Chapter 2. Alternatives

2.1 Introduction
Council on Environmental Quality (CEQ) Regulations\(^1\) state that the alternatives section is the heart of the environmental documentation. In accordance with Federal guidelines implementing the National Environmental Policy Act (NEPA), a range of reasonable alternatives has been identified that may meet the purpose and need of both agencies. CEQ regulations also state that the responsible agencies shall “Rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives that were eliminated from detailed study, briefly discuss the reasons for their having been eliminated.”

2.2 Range of Alternatives
An evaluation of alternatives is required by NEPA and CEQ regulations (40 CFR § 1502.14), because some aspects of the proposed actions may impact the environment in a manner that could be minimized or eliminated by pursuing an alternative action. NEPA mandates that all reasonable alternatives to the proposed action must be examined.

Four categories of alternatives were considered, with three identified as enabling the FAA and the BLM to meet their respective purpose and need:

- **No Action Alternative.** None of the actions considered connected to the proposed action would be constructed.
- **Other Modes of Travel, Use of Other Airports, and Telecommunication Options.** Other options were considered that might also serve the air travel needs and thus, reduce passenger demand at the Airport and reduce the need to correct non-standard conditions.
- **Alternative Airport Development Improvements.** Alternative physical improvements at the Airport were considered that might also achieve the identified needs.
- **Land Transfer Alternatives.** Alternatives to both the amount of land to be requested for transfer from the BLM and the configuration of the parcels requested were considered.

An initial review of the range of alternatives was conducted through these four broad categories to identify those alternatives that are considered reasonable. Alternatives that might meet the purpose and need for both the land transfer and runway project were then carried forward for further evaluation.

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\(^1\) Council on Environmental Quality Regulations, 40 CFR §1502.14
2.3 Initial Consideration of the Range of Alternatives

Based on the range of alternatives discussed in the preceding section, a review was conducted to identify prudent and feasible alternatives. The following sections document the evaluation and the formulation of the alternatives relative to addressing the purpose and need for the proposed improvements at the Airport.

2.3.1 No Action Alternatives

NEPA, as well as CEQ regulations, require consideration of a No Action Alternative. The No Action, when compared with another alternative, enables the identification of the probable impact of that alternative. The No Action being carried forward as a baseline in this Environmental Assessment (EA) is a combination of the Airport Development and Land Transfer No Action Alternatives.

2.3.1.1 Airport Development No Action Alternative

For purposes of defining the No Action Alternative for this EA, the No Action Alternative would consist of no BLM land transfer, and no airfield changes other than limited pavement maintenance and rehabilitation to keep the runway and taxiway systems operational. Requested drainage facility ROWs would not be granted, a new parking area would not be constructed, and 27 ¼ Road would not need to be relocated.

Under the No Action Alternative, FAA design standards would not be met and the Airport Sponsor would be required to request new Modifications to Standards for the Airport. If the FAA did not approve the new Modifications to Standards, the Airport could potentially lose existing instrument approach procedures and jeopardize future federal funding. While the No Action Alternative does not meet the purpose and need, NEPA requires its consideration because it provides a baseline to determine impacts; thus, it is carried forward for detailed analysis and evaluation.

2.3.1.2 Land Transfer No Action Alternative (Land Transfer Alternative 1)

This alternative would result in the land needed to accomplish the purpose and need described in Chapter 1 not being transferred to the Airport Sponsor from the BLM. These lands would continue to be managed by BLM, with little or no control of the land development or use provided to the Airport. The Airport would be unable to construct new facilities on this land which would not remedy the design standard deficiencies of the airfield. Because the Airport Sponsor would not have land use control over the lands in this alternative, the proposed project would not be approved. This alternative is carried forward for detailed analysis as a baseline to determine impacts.
2.3.2 Other Modes of Transportation, Use of Other Airports, and Telecommunication Options

Alternative modes of transportation may provide other options to meet the air travel needs of the region and, theoretically, reduce the need to address the non-standard conditions at the Airport. This type of alternative would require passengers to travel by highway (auto or bus), or achieve their air travel need by telecommunication technologies. However; because these alternatives do not correct the non-standard conditions at the Airport, this alternative was found not to meet the purpose and need and thus, is not carried forward for evaluation.

