlets in parking areas would be carefully considered to balance inlet efficiency and passenger comfort. Utility infrastructure for the parking lots would include electrical, communications ducts, and wiring for lighting and revenue control.

Access Roadways

A new road would be constructed from the existing CR 309A up to a new terminal loop road, shown in **Figure 3-6**. Additionally, CR 309A would be improved, bringing the existing two-lane paved and gravel roadways up to the new access road typical section standards. As CR 309A is currently located below the mesa, the new access road would need to climb up the slope to reach the new terminal site. This would require cut and fill to meet grade requirements. Landscaping berms would be considered to lessen the visual impact of the new roadway as it climbs the mesa. A new circulation road would be constructed to support the east side terminal development. The circulation road would include two 12-foot lanes with curb and gutter and two five-foot sidewalks. Additional lanes may be needed at intersections and in front of the terminal to increase safety and improve traffic flow.



FIGURE 3-6 – TERMINAL ALTERNATIVE 3: AIRPORT ACCESS ROAD



Source: Jviation, 2017 Note: Not to scale

Utility Improvements

New utility infrastructure is required to support a new terminal building on the east side of the runway. The required utility infrastructure includes water, sanitary sewer, storm sewer, natural gas, electric, communications, and irrigation. The majority of utilities would be installed using open trench construction with granular bedding. Most of these utility systems would be extended from the existing infrastructure on the west side of the runway.

To accommodate the new development area, a new electric vault would be installed on the east side of the airfield near the terminal development. This new vault would replace the existing vault and provide power to the entire airfield lighting system as well as the east and west side development.

Borrow Site

Terminal Alternative 3 would require additional fill material to prepare the construction site for the proposed development. The proposed borrow site is the same site to be used for Alternatives 1 and 2, shown in **Figure 3-7**. The site is approximately 78,000 square yards and would provide enough fill for all components of Terminal Alternative 3.



Staging Area

The staging area will be located east of the runway and north of the proposed terminal site (see **Figure 3-7**). Access from the staging area to the development site will be via a new access road.

Vehicle Service and Haul Roads

Terminal Alternative 3 requires the construction of a vehicle service/haul road that would run from the proposed borrow site to the new apron. The road would continue north of the apron and tie into the existing service road at the north end of the runway (see **Figure 3-7**). The southern portion of the access road (running from the borrow site to the new apron) would also serve as a haul road during construction.



FIGURE 3-7 - TERMINAL ALTERNATIVE 3: LIMITS OF DISTURBANCE

Maintenance

It is understood that DRO would be responsible for maintaining all pavement, to include the existing pavement on the west side as well as new pavement on the east side of the Airport.

Source: Jviation, 2017 Note: Not to scale



3.2.7 Airport Access Road Considerations

The initial project planning for the terminal alternatives included a new airport access road, as shown in **Figure 3-8**. The current primary access to DRO from the surrounding area is SH-172. County Road 309A (CR-309A) provides secondary access from the south. The access road to DRO from SH 172 is CR 309. The intersection of SH-172 and CR-309 was analyzed in the traffic study completed by Felsburg, Holt & Ullevig, Inc. as part of the 2017 Master Plan. It was found that "the existing SH-172 / CR-309 intersection had been identified as a traffic safety problem by both La Plata County and the Colorado Department of Transportation (CDOT). La Plata County Staff has rated the intersection #1 on a listing of intersections in need of improvement, and CDOT Staff agree that the configuration and location of the intersection causes sight distance limitations and increased crash potential. While the intersection crash data do not necessarily indicate an elevated safety risk, it is evident that safety concerns exist."

Based on this safety concern, the Colorado Department of Transportation (CDOT) recommended that airport access be relocated and the existing intersection limited to right turn in and right turn out. The preferred location for the new access road was east of the existing entrance and aligned with existing CR-338. The new access road would remain within DRO boundaries and tie into the existing CR-309A. This location would require intersection improvements to SH-172 to add turn lanes. The roadway improvements required beyond the new access road were dependent on the terminal site alternative selected.

Through meetings with the FAA and DRO, the new access road was removed from the alternatives and from further review in this EA as the FAA does not consider the construction of the new terminal a major redevelopment that would trigger the need for the intersection improvements. Many of the individual resource reports located in the Appendices include analysis of impacts resulting from the access road. These reports were not revised after the road was eliminated, enabling them to be used in future studies. The decision to remove the intersection from this EA does not preclude CDOT or La Plata County from improving/relocating the intersection outside of this project.





FIGURE 3-8 – AIRPORT ACCESS ROAD CONSIDERATIONS

Source: Jviation, 2016 Note: Not to scale

3.2.8 Terminal Alternatives to be Carried Forward

Terminal Alternatives 1, 2, and 3 were carried forward in the draft EA and evaluated for environmental impacts. Additionally, the No Action Terminal Alternative was carried forward and served as the basis of comparison for each alternative's environmental impacts.

3.2.9 Selected Alternatives

The Airport elected to wait until after the public involvement process to select which alternative to move forward with. At the conclusion of the public comment period, the Airport reviewed the three alternatives and determined that a combination of the Alternatives 1 and 2 would be the best option in moving forward. The Airport Advisory Commission unanimously voted on January 24th, 2019 to select the combination of Alternative 1 and 2 as the Proposed Action.



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4. AFFECTED ENVIRONMENT

This chapter provides a description of the current physical, natural, and human environment within the Airport study areas defined for this EA. Describing the baseline resources allows further study of the setting and environmental impacts of the alternatives under consideration. The environmental impacts resulting from the alternatives presented in **Chapter 3**, **Alternatives Analysis** will be discussed in **Chapter 5**, **Environmental Consequences**.

The Airport is located approximately 14 miles southeast of the Central Business District (CBD) of Durango (**Figure 4-1**) in La Plata County. DRO sits at an elevation of 6,689 feet above MSL and occupies approximately 1,382 acres, which includes all Airport facilities. The Airport's facilities include the airfield (runway, taxiways, and aprons), terminal area, parking areas, navigational/visual aids, Fixed-Base Operator (FBO), and hangars. More specifically, the airfield includes Runway 3/21 (constructed of asphalt, 9,201 feet long by 150 feet wide); parallel Taxiway A and connector Taxiways A1 through A8 and C; and commercial and general aviation aprons.



FIGURE 4-1 – VICINITY MAP

Source: Jviation Note: Not to scale

For the purposes of describing the existing conditions in the Airport area and comparing the relative impact of the alternatives, a general study area was developed (**Figure 4-2**). The general study area was established through practical planning techniques based on the location of project alternatives, and encompass all areas





required by the NEPA and environmental impact categories described in FAA Orders 1050.1F¹ and 5050.4B². However, each resource category can have a slightly different study area.



FIGURE 4-2 - TERMINAL DEVELOPMENT STUDY AREA (DRO PROPERTY)

Source: Jviation Note: Not to scale

4.1 Air Quality

The Clean Air Act (CAA), which was last amended in 1990, requires the U.S. Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) (40 CFR Part 50) for pollutants considered harmful to public health and the environment. In addition to the CAA, NEPA requires the disclosure of a proposed project's impact on the human environment, including air quality.

4.1.1 Regulatory Agencies

The management of air quality conditions in Colorado is the responsibility of federal, state, regional, tribal and local governmental air quality regulatory agencies. Under the CAA, the EPA establishes the guiding principles and policies for protecting air quality conditions throughout the nation. EPA's primary responsibilities in this area include promulgating the NAAQS, which define ambient concentrations for criteria air pollutants that are considered safe for public health, welfare and the environment, as well as approving State Implementation Plans (SIPs).

On the state level, the Colorado Department of Public Health & Environment Air Pollution Control Division (CDPHE APCD) is responsible for enforcing the CAA including compliance with the NAAQS, the issuance of air emission source permits, monitoring of air quality conditions, and assisting in the preparation of the SIP.

² FAA, Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions, 2006



¹ Federal Aviation Administration (FAA), Order 1050.1F, Environmental Impacts: Policies and Procedures, 2015

However, DRO is within the exterior boundaries of the Southern Ute Indian Reservation (Reservation). Air quality within the exterior boundaries of the Reservation is under the jurisdiction of the Southern Ute Indian Tribe and the State of Colorado Environmental Commission (Commission). The Southern Ute Air Quality Program is tasked with implementing the programs prescribed by the Commission.

Regionally, the Four Corners Air Quality Task Force (4CAQTF), initiated by the states of Colorado and New Mexico, is an active, productive, and engaging forum for air quality issues affecting Colorado, New Mexico, Utah and Arizona and the tribal nations in the region (i.e., the Navajo Nation, Ute Mountain Ute, Jicarilla Apache, and Southern Ute Indian Tribes). The purpose of the 4CAQTF is to bring together a diverse group of interested parties from the area to learn about and discuss the range of air quality issues and options for improving air quality in the Four Corners Region.

4.1.2 National Ambient Air Quality Standards

Pursuant to the requirements of the CAA, the EPA establishes, enforces, and periodically reviews the NAAQS. The CAA established two types of national air quality standards: Primary Standards (for the protection of public health) and Secondary Standards (for the protection of public welfare). The pollutants of concern are called "criteria pollutants" and include carbon monoxide (CO), sulfur dioxide (SO2), nitrogen dioxide (NO2), ozone (O3), particulate matter less than or equal to 10 microns aerodynamic diameter (PM10), fine particulate matter less than or equal to 2.5 microns aerodynamic diameter (PM2.5), and lead. Because emissions of O3 cannot be calculated directly, volatile organic compounds (VOCs) and oxides of nitrogen (NOx) (the primary precursors to O3 formation) are used as surrogates. The NAAQS are listed in **Table 4-1**.



Pollutant	Primary/ Secondary	Averaging Time	Level	Form
Carbon Monoxide (CO)	Primary	8-hour1-hour	 9 ppm 35 ppm 	Not to be exceeded more than once per year
Lead (Pb)	Primary & Secondary	Rolling 3-month average	0.15 µg/m3 (1)	Not to be exceeded
Nitrogen Dioxide (NO2)	 Primary Primary & Secondary 	— 1-hour — Annual	 100 ppb 53 ppb(2) 	 98th percentile of 1-hour daily maximum concentrations, averaged over 3 years annual mean
Ozone (O3)	Primary & Secondary	8-hour	0.070 ppm(3)	Annual fourth-highest daily maximum 8-hour concentration, averaged over 3 years
Particulate Matter 2.5	 Primary Secondary Primary & Secondary 	– Annual – Annual – 24-hour	— 12 µg/m3 — 15 µg/m3 — 35 µg/m3	 annual mean, averaged over 3 years annual mean, averaged over 3 years 98th percentile, averaged over 3 years
Particulate Matter 10	Primary & Secondary	24-hour	150 µg/m3	Not to be exceeded more than once per year on average over 3 years
Sulfur Dioxide (SO2)	– Primary – Secondary	— 1-hour — 3-hour	 75 ppb(4) 0.5 ppm 	 99th percentile of 1-hour daily maximum concentrations, averaged over 3 years Not to be exceeded more than once per year

TABLE 4-1 - NATIONAL AMBIENT AIR QUALITY STANDARDS

Source: EPA, National Ambient Air Quality Standards (NAAQS) at <u>http://www.epa.gov/air/criteria.html</u>, February 2016. Notes: ppb = parts per billion, ppm = parts per million, and μ g/m3 = micrograms per cubic meter of air.

(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 additionally remain in effect in some areas. Revocation of the previous (2008) O3 standards and transitioning to the current (2015) standards will be addressed in the implementation rule for the current 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 implementation plans providing for attainment of the current (2010) standard have 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 require NAAQS.

On March 2, 2012, the EPA approved the Southern Ute Tribe's Title V Program application, granting the Tribe full authority to implement and administer its 40 CFR Part 70 Operating Program for Title V sources within the exterior boundaries of the Reservation. A Title V source of air pollution is a source that emits or has the potential to emit:

- 100 tons per year or more of any regulated air pollutant;
- 10 tons per year or more of any one hazardous air pollutant (HAPs); or
- 25 tons per year or more of any combination of hazardous air pollutants.

On November 14, 2012, the Commission approved Reservation Air Code Article II, Part 2 and Part 3 to incorporate certain New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants. On July 8, 2013, the EPS approved delegation to the Southern Ute Tribe to implement and enforce the New Source Performance Standards and National Emission Standards for Hazardous Air Pollutants.



4.1.3 Attainment/Nonattainment Status

All areas of the country are required to demonstrate attainment with the NAAQS. The EPA designates areas as either attainment, nonattainment, or maintenance. Attainment areas are areas where pollutant levels do not exceed the NAAQS; an area with pollutant concentrations exceed one or more NAAQS is designated as a nonattainment area. If an area exceeded a NAAQS in the past but currently meets the standards, the area is then designated as maintenance. Ozone nonattainment areas are further classified as extreme, severe, moderate, or marginal. An area is designated as unclassifiable when there is a lack of sufficient data to form the basis of an attainment status determination.

States with regions that are classified as either non-attainment or maintenance are required to have a SIP in place to identify how the region will attain the NAAQS. Maintenance areas are subject to a SIP to ensure continued attainment.

DRO is located in La Plata County which is currently an area designated as "attainment" of all NAAQS.

4.2 **Biological Resources**

Biological resources include fish, wildlife, plants, and their respective habitats. There are numerous regulations and guidance related to biological resource including, but not limited to, the Endangered Species Act (16 U.S.C. §§ 1531-1544), the Migratory Bird Treaty Act (16 U.S.C. § 703 et seq.), Executive Order 13112 (Invasive Species), as well as various state and local regulations. The US Fish and Wildlife Service (USFWS) is the federal agency responsible for the Endangered Species Act, the Fish and Wildlife Coordination Act and the Migratory Bird Treaty Act. Colorado Parks and Wildlife is the state agency that is responsible for conservation, outdoor recreation and wildlife management within the State of Colorado. The Wildlife Resource Management Division of the Southern Ute Indian Tribe Department of Natural Resources is primarily responsible for managing, protecting, and enhancing the diverse and abundant wildlife and fisheries of the Southern Ute Indian Reservation.

4.2.1 General Condition

Ecosphere Environmental Services (Ecosphere) conducted a Biological Resource Survey for the Terminal Development study area as part of the 2017 Master Plan (see **Appendix C, Biological Resource Survey**). As stated in the Survey, DRO is located on a mesa above the Florida River with an elevation range of 6,450 to 6,690 feet above mean sea level. The Florida River is located approximately 0.5 miles west of DRO and is the predominant water feature in the vicinity. The existing land use within the vicinity of DRO is largely agricultural/open space with some scattered residences.

The primary vegetation community on the mesa top and the Florida River valley is agriculture with the secondmost dominant vegetation community the Colorado Plateau Pinon – Juniper Woodlands, that cover the slopes leading up to the Mesa and the slope along the Florida River valley. The weather in the area is characterized by cold winter temperatures and moderate summer temperatures. The climate is arid with an annual precipitation of 12.6 inches per year.³

From this initial Survey, Ecosphere found that numerous species are known to occur or have the potential to occur, as well as the presence of unique habitats within and adjacent to the Airport boundary. As such they recommended additional surveys be completed to determine more exact specie presence. These recommendations included:

³ Ecosphere Environmental Services, Biological Resource Survey, 2014



- Conduct USFWS protocol surveys by a permitted biologist to determine the presence or absence of any southwestern willow flycatcher (SWF) as potential breeding habitat occurs along CR 309A.
- Conduct USFWS protocol survey for New Mexico meadow jumping mouse (NMMJM) by a permitted biologist as potential habitat for NMMJM occurs at three locations within the survey area and was documented on the Florida River in 2007.
- Monitor the known golden eagle nest beginning this breeding season (January/February).
 - Pedestrian surveys to locate alternate golden eagle nests within the known territory.

Following these initial recommendations, as part of this EA, additional surveys for the SWF and NMMJM were completed as well as a Biological Assessment (BA) (see **Appendix D**, **Biological Assessment**). These surveys were focused on the east side of DRO as west side of the airport is largely developed and does not contain potential habitat.

4.2.2 Special Status Species

Special status species are those listed, or candidates for listing, as threatened or endangered under the Endangered Species Act (ESA) and species in Colorado designated as endangered, threatened or of special concern. The ESA requires federal agencies to ensure that actions authorized, funded, or carried out by the agency would not jeopardize the continued existence of endangered or threatened species nor result in the destruction or adverse modification of a species' habitat. Coordination with the USFWS consists of requesting information regarding any endangered, threatened, and rare species (ETR species) that may occur within the survey area and nearby, and consequently asking for concurrence with the assessment of potential impacts to species protected by the ESA. "Endangered" is the classification provided to an animal or plant in danger of extinction within the foreseeable future throughout all or a significant portion of its range. The term "threatened species" means any species that is likely to become endangered within the foreseeable future. Although 12 federal and 31 state-listed plant, animal, and insect species are known to occur in La Plata County, (see **Appendix C, Biological Resource Survey**) only the three listed in **Table 4-2** have the potential to occur within the survey boundary (Airport property). The remaining species were eliminated from further review due to lack of habitat in the survey area or because their known range was outside the survey area.

Species	Scientific Name	Federal Status	State Status	Habitat Description
Southwestern willow flycatcher	Empidonax traillii extimus	Endangered	Endangered	Breeds in dense, shrubby riparian habitats, usually in close proximity to surface water or saturated soil.
New Mexico meadow jumping mouse	Zapus hudsonius luteus	Endangered	N/A	Herbaceous emergent wetlands, especially dominated by sedges and broad-leaved forbs. Also, may utilize riparian communities containing scrub-shrub wetlands along perennial streams.
Burrowing Owl	Athene cunicularia	N/A	Threatened	Dry, open, short-grass plains, usually associated with prairie dog towns.

TABLE 4-2 – FEDERAL AND STATE LISTED ENDANGERED AND THREATENED SPECIES

Source: Ecosphere Environmental Services, Biological Resource Survey, October 2014

The following bullets provide survey details regarding each of the three species with potential to occur on Airport property:

• The southwestern willow flycatcher was listed as an endangered species by the U.S. Fish and Wildlife Service (USFWS) on March 29, 1995. The willow flycatcher is also listed as endangered by the State of Colorado. An area of approximately half an acre on the eastern side of the Airport boundary meets the size and density of habitat needed for willow flycatchers. However, because the area is small, narrow,



and disconnected from other willow habitat, the habitat may be used during migration and less likely for breeding.⁴

- The New Mexico meadow jumping mouse was listed by the USFWS June 10, 2014. Three areas within the Airport boundary were found to be suitable habitat for the mouse:
 - o Valley west of the airfield in along the Florida River
 - \circ $\;$ East side of Airport along wetlands and a tributary that flows into Salt Creek
 - Large wetland area, north of the Runway 21 end
- Burrowing owls are listed as threatened by Colorado but are not federally listed. Burrowing owls often
 use abandoned prairie dog holes and open grasslands with low vegetation for nesting. Burrowing owls
 occur infrequently in La Plata County yet they have been confirmed nesting. No burrowing owls have
 been detected in the survey area during past wildlife surveys.⁵ In the survey area, prairie dog colonies
 are active on and around the runway and terminal, the irrigated fields north of County Road 309A, and
 the valley adjacent to the Florida River.

