

### **1.1 Introduction**

The Grand Junction Regional Airport Authority (Airport Sponsor) is proposing to relocate Runway 11/29 at the Grand Junction Regional Airport (Airport) to meet current Federal Aviation Administration (FAA) design standards and to eliminate intersecting runways at the Airport. In order to enable the runway relocation, land must be acquired from the Bureau of Land Management (BLM).

The proposed action, and the associated request for federal grant assistance, requires review and approval by the Federal government. This Environmental Assessment (EA) has been prepared for the Federal government by a third party contractor on behalf of the Airport, to identify the potential environmental effects of the proposed land transfer and runway relocation.

Before a Federal agency can approve such actions, that agency is required to comply with the requirements of the National Environmental Policy Act of 1969 (NEPA). In this particular case, the FAA and the BLM are joint lead agencies. The FAA is the agency responsible for reviewing and approving Federal actions that pertain to airports. The BLM is the agency responsible for reviewing and approving the FAA's request for the land transfer on behalf of the Airport Sponsor in accordance with the Federal Land Policy and Management Act (FLPMA) of 1976 and Section 516 of the Airport and Airway Improvement Act of 1982.

### **1.2 Plan Conformance Review**

The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3):

Name of Plan: Grand Junction Field Office Approved Resource Management Plan  
Date Approved: August 2015  
Decision Number/Page: 169, 174, 93, 100, 122  
Decision Language: L&R-Goal-02: Adjust BLM land ownership patterns and implement other realty actions (e.g., withdrawals and easements) to meet resource and community needs. L&R-AU-07: Disposals: Identify 10,200 acres as available for disposal ... (Figure 2-10, Appendix A). Lands identified for the Grand Junction Regional Airport expansion are classified as available for disposal in the RMP.

L&R-Goal-01: Meet resource needs while providing public use authorizations such as rights-of-way (ROWs), renewable energy sources, permits, and leases. L&R-OBJ-01: Provide for the development and operation of transportation systems, pipelines, transmission lines, communication

sites, renewable energy resources, and other land use authorizations in an environmentally responsible and timely manner.

The RMP classifies the project area as an avoidance area for ROWs. Avoidance areas are sensitive to development. These areas may not be totally unavailable, but should be avoided if possible. Projects in these zones are designed to protect resources of concern from undue damage. REC-Goal-01: Produce a diversity of quality recreational opportunities that support outdoor-oriented lifestyles and add to participants' quality of life, enhance the quality of local communities, and foster protection of natural and cultural resources. REC-SRMA-MA-01: Designate five SRMAs for the protection of the prescribed recreation outcomes and settings (87,200 acres) (Figure 2-7, Appendix A) – Grand Valley OHV (9,700 acres). 27 ¼ Road and 29 Road provide relatively easy access from the Grand Valley, and offer opportunities for development of recreation support facilities such as parking/unloading areas, informational signage, restrooms, campsites, and event venues.

### 1.3 Project Location and Legal Description

As illustrated in Figures 1-1 and 1-2, the Grand Junction Regional Airport is located in Grand Junction, Colorado, within Mesa County in west central Colorado. Through the alternatives development process of this EA, the initial 720-acre proposed land transfer was reduced to approximately 188 acres, as officially described below. The proposed project area is situated in Section 23 and Section 24 of Township 1 North, Range 1 West and in Section 19 and Section 30 of Township 1 North, Range 1 East of the Ute Principal Meridian, County of Mesa, State of Colorado, said parcels being more particularly described as follows:

Parcel A

Ute Principal Meridian

T. 1 N., R. 1 W.,

sec. 23: S1/2NE1/4.

Parcel B

Ute Principal Meridian

T. 1 N., R. 1 E.,

sec. 19: Lot 6,

sec. 30: Lots 6, 8, 9 and 11;

T. 1 N., R. 1 W.,

sec. 24: Lots 2 and 3.

The area described aggregates approximately 188.04 acres.