2.3.3 Development Alternatives for Grand Junction Regional Airport

In 2009, the Airport completed a Master Plan Update to examine its long-term development needs. The Master Plan Update analyzed various alternatives for correcting the non-standard conditions, including a runway shift alternative and a runway relocation alternative. The runway relocation was recommended as the preferred development alternative in the Master Plan Update, because it was the only alternative that corrected all of the non-standard conditions. The Master Plan Update documentation is herein incorporated by reference, with a summary of the alternative considered below. The Master Plan Update document can be reviewed on the Airport’s website at www.gjairport.com.

In March of 2011, the Master Plan Update alternatives were examined in a detailed engineering level analysis and are included in a report entitled RUNWAY 11/29 ALTERNATIVES STUDY (Appendix 2). The report addresses three alternatives that correct either some or all of the existing non-standard conditions. Those alternatives include the following:

- **Development Alternative 1.** Reconstruct Runway 11/29 with a 1,800-Foot Shift to Runway 11/29.
- **Development Alternative 2.** Reconstruct Runway 11/29 with a 1,800-Foot Shift to Runway 11/29 and a Runway 4/22 Upgrade.
- **Development Alternative 3.** Construct Runway 11/29 at a 637.5-Foot Offset of Existing Runway 11/29 Centerline.

Each of these alternatives is discussed in greater detail in the following subsections. Graphical depictions of these three alternatives are also provided following each subsection and detailed graphics and construction phasing plans are provided in the report in Appendix 2. For purposes of considering the land transfer configuration associated with each alternative, an aliquot parts legal description to define the acquisition area was used. Later in this chapter, a discussion of land transfer alternatives that reduce the amount of land transferred to the Airport Sponsor associated with the proposed relocated runway is presented.
2.3.3.1 Development Alternative 1 - 1,800-Foot Shift to Runway 11/29

Alternative 1 would consist of reconstructing Runway 11/29 in its current location and shifting the runway to the northwest by 1,800 feet (Figure 2-1). This alternative would remove 1,800 feet of existing non-standard pavement at the southeastern end of the runway. It would involve removing the existing runway pavements and lighting systems in their entirety, and reconstructing with all new material. In addition, approximately 2 million cubic yards of embankment would be required to construct the 1,800-foot runway shift. This alternative would correct all of the non-standard transverse grades, eliminate the offset crown, correct the issue with longitudinal grades at the runway’s end quarter, and eliminate the intersecting runway condition that creates the non-standard RVZ. However, this alternative would not correct the non-standard conditions associated with the connector taxiways.

This alternative would require the transfer of 520 acres of BLM managed land (as measured using an aliquot parts legal description). A portion of 27 ¼ Road would need to be relocated around the Runway Protection Zone (RPZ) associated with the relocated runway. Acquisition associated with the RPZ and relocated roadway is referred to as Parcel A and would consist of approximately 120 acres of the total 520 acres of BLM managed land needed (as measured by an aliquot parts legal description). Approximately 400 acres north of the Airport would also be needed to enable construction of the runway, a perimeter service road, a security fence, and stormwater detention ponds. This 400-acre area is referred to as Parcel B. While this alternative would correct all of the non-standard conditions associated with the runway, it would not correct the non-standard conditions associated with the connector taxiways and thus, would not fully meet the purpose and need for the FAA or the BLM. In addition, Development Alternative 1 would require at least two partial closures and one full closure (lasting approximately 6 months) of Runway 11/29, which would result in negative economic impacts to both the airlines and airport businesses/users. Therefore, this alternative was found not to be prudent and was eliminated from further analysis.