4.2.3 Migratory Bird Treaty Act

Migratory birds were also reviewed due to their protection by the Migratory Bird Treaty Act (MBTA). The MBTA makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to Federal regulations. The migratory bird species protected by the MBTA are listed in <u>50 CFR 10.13</u>. The Airport is within Bird Conservation Region (BCR) 16, Southern Rocky Mountains/Colorado Plateau. Of the 24 Birds of Conservation Concern (BCC), five are known to occur within the survey area and six have the potential to occur, detailed in **Table 4-3**. Two of the five known to occur, the bald and golden eagles, are also protected under the Bald and Golden Eagle Protection Act.

- A golden eagle nest is in the southwestern section of the survey area in a tree on the slope between the mesa top and the Florida River. This golden eagle territory was first documented in 2006 and has been noted as active in several subsequent years. Airport staff observed golden eagles near the Airport in 2014; a biologist from Ecosphere monitored the nest in early 2014 and determined it was inactive. Ecosphere observed the nest in poor condition during the field review in August 2014.
- Colorado Parks and Wildlife (CPW) identifies the survey area as bald eagle winter concentration with
 winter roost sites straddling CR 309A. A winter concentration area is defined by CPW as areas within
 an existing winter range where eagles concentrate between November 15 and April 1. These areas
 may be associated with roost sites. Roost sites are defined as individual trees or groups of trees that
 provide diurnal and/or nocturnal perches for less than 15 wintering bald eagles, and includes a buffer
 zone extending one-quarter of a mile around these sites.⁶
- While conducting surveys of potential wildlife hazards as part of the Wildlife Hazard Assessment (WHA), Ecosphere documented bald eagles roosting in three tree snags in the area in 2011 and 2012.⁷ Airport staff have since removed the trees closest to the runway; however, a group of three partially dead cottonwood trees are present in the northeastern portion of the airfield. These trees possess the large, open-branch structure preferred for roosting and are likely to attract eagles. No bald eagle nests are known to occur in the survey area; however, good nesting trees are present along the Florida River in the valley below DRO.⁸

⁴ Ecosphere Environmental Services, Biological Resource Review, October 2014.

⁵ Ecosphere Environmental Services, Biological Resource Review, October 2014.

⁶ Ibid.

⁷ Ecosphere Environmental Services, Wildlife Hazard Assessment, 2013.

⁸ Ecosphere Environmental Services, Biological Resource Review, October 2014.



- Three ponds were observed in the fields northeast of the runway and across CR 309A. These ponds provide habitat for migratory waterfowl and amphibians, and a potential food source for bald and golden eagles. The irrigated fields northeast of the runway provide suitable nesting habitat for marsh birds such as the American bittern.⁹
- A suspected stick raptor nest was observed in a cottonwood tree in the southeast survey area on August 29, 2014. Raptors commonly re-use nests year to year.

		•	
Species	Scientific Name	Habitat Description	Potential to Occur/Known to Occur
American bittern	Botaurus lentiginosus	Cattails, rushes, grasses, or sedges of wet meadows or marshes.	Potential to occur. Northeastern, past irrigated fields contains dense and tall marshy habitat.
Bald Eagle	Haliaeetus leucocephalus	Found around lakes, reservoirs, and rivers. Large branched trees used for nesting, roosting, and foraging.	Known to occur. Survey area within CPW ^{/a/} defined bald eagle winter concentration area and a known winter roost. Individuals regularly observed in roost trees north of survey area during 2012 surveys conducted for the WHA ^{/b/}
Brewer's sparrow	Spizella breweri	Sagebrush shrublands, sagebrush obligate species.	Potential to occur. Sagebrush is present east of the runway.
Cassin's finch	Haemorhous cassinii	Conifer forests of the high country (8,000 to 11,000 feet), but also will use pinon-juniper woodlands.	Potential to occur. Pinon-juniper woodlands provide habitat.
Ferruginous hawk	Buteo regalis	Flat or rolling terrain in grassland, shrub-steppe, and desert habitats.	Potential to occur. Grassland, shrub-steppe, or desert habitats occur in survey area. Prairie dog towns provide prey base.
Golden eagle	Aquila chrysaetos	Open habitat with grasslands, shrublands, and farmland for foraging. Nests on cliffs or in trees.	Known to occur. Nest occurs in survey area and prairie dog towns provide foraging.
Grace's warbler	Setophaga graciae	Ponderosa pine forest with a scrub oak understory.	Potential to occur. Some ponderosa pine present on the southwestern slopes, but not extensive.
Gray vireo	Vireo vicinior	Pinon-juniper woodlands with an open, grassy understory.	Potential to occur. Slopes to the mesa contain pinion- juniper woodlands.
Juniper titmouse	Baeolophus ridgwayi	Pinon-juniper woodlands.	Known to occur. Southwestern survey area.
Lewis's woodpecker	Melanerpes lewis	Open pine forests, areas with abundant snags and stumps, riparian areas with cottonwoods, and pinon-juniper woodlands.	Known to occur. Northeastern survey area.
Pinon jay	Gymnorhinus cyanocephalus	Pinon-juniper woodlands.	Known to occur. Southwestern survey area.

TABLE 4-3 – USFWS BIRDS OF CONSERVATION CONCERN – KNOWN OR POTENTIAL TO OCCUR WITHIN AIRPORT BOUNDARY (SURVEY AREA)

Source: Ecosphere Environmental Services, Biological Resource Review, October 2014

Notes: ^{/a/} CPW = Colorado Parks and Wildlife

^{/b/}WHA = Wildlife Hazard Assessment

4.2.4 Other Wildlife, Fishes and Plants

Wildlife that may occur at DRO includes a variety of species common to transitional areas where agricultural lands, pinon-juniper woodlands, and sagebrush grasslands are intermingled. Mammal species commonly occurring in these habitats may include desert cottontail, black-tailed jackrabbit, prairie dogs, Botta's pocket gopher, deer mouse, white-throated woodrat. Coyote, striped skunk, mountain lion, mule deer, and elk may



⁹ Ecosphere Environmental Services, Biological Resource Review, October 2014.

also be found in these habitat types. An elk highway crossing, where elk movements traditionally cross roads and present potential animal-vehicle collisions, is also identified near the Airport entrance.¹⁰

Figure 4-3 depicts the CPW wildlife habitats in and around the Airport and **Figure 4-4** depicts unique wildlife habitats observed during the field review.

¹⁰ Colorado Parks and Wildlife, <u>http://cpw.state.co.us/,</u> 2013





FIGURE 4-3 – COLORADO PARKS AND WILDLIFE DATA MAP

Source: Ecosphere Environmental Services, Biological Resource Review, October 2014 Note: Not to scale





FIGURE 4-4 - DRO UNIQUE WILDLIFE HABITATS

Source: Ecosphere Environmental Services, Biological Resource Review, October 2014 Note: Not to scale



4.2.5 Invasive Species

The Biological Resource Survey completed in 2014 (see **Appendix C**), observed a variety of invasive weeds present at DRO. Colorado List B species are considered invasive within the state and have mandated control based on local conditions. Species found at DRO include:

- Bull thistle (Cirsium vulgare)
- Canada thistle (Cirsium arvense)
- Houndstongue (Cynoglossum officinale)
- Musk thistle (Carduus nutans)
- Oxeye daisy (Chrysanthemum leucanthemum)
- Russian knapweed (Acroptilon repens)
- Russian-olive (Elaeagnus angustifolia)
- Salt cedar (Tamarix sp.)
- Scotch thistle (Onopordum acanthium)

List C species, which are widespread and common within the state, include:

- Chicory (Cichorium intybus)
- Common mullein (Verbascum thapsus)
- Field bindweed (Convolvulus arvensis)
- Redstem filaree (Erodium cicutarium).

4.3 Climate

Greenhouse gases (GHG) are produced both naturally and through anthropogenic sources, and they include water vapor (H2O), carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), and ozone (O3). Research has shown there is a direct correlation between fuel combustion and GHG emissions. According to the EPA aircraft account for 12 percent of all U.S. transportation GHG emissions and three percent of total U.S. GHG emissions.¹¹ The International Civil Aviation Organization (ICAO) estimates that GHG emissions from aircraft account for roughly three percent of all anthropogenic GHG emissions globally.¹² Climate change due to GHG emissions is a global phenomenon, so the affected environment is the global climate.

The scientific community is continuing efforts to better understand the impact of aviation emissions on the global atmosphere. The FAA is leading and participating in several initiatives intended to clarify the role that commercial aviation plays in GHG emissions and climate. The FAA, with support from the U.S. Global Change Research Program and its participating federal agencies (e.g., NASA, NOAA, EPA, and DOE), has developed the Aviation Climate Change Research Initiative (ACCRI) in an effort to advance scientific understanding of regional and global climate impacts of aircraft emissions. FAA also funds the Partnership for Air Transportation Noise & Emissions Reduction (PARTNER) Center of Excellence research initiative to quantify the effects of aircraft exhaust and contrails on global and U.S. climate and atmospheric composition. Similar research topics are being examined at the international level by the ICAO.

Although there are no federal standards for aviation-related GHG emissions, it is well established that GHG emissions can affect climate. The CEQ has indicated that climate should be considered in NEPA analyses and in

¹² ICAO, Aircraft Engine Emissions, <u>https://www.icao.int/environmental-protection/Pages/aircraft-engine-emissions.aspx</u>.



¹¹ U.S. EPA, Regulations for Greenhouse Gas Emissions from Aircraft, <u>https://www.epa.gov/regulations-emissions-vehicles-and-engines/regulations-greenhouse-gas-emissions-aircraft.</u>

2016 released final guidance for federal agencies on how to consider the impacts of their actions on global climate change in their NEPA reviews, a Notice of Availability for which was published on August 5, 2016 (81 FR 51866). However, pursuant to Executive Order 13783, "Promoting Energy Independence and Economic Growth," of March 28, 2017, the guidance has been withdrawn for further consideration.

4.4 Coastal Resources

The Coastal Barriers Resources Act (CBRA) of 1982 prohibits federal financial assistance for development located within a Coastal Barrier Resource System that contains undeveloped coastal barriers along the Atlantic and Gulf coasts and the Great Lakes. Because DRO is in Colorado, a state that does not contain any coastal resources, this environmental resource category will not be evaluated further in this EA.

4.5 Department of Transportation Act, Section 4(f)

Section 4(f) of the Department of Transportation Act of 1966 (recodified and renumbered as section 303[c] of 49 U.S.C.), from here on referred to as Section 4(f), provides that the Secretary of Transportation shall not approve any program or project that requires the use of any publicly owned land from a public park, recreation area or wildlife and waterfowl refuge of National, State, or Local significance or land from a historic site of National, State, or Local significance, as determined by the officials having jurisdiction thereof, unless there is no feasible and prudent alternative to the use of such land and such project includes all possible planning to minimize impact. The project also needs comply with Section 6(f) of the Land and Water Conservation Fund which applies to publicly owned land if the property was acquired or developed with Land and Water Conservation Fund program.

The City of Durango has 33 park and recreation areas, all of which are more than six miles from DRO.¹³ According to National Park Service, Land and Water Conservation Fund online data, two projects have been funded with Section 6(f) funds, these include the West Side Park (located within the City of Durango), and the Bodo State Wildlife Area (located one mile south of the City of Durango and west of Highway 160).

Stratified Environmental & Archaeological Services, LLC (SEAS) completed a Cultural Resource Inventory as part of the 2017 Master Plan (see **Appendix E, Cultural Resource Inventory for Phase I of the Durango-La Plata County Airport Master Plan** (2017 Airport Master Plan)) and a second survey in June 2016 to determine eligibility of the identified archaeological sites. From these studies it was determined that none of the identified sites required protection in place, therefore, they are not considered Section 4(f) resources.

4.6 Farmlands

The Farmland Protection Policy Act (FPPA) regulates federal actions with the potential to convert important farmland to non-agricultural uses. Important farmland includes all pasturelands, croplands, and forests considered to be prime, unique, or of statewide or locally important lands. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can include forest land, pastureland, cropland, but not land committed to water storage or development. The Natural Resources Conservation Service (NRCS) Web Soil Survey was used to review soils on and around DRO.

Figure 4-5 details the soil types on Airport property and depicts the map unit symbols of the soil types; only three are classified as prime farmland (1, 26, and 66). However, the FPPA excludes land dedicated to urban use (including aviation) prior to 1982. Map unit symbols 1 and 26 were dedicated prior to 1982 and are therefore

¹³ City of Durango Colorado, <u>www.durangogov.org</u>, accessed July 2014



excluded. The area that includes map unit symbol 66, although within the Airport boundary, is dedicated to agricultural use.





Source: NRCS, Web Soil Survey, www.websoilsurvey.nrcs.usda.gov, Accessed 2014 Note: Not to scale

4.7 Hazardous Materials, Solid Waste, and Pollution Prevention

The impact area for hazardous material, solid waste and pollution prevention consists of the area that would be directly affected by construction and operation of the Reasonable Alternatives as well as existing activities.



4.7.1 Hazardous Materials

Hazardous materials, also referred to as dangerous goods, are any solid, liquid, or gas that can harm people, other living organisms, property or the environment. These materials may be radioactive, flammable, explosive, toxic, corrosive, a biohazard, an oxidizer, an asphyxiate, a pathogen, an allergen or may have other properties or characteristics that deem it hazardous in specific circumstances. The release of hazardous materials within the study area can come from a variety of sources. Potential sources include, but are not limited to:

- aircraft refueling;
- aircraft maintenance;
- aircraft washing;
- aircraft deicing;
- firefighting aircraft;
- vehicle maintenance;
- chemicals used in field maintenance;
- roadway use; and
- historic leaks and spills.

According to the EPA, no superfund sites or areas requiring EPA oversight during cleanup occur within the boundaries of DRO.¹⁴ However, DRO is considered a small quantity generator and is permitted to discharge small quantities of waste through a National Pollutant Discharge Elimination (NPDES) permit.

DRO maintains a current Storm Water Pollution Prevention Plan (SWPPP) which is regularly updated. The SWPPP includes all required inspection records, training logs, and correspondence regarding the Plan. The Spill Prevention, Control, and Countermeasure Plan (SPCC) for the Airport is maintained within the SWPPP.

The Airport supports aircraft de-icing operations during the winter months. De-icing fluid (glycol) not collected by a glycol sweeper enters two inlet drains southeast of the apron. This flow continues via underground pipes beneath the grass adjacent to Taxiway A, then discharges into a surface ditch near the water treatment facility. The flow passes through a culvert under the road and into the wetland. The Airport's storm water system is permitted by the EPA through its NPDES permit.

The Airport's fuel farm is located south of the terminal building in the fuel farm. The fuel farm has four aboveground storage tanks (AST) that are double-walled with fuel containment; one additional tank (100LL) is located adjacent to the fuel farm. All tanks are owned and maintained by the FBO (AvFlight) and are in excellent condition. A diesel storage tank located adjacent to the aircraft rescue and firefighting (ARFF) building provides fuel for DRO's diesel vehicles and equipment. **Table 4-4** details the sizes and type of fuel in each.

Location	Tank Type	Capacity (gallons)	Fuel Type	Condition
Fuel Farm	AST – double-walled	12,000	Jet A	Excellent
Fuel Farm	AST – double-walled	12,000	Jet A	Excellent
Fuel Farm	AST – double-walled	12,000	Jet A	Excellent

¹⁴ U.S. Environmental Protection Agency, <u>https://geopub.epa.gov/myem/efmap/index.html?ve=11,37.273625,-107.879300&pText=Durango,%20Colorado</u>, Accessed October 2017.



Location	Tank Type	Capacity (gallons)	Fuel Type	Condition
Fuel Farm	AST – double-walled	12,000	100 LL	Excellent
Fuel Farm	AST – double-walled	12,000	Gasoline	Excellent
ARFF Building	AST – double-walled	2,000	Diesel	Good

Source: Jviation

Ecosphere completed a Phase I Environmental Site Assessment (ESA) in October 2014 as part of the 2017 Master Plan (see **Appendix F, Phase I Environmental Site Assessment** (2017 Airport Master Plan)). The ESA concluded that DRO has a low environmental risk from potential contamination associated with hazardous substances or petroleum hydrocarbons. The basis for the assigned low-risk level is summarized below:

- Environmental records in the general vicinity did not contain records of active industrial facilities, active remediation, or spills with the ASTM¹⁵ radius of the Airport.
- Current land uses in the general vicinity of the Airport represent a low risk for potential contamination to the property.
- All fuel storage tanks at the Airport are within appropriate secondary containment and are regularly monitored for spills and leaks. The Airport has emergency response staff and equipment to provide immediate and appropriate response to any spills or releases that may occur.

4.7.2 Solid Waste

Solid Waste is defined by the implementing regulations of RCRA generally as any discarded material that meets specific regulatory requirements and can include such items as refuse and scrap metal, spent materials, chemical by-products, and sludge from industrial and municipal waste water and water treatment plants (see 40 CFR § 261.2 for the full regulatory definition). The solid waste landfill in La Plata County is the Bondad Landfill, located at 1500 E. County Road 310-318, approximately nine miles southwest of DRO. The landfill accepts residential, construction, and compacted waste for a fee.

General municipal and other wastes associated with the operation and maintenance of aircraft are generated at DRO. Recycling and solid waste are picked-up on site by the City.

4.7.3 **Pollution Prevention**

Pollution prevention describes methods used to avoid, prevent, or reduce pollutant discharges or emissions through strategies such as using fewer toxic inputs, redesigning products, altering manufacturing and maintenance processes, and conserving energy. The Pollution Prevention Act (42 U.S.C. §§13101-13109) requires pollution prevention and source reduction to reduce the impact waste has on the environment while in use and after disposal.

The Airport currently collects co-mingled recyclables (mixed paper, corrugated cardboard, plastic, aluminum) throughout the terminal.