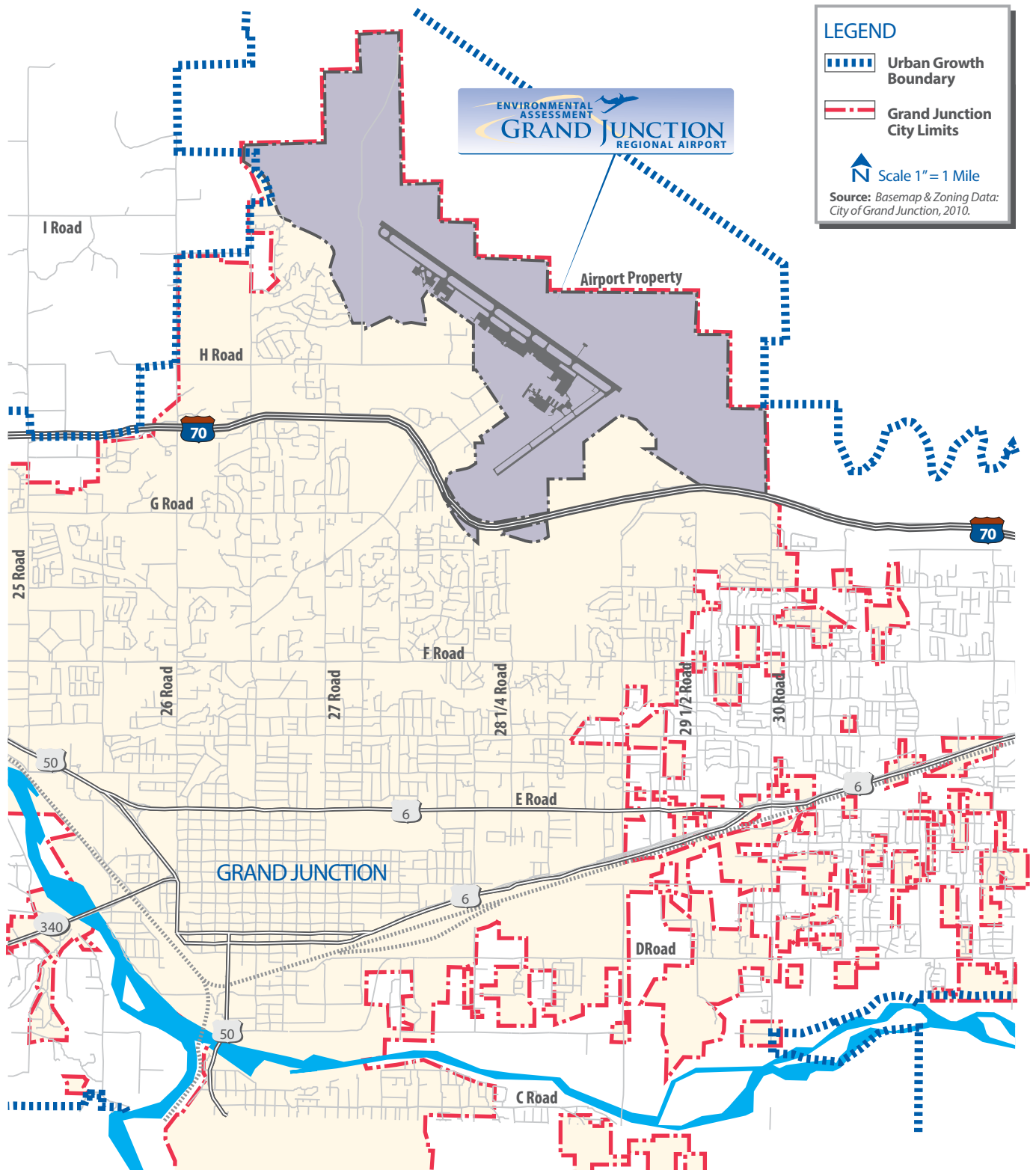


Figure 1-2 Airport Vicinity Map

## 1.4 Background

The Airport is located approximately 3.5 miles northeast of downtown Grand Junction and is owned and operated by the Grand Junction Regional Airport Authority Board. The Board is composed of seven appointed members: three appointed by Mesa County Commissioners, three appointed by the Grand Junction City Council, including one Council member, and one Board-appointed at-large member with County Commissioners and City Council approval.

The Airport encompasses 2,357 acres and is located at 4,858 feet above mean sea level. The FAA classifies the Airport as a non-hub, commercial service airport (FAA Site number 02624). The Airport has two runways; Runway 11/29 and Runway 4/22. The primary runway, Runway 11/29, is 10,501 feet in length and 150 feet in width. The crosswind runway, Runway 4/22, has a length of 5,501 feet and a width of 75 feet and intersects the existing Runway 11/29 near the Runway 29 threshold. Runway 4/22 is closed from 2200 (10 p.m.) to 0600 (6 a.m.) for safety reasons (due to the intersecting runways and the closure of the Air Traffic Control Tower (ATCT) during the same time frame). However, it is important to note that resolution of the nighttime closure of Runway 4/22 is not part of the purpose and need for this EA.