2.3.3.2 Development Alternative 2 - Shift Runway 11/29 1,800 Feet and Runway 4/22 Upgrade

Much like Alternative 1, Alternative 2 would also reconstruct Runway 11/29 in its current location and shift the runway to the northwest by 1,800 feet in order to remove 1,800 feet of existing non-standard pavement at the southeastern end of the runway (Figure 2-2). This would involve removing the existing runway pavements and lighting system in their entirety, and reconstructing with all new materials. In addition, approximately 2 million cubic yards of embankment would be required to construct the 1,800-foot runway shift. This alternative would correct all of the non-standard transverse grades, eliminate the offset crown, correct the issue with longitudinal grade at the Runway 29 end quarter, and eliminate the intersecting runway condition that creates the non-standard RVZ. However, this alternative would not correct the non-standard conditions associated with the connector taxiways.
Figure 2-1  Development Alternative 1
Reconstruct Runway 11/29
with a 1,800-Foot Shift to the Northwest
Figure 2-2 Development Alternative 2
Reconstruct Runway 11/29 with a 1,800-Foot Shift to the North and Runway 4/22 Upgrade
The primary difference between this alternative and Alternative 1 is the reduced operational and economic impact this alternative would have on the Airport and the local economy due to the ability to maintain continual commercial air carrier and air cargo services during construction. With Alternative 1, the construction process would adversely affect the ability of commercial operations to continue. However, with Alternative 2, Runway 4/22 would be upgraded to accommodate the commercial service activity by providing ARC C-III runway design standards (from ARC B-II) and extending the runway by 1,500 feet prior to reconstructing Runway 11/29. Thus, the commercial service operations could be accommodated on Runway 4/22 while Runway 11/29 is being reconstructed. While the airlines and air cargo services would continue to operate under this alternative, operations would be restricted due to the shortened runway length. This would require airlines to use either smaller aircraft, or weight-restrict existing aircraft so they can operate on the shorter runway.

Similar to Alternative 1, this alternative would require the relocation of a portion of 27 ¼ Road around the RPZ of the relocated runway and the transfer of approximately 520 acres of BLM managed land (120 acres in Parcel A and 400 acres in Parcel B) to the Airport Sponsor to complete the runway action, as well as to construct a north side perimeter service road and fence and necessary drainage facilities. While this alternative would correct all of the non-standard conditions associated with the runway, it would not correct the non-standard conditions associated with the connector taxiways and thus, would not fully meet the purpose and need for either the FAA or the BLM. In addition, Development Alternative 2 would require at least two partial closures and one full closure (lasting approximately 6 months) of Runway 11/29 and closure of Runway 4/22 for a number of months, which would result in negative economic impacts to both the airlines and airport businesses/users. Therefore, this alternative was found not to be prudent or feasible and eliminated from further analysis.

2.3.3.3 Development Alternative 3 – 637.5 Foot Offset of Existing Runway 11/29 Centerline (Preferred Development Alternative)

Unlike the first two alternatives, Alternative 3 would not reconstruct Runway 11/29 in its current location, but would construct a new runway approximately 637.5 feet to the northeast of the existing runway centerline (Figure 2-3). Upon completion of the new runway, the existing Runway 11/29 would become the parallel taxiway. The new taxiway centerline would be shifted 50 feet to the northeast so that it would reside at the existing offset crown of the runway. This would provide 600 feet of separation between the runway centerline and taxiway centerline, which would allow for the construction of high speed exit taxiways that include a reverse curve for “double-back” operations. The final taxiway width would be 75 feet; approximately 12.5 feet of pavement would be added to the northeast side of the new taxiway while 87.5 feet of existing pavement would be removed from the southwest side.
Figure 2-3 Development Alternative 3
Relocate Runway 11/29 at a 537.5-Foot Offset of Existing Runway 11/29 Centerline and at a 1,100-Foot Shift to the Northwest.
Construction of the new runway is estimated to require approximately 4 million cubic yards of excavation to meet all FAA AC 5300-13 standards and remove all Part 77 terrain penetrations. The majority of this material can be re-used as embankment on the project, but approximately 850,000 cubic yards would need to be disposed of or stockpiled. Most of this excess material could be used by other future airport development projects (See Appendix 2, Figure 2.13) and thus would be stockpiled until projects requiring fill are ready for development. One area where fill could be stockpiled is along the western limits of Taxiway A, adjacent to connector Taxiways A1 and A2. This area is the only portion along Taxiway A that remains undeveloped and is prime for aviation development as it provides direct access to the runway. When this area is ready to be developed, approximately 1.5 million cubic yards of fill would be required to raise the grades up to the Taxiway A elevations and would require compliance with NEPA. Another area identified in the Master Plan Update for future airport development is the area west of Taxiway C at Taxiways C2 and C3. This area is planned for general aviation facilities and would require approximately 400,000 cubic yards of fill when ready for development. With all the areas on the Airport requiring large volumes of fill for development, the amount of excavated material from the proposed project could provide the fill material and provide cost savings for future projects.