4.8 Historical, Architectural, Archeological, and Cultural Resources

The National Historic Preservation Act (NHPA) of 1966, as amended, establishes the Advisory Council on Historic Preservation (ACHP) and the National Register of Historic Places (NRHP) within the National Park



¹⁵ American Society for Testing Materials

Service (NPS). The NHPA instructs federal agencies to preserve and use historic buildings and identify, evaluate, and nominate eligible properties under the control or jurisdiction of the agency to the NRHP.

The Area of Potential Effect (APE) is the area within which an undertaking may directly or indirectly affect a historic property or cultural resource. The APE encompasses areas proposed for disturbance and areas with the potential for noise and/or visual effects, including the view shed (the area the project may visually impact). The APE was determined to be the same as the two study areas identified earlier in this EA.

The NRHP currently lists five districts and eight properties in and near the City of Durango, noted in **Table 4-5** and **Table 4-6**, respectively.

District Name	Location	Size/Description	Year Added to Registry	Distance from Airport
Durango-Silverton Narrow-Gauge Railroad	Right-of-way between Durango and Silverton	0 acres, 5 buildings, 1 structure	1966	n/a
East Third Avenue Historic Residential District	East Third Avenue between 5th and 15th streets	380 acres, 98 buildings	1984	~15 miles northwest
Main Avenue Historic District	Main Avenue, Durango	340 acres, 86 buildings	1980	~15 miles northwest
Ute Mountain Ute Mancos Canyon Historic District	Address Restricted, Durango	2,080,000 acres	1972	n/a
Spring Creek Archaeological District (Zabel Canyon Indian Ruins)	Address Restricted, Bayfield	33,600 acres	1983	~16 miles northeast

TABLE 4-5 – NATIONAL REGISTER OF HISTORIC PLACES – DISTRICTS IN LA PLATA COUNTY

Source: NRHP, www.nationalregisterofhistoricplaces.com, accessed July 2014

TABLE 4-6 - NATIONAL REGISTER OF HISTORIC PLACES - PROPERTIES IN LA PLATA COUNTY

Property Name	Location	Year Added to Registry	Distance from Airport
Colorado Ute Power Plan	14th Street & Animas River, Durango	1983	~15 miles northwest
Denver and Rio Grande Western Railroad Locomotive No. 315	479 Main Avenue, Durango	2008	~15 miles northwest
Durango High School	201 E. 12th Street, Durango	2001	~15 miles northwest
Durango Rock Shelters Archaeology Site	Address Restricted	1985	n/a
Newman Block	801-813 Main Avenue, Durango	1979	~15 miles northwest
Ochsner Hospital	805 5th Avenue, Durango	1995	~14 miles northwest
Rochester Hotel	726 E. Second Avenue, Durango	1996	~15 miles northwest
Smiley Junior High School	1309 E 3rd Avenue, Durango	2002	~15 miles northwest

Source: NRHP, www.nationalregisterofhistoricplaces.com, accessed July 2014

Cultural Resource Survey of Terminal Development Study Area

SEAS completed a Cultural Resource Inventory of Airport property as part of the 2017 Master Plan (see **Appendix E, Cultural Resource Inventory for Phase I of the Durango-La Plata County Airport Master Plan** (2017 Airport Master Plan)). The study was completed to better understand how future development may or may not impact cultural resources and included the documentation of cultural resources over 50 years old and an evaluation of these resources against criteria for inclusion on the NRHP.



The inventory documented 14 new archaeological sites and 28 isolated finds. It was found that none of the isolated finds are considered eligible to the NRHP. Of the 14 new archaeological sites, it was found:

- Sites 5LP 10796, 5LP 10797, and 5LP 10801 were recommended not eligible to the NRHP as they do not meet any criteria.
- Sites 5LP 10799, 5LP 10800, 5LP 10802, 5LP 10803, 5LP 10805, 5LP 10807, and 5LP 10809 were all considered to be potentially eligible (need data) to the NRHP under Criterion D as a surface inspection alone was inadequate for determining the archaeological potential of these aboriginal artifact scatters.
- Sites 5LP 10798, 5LP 10804, 5LP 10806, and 5LP 10808 were recommended NRHP-eligible under Criterion D as the presence of thermal features in association with diverse artifact assemblages suggest these resources contain information important for understanding the prehistory and early history of the region.

As a result of the study finding seven sites potentially eligible due to a lack of information, it was recommended that additional information be gathered for these sites as part of this EA. In June of 2016, SEAS performed limited testing on six of the seven previously recorded archaeological sites (5LP 10799, 5LP 10800, 5LP 10802, 5LP 10803, 5LP 10805, and 5LP 10807) in support of NRHP evaluations for EA. The testing found:

- In the case of 5LP 10809, most of the site extends off the Airport property onto private lands and the portion of the site outside DRO was not documented. The portion of 5LP 10809 within DRO property, a demolished historic farm shed, was found to lack integrity and did not possess any qualities that would contribute to the site's potential NRHP eligibility. Therefore, the small portion of 5LP 10809 within DRO property is not considered further in this study.
- Five of the six sites tested for this project (5LP 10799, 5LP 10800, 5LP 10802, 5LP 10803, and 5LP 10807) were field recommended not eligible to the NRHP as they lack archaeological integrity or any further, meaningful scientific value. No further work was recommended.
- 5LP 10805 was field recommended NRHP-eligible under Criterion D as testing demonstrated the site contains significant intact, subsurface cultural deposits. It was recommended that any proposed earth disturbing activities on DRO should avoid site 5LP 10805 by a minimum of 100 feet.

In addition, the Old Spanish Trail, a network of trails connecting Santa Fe, NM and Los Angeles, CA, ran through the Durango area between 1829 and 1849. The trail was used to carry trade items until the annexation of the Southwest to the United States after the Mexican-American War and the use of the trail ceased due to the availability of more direct routes. Physical evidence of the trail has not been found nor was any evidence of the trail or associated artifacts encountered during the Phase I Cultural Resource Survey completed as part of this EA.

Airport Structures

DRO was constructed in 1973, making all airport-related structures less than 50 years old and would not yet qualify for eligibility for the NRHP. No other structures occur on Airport property.

4.9 Land Use

Compatible land uses around an airport increase safety and aid in minimizing the effects of aircraft noise and environmental impacts. Section 1502.16(c) of the CEQ Regulations requires the discussion of environmental impacts including "possible conflicts between the proposed action and the objectives of Federal, regional, State, and local land use plans, policies and controls for the area concerned." The FAA requires airport operators to ensure that actions are taken to establish and maintain compatible land uses around airports.



The Airport is outside Durango's zoning limits. DRO is jointly owned and operated by the City of Durango and La Plata County. The County is divided into the 13 planning districts shown on Figure 4-8. The Airport falls within the eastern edge of the Florida Mesa District, with one small southeastern section in the Southeast La Plata District. Figure 4-9 depicts the land use classifications for the Florida Mesa District. As shown, DRO is classified as a Public and Community Facility land use. The areas surrounding DRO are classified as Office/Light Industrial to the north and northwest, and Ag Rural Residential to the west. Small pockets of industrial are to the west and southwest and tribal to the north and northwest. Descriptions of these classifications are:

- Public and Community Facilities: Public and quasi-public uses, such as schools, government facilities, cemeteries, hospitals and churches, trail heads, recreation facilities.
- Ag Rural Residential: Private Land that can be developed at a density of one unit per 10 to 20 acres and are typically served by individual wells and septic systems.
- Office and Light Industrial: Commercial, office, and light industrial uses.
- Industrial: Permits gas refineries, gas compressors, concrete batch plants and manufacturing uses with outdoor.
- Tribal Lands: Southern Ute Tribal lands.

Land use classifications in the neighboring Southeast La Plata District do not exist within this District Plan.¹⁶ However, existing land uses adjacent to DRO and within the Southeast La Plata District are generally open land.

¹⁶ La Plata County, <u>www.co.laplata.co.us</u>, accessed June 2014.



FIGURE 4-6 – DURANGO ZONING MAP



Source: City of Durango, <u>www.durangogov.org</u>, accessed June 2014 Notes: Not to scale

FIGURE 4-7 – DURANGO ZONING MAP LEGEND

Zone	Districts	
	City Limits	
	BP	Business Park - Provide for campus-like environments for colleges, universities, business parks, hospitals, etc.
	СВ	Central Business - Provide a robust mixed-use center that is a source of community identity and pride.
	CG	Commercial General - Provide for community and neighborhood-scale retail, restaurant, and service uses, and for general and medical office.
	CR	Commercial Regional - Provide for regional scale retail uses.
	MU-A	Mixed Use Arterial - Provide for community and neighborhood-scale mixed- use and commercial development along arterial corridors.
	MU-N	Mixed Use Neighborhood - Provide for mixed-use areas or non-arterial corridors with small-scale residential and mixed-use development, and adaptive re-use of existing residential buildings for mixed-use or commercial purposes.
	IL	Industrial Light - Provide for light industrial, flex-park, rail, and storage uses.
	PB	Public - Provide for public uses.
	OS	Open Space - Provide for the preservation of natural areas under conservation easements and public open space.
	RA	Rural / Agriculture - Provide for the establishment or continuation or agricultural uses and services that support agricultural uses, and for very low density development in ecologically sensitive or geologically hazardous areas. May be used as a holding zone for property that is annexed without a zoning designation.
	RL	Residential Low - Provide for development of housing in a park-like setting, where buildings, landscaping, and paved areas are roughly equal elements of the visual landscape. This district is the least dense residential district for new development.
	RM	Residential Medium - Provide for general residential development of a variety of housing types. Development in the RM district is more intense than that in the RL district.
	RH	Residential High - Provide for urban residential development of a variety of housing types. This district is the most intense residential district. Buildings and formal landscaping along the street are dominant visual elements.
	EN-MF	Established Neighborhood Multifamily - Protect and encourage investments in existing multifamily properties, including those bounded by other EN districts.
	EN-1	Established Neighborhood 1 - Protect the character and functional integrity of the Old Durango neighborhood.
	EN-2	Established Neighborhood 2 - Protect the character and functional integrity of the neighborhoods of West Second and Third Avenues.
	EN-3	Established Neighborhood 3 - Protect the character and functional integrity of the East Animas City neighborhood.
	EN-4	Established Neighborhood 4 - Protect the character and functional integrity of the Crestview and Needham neighborhoods.
	EN-5	Established Neighborhood 5 - Protect the character and functional integrity of the Riverview neighborhood.
	EN-6	Established Neighborhood 6 -Protect the character and function of Hillcrest and other single-family neighborhoods which were established before the effective date.
	PD	Planned Development - Provide for the continuation of existing Planned Development approvals and the approval of new planned developments when it is demonstrated that the development is exceptional and could not

Source: City of Durango, www.durangogov.org, accessed June 2014



FIGURE 4-8 – LA PLATA COUNTY PLANNING DISTRICTS



Source: La Plata County, www.co.laplata.co.us, accessed June 2014 Note: Not to scale





FIGURE 4-9 - FLORIDA MESA DISTRICT LAND USE CLASSIFICATIONS

Source: La Plata County<u>, www.co.laplata.co.us</u>, accessed June 2014 Note: Not to scale



4.10 Natural Resources and Energy Supply

Sections 1502.16(e) and (f) of the CEQ Regulations require that Federal agencies consider energy requirements, natural depletable resource requirements, and the conservation potential of alternatives and mitigation measures in NEPA documents. FAA Order 1050.1F states that, while the FAA has not established a threshold for significance relative to natural resources and energy supply, the proposed action should be examined for the potential to cause demand to exceed available or future supplies of these resources.

An airport's effects on natural resources and energy supply are primarily related to the amount of energy and resources required to keep the Airport safely operating. Energy is primarily needed for aircraft, ground support vehicles, airport and airfield lighting, terminal and hangar buildings, and motor vehicle traffic. DRO utilizes three sources of natural resources and energy supply: natural gas, electricity, and water supply.

- Natural gas is supplied by Black Hills Energy and is supplied to DRO via a high-pressure gas line owned by Excel Energy. Natural gas is used in the existing terminal building and is available at the north development area, commercial apron, and south development area.
- Electricity is supplied by La Plata Electric Association and provides power to all developed areas on Airport property.
- Lastly, the Airport has two waters sources, a natural spring and surface runoff water. DRO also has rights to water from the East Tyner ditch. The rights currently allow DRO a share of 1.0 cubic foot per second (c.f.s) during irrigation season, 0.10 c.f.s absolute and 0.84 c.f.s conditional as a winter water source, and 0.25 c.f.s conditional year-round source. Additionally, a 0.25 cubic foot per minute conditional surface water share is available from the Florida River.

DRO's onsite water system consists of a raw water holding tank, a water treatment system, and two treated water holding tanks. The system provides approximately 12,000 to 15,000 gallons of water per day to DRO, with the capacity to provide up to 30,000 gallons per day.

In addition to these three primary sources of natural resources and energy, DRO also uses fuel for aircraft (AvGas and Jet Fuel) and surface vehicles (gasoline and diesel) and various construction materials such as asphalt, aggregate and wood.

4.11 Noise and Compatible Land Use

Noise is measured by the Day-Night Sound Level (DNL), the logarithmic average of sound levels in decibels (dB) and based on a 24-hour Equivalent Sound Level (Leq). The levels are time-weighted, such that noise events occurring during sensitive time periods (from 10pm to 7am) are penalized (i.e., weighted more heavily than those occurring from 7am to 10pm). This penalty accounts for the greater sensitivity to noise during nighttime hours and the decrease in background noise levels during these hours. Determining DNL provides a means of measuring and mapping the potential impacts from airport noise relative to the land uses surrounding an airport. Compatible land uses around an airport increase safety and aid in minimizing the effects of aircraft noise and environmental impacts.

Noise contours and noise exposure levels for the current year are used as the baseline noise exposure in **Chapter 5, Environmental Consequences** of this EA. The contours were generated using the FAA's latest noise model, Aviation Environmental Design Tool (AEDT) version 2.0b.



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

Airport activity can impact the growth, movement, and development patterns of communities. 49 CFR Part 24, *Uniform Relocation Assistance and Real Property Acquisition Policies* Act of 1970, Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, and Executive Order 13045, *Protection of Children from Environmental Health Risks and Safety Risks* regulate development actions that have the potential to create social impacts, health and safety risks to children, and socioeconomic impacts including moving homes or businesses; dividing or disrupting established communities; changing surface transportation patterns; disrupting orderly, planned development; and creating a notable change in employment.

4.12.1 Demographics

Demographic information including employment, population, and minority population is detailed in the following sections.

Employment

The 2017 Master Plan collected employment information as part of the study. It was found that the five-year (2008-2012) estimate for the number of civilians employed in La Plata County was approximately 27,400, roughly 52 percent of the population in 2012. The top five industries include:

- Educational services, and health care and social assistance (19 percent)
- Arts, entertainment, and recreation, and accommodation and food services (14 percent)
- Retail trade (12 percent)
- Construction (11 percent)
- Professional, scientific, and management, and administrative and waste management services (11 percent)

The Bureau of Labor Statistics reports that La Plata County's unemployment rate has historically been lower than that of Colorado and the nation. The most recently reported (2013) unemployment rate for La Plata County was 5.5 percent, a significant decrease from 2010, when the County's unemployment rate peaked at 7.1 percent. The County's current unemployment rate remains below Colorado's and the U.S. unemployment rates. In comparison, the City of Durango's unemployment rate has maintained a similar rate to La Plata County, depicted in **Figure 4-10**.



FIGURE 4-10 – FIVE-YEAR HISTORICAL UNEMPLOYMENT RATES



Source: U.S. Bureau of Labor Statistics and Economagic.com (City of Durango)

Population

Durango's population has followed a similar growth trend to that of La Plata County and the state of Colorado from 2005 to 2014 (see **Table 4-7**). Of the three districts, Durango had the largest growth rate from 2005 to 2014 with a 15.1 percent increase. La Plata County increased by 13.8 percent and Colorado grew by 14.8 percent.

	2005	2010	2014
Durango	15,501	16,827	17,834
% Change	-	8.6%	6.0%
La Plata County	47,452	51,338	53,989
% Change	-	8.2%	5.2%
Colorado	4,665,177	5,048,575	5,355,866
% Change	-	8.2%	6.1%

TABLE 4-7 – HISTORICAL POPULA

Source: U.S. Census Bureau, Population Division, Accessed November 2015

The minority populations and percent of persons in poverty in Durango, La Plata County, and Colorado are shown in **Table 4-8**. It is presumed that the adjacent landowners to DRO are comprised of a similar demographic mix to that of La Plata County. The largest minority population in all three districts is Hispanic or Latino. The percent of persons in poverty is also similar for all three districts, with 12.4 percent of the population of Durango and La Plata County being in poverty. This is slightly higher than Colorado's 12.0 percent. Lastly, DRO is located within the Southern Ute Indian Reservation. The largest minority population is again Hispanic or Latino (17%); American Indian and Alaska Native is the second largest minority population at 12%.



Race	Durango	La Plata County	Colorado
White Alone	85.1%	86.8	81.3%
Black or African American	0.6%	0.4%	4.0%
American Indian and Alaska Native	6.3%	5.8%	1.1%
Asian	0.8%	0.6%	2.8%
Native Hawaiian and Other Pacific Islander	0%	0.1%	0.1%
Two or More Races	3.0%	3.1%	3.4%
Hispanic or Latino	12.3%	11.8%	20.7
Persons in poverty	12.4%	12.4%	12.0%

TABLE 4-8 – MINORITY AND LOW-INCOME POPULATIONS

Source: U.S. Census Bureau, Population Division, Accessed November 2015

Race	% Population
White	82%
Black or African American	1%
American Indian and Alaska Native	12%
Asian	1%
Native Hawaiian and Other Pacific Islander	0%
Some other race	3%
Two or more races	2%
Hispanic or Latino (of any race)	17%

Source: U.S. Census Bureau, My Tribal Area, Accessed October 2018

4.12.2 Surface Traffic

Felsburg, Holt, & Ullevig (FHU) conducted Preliminary Traffic Analyses as part of this EA (see **Appendix G**, **Preliminary Traffic Analyses**). Existing traffic volume data was gathered on June 9-11, 2016 (Thursday-Saturday); this is a higher-than-average time of year for DRO traffic according to historical monthly enplanement, deplanement, and parking revenue data provided by the Airport. Daily traffic volumes were recorded along nine roadway segments near DRO. Weekday AM and PM peak and Saturday peak hour turning movements were recorded at the intersections of SH-172 and both CR-309 and CR-338. The main airport access intersection of CR-309 with CR-309A was also recorded, allowing for clear identification of main terminal, general aviation, and local office traffic.