In addition to the two runways, the airside facilities at the Airport consist of several taxiways that provide access to the terminal area and other aviation facilities. The landside development at the Airport includes commercial passenger terminal facilities, an ATCT, aircraft parking aprons, Fixed Base Operator (FBO) facilities, general aviation facilities, fuel storage facilities, and access roadways. Figure 1-3 provides a graphic illustration of the existing airport facilities.

### 1.4.1 Non-Standard Conditions

The 2009 Airport Master Plan Update documented several non-standard conditions associated with Runway 11/29 and its associated connector taxiways. Runway 11/29 has several deficiencies related to FAA design standards including the transverse gradient, longitudinal gradient, and the Runway Visibility Zone (RVZ). In other words, the runway is too steep in various areas, and the intersection of the two runways creates a safety problem in that there are hangars and buildings that block the line of sight for pilots operating simultaneously on the two runways.

The transverse gradient on Runway 11/29 exceeds recommended maximum design standard of 1.5 percent, and the longitudinal gradient also exceeds the recommended maximum design standard of 0.8 percent/1.5 percent (the maximum longitudinal gradient varies). The longitudinal gradient on a number of the connecting taxiways exceed the recommended maximum design standard of 0.8 percent. Additionally, there are several structures that obstruct the line of sight in the RVZ created by the intersecting runways. Between 1995 and 2008, the FAA approved several modifications to standards for these conditions; however, these modifications were always intended to be temporary until the Airport could develop a plan to feasibly correct these deficiencies.