Similar to Alternatives 1 and 2, this alternative would require the relocation of 27 ¼ Road around the RPZ. Acquisition for the RPZ and Road was estimated at about 80 acres (Parcel A). As much as 640 acres north of the runway would also be required for the relocated runway, perimeter service road, security fence, and stormwater detention ponds in Parcel B. Thus, this alternative would require the transfer of approximately 720 acres of BLM managed land to the Airport Sponsor. The new runway and connector taxiways would meet all FAA design standards for longitudinal and transverse grades, and the crown would be constructed at the runway’s centerline. Thus, Alternative 3 is the only airfield development alternative that fully meets the purpose and need for both the BLM and the FAA correcting all non-standard conditions, and was therefore the only development alternative identified by the FAA as prudent and feasible. Development Alternative 3 could be constructed without runway closures, which would not result in any negative impacts to the airlines or airport businesses/users. Therefore, this alternative has been carried forward and will be analyzed in detail.

Section 303 (formerly known as Section 4(f)) mandates that the Secretary of Transportation will not approve any project that requires the “use” of a 4(f) resource unless “There is no feasible and prudent alternative to the use of such land and such program, and the project includes all possible planning to minimize harm resulting from such use.” As described in the Section 303c Evaluation (Appendix 8), there are no alternatives that meet the Purpose and Need that avoid Section 4(f) resources. The Airport Sponsor and FAA have worked with the BLM to reduce the acquisition area from the original proposed 720-acre parcel to 188-acres (see Land Transfer Alternatives). This is less than one percent of the entire 11,400 acre Grand Valley OHV area. See Section 4.7 for more information.
2.3.3.4 Development Alternatives Cost Summary
The Runway 11/29 Alternative Study (Appendix 2) includes a planning level cost estimate of each alternative, an analysis of the construction impacts to airport operations with each alternative, an estimate of the economic impacts to the Airport and the local economy of each alternative, and consideration of the funding feasibility of each alternative. The planning level costs estimates are shown in Table 2-1. It is important to note that these cost estimates are for only the runway/taxiway portions of the project and do not include costs associated with connected actions such as the relocation of 27 ¼ Road, construction of detention and water quality ponds, perimeter fencing, construction of a maintenance run-up area, or costs associated with the required land transfer.

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Grand Total</th>
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<tr>
<td>Alternative 1</td>
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<tr>
<td>Alternative 2</td>
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<tr>
<td>Alternative 3 (Alternative Carried Forward)</td>
<td>$91,974,160</td>
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Source: Runway 11/29 Alternatives Study (Appendix 2).
Note: This table includes only the alternatives considered in Appendix 2.

2.3.4 Land Transfer Alternatives
FAA requires airports to hold good title to the areas used or intended to be used for the landing, takeoff, or surface maneuvering of aircraft. A good title is a marketable title, free and clear of all liens and encumbrances. Titles held with respect to lands used for landing area or building area purposes can be either fee simple title (free and clear of any and all encumbrances), or with certain rights expected or reserved. Any encumbered title or long-term lease must not deprive the Airport Sponsor of possession or control necessary to carry out all obligations under FAA grant assurances.

Because the lands that are needed to enable the construction of the proposed airfield improvements are Federal/public lands administered by the BLM and are public lands used for recreation purposes, they are considered protected by Department of Transportation (DOT) Section 303 (49 USC 303) otherwise known as DOT Section 4(f). Among the requirements of DOT Section 4(f) is that the FAA must show that there are no other prudent and feasible alternatives to use of the land. If the only prudent and feasible alternative requires the use of Section 4(f) resources, steps to minimize or mitigate the impact must be considered. To facilitate the consideration of issues under DOT Section 303, the following land transfer alternatives were evaluated:
2.3.4.1 Land Transfer Alternative 1 - No Action (see No Action Alternatives above)