Traffic operations within the study area were evaluated according to techniques documented in the *Highway Capacity Manual* (Transportation Research Board, 2010) using the existing traffic volumes, intersection geometry, and traffic control. Level of Service (LOS) is a qualitative measure of traffic operational conditions based on roadway capacity and vehicle delay. LOS is described by a letter designation ranging from A to F, with LOS A representing almost free-flow travel, while LOS F represents congested conditions. For stop-sign controlled intersections, LOS is calculated for each movement that must yield the right-of-way. LOS D is typically considered to be acceptable for peak hour intersection operations.

It was found that movements at each of the three analyzed intersections currently operate at LOS A or B during peak hours, which is an acceptable level of service.



4.12.3 Children's Environmental Health and Safety

The nearest school to the study areas is Ignacio Junior High School, located approximately five miles east of the Airport. The nearest daycare facility to the study areas is Florida Mesa Child Care Center located approximately five miles north of the Airport. There are approximately 35 residences within a half mile of DRO. The demographics of these homes varies and some include families with children.

4.13 Visual Effects

The FAA defines visual effects as those impacts involving "light emissions; and visual resources and visual character" in FAA Order 1050.1F. Federal regulations do not specifically regulate airport light emissions; however, the FAA does consider airport light emissions on communities and properties in the vicinity of airports. Visual effects deal broadly with the extent to which the proposed alternatives would either: 1) produce light emissions that create annoyance or interfere with activities; or 2) contrast with, or detract from, the visual resources and/or the visual character of the existing environment. A significant portion of light emissions at airports are a result of safety and security equipment and facilities.

DRO has six primary sources of light:

- Runway/Taxiway Lighting: lights outlining the runway and taxiways; classified by the intensity or brightness the lights can produce.
- REILs: two synchronized flashing lights located one on each corner of the runway landing threshold.
- PAPIs/VASIs: system of lights on the side of an airport runway threshold that provides visual descent guidance information during approach.
- MALSR: a combination of threshold lamps, steady burning light bars and flashers (that provide visual information to pilots on runway alignment), height perception, role guidance, and horizontal references.
- Airport Beacon: a rotating light used to locate the airport.
- Apron/Parking Lights: pole lighting on aprons and parking areas.

All sources of light aid in the safety of operations at DRO and produce an insignificant amount of light on the surrounding area.

4.14 Water Resources

Water resources include both surface waters and ground waters as well as floodplains and wetlands. All four sources function together as a single integrated system. Water resources provide drinking water and support recreation, transportation and commerce, industry, agriculture, and aquatic ecosystems.

4.14.1 Wetlands

Executive Order 11990, Protection of Wetlands, require Federal agencies to avoid and minimize the impact of construction projects on wetlands. Wetlands are defined as areas inundated by surface or groundwater with a frequency sufficient to support vegetation or aquatic life requiring saturated or seasonally saturated soil conditions for growth and reproduction. Waters of the US are within the jurisdiction of the US Army Corps of Engineers (USACE) pursuant to the CWA. Waters of the US include wetlands, ponds, lakes, territorial seas, rivers, tributary streams, including any definable intermittent waterways, and some ditches below the Ordinary High Water Mark. Manmade water bodies are also included, such as quarries and ponds no longer actively being mined or constructed.



Ecosphere conducted a wetland delineation of DRO property as part of the 2017 Master Plan **(Appendix H, Wetland and Waters of the U.S. (WUS)** Preliminary Jurisdictional Delineation Report [2017 Airport Master Plan]). Six wetland verification areas were delineated as depicted on Figure 4-11. Other wetlands within the study area, totaling approximately 37 acres, were identified using the National Wetland Inventory (NWI) classification method¹⁷. In total, approximately 57 acres of potentially jurisdictional wetlands were delineated and mapped in the study area. It was recommended that the potentially jurisdictional wetlands within the EA study area be further evaluated for final determination.

Ecosphere completed an Aquatic Resources Findings Report in November 2016. The report refines wetland boundaries previously delineated near the originally proposed new access road. Approximately 1.6 acres of wetlands are delineated in the report as shown in **Figure 4-12**. It was found that the wetlands in this area likely developed over time as irrigation waste water from adjacent agriculture lands entered abandoned ditches.

¹⁷ See Appendix H, Wetland and Waters of the U.S. Preliminary Jurisdictional Delineation Report, Section 3. Methodology, page 4, October 2014.



FIGURE 4-11 - WETLANDS



Source: Ecosphere Environmental Sciences, Wetland and Waters of the U.S. (WUS) Preliminary Jurisdictional Delineation Report, 2014 Note: Not to scale




FIGURE 4-12 - 2016 WETLAND DELINEATION

Source: Ecosphere Environmental Sciences, Wetland and Waters of the U.S. (WUS) Preliminary Jurisdictional Delineation Report, 2014 Note: Not to scale



4.14.2 Floodplains

Executive Order 11988, *Floodplain Management*¹⁸ directs federal agencies to "avoid to the extent possible the long- and short-term adverse impacts associated with the occupancy and modification of floodplains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative." Floodplains are those areas subject to a one percent or greater chance of flooding in any given year.

The Airport falls on two Flood Insurance Rate Map (FIRM) Panels, 08067C0720F and 08067C0740F, both with effective dates of August 19, 2010. The majority of Airport property is not within a flood hazard area; however, the western most portion of the property is located in Zone A (no base flood elevations determined), a Special Flood Hazard Area (SFHA) subject to inundation by the one percent annual flood, as shown on Figure 4-13. This SFHA follows the Florida River that runs along the west side of DRO.



FIGURE 4-13 – FLOOD INSURANCE RATE MAP

Source: FEMA, Flood Insurance Rate Map, Panels 08067C0720F and 08067C0740F, August 19, 2010 Note: Not to scale

4.14.3 Surface Waters

Surface waters include streams, rivers, lakes, ponds, estuaries, and oceans. DRO is located on a mesa above the Florida River, a tributary of the Animas River, and the predominant water feature in the area. The Airport has water rights in two basins to meet its potable and non-potable irrigation water needs. DRO is located on the edge of the Florida River watershed and the airport facilities use Florida River water rights to provide potable water supply for domestic, commercial, and industrial uses as well as non-potable irrigation needs.¹⁹

¹⁹ Wright Water Engineers, Inc, Durango-La Plata County Airport Water and Wastewater Master Plan, 2014



¹⁸ Executive Order 11988, *Floodplain Management*, 1977

The Airport is also located in the Pine River basin and uses the water for non-potable irrigation needs. As discussed previously, DRO has rights to water from the East Tyner ditch.

4.14.4 Groundwater

Groundwater is subsurface water that occupies the space between sand, clay, and rock formations. The term aquifer is used to describe the geologic layers that store or transmit groundwater, such as to wells, springs, and other water sources. According to the 2017 La Plata County Comprehensive Plan, the south-central portion of La Plata County, **which includes both the terminal development and land acquisition study areas**, sits upon the Florida Mesa aquifer. This aquifer gets its recharge from farm and ranch irrigation water and typically has good water quality and yield. The groundwater in this area is consumed through water wells and is a source of municipal and domestic water supply, irrigation and stock water, and water for industrial uses.²⁰

4.14.5 Wild and Scenic Rivers

Rivers identified in the Nationwide Rivers Inventory and protected under The Wild and Scenic Rivers Act of 1968, as amended21, are classified as wild, scenic, or recreational. **Table 4-10** describes each classification. However, regardless of classification, each river in the National System is administered with the goal of protecting and enhancing the values that caused it to be designated. A designated river is neither prohibited from development nor does it give the federal government control over private property. Protection of the river is provided through voluntary stewardship by landowners and river users and through regulation and programs of federal, state, local, or tribal governments. In most cases, not all land within boundaries is, or will be, publicly owned, and the Act limits how much land the federal government can acquire from willing sellers.²²

Classification	Description
Wild	Those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of primitive America.
Scenic	Those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
Recreational	Those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

TABLE 4 10 WILD & SCLINIC NIVEN CLASSIFICATIONS	TABLE 4-10 -	WILD &	SCENIC RIVER	CLASSIFICATIONS
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Source: National Wild and Scenic Rivers System, www.rivers.gov, accessed July 2014

The terminal development area is in the Four Corners Region, the locations of wild and scenic rivers in Colorado, Utah, New Mexico, and Arizona were reviewed. **Table 4-11** lists the four nearest wild and scenic rivers to the study areas. Figure 4-14 depicts designated rivers in the four states and those closest to DRO.

²⁰ La Plata County Community Development Services, Comprehensive Plan, May 2017

²¹ U.S. Code, The Wild and Scenic Rivers Act of 1968, 16 USC 1271-1287, 1977

²² National Wild and Scenic Rivers System, <u>www.rivers.gov</u>, accessed July 2014



TABLE 4-11 - WILD & SCENIC RIVERS

River	State	Miles Designated	Nautical Miles from DRO
Rio Chama	NM	24.6 (21.6 wild; 3.0 scenic)	~73
Jemez River, East Fork	NM	11.0 (4.0 wild; 5.0 scenic; 2.0 recreational)	~100
Rio Grande ^{/a/}	NM	68.2 (54.9 wild; 12.5 scenic; 0.8 recreational	~108
Pecos River	NM	20.5 (13.5 wild; 7.0 recreational)	~122

Source: National Wild and Scenic Rivers System, <u>www.rivers.gov</u>, accessed July 2014 Note: ^{/a/}Portion of designated river is in southern Texas

Cache la Poudre River UTAH County Airport Durango-La Plata County Airport County Airport Rio Grande County Airport Rio Chama Verde River Rossil Creek NEW MEXICO NEW MEXICO

FIGURE 4-14 – WILD AND SCENIC RIVER LOCATIONS IN RELATION TO STUDY AREAS

Source: National Wild and Scenic Rivers System, <u>www.rivers.gov</u>, accessed July 2014 Note: Not to scale





5. ENVIRONMENTAL CONSEQUENCES

This chapter discusses the environmental effects associated with the No Action and Alternatives as they relate to the environmental impact categories outlined in FAA Orders 1050.1F and 5050.4B.

As discussed in **Chapter 4, Affected** Environment, the following environmental resources do not occur within this Environmental Assessment's (EA) study areas. As a result, none of the Alternatives evaluated in this EA would affect these resources:

- Coastal Resources. Durango-La Plata County Airport (DRO or the Airport) is located in Colorado, a state that does not have any coastal resources.
- Department of Transportation Act, Section 4(f). As noted in Chapter 4, no Section 4(f) resources are located within or near the study area.
- Wild and Scenic Rivers. As noted in **Chapter 4**, the nearest Wild and Scenic River is more than 70 miles from the study area.

Based on this information and in accordance with the guidance provided in FAA Orders 1050.1F and 5050.4B, this EA does not examine these two resources further.

This chapter discusses the following environmental impact categories and potential impacts resulting from the No Action and Action Alternatives:

- 1. Air Quality
- 2. Biological Resources
- 3. Climate
- 4. Department of Transportation Act, Section 4(f)
- 5. Farmlands
- 6. Hazardous Materials, Solid Waste, and Pollution Prevention
- 7. Historic, Architectural, Archaeological, and Cultural Resources
- 8. Land Use
- 9. Natural Resources and Energy Supply
- 10. Noise and Compatible Land use
- 11. Socioeconomics, Environmental Justice, and Children's Health and Safety Risks
- 12. Visual Effects
- 13. Water Resources
- 14. Cumulative Impacts

In accordance with CEQ regulations, this EA integrates the requirements of the NEPA and other planning and environmental review procedures required by applicable law or agency practice so that the appropriate review procedures run concurrently, rather than consecutively.¹ Therefore, this chapter includes a complete environmental analysis to expedite a concurrent environmental review process associated with the following federal statutes, executive orders and regulations:

¹ CEQ, Title 40 CFR 1500.2(c), Protection of the Environment, Council on Environmental Quality, Policy, 2005





- Title 49 United States Code (USC) 303 and 23 USC 138 (DOT Section 4(f));
- Endangered Species Act of 1973 (Threatened or Endangered Species);
- Executive Order 11988 (Floodplains);
- Section 106 of the National Historic Preservation Act (Historic Resources); and
- Executive Order 11990 (Wetlands).

In an effort to reduce redundancy and overall EA length, Alternatives 1 and 2 of the Terminal Development project are evaluated together, when applicable. The two Alternatives are proposed to be constructed in an area that is environmentally similar and previously developed, resulting in similar environmental impacts.

5.1 Air Quality

This section discusses DRO's emissions inventory for 2015 (baseline year), 2020 (day of opening), and 2030 (future year) for the No Action and Action Alternatives (Alternatives 1 through 3). 2015 was selected as the base year at the beginning of the EA process. Construction-related emissions during the 2019-2020 construction period are also presented. It should be noted that the funding source for Terminal Development Alternatives is pending and could delay the proposed timelines used in this section.

Subsequent chapters evaluate each Alternative individually; however, this section reviews the Alternatives together, separated by operational and construction emissions to allow for an easier comparison of Alternative impacts. The forecast is the same for each of the Alternatives.

Operational Emissions

An operational emissions inventory of aircraft operations as well as auxiliary power units (APUs) and ground support equipment (GSE) was performed at DRO using the FAA's Aviation Environmental Design Tool (AEDT). Airport operational emissions sources other than aircraft-related (e.g., motor vehicles) were not considered in the emissions inventory as these source emissions would not change as a result of the Action Alternatives. Aircraft operations remain the same between the No Action and Action Alternatives, however, taxi times are affected due to the construction of the new terminal on the east side of the runway. **Table 5-1** provides the aircraft fleet and operations by aircraft type used in the operational emissions inventory at DRO for existing and future years.

Aircraft Catagony	ircraft Category Penrocentative Aircraft Type/Engine		Annual Operations		
All Calegory	Representative Aircraft Type/Engine	2015	2020	2030	
Commercial	Bombardier de Havilland Dash 8 Q400/PW123, Bombardier CRJ-200 and CRJ- 700/CF34-3B, Bombardier CRJ-900/CF34-8C5, Embraer ERJ145- LR/AE3007A1P, Embraer ERJ135 and ERJ145-XR/AE3007A1E, Embraer ERJ195/CF34-10E6, Airbus A319-100 Series/CFM56-5B2/2, and Boeing 737- 800 Series/CFM 56-7B26	7,965	8,471	9,583	
Jet	Raytheon Beechjet 400/JT15D-5,-5A,-5B, Cessna 560 Citation V/PW530, Cessna 560 Citation XLS/ BIZMEDIUMJET_F, Cessna 550 Citation II/JT15D- 4series, Cessna 750 Citation X AE3007C, Cessna 525 CitationJet/JT15D- 1series, Cessna 650 Citation III/TFE731-2-2B, Cessna 525B CitationJet/BIZLIGHTJET, Hawker HS-125 Series 700/BIZMEDIUMJET_F, Bombardier Learjet 35/TFE731-2-2B, Bombardier Learjet 60/PW306A, Bombardier Learjet 55/TFE731-3, Embraer 500 and 505/BIZLIGHTJET_F, and Dassault Falcon 2000/PW308C	2,440	2,753	3,514	

TABLE 5-1 – AIRCRAFT FLEET AND OPERATIONS



Aircraft Cotogory	raft Category Representative Aircraft Type/Engine		Annual Operation		
All craft Category			2020	2030	
Turbo	Cessna 208 Caravan/PT6A-114, Raytheon Super King Air 200/PT6A-42, and Raytheon King Air 90/PT6A-41	4,159	4,688	5,989	
Twin Prop	Cessna 340/TIO-540-J2B2, Cessna 421 Golden Eagle/TIO-540-J2B2, Raytheon Beech 60 Duke/TIO-540-J2B2, and Piper PA-31 Navajo/TIO-540-J2B2	5,248	5,674	6,396	
Single Prop	Cirrus SR22/TIO-540-J2B2, Cessna 182/IO-360-B, Cessna 210 Centurion/TIO-540-J2B2, and Cessna 172 Skyhawk/IO-360-B	9,129	9,872	11,129	
Military	C-130E/T56-A-7	500	500	500	
Total		29,441	31,958	37,111	

TABLE 5-1 – AIRCRAFT FLEET AND OPERATIONS

Source: KB Environmental Sciences, Durango-La Plata County Airport Air Quality and Climate Assessment, 2017. Note: Project funding may change the terminal construction date; however, for comparative purposes, the initial planned construction date is used throughout this analysis.

For the purpose of this analysis, the following were derived or assumed:

- The FAA's Emissions and Dispersion Modeling System (EDMS Version 5.1.4.1) default GSE type and parameters were used for the aircraft listed in **Table 5-1** as AEDT does not provide default GSE.
- The AEDT default APU types and run times per aircraft were used.
- Weighted average aircraft taxi out and taxi in times are presented in **Table 5-2** for existing, with and without the proposed actions, and were derived as follows:
- using measured distances from the existing and the proposed new terminal location to the runway ends,
- assuming an aircraft taxi speed of 20 miles per hour, and
- assuming a north/south airport flow of 50 and 50 percent, respectively.²
- Average aircraft delay times were derived using nomographs that relate the Airport's annual service volume to the demand volume. The estimated ratio of annual demand to annual service volume for the proposed actions was very small and thus the average delay per aircraft is negligible and not included in the total taxi times. This methodology is detailed in FAA's *Airport Capacity and Delay Advisory Circular* (AC 150/5060-5).

² Based on the Airport's Master Plan prepared in July 2014 the percent runway use rounds to 50% north/south airport flow.



Project Scena	rios		2015	2020	2030
Baseline			5.6		
No Action				5.6	5.6
	Alternative 1 – Renovate/Expand Existing Terminal			5.6	5.6
Action	Alternative 2 – Construct New Terminal Adjacent to Existing Terminal			5.6	5.6
Alternatives	Alternative 2 Construct New Terminal on East Side of Dunway	Commercial aircraft1		6.8	6.8
	Alternative 3 – Construct New Terminal on East Side of Runway	All other GA aircraft		5.6	5.6

TABLE 5-2 – DERIVED WEIGHTED TOTAL TAXI TIMES (MINUTES)

Source: KB Environmental Sciences, Durango-La Plata County Airport Air Quality and Climate Assessment, 2017.

Notes: ¹ Assumes commercial aircraft would use the terminal on the east side of the airfield. These aircraft would cross the existing runway to access runway end 21 and use the partial taxiway to access runway end 3. GA traffic would remain on the west side of the airport.

Project funding may change the terminal construction date; however, for comparative purposes, the initial planned construction date is used throughout this analysis. Average delay per aircraft is negligible, thus not included in total taxi times.