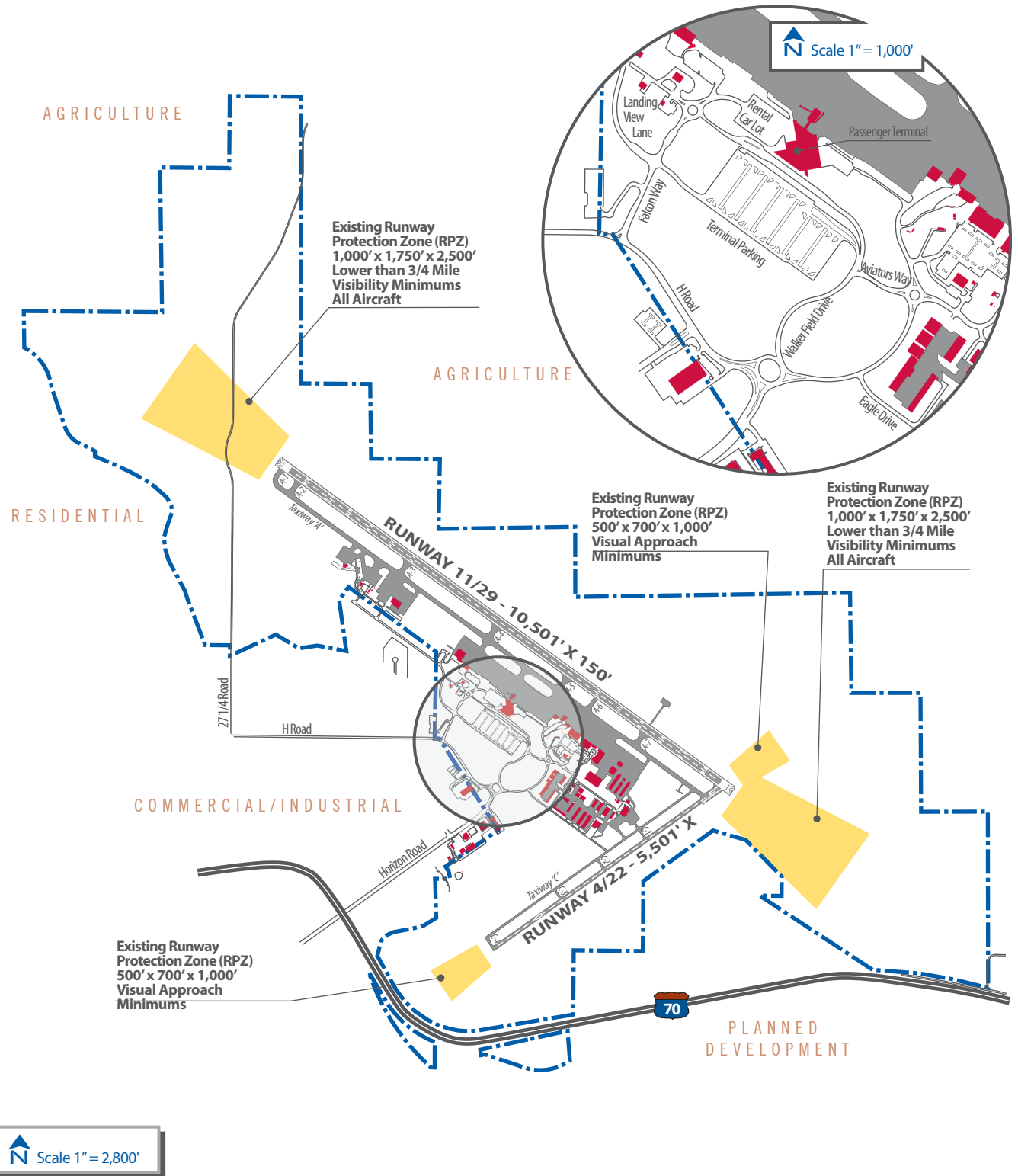


Figure 1-3 Existing Airport Layout



### 1.4.2 Existing and Future Airport Activity

FAA classifies airports based on the level and type of activity served. Grand Junction Regional Airport is presently classified as a non-hub, commercial service airport. Currently, the Airport is served by several commercial airlines on a yearly basis including: United /United Express with daily service to Denver and Houston; Delta Connection with daily service to Salt Lake City; American Eagle/American Airlines with daily service to Phoenix and Dallas; and Allegiant Air with weekly service to Las Vegas and Los Angeles.

The latest aviation activity forecast for the Airport is presented in Table 1-1. An aircraft operation is defined as either one takeoff or one landing. Itinerant operations are defined as operations to or from the Airport that originate or terminate at another airport. Local operations are defined as operations conducted within the vicinity of the Airport that both originate and terminate at the Airport. The forecasts below, while not completed specifically for this EA, will be used for the analysis completed in Chapter 4.

Table 1-1  
**SUMMARY OF FAA APPROVED TERMINAL AREA PLAN FORECAST**  
*Grand Junction Regional Airport Environmental Assessment*

<b>Operations</b>	<b>2010<sup>(1)</sup></b>	<b>2015</b>	<b>2020</b>	<b>2025</b>	<b>2030</b>
<i>Commercial Service</i>	11,100	11,640	13,329	15,321	17,618
Narrow Body	492	700	833	983	1,160
Regional Jet	6,808	9,600	11,424	13,480	15,772
Turbo Prop	3,800	1,340	1,072	858	686
<i>Air Taxi</i>	7,577	7,878	8,529	9,233	9,996
<i>General Aviation</i>	36,844	35,413	37,404	39,507	41,728
Single Engine Piston	22,106	20,717	21,320	21,926	22,533
Multi-Engine Piston	1,842	1,771	1,870	1,975	2,086
Turbo Prop	2,948	2,833	2,992	3,161	3,338
Business Jet	9,211	9,207	10,099	11,062	12,101
Helicopter	737	885	1,122	1,383	1,669
<i>Military</i>	4,814	4,814	4,814	4,814	4,814
<b>Total Operations</b>	<b>60,335</b>	<b>59,754</b>	<b>64,076</b>	<b>68,875</b>	<b>74,156</b>

**Source:** BARNARD DUNKELBERG & COMPANY.

<sup>1</sup> Actual November 2009 through October 2010

**Note:** While the above forecast is based on 2010 data, the FAA still considers the forecast valid.

Increases in annual aircraft operations are expected to occur for all aircraft types (with the exception of military operations), with a substantial portion of the increase expected from commercial service airlines.