2.3.4.2 Land Transfer Alternative 2 - Transfer of Property Rights from the BLM to the Airport in Accordance with the 1991 MOU
This alternative would transfer property rights to the Airport Sponsor in accordance with the 1991 MOU (Appendix 3) between the BLM and the Airport Sponsor for approximately 2,163 (Figure 2-4). The FAA requires Airport Sponsors to have sufficient interest in lands needed for aircraft operations and associated support facilities to ensure their continued viability for public transportation and service. Land Transfer Alternative 2 would ensure the Airport Sponsor has sufficient interest in the areas immediately surrounding the Airport to maintain object free areas, RPZs, other operations and safety areas, and to implement needed airport improvements.

The land transfer boundary includes a 60-foot ROW per the City and County scoping letter recommendations for the relocation of 27 ¼ Road. This alternative would enable the transfer of 2,163 acres in accordance with the 1991 agreement, but is greater than the amount actually needed for this proposed project. Because this quantity of land is greater than needed, the Airport Sponsor would prefer to acquire less land at this time. As a result, the FAA and the BLM determined that this alternative is not reasonable or prudent since it includes more land than what is needed for the current project. Therefore, this alternative has been considered but eliminated from detailed analysis.

2.3.4.3 Land Transfer Alternative 3 - Transfer of Property Rights from the BLM to the Airport Sponsor in Aliquot Parts
This alternative would transfer property rights to the Airport Sponsor for the acres necessary to complete the previously described Development Alternative 3 in aliquot parts (Figure 2-5). The aliquot parts parcel configuration and property line allows for the land to be transferred based on the aliquot parts legal description and does not require a survey in order for BLM to issue a patent (an instrument by which the Federal government conveys the legal fee-simple title to public land) for the land transfer. However, a boundary survey would still be required in order to stake and fence the future airport property line. This alternative would transfer approximately 720 acres of land, approximately 1,443 less acres than Land Transfer Alternative 2. Of the 720 acres that would be transferred, approximately 80 acres would be for the RPZ and road relocation (Parcel A). As much as 640 acres north of the runway would also be required for the relocated runway, perimeter service road, security fence, and stormwater detention ponds in Parcel B.

The FAA requires the Airport Sponsor to have sufficient interest in lands needed for aircraft operations and associated support facilities to ensure their continued viability for public transportation and service. Land Transfer Alternative 3 would ensure the
Figure 2-4 Land Transfer Alternative 2
Transfer of Property Rights from the BLM to the Airport Authority in Accordance with the 1986 MOU
Figure 2-5  Land Transfer Alternative 3
Transfer of Property Rights from the BLM to the Airport Authority in Aliquot Parcels
Airport Sponsor has sufficient interest in the areas immediately surrounding the Airport to maintain object free areas, RPZs, other operations and safety areas, and to implement needed airport improvements. The boundaries of the land proposed for transfer include the total acres identified by the Airport Sponsor as needed for the safe and efficient operation of the Airport per aliquot parts legal description and parcel lines. The land transfer boundary also includes a 60-foot ROW per the City and County scoping letter recommendations for the relocation of 27 ¼ Road. Because this quantity of land is greater than needed, the Airport Sponsor would prefer to acquire less land at this time. As a result, this alternative was found not be reasonable or prudent since it includes more land than what is needed for the current project and, therefore, has been considered but eliminated from detailed analysis.

2.3.4.4 Land Transfer Alternative 4 – Transfer of Property Rights from the BLM to the Airport Sponsor in a Straight Line (Preferred Land Transfer Alternative)

This alternative would also transfer property rights to the Airport Sponsor for the acreage amounts necessary to complete Development Alternative 3 with some minor airport development-related revisions. This Alternative would transfer approximately 188 acres of land, 1,975 acres less than Land Transfer Alternative 2. The north boundary line of Parcel B would follow a straight surveyed line that essentially “straightens” the stair step aliquot parts property line in Alternative 3 at a 1,500 foot offset from the proposed runway centerline (Figure 2-6).