Table 5-3 presents the operational emissions inventories for existing baseline year 2015, and the future 2020 and 2030 for the No Action and Action Alternatives for DRO (segregated by each source). For disclosure purposes under NEPA, operational emissions of criteria pollutants CO, VOC, NOx, SOx, PM2.5, and PM10 were assessed. As shown, overall total emissions increase from the 2015 Baseline to the 2020 and 2030 No Action and Action Alternatives. These total emission changes can be attributed to increases in aircraft operations and change in fleet mix, which would happen regardless of which alternative is selected (including the No Action).

Comparing the No Action Alternative to the Action Alternatives, overall total emissions either stay the same or slightly increase due to the increase in taxi times resulting from the construction of the new terminal on the east side of the airfield. Notably, the No Action Alternative and Alternatives 1 and 2 would not result in any emission changes due to the terminal remaining at its existing location and therefore not altering the airfield's activity levels. Conversely, Alternative 3 involves construction of a new terminal facility on the east side of the airfield activity levels would change slightly due to aircraft taxiing to and from a different terminal location with longer distance.

Source	CO	VOC	NOx	SOx	PM2.5	PM10
		2015 Base	eline			
Aircraft	247.2	5.85	11.4	1.63	0.84	0.84
APUs	1.13	0.09	0.53	0.11	0.11	0.11
GSE	15.80	0.55	1.80	0.06	0.07	0.08
Total	264.1	6.5	13.8	1.8	1.0	1.0
2	020 No Action	Alternative /Ac	tion Alternativ	ves 1 and 2		
Aircraft	268.3	6.35	12.4	1.77	0.91	0.91
APUs	1.22	0.09	0.58	0.12	0.12	0.12
GSE	8.27	0.31	0.87	0.06	0.05	0.05
Total	277.8	6.8	13.9	1.9	1.1	1.1

TABLE 5-3 - OPERATIONAL EMISSIONS INVENTORIES (TONS)



Source	CO	VOC	NOx	SOx	PM2.5	PM10
	2	2020 Action All	ernative 3			
Aircraft	269.4	6.44	12.6	1.80	0.91	0.91
APUs	1.22	0.09	0.58	0.12	0.12	0.12
GSE	8.27	0.31	0.87	0.06	0.05	0.05
Total	278.9	6.8	14.0	2.0	1.1	1.1
2	030 No Action	Alternative/Ac	tion Alternativ	ves 1 and 2		
Aircraft	303.8	7.83	24.8	2.94	0.96	0.96
APUs	3.76	0.26	1.18	0.24	0.32	0.32
GSE	7.20	0.27	0.60	0.07	0.04	0.04
Total	314.8	8.4	26.6	3.3	1.3	1.3
	2	2030 Action All	ernative 3			
Aircraft	305.1	7.90	25.1	3.00	0.96	0.96
APUs	3.76	0.26	1.18	0.24	0.32	0.32
GSE	7.20	0.27	0.60	0.07	0.04	0.04
Total	316.0	8.4	26.8	3.3	1.3	1.3

TABLE 5-3 - OPERATIONAL EMISSIONS INVENTORIES (TONS)

Source: KB Environmental Sciences, Durango-La Plata County Airport Air Quality and Climate Assessment, 2017. Note: Project funding may change the terminal construction date; however, for comparative purposes, the initial planned construction date is used throughout this analysis.

Construction Emissions

Construction activities would be temporary and variable depending on the type, duration, and level of activity. These emissions occur predominantly in the engine exhaust of construction equipment and vehicles (e.g., scrapers, dozers, delivery trucks, etc.), but are also attributed to fugitive dust produced from construction materials staging, soil handling, and unstabilized land and wind erosion.

Construction equipment typically utilized in airport projects includes on-road (i.e., road-licensed) and non-road equipment (i.e., off-road). Vehicles in the on-road category are used for the transport and delivery of supplies, material, and equipment to and from the site, and also include construction worker vehicles. Off-road equipment is operated on-site for activities such as soil/material handling, site clearing, and grubbing.

The Airport Construction Emissions Inventory Tool (ACEIT) ³ was used for the evaluation of DRO's proposed terminal improvements. Certain project-specific details and/or cost of the improvements were used in ACEIT to estimate construction activities and equipment/vehicles activity data (e.g., equipment mixes/times) for each Action Alternative. Default emission factors were also assigned based on location and type of project. The default factors used by ACEIT are derived from EPA-approved emissions models for both non-road construction equipment (NONROAD) and on-road vehicles (MOVES). NONROAD, a computerized database developed by the EPA, provides emission factors for off-road equipment/vehicles (e.g., dozers, tractors, loaders, etc.); MOVES is an emission modeling system used to develop emission factors for on-road vehicles (e.g., passenger cars, delivery trucks, etc.). Both exhaust and fugitive (e.g., evaporative) emission factors were developed using these

³ Transportation Research Board, ACRP Report 102, *Guidance for Estimating Airport Construction Emissions*, <u>http://onlinepubs.trb.org/onlinepubs/acrp/acrp_rpt_102.pdf</u>, 2014.



models for incorporation into ACEIT. **Table 5-4** presents the construction activities and schedules associated with each Action Alternative.

Alternative	Activity	Schedule
	Terminal	January 2020 October 2020
A life we obtained	Apron	January 2020-October 2020
Alternative	Parking Lot	January 2019-December 2019
	Loop Road	January 2020-December 2020
	Terminal	January 2010 December 2020
Altornative 2	Apron	January 2019-December 2020
Alternative 2	Parking Lot	January 2019-December 2019
	Loop Road	January 2020-December 2020
	Terminal	January 2010 October 2020
	Apron	
Alternative 3	Parking Lot	January 2020 October 2020
	Loop Road	January 2020-October 2020
	Taxiway	January 2019-November 2019

TABLE 5-4 - CONSTRUCTION ACTIVITIES AND SCHEDULES

Source: KB Environmental Sciences, Durango-La Plata County Airport Air Quality and Climate Assessment, 2017. Note: Project funding may change the terminal construction date; however, for comparative purposes, the initial planned construction date is used throughout this analysis.

Construction emissions associated with the Action Alternatives are presented in **Table 5-5**. Because the construction period extends up to two years, emissions are presented for 2019 and 2020. Furthermore, construction activities, emission factors and footprints vary according to Alternatives. For ease of understanding the differences between Alternatives, ACEIT input and output files are provided as Appendix I, ACEIT Inputs and Outputs.

As shown in **Table 5-5**, all three Alternatives result in construction-related emissions; however, as DRO is not located in a nonattainment area, the emissions are not expected to be significant. Notably, DRO is located in La Plata County which is currently an area designated as attainment of all NAAQS established by the EPA, and General Conformity requirements outlined under the federal CAA do not apply to the proposed project; therefore, de minimis levels are not applicable. Results are presented for disclosure purposes only, under NEPA.

Alternative	Year	CO	VOC	NOx	SO2	PM10	PM2.5
Altornative 1	2019	7.4	18.1	2.7	<0.1	0.8	0.1
Alternative	2020	24.1	11.4	10.6	0.1	1.4	0.5
Altornative 2	2019	24.8	35.5	13.5	0.1	2.5	0.7
Alternative 2	2020	23.0	20.5	11.4	0.1	1.9	0.6
Altornative 2	2019	18.9	11.7	10.4	0.1	1.4	0.5
Alternative 3	2020	29.0	49.8	16.0	0.1	3.5	0.8

TABLE 5-5 – CONSTRUCTION EMISSIONS (TONS)



Source: KB Environmental Sciences, Durango-La Plata County Airport Air Quality and Climate Assessment, 2017. Note: Project funding may change the terminal construction date; however, for comparative purposes, the initial planned construction date is used throughout this analysis.

Emissions from construction activities would be further reduced by employing the following standard construction procedures:

- Reducing exposed erodible surface areas;
- Covering exposed surface areas with pavement or vegetation in an expeditious manner and periodic watering;
- Reducing equipment idling times;
- Reducing vehicles speeds onsite;
- Ensuring contractor knowledge of appropriate fugitive dust and equipment exhaust controls;
- Use of low- or zero-emissions equipment;
- Use of covered haul trucks during materials transportation; and
- Suspending construction activities during high-wind conditions.

5.2 **Biological Resources**

Biological resources include fish, wildlife, plants, and their respective habitats. Wildlife that may occur at DRO includes a variety of species common to transitional areas where agricultural lands, pinon-juniper woodlands, and sagebrush grasslands are intermingled. Mammal species commonly occurring in these habitats may include desert cottontail, black-tailed jackrabbit, prairie dogs, Botta's pocket gopher, deer mouse, white-throated woodrat. Coyote, striped skunk, mountain lion, mule deer, and elk may also be found in these habitat types. Although 12 federal and 31 state-listed plant, animal, and insect species are known to occur in La Plata County, only two were identified during site surveys (Southwestern willow flycatcher and New Mexico meadow jumping mouse). Of the 24 Birds of Conservation Concern (BCC), five are known to occur within the survey area and six have the potential to occur. This section describes how the No Action and Action Alternatives may unavoidably affect identified species in the study area, and the measures that will mitigate those effects.

No Action Alternative

The No Action Alternative would not result in any changes to the existing biological environment and would therefore not result in any impacts to fish, wildlife, and plant species.

Terminal Alternative 1: Renovate and Expand Existing Terminal and Terminal Alternative 2: Construct New Terminal Adjacent to Existing Terminal

Terminal Alternatives 1 and 2 would be constructed in an area that has been previously disturbed and is currently developed. Both Alternatives include paving grassy areas for parking lots. Alternatives 1 and 2 would result in disturbance from human activity, potential loss of prey, and potential loss of habitat; however, the impacts would be minimal given that the project area is composed largely of previously disturbed areas. No sensitive species were identified in the area during the survey. Therefore, Alternatives 1 and 2 would not result in significant impacts to biological resources such as fish, wildlife, and plant species. On February 28, 2019, the FAA prepared a Biological Assessment (BA) and sent the results to the USFWS as part of their initiation of informal consultation. The BA included the potential impacts of Alternatives 1 and 2 (DRO's Proposed Action). The FAA requested written concurrence with their effect determination. The USFWS concurred with the FAA's finding of not likely to adversely affect in a letter dated March 29, 2019. See **Appendix J** for the FAA and USFWS correspondence.



Terminal Alternative 3: Construct New Terminal on East Side of Runway

As discussed in **Chapter 4, Affected Environment**, a Biological Resource Survey was completed at DRO in 2014 as part of the 2017 Master Plan. The survey, along with coordination with the USFWS, found that the Southwestern Willow Flycatcher (SWF) and the New Mexico Meadow Jumping Mouse (NMMJM) have the potential to occur at DRO and be impacted by Alternative 3. At this time, the new access road was included as an Alternative and located within the species habitats. As such, additional surveys for the SWF and NMMJM were completed as well as a Biological Assessment (BA) focused on the areas potentially impacted by Alternative 3 (see **Appendix D, Biological Assessment** completed by Ecosphere as part of the EA). With the access road being removed from the project, potential impacts to the species were significantly reduced. The following excerpts from Ecosphere's 2017 BA provide justification for their determination of May Affect, is not likely to Adversely Affect.⁴

New Mexico Meadow Jumping Mouse

There are no construction activities proposed in NMMJM occupied habitats. A new airport access road had originally been proposed to cross through the Spring Creek canal and wetland habitats; however, following the detection of the jumping mouse in this habitat, the FAA and the project proponent eliminated the new airport access road from Alternative 3. As such, there would be no direct impacts to suitable or occupied jumping mouse habitats. Construction that occurs between May and October near occupied habitat could have potential effects such as short-term avoidance of an area due to noise or human activity. This potential impact however is expected to be minimal as current human activity, traffic, low flying aircraft, and industrial and agricultural activities in the immediate area have been persistent for years. Expansion of the Airport facilities within the current property boundaries are not expected to indirectly affect the NMMJM due to the distance between proposed facilities expansion areas and occupied habitats.

With the removal of the previously proposed new access road from the planned airport expansion, implementation of the Alternative 3 may affect, is not likely to adversely affect NMMJM.

Southwestern Willow Flycatcher

As discussed in **Chapter 4, Affected Environment**, the Biological Survey completed in 2016 identified small areas of suitable habitat in the Action Area for the SWF. The Biological Survey recommended an additional survey to determine the presence or absence of any SWF; this survey was completed in Summer 2017. The survey included three sites, none of which produced signs of the SWF (see **Appendix K, Southwestern Willow Flycatcher Survey Summary**). As such, it is not expected that the species would be directly impacted by any facilities expansion activities. There would be no construction activities in any of these small habitat patch areas. Consequently, no habitat would be lost as a result of developing Alternative 3.

Construction activities occurring between May and September could have potential effects to migrating or nesting SWF if present. These short-term effects could include avoidance of an area due to noise or human activity, or in the case of nesting flycatchers, nest abandonment.

⁴ Ecosphere Environmental Services, Durango-La Plata County Airport Expansion Biological Assessment, 2017



This potential impact is more likely to effect migratory willow flycatchers as the small habitat patches are currently only marginally suitable for nesting.

There is the potential that sedimentation or accidental spills or leaks of hazardous materials from the Airport property could indirectly affect the quality of potential habitat and the prey base for SWF. Coupled with the other indirect impacts described in this section, Alternative 3, May Affect, and is not likely to Adversely Affect SWF.

On February 28, 2019, the FAA prepared a Biological Assessment (BA) and sent the results to the USFWS as part of their initiation of informal consultation. The FAA requested written concurrence with their effect determination. The USFWS concurred with the FAA's finding of not likely to adversely affect in a letter dated March 29, 2019. See **Appendix J** for the FAA and USFWS correspondence.

5.3 Climate

Although there are no federal standards for aviation-related Greenhouse Gas (GHG) emissions, it is wellestablished that GHG emissions can affect climate. The CEQ has indicated that climate should be considered in NEPA analyses and in 2016 released final guidance for federal agencies on how to consider the impacts of their actions on global climate change in their NEPA reviews, a Notice of Availability for which was published on August 5, 2016 (81 FR 51866). However, pursuant to Executive Order 13783, "Promoting Energy Independence and Economic Growth," of March 28, 2017, the guidance has been withdrawn for further consideration.

For this analysis, GHG emissions associated with construction-related activities during the 2019-2020 construction period as well as the net change in operational emissions between the future 2020 and 2030 No Action Alternative and Action Alternatives (Alternatives 1 through 3) are disclosed. The GHG emissions are presented in metric tons of CO2 equivalent (CO2e) relevant to their Global Warming Potentials (GWP).

The estimated operational and construction-related annual CO2e emissions are presented in **Table 5-6** and **Table 5-7**, respectively. As shown in **Table 5-6**, over the long term, when compared to the No Action Alternative and Alternatives 1 and 2, GHG emissions would slightly increase with Alternative 3 due to the increase in taxi times resulting from the construction of the new terminal on the east side of the airfield. As shown in **Table 5-7**, emissions of GHG would increase over the short-term due to construction activities. For ease of understanding the differences in construction emissions between Alternatives, ACEIT input and output files are provided as Appendix I, ACEIT Inputs and Outputs.

Scenario	CO2e
2015 Baseline	3,611
2020 No Action Alternative /Alternatives 1 and 2	3,919
2020 Alternative 3	4,006
2030 No Action Alternative/ Alternatives 1 and 2	6,511
2030 Alternative 3	6,665

TABLE 5-6 - OPERATIONAL EMISSIONS (METRIC TONS)

Source: KB Environmental Sciences, Durango-La Plata County Airport Air Quality and Climate Assessment, 2017. Note: Project funding may change the terminal construction date; however, for comparative purposes, the initial planned construction date is used throughout this analysis.



Alternative	Year	CO2e
Alternative 1	2019	1,627
	2020	7,277
Alternative 2	2019	7,805
	2020	7,619
Alternative 3	2019	6,132
	2020	10,520

TABLE 5-7 - CONSTRUCTION EMISSIONS (METRIC TONS)

Source: KB Environmental Sciences, Durango-La Plata County Airport Air Quality and Climate Assessment, 2017 Note: Project funding may change the terminal construction date; however, for comparative purposes, the initial planned construction date is used throughout this analysis.

Operations related to Alternatives 1 through 3 would result in no change or a slight increase in GHG emissions over the No Action Alternatives. Implementing either the Action Alternatives or the No Action Alternative would not create a significant impact on Climate.

5.4 Farmlands

In 1981, the Farmland Protection Policy Act (FPPA) was adopted. The purpose of this legislation is to protect farmland lands that are considered to have national significance in terms of being prime or unique or of significance from a state or local perspective. Soil quality and type(s) generally determine if farmland falls into any of these classifications.

As discussed in **Chapter 4** and depicted in **Figure 5-1**, only one area within the Airport boundary, symbol 66, is designated as agricultural land and applicable to the FPPA (the FPPA excludes land dedicated to urban use (including aviation) prior to 1982). This area is west of the existing terminal and parking area and follows the Florida River.





FIGURE 5-1 - NRCS SOILS

Source: NRCS, Web Soil Survey, <u>www.websoilsurvey.nrcs.usda.gov</u>, accessed July 2014 Note: Not to scale

No Action Alternative

The No Action Alternative would not result in any changes to the existing terminal buildings, access roads, or airport operations; therefore, no FPPA protected farmlands would be impacted.

Terminal Alternative 1: Renovate and Expand Existing Terminal and Terminal Alternative 2: Construct New Terminal Adjacent to Existing Terminal

Terminal Alternatives 1 and 2 would only result in changes to the existing terminal building and parking area, neither of which are within or adjacent to an area designated as farmland and protected by FPPA. As such, Alternatives 1 and 2 would not result in any impacts to farmland.



Terminal Alternative 3: Construct New Terminal on East Side of Runway

Terminal Alternative 3 would occur on land designated as not prime (symbol 27) and prime (if irrigated) (symbol 26) (**Figure 5-1**). Although areas designated as prime (symbol 26) occur within the project area, the land was dedicated to aviation use prior to 1982, making it exempt from FPPA. Additionally, none of the land is irrigated and is not currently considered prime farmland. Finally, none of the land within the project boundaries of Alternative 3 is currently being farmed. Therefore, Alternative 3 would not result in any impacts to farmland.

5.5 Hazardous Materials, Solid Waste, and Pollution Prevention

As discussed in **Chapter 4**, no hazardous sites, such as superfund or clean-up sites, occur at DRO. The Airport generates solid waste associated with the operations and maintenance of the Airport and aircraft and is permitted as a small generator through the EPA under a NPDES permit. This section describes the potential impacts that would occur with the implementation of the No Action Alternative and the Action Alternatives.

No Action Alternative

The No Action Alternative would not result in any ground disturbance or changes to existing Airport facilities, nor would it generate any additional waste to what is currently being generated. Therefore, the No Action Alternative would not result in the generation of or disturbance of hazardous materials, solid waste, or pollution.

