

3.3 AGRICULTURAL LANDS

This section describes the agricultural lands and the potential impacts resulting from the Midvalley Highway alternatives.

3.3.1 Regulations and Methodology

3.3.1.1 Regulations

Federal Regulations

Farmland Protection Policy Act

The Farmland Protection Policy Act (FPPA) of 1981 (7 USC 4201-4209) requires federal agencies to identify farmland that is considered prime, unique, or of statewide importance within their respective project study areas. The U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) is the federal agency responsible for overseeing compliance with the FPPA. Federal agencies are required to minimize the conversion of farmland to nonagricultural uses and that such projects consider state and local farmlands protection policies to the extent practical. Prime and Unique Farmland and Farmland of Statewide Importance are discussed below:

- **Prime and Unique Farmland** – Prime and Unique Farmlands are defined as land with resources available to sustain high levels of production. The NRCS defines prime farmland as land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops. Prime farmland has a soil quality, growing season and moisture supply (irrigated or not) to produce high crop yields. These farmlands must have an adequate and dependable water supply from precipitation or irrigation, a favorable temperature and growing season, an acceptable soil acidity or alkalinity, acceptable salt and sodium content, and minimal or no rocks or other obstructions¹. An impact to Prime and Unique Farmlands requires the completion of a conversion impact form for federally funded projects.
- **Farmland of Statewide Importance** – Farmlands of Statewide Importance are those with soils which don't qualify as prime farmland (under the FPPA); however, they produce high sustainable crop yields. These farmlands are determined based on soil types, slope of the land, and availability of irrigation water. The NRCS distinguishes farmlands of statewide importance as land that is actively irrigated and cultivated for production of a variety of crops. Like Prime and Unique Farmlands, Farmlands of Statewide Importance that are irrigated for production of crops require a conversion impact form to be completed for federally funded projects.

According to policy and interpretation by the NRCS, farmlands of statewide importance pertain only to farmlands located *outside* municipal boundaries. Farmlands located inside Tooele City's municipal boundary and/or farmlands committed to urban development, are not protected under the FPPA.

¹ U.S. Department of Agricultural Handbook No. 18, October 1993

State Regulations

Agriculture Protection Areas

Agricultural lands in unincorporated areas can be protected under state law (Utah Code Title 17 Chapter 41) and are identified as Agriculture Protection Areas (APAs) (State of Utah, 2008A). The APA must be established by the property owner. The intent of this law is to protect an agricultural operation from nuisance complaints regarding noise, odors, and other issues that may result from normal agricultural operations. Lands within an APA are protected by the State of Utah regulations regardless of whether they are considered as Prime and Unique Farmland, Farmland of Statewide Importance or are actively being used for agricultural purposes.

According to Utah Administrative Code Section 17-41-405 (4)(a):

“The applicable legislative body and the advisory board may approve the condemnation [of APAs] only if there is no reasonable and prudent alternative to the use of the land within the agriculture protection area.”

3.3.1.2 Methodology

Parcel data, site visits, interviews, meetings with the NRCS, and project aerial photography were reviewed to determine the boundaries of agricultural lands, their type (i.e. irrigated cropland or rangeland) and to determine the potential project impacts. In addition, the NRCS has assisted with identifying agricultural lands located in the project study area and evaluating the impacts resulting from Midvalley Highway alternatives (Christensen 2008, 2009; NRCS 2005A, 2005B, 2006 and 2009). Soil maps obtained from the NRCS were reviewed to determine the presence and location of Prime and Unique Farmland and Farmland of Statewide Importance. The potential types of agricultural lands within the project study area include:

- **Prime and Unique Farmland** – The identification of Prime and Unique Farmland was accomplished by reviewing NRCS soil maps and with discussions with the NRCS. According to the NRCS, there are no Prime and Unique Farmlands within Tooele Valley (NRCS, 1992: page 75);
- **Farmland of Statewide Importance** – The identification of Farmland of Statewide Importance was accomplished by reviewing NRCS soil maps and with discussions with the NRCS. These areas are actively being cultivated and have adequate irrigation;
- **Rangeland** – Within the Midvalley Highway project study area, there are large areas with soil types that qualify as Farmland of Statewide Importance; however, these areas are not irrigated and do not produce crops. As such, these lands were defined by the NRCS as rangelands and are used for horse, cattle and other livestock grazing, or may be vacant and not actively used as rangeland; and
- **Agriculture Protection Areas** – The identification of APA was accomplished using GIS data provided by the Tooele County Engineering Department and parcel research (Tooele County, 2008). These data included all parcels that have been placed into an APA by the land owner. The APAs are not required to be actively farmed or in agricultural production. A wide variety of land uses may occur on these properties, including residential use.