The types of aircraft presently utilizing an airport, and those projected to use the facility in the future, are important considerations for planning airport facilities and determining the design

standards used for those facilities. An airport should be designed in accordance with the Airport Reference Code (ARC) standards that are described in AC 150/5300-13 Airport Design. The ARC is a coding system used to determine appropriate airport design criteria for the operational and physical characteristics of the aircraft intended to operate at the Airport. The ARC has two components that relate to the Airport's "design aircraft". The first component, depicted by a letter (i.e., A, B, C, D, or E), is the aircraft approach category and relates to aircraft approach speed based upon operational characteristics. The second component, depicted by a roman numeral (i.e., I, II, III, IV, V, or VI), is the aircraft design group and relates to aircraft wingspan (physical characteristic). Generally speaking, aircraft approach speed applies to runways and runway-related facilities, while aircraft wingspan is primarily related to separation criteria associated with taxiways and taxi lanes.

In 2009, the Airport Sponsor prepared an Airport Master Plan Update that analyzed and documented long-term airport facility needs. The Airport Sponsor also updated the Airport Layout Plan (ALP), which is a graphical representation of the recommendations contained in the Master Plan Update, showing the proposed long-term developments. Based on an examination of existing and projected aircraft operations, the Airport Master Plan Update recommended that the ARC of D-III [approach speeds associated with the commercial regional jet aircraft (e.g., the CRJ-200) and wingspans associated with aircraft as large as B-727-200 size aircraft] be maintained in the near term, and the ARC of D-IV [approach speeds and wingspans associated with larger commercial service aircraft (e.g., the B-757)] be considered in the long-term. These are the existing and future critical aircraft at the Airport. Given FedEx's recent replacement of its B-727-200 aircraft with B-757 aircraft, the appropriate ARC for the relocated Runway 11/29 is D-IV.

### 1.4.3 BLM Land Use Allocation

By Public Land Order No. 7027 (59 FR 3000) issued on January 20, 1994, the proposed transfer lands were withdrawn from location and entry under the mining laws in anticipation of a need for future airport expansion. However, this withdrawal expired on January 19, 2014. Based on a Memorandum of Understanding (MOU) in 1991, the BLM acknowledged its intent to make a 2,163.46-acre area (including the entire 188-acre proposed project area that is the focus of the EA) available to the Airport for airport expansion.<sup>1</sup> A copy of this MOU is included in Appendix 3. It is important to note that other than the 188-acre proposed project area, no changes are proposed for the remaining areas included in the 1991 MOU.

The 2015 BLM Grand Junction Field Office Approved Resource Management Plan (RMP) identifies these 2,163.46 acres as available for disposal to the Airport. However, if an updated

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<sup>1</sup> Memorandum of Understanding between Walker Field, Colorado, Public Airport Authority and U.S. Department of the Interior, Bureau of Land Management, Grand Junction District Office, July 18, 1991 (BLM MOU CO-076-91003).



Airport Master Plan determines that the Airport does not need these lands for future expansion, they will be changed to retention lands in the RMP.

## 1.5 Purpose and Need

Council on Environmental Quality (CEQ) Regulations implementing the National Environmental Policy Act (NEPA) require that a NEPA document specify the underlying purpose and need to which an agency is responding in proposing alternatives, including the proposed action, (40 CFR §1502.13). The proposed project has two separate purpose and need statements to meet the requirements of both the FAA and BLM.

### 1.5.1 FAA Purpose and Need

While the airfield at the Airport was originally built to meet FAA design standards, over time the FAA has updated and improved these standards. As a result, several airfield components at the Airport do not meet current FAA design standards including:

- **Runway 11/29 Transverse Gradient.** Portions of the runway exceed the maximum recommended design standard of 1.5%.
- **Runway 11/29 Longitudinal Gradient.** A portion of the runway near the approach end of Runway 29 exceeds the maximum recommended design standard of 0.8% gradient.
- **Runway 11/29 Connecting Taxiway Gradient.** A number of the connecting taxiways between Runway 11/29 and parallel Taxiway “A” exceed the maximum recommended design standard gradient of 1.5%.
- **Runway 11/29 and Runway 4/22 RVZ.** Numerous structures obstruct the line of sight between the runway mid-points.

Also, the Grand Junction Regional Airport is one of the few commercial service airports in the state of Colorado that still has a geometric runway layout consisting of an intersecting primary and crosswind runway. Runway intersections increase the potential for runway incursions. According to the FAA, a runway incursion is defined as "Any occurrence at an aerodrome involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for the landing and takeoff of aircraft." Runway safety has been made a high priority nationally. As a result, the FAA has published guidance on improving runway safety through airfield configuration and compliance with new and improved airfield design standards. This guidance can be found in FAA Engineering Brief No. 75.