Terminal Alternative 1: Renovate and Expand Existing Terminal and Terminal Alternative 2: Construct New Terminal Adjacent to Existing Terminal

Hazardous Materials

Alternatives 1 and 2 would occur on previously disturbed land that does not have any known hazardous sites. Hazardous waste (paints/solvents, fuel, lubricants, etc.) may be generated during the construction and demolition phases of these Alternatives. Proper containment practices would be required to reduce and eliminate the release of hazardous materials during construction. Hazardous waste materials would be transported off Airport property and disposed of at a permitted facility.

Solid Waste

Alternatives 1 and 2 would result in an increase of terminal square footage to meet current and future passenger demands. The Alternatives would not result in an increase in solid waste from passengers in the near future as the increase would accommodate existing passengers; however, as passenger numbers increase as forecasted, the amount of solid waste would also increase. This increase would be a result of the air service provided at the Airport, not from Alternatives 1 and 2. The amount of solid waste generated in the short- and long-term would be accommodated by the existing solid waste removal contract with the City. Solid waste will likely be disposed of at the nearest landfill, the Bondad Landfill.

The construction and demolition phase of Alternatives 1 and 2 would result in a short-term increase in the generation of waste. The increase in waste would be accommodated by the Bondad Landfill, which accepts construction waste and has not reached capacity. It is anticipated that the contractor would actively pursue opportunities to reduce waste through best management practices.



Pollution Prevention

As discussed in **Chapter 4**, DRO manages the handling and containment of hazardous materials on Airport property through a National Pollutant Discharge Elimination (NPDES) permit, Storm Water Pollution Prevention Plan (SWPPP), and a Spill Prevention, Control, and Countermeasure Plan (SPCC). These permits and plans ensure the Airport aggressively prevents, to the extent possible, pollution resulting from airport operations. These permits and plans will be followed and updated as needed during construction to reduce and eliminate when possible the potential for the release of pollutants. Additionally, construction plans will specify that contractor ensure all hazardous materials be handled and stored properly.

DRO is also an active participant in a recycling program. DRO strives to participate in the City and County programs, when applicable. The Airport, and its tenants, has recycling bins and dumpsters available for passengers, employees, and tenants to utilize. Both recycling and trash dumpsters are picked up weekly by the City of Durango. The following items are accepted by the City of Durango's recycling program and therefore the Airport has the option to recycle:

- Cardboard and Mixed Paper (newspaper, magazines/catalogs, corrugated cardboard, mixed paper, paperboard, cartons, junk mail, phone books, paper bags, and other miscellaneous items)
- Metals (steel cans, aluminum cans/foils/pie plates, loose metal jar lids/bottle caps
- Plastics (#1-#7 plastic bottles/tubs/jugs/trays/containers
- Glass
- Batteries (Airport does not currently collect, but has the option)
- Electronics/Cell phone (Airport does not currently collect, but has the option)
- Fluorescent light bulbs (Airport does not currently collect, but has the option)
- Mulch (Airport does not currently collect, but has the option)

It is anticipated that similar recycling programs would continue after the new terminal is constructed.

Terminal Alternative 3: Construct New Terminal on East Side of Runway

Hazardous Materials

Terminal Alternative 3 would be constructed in an undisturbed area free of any known hazardous materials. However, similar to Alternatives 1 and 2, the construction phase of the project would include the use of hazardous materials such as paints/solvents, fuel, lubricants, etc. This Alternative also includes the demolition of the existing terminal which would likely result in the use of similar hazardous materials. During both phases, the contractor would be required to properly handle and dispose of hazardous materials and when possible reduce and/or eliminate their use. Hazardous waste materials would be transported off Airport property and disposed of at a permitted facility.

Solid Waste

Alternative 3 would initially be constructed to accommodate the existing number of passengers and would not increase the generation of solid waste; as discussed previously for Alternatives 1 and 2, the number of passengers will likely increase as forecasted. This would result in an increase in solid waste generation as a result of the air service provided at DRO, not the new terminal building. The increase in solid waste would be accommodated by the existing solid waste removal contract with the City. Solid waste will likely be disposed of at the nearest landfill, the Bondad Landfill.



The construction of the new terminal building, upgrade of the access road, and demolition of the existing terminal building will all likely generate solid waste. This increase to the existing generation of solid waste will be short-term and will be hauled to the Bondad Landfill as it accepts construction material. When possible, the contract will be advised to reduce the generation of solid waste and reuse materials as applicable through best management practices.

Pollution Prevention

Alternative 3 also has the potential to release surface pollutants (paints/solvents, fuel, lubricants, etc.) during the construction and demolition phases. The contract will abide by the requirements stated in DRO's NDPES permit, and their SWPPP and SPCC plans. Additionally, construction plans will specify that contractors ensure all hazardous materials be handled and stored properly.

As discussed previously, DRO actively participates in a recycling program. It is anticipated that the airport would continue to participate in this program with the construction of the new terminal.

5.6 Historic, Architectural, Archaeological, and Cultural Resources

The National Historic Preservation Act (NHPA) of 1966, as amended, establishes the Advisory Council on Historic Preservation (ACHP) and the National Register of Historic Places (NRHP) within the National Park Service (NPS). The NHPA instructs federal agencies to preserve and use historic buildings and identify, evaluate, and nominate eligible properties under the control or jurisdiction of the agency to the NRHP.

The Area of Potential Effect (APE) is the area within which an undertaking may directly or indirectly affect a historic property or cultural resource. The APE encompasses areas proposed for disturbance and areas with the potential for noise and/or visual effects, including the view shed (the area which the project may visually impact). The APEs were determined to be the same as the study area as identified earlier in **Chapter 4**.

As stated in **Chapter 4**, a total of five NRHP-eligible sites were identified in the APE during the Cultural Resource Reports completed in 2014 and 2016. The sites include 5LP 10798, 5LP 10804, 5LP 10805, 5LP 10806, and 5LP 10808.

No Action Alternative

The No Action Alternative will not result in any ground disturbance or any other development activities. As such, no impacts to NRHP-eligible or listed properties would result from the Alternative.

Terminal Alternative 1: Renovate and Expand Existing Terminal and Terminal Alternative 2: Construct New Terminal Adjacent to Existing Terminal

Terminal Alternatives 1 and 2 would occur on previously disturbed ground without any known NRHP-eligible properties. The project areas are not in proximity of any of the historic sites identified in the Cultural Resource Survey, as they all occur on the east side of Runway 03/21. The existing terminal building was constructed in 1988, making it less than 50 years old; all adjacent facilities, including the parking lots, have also been constructed since 1970. Therefore, none of the structures would yet qualify for eligibility for the NRHP. As such, no impacts to any resources found to be NRHP-eligible will be impacted by Alternatives 1 and 2. The FAA issued finding of No Adverse Effect to the SHPO and SHPO concurred with the finding, see Appendix J for concurrence letter.



Terminal Alternative 3: Construct New Terminal on East Side of Runway

Alternative 3 would occur on undisturbed land. The project area was included in the Cultural Resource Survey completed in 2014 as part of the 2017 Master Plan. This initial survey, as well as the follow up survey completed in 2016, found five NRHP-eligible sites on Airport property. Of these, sites 5LP 10804, 5LP 10805, 5LP 10806 are in proximity to Alternative 3 project area. None of these sites will be directly impacted by Alternative 3; and the site will retain sufficient physical integrity.

If any unexpected historic discoveries are found during construction of any of the alternatives, activity will stop and the FAA and the SHPO will be contacted.

5.7 Land Use

Historically, aircraft related noise is the most common issue related to airports and compatible land uses. Those impacts are discussed in **Section 5.9**. This section describes how the No Action and Action Alternatives could potentially affect, as well as how existing land uses may affect, the Action Alternatives.

As discussed in **Chapter 4**, DRO's property is designated as Public and Community Facility land use by La Plata County. The areas surrounding DRO are classified as Office/Light Industrial to the north and northwest, and Ag Rural Residential to the west. Small pockets of industrial are to the west and southwest and tribal to the north and northwest. Planning for the future, La Plata County recently released a Comprehensive Plan.⁵ The Plan discusses that future land use plans around DRO should consider higher intensive commercial and industrial uses in and around the Airport. Both land uses are commonly found near airports as they are generally common with airport activity and noise.

No Action Alternative

The No Action Alternative would not include the acquisition of or changes to any land. As such, the Alternative would not result in any impacts to land use on or surrounding DRO.

Terminal Alternative 1: Renovate and Expand Existing Terminal and Terminal Alternative 2: Construct New Terminal Adjacent to Existing Terminal

Terminal Alternatives 1 and 2 would occur on existing property owned and operated by the City of Durango and La Plata County and has a land use designation of Public and Community Facility. Neither Alternative 1 or 2 would result in the acquisition of or changes to any land on or adjacent to DRO. Therefore, Alternatives 1 and 2 would not result in any impacts to land use on or surrounding DRO.

Terminal Alternative 3: Construct New Terminal on East Side of Runway

Terminal Alternative 3 would be constructed in an area currently owned by the City of Durango and La Plata County. The area is designated with the same land use as the rest of the Airport property, Public and Community Facility. Alternative 3 would not change airport operational noise; however, it will change noise associated with surface traffic. As the areas around DRO is developed—specifically on the east side, which would be most impacted by Alternative 3—the City and County should consider designating unclassified or residential areas as commercial or industrial to both satisfy the Comprehensive Plan recommendations as well as ensure compatible land use.

⁵ La Plata County Community Development Services, Comprehensive Plan, 2017



In its current land use designation, the area east of the Airport is left unclassified by the Southeast La Plata Planning District. This makes land use compatibility planning rather difficult as the future uses are unknown. The area is largely undeveloped and rural; however, a few homes are located adjacent to Airport property. These homes will likely experience a minor increase in noise and light impacts resulting from the new terminal and increase in surface traffic. See Sections 5.9 and 5.11 for additional discussion on noise and lighting impacts.

Strictly speaking compatible land use, Alternative 3 would not change the land use designation of the area or any adjacent areas and doesn't include any land acquisition; therefore, not resulting in any impacts to land use compatibility.

5.8 Natural Resources and Energy Supply

Executive Order 13123, Greening the Government through Efficient Energy Management, supports the expansion and use of renewable energy within facilities and activities. It also requires federal agencies to reduce the use of petroleum, total energy use and associated air emissions, and water consumption in facilities. In addition, the FAA encourages the development of facilities that demonstrate high standards of design including principles of sustainability. To satisfy the requirements set forth by NEPA, the FAA must evaluate the proponent's effort in conserving resources, pollution prevention, minimization on aesthetic effects, and addressing public sensitivity to these concerns.

From this, the FAA must also evaluate projects for significant impacts on energy supply and natural resources. Typical actions that have the potential to cause impacts on natural resources and energy supply include: airside/landside expansion; land acquisition for aviation-related use, new or moved access roadways, remote parking facilities and rental car lots; significant changes in air traffic and airfield operations; and significant construction activity.

No Action Alternative

The existing terminal building is reaching the end of its useful life and will continue to deteriorate in the future. The building would likely operate less efficiently in the future and possibly require increased natural resources to continue operation. However, the No Action Alternative would not include any development or changes to the existing aircraft or surface vehicle operation and would therefore not increase the consumption of natural resources, energy, or fuel.

Terminal Alternative 1: Renovate and Expand Existing Terminal and Terminal Alternative 2: Construct New Terminal Adjacent to Existing Terminal

Terminal Alternatives 1 and 2 would require the use of fuel, water, and building materials during remodeling, expansion, construction, and demolition. When possible, locally sourced materials would be used to reduce fuel used for transportation. The use of these resources would be short-term and temporary. Additionally, the increase in use of these resources would be very small when compared to the amount of each resource readily available.

The final build out of both Alternatives would be similar in size and would operate at the same level of efficiency. Alternative 1 includes the complete interior and exterior remodel of the existing terminal building; it is assumed it would be remodeled to operate as efficient as a new building. High-performance modern systems would be used in both Alternatives to capture the benefits of sustainable design principles and reduce operating costs of the new building. The remodeled/expanded terminal and new terminal would be larger than the existing terminal building, which in general would require more energy to heat and cool. However, the existing terminal is older, uses outdated heating and air-conditioning systems, and does not operate as efficiently as the new terminal buildings would; thus, it is likely the energy consumption of the new buildings



would be comparable to what is currently being consumed if not improved. Therefore, it is not anticipated that any long-term increase in the use of natural resource or energy would result from Alternatives 1 and 2.

Neither Alternative 1 or 2 would change how aircraft operate at DRO, therefore, fuel usage would be the same compared to the No Action. Additionally, neither alternative would significantly change how surface vehicles operate as the auto parking areas remain in the same general location to what is currently in place.

Terminal Alternative 3: Construct New Terminal on East Side of Runway

Terminal Alternative 3, similar to Alternatives 1 and 2, would require the use of fuel, water, and building materials during construction and demolition. During construction, locally sourced materials would be used to the extent possible to reduce fuel usage during transportation. The use of the aforementioned resources would be short-term and temporary; when compared to the availability of these resources in the area, the increased usage would not be significant.

Alternative 3 would be larger than the existing terminal which generally would result in more energy to heat and cool; however, as stated with the previous Alternatives, the existing terminal is outdated and does not operate as efficiently as a new building would. The new terminal would incorporate high-performance modern systems to capture the benefits of sustainable design principles and reduce operating costs of the new building. Although the new terminal would be larger, the energy consumption of the new terminal would be reduced. Further, DRO would likely see a significant reduction in energy consumption over the life of the new terminal. As such, it is not anticipated that any long-term increase in the use of natural resource or energy would result from Alternative 3.

Alternative 3 would result in increased fuel usage for commercial aircraft that land to the north on runway 3 as these aircraft would need to taxi south on Taxiway A, along the southwest end of Runway 3 and back to the new terminal. However, the prevailing wind at DRO are from the west and southwest; a majority of the commercial landings at DRO occur on Runway 21. Commercial aircraft landing to the south, on Runway 21, would experience a shortened taxi time to the new terminal in Alternative 3. Commercial aircraft taking off from Runway 21, would experience a longer taxi time; however, when considered with the shortened arrival taxi time, the total taxi time and fuel usage would be comparable to the existing taxi time and fuel usage.

Surface vehicles accessing the new terminal in Alternative 3 would experience an increase in fuel consumption as they would travel an additional 2 miles to reach the new terminal building and parking areas. DRO is currently located approximately 15 miles from the City of Durango; it is assumed that an additional 2 miles of travel would not create a significant increase in fuel consumption.

5.9 Noise and Compatible Land Use

Noise associated with airport activity is of specific importance to the FAA in examining a Proposed Action. Airport development projects that have the potential to change the runway configuration(s); aircraft operations, movements, and types; or aircraft flight characteristics can change the future airport-related noise levels.

As part of this EA, an analysis of aircraft noise at DRO was completed by KB Environmental (see **Appendix L**, **Aircraft Noise Analysis**). The analysis includes a discussion of existing (baseline) aircraft noise as well as forecasted aircraft noise throughout the planning period (2030). None of the Terminal Alternatives impact or influence the forecasted aircraft operations and their associated noise impacts, as all three Terminal Alternatives are proposed as a response to existing and future passenger demands. Further, none of the Alternatives propose a change to approaching or departing aircraft, thus no impact to aircraft noise will result from any of the three Alternatives.



Although aircraft noise will not be impacted by the Action Alternatives, noise related to surface vehicles may change and is evaluated in the following sections.

No Action Alternative

The No Action Alternative will not result in any changes to aircraft operations or surface vehicles. As such, no change to the existing noise at DRO will result from the No Action Alternative.

Terminal Alternative 1: Renovate and Expand Existing Terminal and Terminal Alternative 2: Construct New Terminal Adjacent to Existing Terminal

Terminal Alternative 1 does not include any changes to the existing aircraft operations or parking; Alternative 2 includes a minor expansion of the apron which would result in slight changes to aircraft parking. Neither of these Alternatives would result in any changes to aircraft operations that would result in a change in aircraft noise noticeable outside of the airside operating area at DRO. As shown in **Appendix L, Aircraft Noise Analysis**, the existing and future noise contours stay largely within the airport property boundary. Contours that extend outside of the property are a result of increased operations, not a result of terminal development.

Terminal Alternatives 1 and 2 propose to use the existing airport access roads. The amount of traffic on these roads will increase over time as forecasted operations increase; however, the increase in traffic is not a result of Alternatives 1 and 2 but rather a result of the air service offered at DRO.

Lastly, Alternatives 1 and 2 would result in noise from construction and demolition activities. These noiserelated impacts would be localized to airport property and areas immediately surrounding the proposed project areas. There are no residences or other noise-sensitive land uses within or near the project areas. As such, Alternatives 1 and 2 would not result in impacts to noise-sensitive receptors.

Terminal Alternative 3: Construct New Terminal on East Side of Runway

Similar to Alternatives 1 and 2, Terminal Alternative 3 would not result in any changes to aircraft arrival and departure operations. However, the new location of the terminal would alter aircraft taxiing and parking operations by moving them from the west side to the east side of the runway. The most noticeable aircraft noise is generated during aircraft takeoff rather than during taxiing. Alternative 3 only results in changes to the location of aircraft taxing and the minimal noise associated with this operation. Therefore, it is anticipated that any changes in aircraft noise as a result of Alternative 3 would be insignificant when compared to the overall noise of DRO.

Alternative 3 would result in a change to the Airport access road which also changes the noise associated with surface vehicles. The new traffic would enter airport property as it currently does, but would then travel around the northeast end of Runway 03/21 via the current vehicle service road (to be upgraded), and back to the west on an improved County Road 309A. The change would result in an increase in surface traffic on the east side of the Airport.

Lastly, Alternative 3 would result in construction and demolition-related noise impacts. The demolition-related noise would remain localized to Airport property on the west side of DRO and away from any residences or sensitive noise receptors. Construction-related noise associated with the new terminal would remain primarily on airport property. However, residences are located adjacent to Airport property on the west side and in relatively close proximity to the location of the new terminal building and parking lot. Residents in this area will likely experience noise impacts related to construction; however, the impacts would be short-term and temporary.



Adjacent residents have been made aware of the Action Alternatives and been given the opportunity to express their comments and concerns; no comments expressing concerns with noise have been received. As such, it is not anticipated that Alternative 3 would result in noise impacts.

5.10 Socioeconomics, Environmental Justice, and Children's Health and Safety Risks

Airport development projects have the potential to result in significant impacts to the communities around them. This section looks at impacts to three areas:

- Socioeconomic: potential impacts to social and economic aspects of a community; includes impacts to population, employment, housing, and public services.
- Environmental Justice: potential impacts resulting from unfair treatment or opportunity to be involved in the project due to race, color, national origin, or income.
- Children's Health and Safety: evaluation of projects that may result in disproportionate impacts to children.