Impacts to agricultural lands resulting from the Midvalley Highway were calculated by using GIS. The Midvalley Highway alternatives were superimposed onto the agricultural areas and the area under the alternatives were calculated.

Farmland Conversion Impact Rating

To assist federal agencies and the NRCS to evaluate the extent a project would affect prime, unique, and statewide important farmland, a Farmland Conversion Impact Rating is used (form CPA 106). Sections of the CPA form 106 are completed by the joint lead agencies; the other sections are completed by the NRCS. The Farmland Conversion Impact Rating includes the total acres of Prime and Unique Farmland and Farmland of Statewide Importance to be converted directly and indirectly, a land evaluation and criteria, and 10 site assessment criteria. If the land evaluation and site assessment criterion total 160 or more points, the federal agency must consider alternatives that avoid impacts and measures to minimize harm to Prime and Unique Farmland and Farmland of Statewide Importance. The land evaluation and site assessment is found in Appendix A on the CPA Form 106, under Part VI. Due to the lack of active cultivation and irrigation, the NRCS approved the exclusion of rangeland as '*impacted farmland*' on the CPA 106 form.

3.3.2 Affected Environment

This section includes a discussion of the agricultural lands within the project study area. As discussed above, there are no Prime and Unique Farmlands found within the Tooele Valley. The agricultural lands found within the project study area include:

- Farmland of Statewide Importance;
- Rangeland; and
- Agricultural Protection Areas.

3.3.2.1 Farmland of Statewide Importance

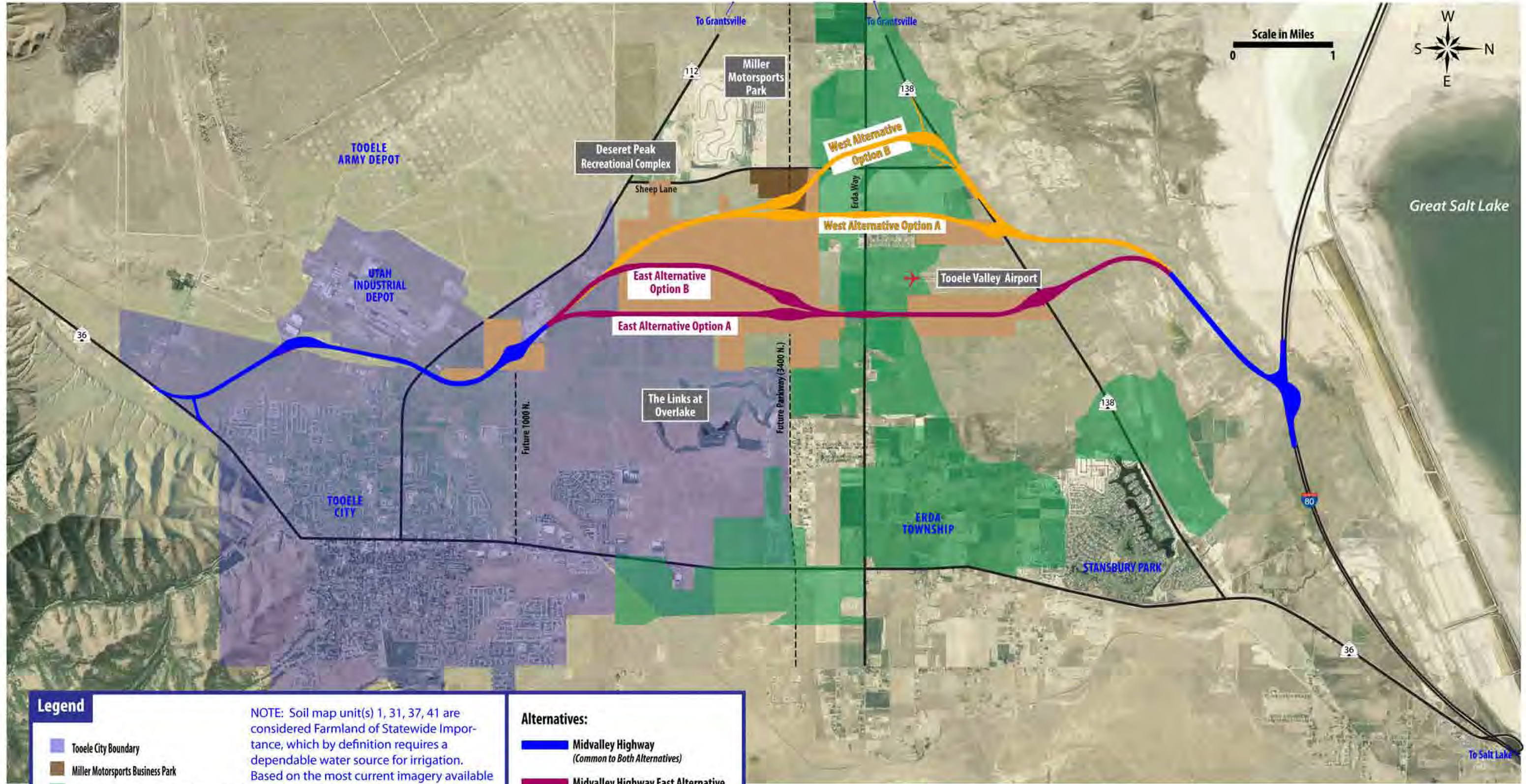
Within the project study area, farmlands of statewide importance have the required soil types and are irrigated. The soil types found within the project study area that meet the criteria for Farmland of Statewide Importance include Abela gravelly loam, Bramwell silt loam, Erda silt loam, Kanosh loam, Lakewin gravelly loam, and Manassa silt loam.