The 1,500-foot offset was identified as the most reasonable boundary for land transfer. FAA dimensional criteria state that each airport must designate a Building Restriction Line (BRL) associated with each runway. The BRL is an imaginary line that identifies where hangars and other landside structures can be constructed to certain heights without being a hazard to aircraft operating on the runway. The Runway 11/29 BRL has been established at 750 feet from the runway centerline. The additional 750 feet associated with this land transfer alternative would accommodate future ancillary landside aeronautical development, allowing the Airport the ability to meet future aeronautical demand.

The airport development revisions for this alternative include relocating the proposed perimeter service road and associated perimeter wildlife fence along the south side of the north boundary of Parcel B. The purpose of these airport development-related revisions is to reduce the amount of land needed by the Airport Sponsor. As a result, only the land needed for runway construction and aviation protection would be transferred. However, this would require a ROW grant of approximately 8.1 acres for the construction of necessary drainage structures (three stormwater detention ponds) on BLM managed land. The perimeter service road situated along the south side of the perimeter fence would provide construction and maintenance access to the ponds, with vehicle gates included in the perimeter fence at each pond location. This alternative includes 188 acres (80 acres in Parcel A for the RPZ
Figure 2-6  Land Transfer Alternative 4
Transfer of Property Rights from the BLM to the Airport Authority in a Straight Line
and relocated 27 ¼ Road and 108 acres in Parcel B for the runway, perimeter road, and security fence) of land to be transferred from the BLM to the Airport Sponsor. The FAA and BLM determined that this alternative meets the purpose and need and is prudent and feasible since it includes only land needed for the current project. Therefore, this alternative has been incorporated into the proposed action and is carried forward for detailed analysis.

2.3.4.5 Land Transfer Alternative 5 - Minimum Acreage Transfer from the BLM to the Airport

This alternative would also transfer property rights to the Airport Sponsor for the acreage amounts necessary to complete Development Alternative 3 with some minor airport development-related revisions. This alternative would transfer approximately 96 acres of land or 2,067 acres less than Land Transfer Alternative 2. The northern boundary of the Airport would follow aliquot parts in some places and a straight surveyed line at various distances from runway centerline in other places in parcel B (Figure 2-7). In some places, the surveyed line would coincide with the Airport’s designated BRL, while in other places the line would be determined based on proposed grading for the runway.

The airport development revisions for this alternative include relocating the proposed perimeter service road and associated perimeter wildlife fence. The proposed stormwater detention ponds would be constructed in the same location as proposed in Land Transfer Alternative 4, with construction of a separate road north of the perimeter fence to provide construction and maintenance access to the ponds. Construction of the proposed detention ponds and north side perimeter access road would require a ROW grant from the BLM.

The purpose of these airport development-related revisions is to minimize the amount of land needed by the Airport Sponsor. Because this land is currently used for recreational purposes, the BLM, the FAA, and the Airport Sponsor prefer to minimize the land conveyance request as much as possible, but still meet the project purpose and need. However, this would require a ROW grant of approximately 8.1 acres for the construction of necessary drainage structures on BLM managed land as well as for the access road to the ponds (approximately 3.7 additional acres). This alternative includes approximately 96 acres of land (80 acres in Parcel A for the RPZ and relocated 27 ¼ Road and 15.7 acres in Parcel B for the runway) to be transferred from BLM to the Airport Sponsor.

While this land transfer alternative would minimize the amount of land requested for conveyance, it was found not to be prudent because of the additional construction. This alternative would require the construction of two service roads, one to access the detention ponds and another to access the perimeter fence. This alternative would also require the relocation of both the perimeter fence and perimeter service road in the future if aviation-related development were determined to be necessary on the north side of the runway to meet aviation demand. Given the fact that this alternative is not considered prudent, and does not meet the purpose and need, this alternative was considered but not carried forward through this EA for detailed analysis.
Figure 2-7  Land Transfer Alternative 5
Minimum Acreage Transfer from the BLM to the Airport Authority
2.4 Alternatives Carried Forward

2.4.1 Development Alternative 3 - Construct Runway 11/29 at a 637.5-Foot Offset of Existing Runway 11/29 Centerline
Alternative 3 includes the construction of Runway 11/29 approximately 637.5 feet to the northeast of the existing runway centerline (Figure 2-3). Upon completion of the new runway, the existing Runway 11/29 would become the parallel taxiway. The final taxiway width would be 75 feet. The new runway and connector taxiways would meet all FAA design standards for longitudinal and transverse grades, and the crown would be constructed at the runway’s centerline.