No Action Alternative

The No Action Alternative does not require property acquisition, relocation of residences or businesses, alteration of traffic patterns, division of communities, disruption of planned development, nor appreciable changes in employment. In addition, the No Action alternative would not impact low-income or minority populations, nor would it impact children. However, DRO could be significantly restricted in its ability to accommodate growth in air service, changes in aircraft operating at the Airport, and an increase in passengers. This could result in reduced tourism activity and limited air service opportunities at DRO for the surrounding community in the future.

Terminal Alternative 1: Renovate and Expand Existing Terminal and Terminal Alternative 2: Construct New Terminal Adjacent to Existing Terminal

Terminal Alternative 1 proposes to renovate the existing terminal while continuing service. It is anticipated that the renovation may be inconvenient to passengers, airline ticket agents, rental car agents, airport restaurant, and other businesses located within the terminal. However, the inconvenience would be short-term and temporary. It is likely that all businesses and passengers would experience the same level of inconvenience.

Terminal Alternative 2 proposes a new terminal be constructed adjacent to the existing terminal building. This Alternative would allow for construction of the new terminal without significant disruption to the operation of businesses and passengers in the existing terminal. The new terminal would be built in an existing parking lot, reducing parking spaces during construction and before the existing terminal is torn down. This would be an inconvenience for traveling passengers; however, the inconvenience would be short-term and temporary. It is anticipated that all businesses would transition to the new terminal at approximately the same time. Therefore, Alternative 2 would not result in negative socioeconomic, environmental justice, or children's health impacts.

There are no adverse human health or environmental effects associated with Alternative 1 or 2, which would exceed applicable thresholds of significance. As such, no persons of low income or minority populations would be affected as a disproportionately higher level than other population segments. Alternative 2 would not affect products or substances a child is likely to encounter, ingest, use, or be exposed to.



The expanded terminal space in both Alternative 1 and 2 would likely result in positive socioeconomic impacts, as the passenger experience would be improved and additional concession space would be available allowing for new business opportunities. With an improved experience and new concessions, passengers may spend more, creating additional economic benefits.

Terminal Alternative 3: Construct New Terminal on East Side of Runway

Terminal Alternative 3, similar to Alternative 2, would be built without disruption to existing passengers, terminal businesses, and Airport parking. It is anticipated that all businesses would transition into the new terminal building at the same time and result in an improved passenger experience.

Although this Alternative would move the terminal building closer to residents on the east side of the Airport, it does not result in disproportionate impacts to low income or minority populations. Alternative 3 would not affect products or substances a child is likely to encounter, ingest, use, or be exposed to. Therefore, this Alternative would not result in negative socioeconomic, environmental justice, or children's health impacts. As a part of the EA process, all nearby residents have been provided several opportunities to participate in public meetings and provide comments.

Alternative 3 would likely result in positive socioeconomic impacts as the passenger experience would be improved and additional concession space may become available with the new terminal. Together these would result in increased passenger spending and economic benefits to the area.

5.11 Visual Effects

The FAA broadly defines visual effects in two ways: 1) produces light emissions that create annoyance or interferes with activities; or 2) contrasts with, or detracts from, the visual resource and/or the visual character of the existing environment.⁶ These effects can be difficult to assess as they often involve subjectivity, thus there are no federal thresholds of significance.

No Action Alternative

The No Action Alternative would not result in any changes to the lighting or visual environment at DRO.

Terminal Alternative 1: Renovate and Expand Existing Terminal and Terminal Alternative 2: Construct New Terminal Adjacent to Existing Terminal

Terminal Alternatives 1 and 2 would occur on the west side of DRO, within the existing terminal and parking lot areas and away from light-sensitive receptors. The Alternatives would result in a larger terminal building which in return will likely result in increased light emissions. However, when compared to the overall light emissions in this area and in proximity to sensitive light receptors, Alternatives 1 and 2 would not result in a noticeable difference in light emissions.

A Terminal Area Master Plan (TAMP) was completed in 2016 for DRO and included a detailed analysis and conceptual designs for Alternatives 1 and 2. A concept was developed for Alternative 1 that expanded the existing terminal in a linear fashion while raising the departure lounges to a second level to accommodate boarding bridges and create a more condensed footprint on which both ground service equipment and passenger activities could occur simultaneously. A similar and condensed two-level concept was also developed for Alternative 2 that would allow space for all the necessary activities (including boarding bridges) while minimizing the terminal footprint and preserving space for future expansion. Both Alternative concepts



⁶ FAA, 1050.1F Desk Reference, July 2015

maintain that the terminal building be located on the west side of the Airport and not within proximity to any residences or visually sensitive areas. Although the terminal building will change in shape and size, the final design concepts will incorporate ideas to ensure the building is compatible with the colors and textures of the area.

Further, adjacent residents have been made aware of the Action Alternatives and been given the opportunity to express their comments and concerns; no comments expressing concerns with lighting and visual impacts have been received. As such, it is not anticipated that Alternatives 1 and 2 would result in visual impacts.

Terminal Alternative 3: Construct New Terminal on East Side of Runway

Terminal Alternative 3 proposes the terminal be relocated to the east side of the Airport in an area that is not currently developed. Alternative 3 will include the terminal building with interior and exterior lighting, parking lot lighting, roadway lighting, and taxiing aircraft lighting, all of which will be new lighting to the area and adjacent residents. It should be noted that none of the threatened and endangered species found on Airport property are located in this area or areas directly impacted by the new light sources.

The design concept of Alternative 3, as shown in the 2016 TAMP, is similar to Alternatives 1 and 2 with a condensed, two-level concept that would allow space for all the necessary activities while minimizing the terminal footprint and preserving space for future expansion. Although the concept is condensed, it will change the view of the area and those of the adjacent residences. The change will likely be minimal to the residents on the east side of DRO.

5.12 Water Resources

Water resources include all surface waters and groundwaters—wetlands, floodplains, surface waters, groundwater, and wild and scenic rivers. These resources are crucial in providing drinking water and in supporting recreation, transportation and commerce, industry, agriculture, and aquatic ecosystems. The resources do not function separately but rather as a holistic system; as such, they were evaluated for individual impacts as well as impacts to the system as a whole.

As discussed in Chapter 4:

- There are approximately 57 acres of potentially jurisdictional wetlands on Airport property;
- The western most portion of Airport property is located in Zone A, a Special Flood Hazard Area (SFHA) subject to inundation by the one percent annual flood;
- The Florida River is located west of the DRO; and
- The Florida Mesa aquifer is located below Airport property.

No Action Alternative

The No Action Alternative does not include any changes to the existing condition at DRO; therefore, it would not result in any impacts to wetlands, floodplains, surface waters, groundwater, or wild and scenic rivers.

Terminal Alternative 1: Renovate and Expand Existing Terminal and Terminal Alternative 2: Construct New Terminal Adjacent to Existing Terminal

Terminal Alternatives 1 and 2 would be constructed in an area that is currently developed. This area sits upon the Florida Mesa aquifer which gets its recharge from farm and ranch irrigation water and typically has good



water quality and yield. As the aquifer does not largely recharge from water in the development area, Alternatives 1 and 2 would not result in direct impacts to water resources.

Both Alternatives propose a larger terminal building as well as additional parking spaces, resulting in an increase in impervious surface and stormwater runoff. The stormwater runoff in these areas likely contains contaminants such as fuel and oil from parked cars and compounds used to melt ice and snow during the winter months. The contaminants would be collected in the storm drain which would be modified to accommodate the changes to the terminal and increase in runoff. The Airport's NPDES permit and Storm Water Management Plan (SWMP) would be updated to account for the increase in runoff and associated contaminants.

Generally, a larger terminal building would result in increased water usage. However, it is expected that the new terminal building would employ design concepts that reduce water usage compared to the existing terminal building. As the number of passengers increase as forecasted, the demand for water will also increase. This increase would result regardless of the terminal building and is due to the air service at DRO rather than the new terminal building. Therefore, Alternatives 1 and 2 would not result in an increase in water consumption.

During construction and demolition, Alternatives 1 and 2 would use an increased amount of water compared to what is used on a normal basis. The increase would be short-term, temporary, and would be accommodated by existing water sources without creating a water shortage as the existing sources frequently support other development occurring in the area. Best management practices would be used throughout construction to prohibit contamination to runoff and reduce overall water usage and FAA AC 150/5370-10A, Temporary Air and Water Pollution, Soil Erosion, and Siltation Control would be followed.

Terminal Alternative 3: Construct New Terminal on East Side of Runway

Terminal Alternative 3 would be constructed in an area that sits upon the Florida Mesa aquifer which gets its recharge from farm and ranch irrigation water. As the aquifer does not largely recharge from water in the development area, Alternatives 3 would not result in direct impacts to water resources. The Alternative would include the construction of a new water and stormwater drainage system on the east side of the Airport. These will tie into the existing system currently used by the west side facilities and the airfield; however, the existing system would be modified to accommodate the increase in runoff. The runoff from Alternative 3 will contain contaminants associated surface vehicles and parked aircraft; the contaminants will be collected in the stormwater system, protecting the ground water from contamination. The NPDES permit and SWMP would be updated to include the new area and runoff. The new terminal building and associated landscaping would be built with sustainable design practices to reduce water consumption. As such, Alternative 3 would not result in direct impacts to water resources.

A larger terminal building would generally result in an increase in water consumption; however, the new terminal building would use design concepts that improve water use efficiency when compared to the existing terminal building. The number of passengers using the new terminal building initially would be the same as the current terminal building, resulting the same amount of water demand. As the number of passengers increase as forecasted, the demand for water usage would also increase. This increase in passengers is not a result of the new terminal building but rather a result of the air service offered at DRO. Therefore, Alternative 3 would not result in an increase in water consumption.

During construction and demolition, Alternative 3 would use an increased amount of water. The increase would be short-term and temporary. Further, the increase in water consumption would be accommodated by existing water sources used by DRO. Best management practices would be used throughout construction to limit the opportunity for contaminants to reach ground water. Best management practices may include:



- Limit ground disturbance to only areas necessary for project-related development.
- Control sediments and erosion through ground cover, sediment capture, and runoff management.
- Develop an oil response plan in the case of an oil or oil-based product spill.
- Follow FAA AC 150/5370-10A, Temporary Air and Water Pollution, Soil Erosion, and Siltation Control.

5.13 Cumulative Impacts

Cumulative impacts are impacts a Proposed Action may have on resources when added to impacts on a resource due to past, present, and reasonably foreseeable actions within a defined time and geographic area. The CEQ, under NEPA regulations (40 CFR 1508.7), defines a cumulative impact as an "impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonable foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over time."

The following past, present, and future projects, both at DRO and in proximity to Durango were identified and included in the analysis of cumulative impacts:

5.13.1 Past Actions

- On-Airport Actions
 - Rehabilitation of Taxiway A
 - Rehabilitation of Runway 03/21
- Off-Airport Actions
 - US Highway 160/550 Concrete Surface Rehabilitation
 - US 160/US 550 Continuous Flow Intersection
 - US 160 Grandview 4th Lane and Interchange

5.13.2 Current Actions

- On-Airport Actions
 - Interim Terminal Improvements
 - Potential Acquisition of 820 Airport Road
- Off-Airport Actions
 - o U.S. Highway 160 and north Main Avenue Smooth and Resurface
 - City of Durango 13th Street Storm Drain Project
 - City of Durango Thomas Avenue Reconstruction
 - US Highway 160/550 Concrete Surface Rehabilitation

5.13.3 Long-Term Future Actions

- On-Airport Actions
 - Rehabilitation of Runway 03/21
 - o Construct ARFF (Aircraft Rescue Firefighting) Facilities
 - o Replace and Expand Airport Storage Hangar
- Off-Airport Actions
 - City of Durango Sewer Replacements



o City of Durango Rehabilitation of Water Treatment Plant 7mg Water Storage Tank

5.13.4 Environmental Consequences

The following sections provide a brief qualitative analysis of the cumulative impacts associated with the aforementioned projects in conjunction with the Action Alternatives. As discussed previously, the following environmental resources do not occur within this EA's study areas and will not be assessed for impacts:

- Coastal Resources: DRO is in Colorado, a state that does not have any coastal resources.
- Department of Transportation Act, Section 4(f): DRO is located in an area without any Section 4(f) resources in proximity.
- Farmlands: None of the land in proximity to DRO is activity being farmed or protected by the FPPA.
- Land Use: The existing designated land use is compatible with future development.
- Socioeconomic, Environmental Justice, and Children's Environmental Health and Safety Risks: None of the alternatives are found to result in social impacts, health and safety risks to children, and socioeconomic impacts; dividing or disrupting established communities; significantly changing surface transportation patterns; disrupting orderly, planned development; or creating a notable change in employment.
- Visual Effects: None of the alternatives are found to result in visual impacts. Wild and Scenic Rivers: As noted in **Chapter 4**, the nearest Wild and Scenic River is more than 70 miles from the study area.

Air Quality

All three proposed Action Alternatives would continue to emit operational emissions as well as generate additional emissions during construction. Although the Action Alternatives are expected to result in short-term construction emissions and operation emissions, the air quality impacts are not expected to be significant as they are generally related to construction and temporary in nature. Other past, present, and reasonably foreseeable project would add emissions, but if considered in combination, the collective impact of this project would be minimal. As a result, cumulative air quality impacts are not expected to be significant.

Biological Resources

Terminal Alternatives 1 and 2 would not result in any impacts to biological resources. As such, no cumulative impacts would occur when compared to other past, present, and reasonable foreseeable future projects.

Terminal Alternative 3 may affect and is not likely to adversely affect the NMMJM and the SWF. There would be no effect to any other listed species due to the absence of habitat in the Action Area. Since Alternative 3 may affect species, Ecosphere completed a thorough analysis of cumulative impacts as part of the 2017 BA (**Appendix D**). Cumulative impacts are not expected to be significant for either species when considering Alternative 3 with other past, present and reasonably foreseeable actions.

Clim ate

The cumulative impact of the Action Alternatives on the global climate when added to other past, present and reasonably foreseeable future actions is not currently scientifically predictable. Aviation has been calculated to contribute approximately 3% of global carbon dioxide (CO2) emissions; this contribution may grow to 5% by 2050. Actions are underway within the U.S. and by other nations to reduce aviation's contribution through such measures as new aircraft technologies to reduce emissions and improve fuel efficiency, renewable alternative fuels with lower carbon footprints, more efficient air traffic management, market based measures and environmental regulations including an aircraft CO2 standard. The U.S. has ambitious goals to achieve



carbon-neutral growth for aviation by 2020 compared to a 2005 baseline, and to gain absolute reductions in greenhouse gas emissions by 2050.

At present, there are no calculations of the extent to which measures individually or cumulatively may affect aviation's CO2 emissions. Moreover, there are large uncertainties regarding aviation's impact on climate. The FAA, with support from the U.S. Global Change Research Program and its participating federal agencies (e.g., NASA, NOAA, EPA, and DOE), has developed the Aviation Climate Change Research Initiative (ACCRI) to advance scientific understanding of regional and global climate impacts of aircraft emissions, with quantified uncertainties for current and projected aviation scenarios under changing atmospheric conditions.

Hazardous Materials, Solid Waste, and Pollution Prevention

All three Action Alternatives would result in the generation of solid waste during construction and demolition as well as the potential to release pollutants. However, the increase in solid waste would be temporary and generally related to construction. When considered with other past, present, and reasonable foreseeable future projects, the solid waste would be accommodated by the existing landfill. Further, all three Alternatives will incorporate best management practices to reduce the chance of pollution, which is likely included in other development project plans. Therefore, it is unlikely that a significant amount of pollution would be generated and released into the environment.

Historical, Architectural, Archeological, and Cultural Resources

Historical, architectural, archeological, and cultural resources do not occur within the project area for any Action Alternatives. Cultural sites do occur in an area adjacent to the Terminal Alternative 3; however, this area will not be touched during construction nor is it slated for development in the future. When considered with other past, present, and reasonable foreseeable future projects, cumulative impacts to historical, architectural, archeological, and cultural resources would not result.

Natural Resources and Energy Supply

All three Action Alternatives result in an increase in fuel, water, and building materials during remodeling, expansion, construction, and demolition. The increase would be short-term, temporary, and easily accommodated by existing sources without creating a shortage in the resources. No other planned development projects at the Airport or within the area anticipate using an abundance of natural resource or energy that cannot be accommodated by existing sources without creating a shortage in the resource. As such, when compared to other past, present, and reasonable foreseeable future projects; cumulative impacts on natural resource and energy supply will not occur.

Noise and Compatible Land Use

The three Terminal Alternatives would result in localized noise impacts related to construction. Terminal Alternative 3 results in increased noise on residents located east of DRO. However, none of these impacts are considered significant impacts to noise-sensitive areas. When considered with other past, present, and reasonable foreseeable future projects; no other planned projects will result in long-term noise impacts or the construction of sensitive noise receptors near DRO. As such, no cumulative impacts will result.

Water Resources

Water resources, to include wetlands, floodplains, surface waters, and groundwater were not found to be significantly impacted by any of the Action Alternatives. As such, cumulative impacts would not result when considered with other past, present, and reasonable foreseeable future projects.



5.14 Conclusion of Impacts

Based on the information and data presented throughout this chapter, it is found that there would be no significant impacts as a result of the Action Alternatives (see **Table 5-8**).

Environmental Deservice	Terminal Alternatives		
Environmental Resource	No Action Alt.	Alt. 1 and 2	Alt 3
Air Quality	None	Not Significant	Not Significant
Biological Resources	None	None	Not Significant
Climate	None	Not Significant	Not Significant
DOT Section 4(f)	None	None	None
Farmlands	None	None	None
Hazardous Materials, Solid Waste, and Pollution Prevention	None	Not Significant	Not Significant
Historic, Architectural, Archaeological, and Cultural Resources	None	None	Not Significant
Land Use	None	None	None
Natural Resources and Energy Supply	None	Not Significant	Not Significant
Noise and Compatible Land Use	None	Not Significant	Not Significant
Socioeconomics, Environmental Justice, and Children's Health and Safety Risks	Impacts to tourism industry	Not Significant	Not Significant
Visual Effects	None	Not Significant	Not Significant
Water Resources	None	Not Significant	Not Significant
Cumulative Impacts	None	Not Significant	Not Significant

Source: Jviation



6. CONSULTATION, COORDINATION, AND PUBLIC OUTREACH

6.1 Public and Agency Involvement

As required by the National Environmental Policy Act (NEPA), Federal Aviation Administration (FAA) Order 1050.1F, *Environmental Impacts: Policies and Procedures,* and FAA's Community Involvement Policy Statement,¹ a public involvement process was completed as part of this EA. The process gathered public input regarding the Proposed Action and reasonable alternatives described and analyzed in this Environmental Assessment (EA). The public involvement process was initiated to:

- Provide information to the public about the Proposed Action's purpose and need and the alternatives the EA discusses;
- Obtain feedback regarding information assessed in the EA from the public and agencies interested in and affected by the Proposed Actions (i.e., interested parties);
- Notify interested parties that the EA will provide a complete analysis of environmental effects resulting from the Proposed Actions;
- Provide public notices to the interested parties regarding opportunities to submit comments and participate in public meetings concerning the Proposed Actions; and
- Document comments received throughout the process.