Between 1995 and 2008, the FAA approved several modifications to standards for the non-standard conditions. However, these modifications were always intended to be temporary until the Airport could develop a plan to feasibly correct these deficiencies.

The problems to be fixed (need) include the current non-standard conditions and the intersecting runways at the Airport. Thus, the purpose of the proposed project is to achieve FAA design standards and guidance to enhance aviation safety at the Airport.

### **1.5.2 BLM Purpose and Need**

The BLM purpose for the proposed land transfer and right-of-way authorization is to provide the Airport Sponsor with lands necessary to address the needs described above.

The need for the action is established by the BLM's responsibility, under the Federal Land Policy and Management Act of October 21, 1976 (FLPMA) and Section 516 of the Airport and Airway Improvement Act of September 3, 1982 (49 U.S. Code § 47125), to respond to a request for conveyance of lands and a request for a ROW grant authorizing use of public lands for airport purposes. In 1991, the BLM entered into an MOU with the Airport Sponsor to acknowledge the BLM's intent to make such lands available to the Airport Sponsor for airport expansion and development.

### **1.5.3 Decisions to be Made**

The FAA will decide whether or not to make the land transfer request based on the environmental analysis included in this EA. In addition, other FAA actions/approvals include possible funding and ALP approval. The BLM will decide whether or not to transfer the land and issue a ROW grant based on the environmental analysis included in this EA. The decision will be based on the environmental and social/economic impacts that would result from these actions. The projects are depicted in Figure 1-4. Additional approvals are listed in Table 1-2.

## **1.6 Authorizing Actions, Statutes, and Regulations**

Both the FAA and the BLM have adopted guidance concerning compliance with NEPA. FAA guidance is included in FAA Order 1050.1E Change 1, Environmental Impacts: Policies and Procedures and FAA Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions. In accordance with these orders, EA's can be prepared by airport sponsors for FAA's review and use in NEPA compliance. BLM guidance is included in the BLM National Environmental Policy Act Handbook H-1790-1. In accordance with this handbook, an applicant (the Airport) may pay a third party contractor to prepare an EA. The BLM will independently evaluate the information submitted and its accuracy, and BLM is responsible for the scope and content of the EA. The BLM and FAA are working as a partnership for the preparation of this EA in order to reduce agency costs, paperwork, and associated resources.

The BLM, FAA, and other Federal, State, and Local agencies must issue approvals for the Proposed Action. Table 1-2 provides a list of permits, approvals, and authorizing actions necessary to construct, operate, maintain, and abandon the Proposed Action.

Table 1-2

**PERMITS, APPROVALS, AND AUTHORIZING ACTIONS NECESSARY FOR CONSTRUCTION, OPERATION, MAINTENANCE, AND ABANDONMENT OF THE PROPOSED ACTION**

*Grand Junction Regional Airport Environmental Assessment*

<b>Issuing Agency/ Permit Name</b>	<b>Nature of Permit/Approval</b>	<b>Authority</b>
Bureau of Land Management (BLM)	<p>The BLM will decide whether or not to issue a conveyance document to the Airport Sponsor, and if so, under what terms, conditions and stipulations.</p> <p>The BLM will decide whether or not to issue a right-of-way grant for the proposed stormwater detention facilities on public lands adjacent to the lands proposed for transfer, and if so, under what terms, conditions and stipulations.</p>	<p>Federal Land Policy and Management Act of 1976 (43 U.S.C. §1711 - 1712); 43 CFR §1600</p> <p>Section 516 of the Airport and Airway Improvement Act of September 3, 1982 (49 U.S.C § 47125); 43CFR2640</p>
Federal Aviation Administration (FAA)	<p>A determination that the environmental analysis prerequisites associated with any future Airport Improvement Program (AIP) funding application have been fulfilled pursuant to 49 U.S.C § 47101.</p> <p>Approval of the proposed project as shown on the ALP.</p> <p>Approval of the application for transfer of land from BLM to the Grand Junction Regional Airport Authority, which is considered recreational lands under DOT Section 303 (DOT 4(f)).</p> <p>Federal environmental approval for the relocation of Runway 11/29, and connected actions.</p> <p>Relocation, replacement, or upgrade of federally owned navigational aids.</p> <p>Development and/or amendment of instrument flight procedures.</p>	<p>Federal Land Policy and Management Act of 1976 (43 U.S.C. 1761-1771); 43 CFR 2800;</p> <p>The Airport Improvement Program (AIP) established by the Airport and Airway Improvement Act of September 3, 1982;</p> <p>National Environmental Policy Act (NEPA);</p>