2.4.2 Land Transfer Alternative 4 – Transfer of Property Rights from the BLM to the Airport Sponsor in a Straight Line
This Alternative would transfer approximately 188 acres of land from the BLM to the Airport Sponsor (Figure 2-6).

2.5 Preferred Alternative
The FAA and the BLM have determined that Development Alternative 3 and Land Transfer Alternative 4 are the only prudent and feasible alternatives that meet both the BLM and FAA purpose and need statements for the Airport. Section 303 (Section 4(f)) of the US DOT Act mandates that the Secretary of Transportation will not approve any project that requires the “use” of a 4(f) resource unless “There is no feasible and prudent alternative to the use of such land and such program, and the project includes all possible planning to minimize harm resulting from such use.” As described in the Section 303c Evaluation (Appendix 8), there are no alternatives that meet the purpose and need that avoid Section 4(f) resources. The Airport Sponsor and FAA have worked with the BLM to reduce the acquisition area from the original proposed 720-acres to 188-acres (see Section 2.2.4). This is less than one percent of the entire 11,400 acre Grand Valley OHV area. See Section 4.7 for more information. As discussed in the preceding sections, these alternatives are the only alternatives identified that:

- Meet FAA design standards.
- Enable the Airport Sponsor to have land use control of land associated with the airfield.
- Provide approach protection for the relocated runway.
- Meet the BLM purpose to provide lands to the Airport as needed, and the BLM need to respond to requests for conveyance of lands for airport purposes.
For these reasons, the combined Development Alternative 3/Land Transfer Alternative 4 are carried forward for detailed analysis as the Proposed Action Alternative, which consists of:

- Relocation of Runway 11/29 by 637.5 feet to the northwest.
- Conversion of the existing Runway 11/29 into a parallel taxiway and construction of associated connector taxiways.
- Relocation of 27 ¼ Road to the northwest, outside the relocated RPZ for Runway 11/29.
- Construction of various detention ponds, water quality ponds, and culverts to accommodate changes in drainage patterns associated with the new runway.
- Installation/relocation of Runway 11/29 NAVAIDS, visual aids, the remote transmitter and receiver (RTR), and runway lighting.
- Installation/relocation of taxiway lighting.
- Construction of airport perimeter fencing and perimeter service road.
- Removal of any existing runway and taxiway pavement sections not required for the parallel taxiway conversion.
- Relocation of the existing aircraft maintenance run-up area and installation of blast fences.
- Placement of approximately 1.1 million cubic yards of fill material from the runway project.
- Construction of a general use parking area for recreational users of BLM managed land as mitigation for impacts to Section 4(f) resources.
- Land transfer of approximately 188 acres of BLM managed land (80 acres in Parcel A northwest of the Airport, and 108 acres in Parcel B immediately north of the Airport).
- ROW Grant for the construction, operation, and maintenance of drainage-related facilities.
2.6 Action Costs and Time Frame

During the Airport Master Plan Update process, the cost of the proposed land transfer was estimated at approximately $751,000 (in 2009 dollars). The cost of the runway and road relocation was estimated in the Alternatives White Paper (Appendix 2) at approximately $91,974,000 (in 2011 dollars), and the cost of the road relocation was estimated in the Alternatives White Paper at approximately $2,500,000 (in 2011 dollars). The runway and road cost estimates have since been updated and revised in the EA preliminary design process, and the current project estimate including both the runway project and the 27 ¼ road project is approximately $80,300,000 (Appendix 7). The project is schedule is contingent on the completion of the environmental process and funding.

The runway relocation and connected actions would be completed using a combination of Local, State, and Federal funding, and the projects would be phased over a number of years. This would allow the existing runway to continue to serve air carrier aircraft operations during construction and would allow for a realistic funding program via FAA grants from the Airport Improvement Program (AIP) and state grants from the Colorado Discretionary Aviation Grant Program. The AIP is funded primarily by a nationwide airline passenger ticket tax. The Colorado Discretionary Aviation Grant Program is funded primarily by aviation fuel tax dollars.