6.2 Public Involvement and Agency Coordination Approach and Process

Applicable federal and state statutes, regulations, executive orders, and guidance were considered throughout the public involvement process in this EA. An assessment of public and agency concerns with the Proposed Actions was created by soliciting and responding to comments and questions from interested parties. From this it was determined whether additional analyses and/or mitigation measures were needed in this EA. **Table 6-1** summarizes meetings held in conjunction with the public involvement process completed in this EA. Presentations, notices, comments and responses to comments can be found in **Appendix J**.

Meeting	Meeting Type	Location	Attendance	Comments
11/4/2015	Landowner	Airport Conference Room	21	
	Southern Ute Indian Tribe	Airport Conference Room	15	
	Agency Coordination	Airport Conference Room	14	
11/19/2015	Airport Advisory Commission	Airport Conference Room	10	
12/8/2015	Tribal Coordination	Conference Call	8	
2/18/2016	Agency Coordination	LaPlata County Public Works	9	
4/19/2016	Joint Study Session	LaPlata County Admin Bldg. Board Room	20	
	Landowner	Airport Conference Room	16	
4/20/2016	Open House	LaPlata County Admin Bldg. Board Room	19	Yes
4/21/2016	Open House	Ignacio Town Hall	18	Yes
	Airport Advisory Commission	Airport Conference Room	10	
5/25/2016	Agency Coordination	CDOT Region 5 Office	12	

TABLE 6-1 – SUMMARY OF PUBLIC MEETINGS

¹ Federal Aviation Administration, *Community Involvement Policy Statement*, April 17, 1995.





Meeting	Meeting Type	Location	Attendance	Comments
9/1/2016	Agency Coordination	Durango City Hall Council Chambers	7	
10/27/2016	Agency Coordination	LaPlata County Admin Bldg. Board Room	13	
11/17/2016	Airport Advisory Commission	Airport Conference Room	10	
1/10/2017	Joint Study Session	LaPlata County Admin Bldg. Board Room	20	
2/14/2017	Joint Study Session	Durango City Hall Council Chambers	20	
2/16/2017	Airport Advisory Commission	Airport Conference Room	10	
11/3/2017	Agency Coordination	LaPlata County Admin Bldg. Board Room	8	
11/16/2017	Airport Advisory Commission	Airport Conference Room	10	
12/13/2018	Landowner – DEA	Airport Conference Room	10	2
12/13/2018	Airport Advisory Commission - DEA	Durango City Hall Council Chambers	13	1
12/13/2018	Public Hearing - DEA	Durango City Hall Council Chambers	0	

Source: Jviation

6.3 Early Public and Agency Notification and Coordination

Early coordination letters regarding the EA were mailed out to interested agencies in December 2015. The letters requested input from federal, state, and local agencies concerning potential adverse environmental effects associated with the Proposed Actions and alternatives.

The letter included a brief description of the project, an overview of the alternatives, a list of preliminary environmental resource impacts, proposed project scheduled, and the distribution list (see **Appendix J** for sample letter and attachments). **Table 6-2** provide a summary of the agencies that received a coordination letter and their response (if applicable):

Agency Contacted	Written Response Received	Summary of Comments
City of Durango	No	NA
Colorado Cattlemen's Agricultural Land Trust	Yes	Request to avoid any expansion or renovation of the airport that impacts the McCaw Ranch in any way and to copy CCALT on any correspondence with Mr. Paul McCaw should any plans include an impact to the property
Colorado Department of Transportation (CDOT)	No	NA
Colorado Dept. of Public Health and Environment	No	NA
Durango-La Plata County Airport Commission	No	NA
Environmental Protection Agency (EPA)	Yes	Recommends that alternative roadway crossings are further evaluated in the Final EA to reduce wetland impacts as required in EO 11990 and the Section 404(b)(1) Guidelines (404 permit review)
Federal Aviation Administration	No	FAA was sent the initial scoping letter but a response was not anticipated as they are actively involved with the project and have given their comments throughout the process. Their comments are incorporated into the DEA and FEA
La Plata County	No	Assumed concurrence as no response was received
La Plata County Historic Preservation	No	Assumed concurrence as no response was received

TABLE 6-2 – SUMMARY OF AGENCY COORDINATION



Agency Contacted	Written Response Received	Summary of Comments
La Plata County Public Works	Yes	 Any minor source permits would be permitted through the EPA Assess water resources to support larger development process and access improvements Mitigation measures for adverse impacts on neighboring properties Contact Victoria Schmitt or Jim Davis if interested in using the proposed Airport Business Park project (2009-2012) as background for the EA (comment given under themes: Noise and Compatible Land Use & Socioeconomic, Environmental Justice, and Children's Environmental Health and Safety Risks) Contact Christi Zeller at the La Plata County Energy Council regarding Natural Resources and Energy Supply Mitigation measures to minimize noise and achieve land compatibility Mention Migratory Bird Treaty Act (MBTA) Remove vegetation prior to April and conduct a sight survey for any nests prior to construction Golden Eagle nest was located at runway end; Bald and Golden Eagle Protection Act of 1940 prevents "taking" of an eagle ("take permit" received and nest removed)
State Historic Preservation Office (SHPO)	Yes	Coordinate between Section 106 and NEPA
State of Colorado Department of Natural Resources	Yes	 See U.S. Army Corps of Engineers requirements for a mitigation plan for impacted wetlands (not included in the scoping notice); CPW recommends off-site wetland mitigation Monitor the southeastern end of the runway for eagle activity Recommended removal of two cottonwood trees that have the potential for bald eagle winter roots Recommended 8' tall game fence
State of Colorado Department of Public Health & Environment	No	NA
Town of Ignacio	No	NA
U.S. Army Corps / Durango Regulatory Office	No	NA

Source: Jviation

6.4 Draft EA Notification and Distribution

The Draft EA was released for public comment on November 13, 2018. Comments were accepted through December 27, 2018. To facilitate comments, a public hearing was held on December 13, 2018. The public hearing did not have any attendees. The USFWS requested a copy of the Draft EA and provided written comments in a letter dated December 21, 2018. Presentations, notices, comments and responses to comments associated to the Draft EA can be found in **Appendix M**.

6.5 Changes in Final EA

The Final EA incorporates changes from the Draft EA as outlined in **Table 6-3**. The changes are minimal and largely associated to the selection of Alternatives 1 and 2 as a combined proposed action and additional agency coordination. As discussed in Chapter 3, at the conclusion of the public comment period, the Airport reviewed the three action alternatives and determined that a combination of the Alternatives 1 and 2 would be the best option in moving forward. The Airport Advisory Commission unanimously voted on January 24th, 2019 to select the combination of Alternative 1 and 2 as the Proposed Action. With this decision being made, the FAA sent



final coordination letters to the USFWS and SHPO requesting comments and concerns with moving forward on the combined Alternatives 1 and 2. These coordination letters can be found in **Appendix J**.

TABLE 6-3 - SUMMARY OF CHANGES MADE TO FINAL EA

Chapter 1 – minor modification to text in Section 1.
Chapter 2 – minor modification to text in Section 2.
Chapter 3 – minor modification to text in Section 3.2.8.
Chapter 3 – addition of Section 3.2.9 to discuss the selection of combined Alternatives 1 and 2 as the proposed action.
Chapter 4 – no changes
Chapter 5 – addition of USFWS coordination to Section 5.2
Chapter 5 – addition of SHPO coordination to Section 5.6
Chapter 5 – Alternatives 1 and 2 combined for review under Section 5.10
Chapter 5 – Table 5-8 updated to show Alternatives 1 and 2 under one column
Chapter 6 – Table 6-1 updated to include public meetings and hearing associated with the Draft EA
Chapter 6 – Section 6.4 updated to include public notification information for the Draft EA
Chapter 6 – Section 6.5 and Table 6-2 added to discuss changes made from the Draft EA to the Final EA.
Chapter 7 – no changes
Chapter 8 – no changes
Chapter 9 – no changes
Chapter 10 – appendices updated as needed

Source: Jviation





7. GLOSSARY AND ABBREVIATIONS

4CAQTF - Four Corners Air Quality Task Force

AC (ADVISORY CIRCULAR) - An advisory document produced by the FAA to establish standards, specifications, processes, and procedures for FAA regulated programs.

ACCRI - Aviation Climate Change Research Initiative

ACEIT - Airport Construction Emissions Inventory Tool

ACHP - Advisory Council on Historic Preservation

AEDT - Aviation Environmental Design Tool- software system that models aircraft performance in space and time to produce fuel burn, emissions and noise

AIRFIELD - A defined area on land or water including any buildings, installations, and equipment intended to be used either wholly or in part for the arrival, departure, and movement of aircraft.

AIRPORT - Durango- La Plata County Airport

AIRPORT MASTER PLAN - A concept of the long-term development of an airport. The Airport Master Plan displays this concept graphically and documents the data and logic upon which the plan is based.

- APE Area of Potential Effect
- APUs auxiliary power units
- ARFF aircraft rescue and firefighting
- AST above-ground storage tanks
- ATO airline ticket offices
- **BA Biological Assessment**
- BCC Birds of Conservation Concern
- BCR Bird Conservation Region
- CAA Clean Air Act
- **CBRA** Coastal Barriers Resources Act
- **CBD** Central Business District
- CDOT Colorado Department of Transportation

CDPHE APCD - Colorado Department of Public Health & Environment Air Pollution Control Division

- CEQ Council on Environmental Quality
- CERCLA Comprehensive Environmental Response, Compensation, and Liability Act





- CFR Code of Federal Regulations
- CPW Colorado Parks and Wildlife
- CO carbon monoxide
- CO2e CO2 equivalent
- dB decibels
- DME Distance Measuring Equipment
- DNL Day-Night Sound Level- a noise measurement taken over 24 hours
- DOE Department of Energy
- DRO Durango- La Plata County Airport
- DOT Department of Transportation
- DTG Dual Tandem Wheel Gear
- EA Environmental Assessment
- EDMS Emissions and Dispersion Modeling System
- **EPA Environmental Protection Agency**
- ESA Environmental Site Assessment
- FAA Federal Aviation Administration
- FBO Fixed-Base Operator
- FEMA Federal Emergency Management Agency
- FHU Felsburg, Holt, & Ullevig
- FHWA Federal Highway Administration
- FIRM Flood Insurance Rate Map
- FPPA Farmland Protection Policy Act

GA - General Aviation- unscheduled aviation activities that generally fall into one of six categories: personal, instructional, corporate, business, air taxi and other.

- GHG greenhouse gas
- GSE ground support equipment
- **GWP** Global Warming Potentials
- HIRL High Intensity Runway Lights
IATA - International Air Transportation Association

ICAO - International Civil Aviation Organization

IGA - Intergovernmental Agreement- an agreement that is made between two or more governmental organizations to solve problems of mutual concern.

- ILS Instrument Land System
- IPaC Information for Planning and Conservation
- LEQ 24-hour Equivalent Sound Level
- LOS Level of Service

MALSR - Medium Intensity Approach Lighting System with Runway Alignment Indicator Lights

MSL - Mean Sea Level

NAAQS - National Ambient Air Quality Standards

NASA - National Aeronautics and Space Administration

NAVAIDs - Navigational Aids

NEPA - National Environmental Policy Act

NHPA - National Historic Preservation Act

NMMJM - New Mexico Meadow Jumping Mouse

NPDES - National Pollutant Discharge Elimination

NPIAS - National Plan of Integrated Airports System

NPS - National Park Service

NO2 - nitrogen dioxide

NOAA - National Oceanic and Atmospheric Administration

NOx - Nitrogen oxides

NRCS - Natural Resources Conservation Service

NRHP - National Register of Historic Places

NWI - National Wetland Inventory

O3 - ozone

PAC- Planning Advisory Committee

PAPI - Precision Approach Path Indicators



PARTNER - Partnership for Air Transportation Noise & Emissions Reduction

- Pb lead
- PM particulate matter
- PM2.5 a diameter of 2.5 microns or less
- PM10 particulate matter with a diameter of 10 microns or less
- RCRA Resource Conservation and Recovery Act
- **REC Recognized Environmental Condition**
- **RDR Runway Distance Remaining Signs**
- **REIL Runway End Identifier Lights**
- **RNAV Area Navigation**
- RON remain overnight- parking areas for aircraft at the terminal, staying overnight
- **RPZ Runway Protection Zone**
- SARA- Superfund Superfund Amendments and Reauthorization Act of 1986
- SEAS Stratified Environmental & Archaeological Services, LLC
- SED Southeast La Plata Planning District
- SFHAS Special Flood Hazard Area
- SHPO State Historic Preservation Office
- SIPs a specific plan to attain the standards for each area designated nonattainment for a NAAQS
- SME SME Environmental Consultants
- SO2 sulfur dioxide
- SOx sulfur oxide
- SPCC Spill Prevention, Control, and Countermeasure Plan
- SUIT Southern Ute Indian Tribe
- SUIT/CO Commission Southern Ute Indian/State of Colorado Environmental Commission
- SWF Southwestern Willow Flycatcher
- SWG Single Wheel Gear
- SWMP Storm Water Management Plan
- SWPPP Storm Water Pollution Prevention Plan

TAF - Terminal Area Forecast- the official FAA forecast of aviation activity for U.S. airports included in the National Plan of Integrated Airport Systems (NPIAS)

TAMP - Terminal Area Master Plan

- TCPs Native American Traditional Cultural Properties
- TSA Transportation Security Administration
- USC United States Code
- USFWS U.S. Fish and Wildlife Service
- VASI Visual Approach Slope Indicators
- VOC volatile organic compound
- VOR VHF Omnidirectional Range
- WHA Wildlife Hazard Assessment
- WUS Wetland and Waters of the U.S.



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8. **REFERENCES**

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9. LIST OF PREPARERS

9.1 Lead Agency

The Federal Aviation Administration (FAA) is the lead agency for the preparation of this Environmental Assessment (EA). The following FAA staff were involved in the preparation of this EA:

9.2 Principal Reviewers

Responsibility for review of this EA rests with the FAA. The following persons are the principal FAA individuals responsible for the review of EA in accordance with Council on Environmental Quality (CEQ) Regulations Section 1502.7 and Paragraph 1007j of FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions.*¹

• Kandice Krull, Environmental Protection Specialist

9.3 Principal Preparers

Responsibility for the preparation of this EA rests with the Airport. DRO employees and consulting firms primarily responsible for the preparation of this EA are listed below. Consultants retained by DRO to complete this EA include firms with experience in civil design, architectural design, and environmental planning. All decisions regarding the content, scope and methodology of this EA analysis were made by the Airport with review and input from the FAA.

9.3.1 Durango-La Plata County Airport

• Tony Vicari, Director of Aviation - provided information and project insight, reviewed documents, and assisted in agency coordination.

9.3.2 Civil and Architectural Design Consultants

The Airport retained several firms to assist with civil and architectural design. The following staff provided expertise for use in the EA:

RS&H

- Michael Spitzer, AIA, NCARB, LEED AP BD+C Terminal Planning (Architecture)
- Michael Becker, AICP, CM Terminal Planning (Planning)

Felsburg, Holt & Ullevig

- Lyle DeVries, PE, PTOE Traffic Analysis and Document Preparation
- Shea Suski, AICP Traffic Analysis and Document Preparation

¹ Federal Aviation Administration, Order 5050.4B, National Environmental Policy (NEPA) Implementing Instructions for Airport Actions, April 26, 2006.





9.3.3 Environmental Planning Consultants

The Airport retained the Jviation Inc. Team to prepare this EA. The following Jviation Inc. Team staff were involved in the preparation of this EA:

Jviation, Inc.

- Travis Vallin, Principal FAA and State Liaison, Public Involvement
- Hilary Fletcher, MPA, Director of Community and Governmental Affairs Community & Governmental Affairs and Public Involvement & Outreach
- Renee Dowlin, AICP, Senior Environmental Consultant Project Management, Document Review, Agency Coordination
- Ben Gonzales, PE, Senior Project Manager Engineering and Design Management
- Morgan, LEED GA, Environmental Planner Environmental Analysis, Document Preparation and Review
- Wendy Neufeld, Senior Marketing Coordinator Document Review

Ecosphere Environmental Services

• Mike Fitzgerald, Principal – Project Management, Document Preparation and Review

KB Environmental Sciences, Inc.

- Carol Fowler, President Project Oversight and Document Preparation
- Paola Pringle, Senior Environmental Engineer/Air Quality Specialist Document Preparation

Stratified Environmental and Archaeological Services, LLC

- Doug Loebig, Principal Archaeologist Project Oversight, Testing, Document Preparation
- Douglas Lynne, Archaeologist Testing, Document Preparation
- Ian Geoffrey Thompson, Archaeologist Testing
- Jamie Karlson, Archaeologist Testing
- Lawson Nerenberg, Archaeologist Testing

SME Environmental, Inc.

- Sean Moore, Principal Project Oversight
- Clint Casey, Environmental Scientist Project Oversight, Testing, Document Preparation



10. APPENDICES

Appendix A, Durango-La Plata County Airport 2017 Master Plan

- Appendix B, FAA Land Acquisition CATEX Approval
- Appendix C, Biological Resource Survey
- Appendix D, Biological Assessment
- Appendix E, Cultural Resource Inventory for Phase I of the Durango-La Plata County Airport Master Plan
- Appendix F, Phase I Environmental Site Assessment
- Appendix G, Preliminary Traffic Analyses
- Appendix H, Wetland and Waters of the U.S. (WUS) Preliminary Jurisdictional Delineation Report
- Appendix I, Construction Emissions ACEIT Inputs and Outputs
- Appendix J, Public and Agency Coordination
- Appendix K, Southwestern Willow Flycatcher Survey Summary
- Appendix L, Aircraft Noise Analysis
- Appendix M, Draft EA Public Hearing and Comments





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