Table 1-2 Continued

**PERMITS, APPROVALS, AND AUTHORIZING ACTIONS NECESSARY FOR CONSTRUCTION, OPERATION, MAINTENANCE, AND ABANDONMENT OF THE PROPOSED ACTION***Grand Junction Regional Airport Environmental Assessment*

<b>Issuing Agency/ Permit Name</b>	<b>Nature of Permit/Approval</b>	<b>Authority</b>
Army Corps of Engineers	Coordination with Army Corps of Engineers on intermittent drainages to determine jurisdiction.  Section 404 Nationwide or Individual Permit for the placement of fill in wetland or waters of the U.S., Army Corps of Engineers.	Clean Water Act (Federal Water Pollution Control Act, as amended, 33 USC 1251)  Clean Water Act Section 404, 33 USC 1344. 33 CFR Parts 320-330
U.S. Fish and Wildlife Service	U.S. Fish and Wildlife Service determination of effect concurrence on listed species.	Endangered Species Act, 16 USC Section 1531-1544
Colorado State Historic Preservation Officer	Completion of Section 106 consultation with the Colorado State Historic Preservation Officer (SHPO).	Section 106 of the National Historic Preservation Act
Colorado Department of Public Health and Environment	Section 401 Water Quality Certification-State of Colorado.	Section 401 of the Clean Water Act, 33 USC Section 1341-1344
Colorado Department of Transportation (CDOT)	CDOT Aeronautics Board approval of further processing of various applications for state assistance by Grand Junction Regional Airport to implement the proposed action.	Colorado Revised Statutes (C.R.S.) 43-10-108.5 State Aviation System Grant Program
Colorado Department of Water Resources	Erosion Control Dam Permit.	Sections 37-87-101 thru 125, C.R.S. (1973) (Current Supp.) Rules and Regulations for Dam Safety and Dam Construction (September 30, 1988)
City of Grand Junction/Mesa County	City of Grand Junction and/or Mesa County approval of the relocation of 27 ¼ Road.	Zoning and Development Code of Grand Junction; Transportation Engineering Design Standards

**Source:** BARNARD DUNKELBERG & COMPANY.

**Note:** This list is intended to provide an overview of key regulatory requirements that would govern project implementation. Additional approvals, permits, and authorizing actions could be necessary.

## **1.7 Public Participation, Scoping, and Early Coordination**

The principal goals of scoping are to identify issues, concerns, and potential impacts that require detailed analysis. While scoping is not required during the preparation of an EA, FAA Order 5050.4B paragraph 705 states that “Although scoping is not required for EAs, scoping could enhance the EA preparation and content.” However, scoping is required by the BLM for the land transfer to the Airport Sponsor.

A Notice of Intent to Amend the Grand Junction RMP and Notice of Realty Action (NORA) for the proposed land transfer was published in the Federal Register on January 13, 2011, which provided a 45-day period for submission of public comments on the EA and Notice of Realty Action (NORA). The Notice was also published in the Legal Notices section of the Grand Junction Daily Sentinel on March 20, 2011, and mailed to over 30 interested parties, groups, and agencies. A public scoping meeting was held on April 5, 2011 with approximately 23 people in attendance. A News Release announcing the public scoping meeting was issued on March 17, 2011. The 45-day scoping period occurred from April 6 through May 20, 2011.

A summary of the scoping process and comments received during this period can be found in Appendix 1. The majority of substantive comments received during the scoping process requested that public access be maintained to the BLM managed lands north of the Airport.

Two presentations were also given to the Western Slope All-Terrain Vehicle (ATV) Association in October of 2011 and June of 2012. The ATV association requested that access be maintained and also requested the inclusion of a parking or staging area north of airport property and adjacent to 27 ¼ Road.

The Draft EA was released for agency and public review on June 19, 2015 for a 45-day comment period. To facilitate comments, the Airport Sponsor held a series of public meetings and a public hearing (Appendix 15). Agency and public comments received during the comment period (June 19-August 3, 2015) were considered in the development of the Final EA. Responses to all verbal and written comments are provided in Appendix 18. No comments were received in opposition to the project.