Approximately 4,000 acres of Farmland of Statewide Importance are found within the project study area, mostly along Erda Way and south of SR-138. The primary crop includes silage and hay but other crops are likely farmed. Within Tooele Valley, Farmland of Statewide Importance is irrigated using sprinkler irrigation techniques (center-pivot and wheel line). The areas determined as Farmland of Statewide Importance are shown on Figure 3.3-1.

3.3.2.2 Rangeland

Rangeland includes areas that are actively being used for cattle or horse grazing. These areas may have the same criteria required for classification as Farmland of Statewide Importance but are not irrigated and do not produce crops. There are approximately 4,100 acres of rangeland found within the project study area; they are largely located between SR-112 and SR-138. Rangelands within the project study area are shown in Figure 3.3-1.

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Legend

- Tooele City Boundary
- Miller Motorsports Business Park
- Farmlands of Statewide Importance/Irrigated Cropland
- Rangeland

NOTE: Soil map unit(s) 1, 31, 37, 41 are considered Farmland of Statewide Importance, which by definition requires a dependable water source for irrigation. Based on the most current imagery available and the Southwest Regional Gap Analysis Project (SWReGAP) it was determined that this soil is being irrigated or that there is a

Alternatives:

- Midvalley Highway
(Common to Both Alternatives)
- Midvalley Highway East Alternative
- Midvalley Highway West Alternative

Scale in Miles
0 1



Figure 3.3-1
Agricultural Resources in the Study Area



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3.3.2.3 Agriculture Protection Areas

The Agriculture Protection Area (APA) designation of land is independent of its current farmland use, but may include active cultivation of crops and/or grazing of rangeland. APAs are shown in Figure 3.3-2 and are mainly within Erda Township (Tooele County, 2008). Large parcels are owned by the Church of Jesus Christ of Latter-day Saints (LDS Church) including those between the Midvalley Highway West Alternative and Sheep Lane (Figure 3.3-2). The LDS Church owned farms are operated as part of a self-contained welfare system, these farms are mostly actively cultivated croplands. The other APAs are owned by other private land owners. The total amount of land protected by APA designation within the project study area is approximately 2,300 acres.

3.3.3 Environmental Consequences

The agricultural lands and their respective boundaries were incorporated into GIS and project impacts to determine the impacts from the Midvalley Highway alternatives. The impact considered is the area within the potential right-of-way for each alternative. The construction of either of the Midvalley Highway alternatives would directly require the conversion of farmland to transportation uses. This section also discusses the Farmland Impact Conversion Rating for both of the Midvalley Highway alternatives.

3.3.3.1 No Build Alternative

The No Build Alternative would have no impact to agricultural resources, either irrigated cropland, rangeland or APAs.

3.3.3.2 Midvalley Highway East Alternative (Options A and B)

Farmland of Statewide Importance

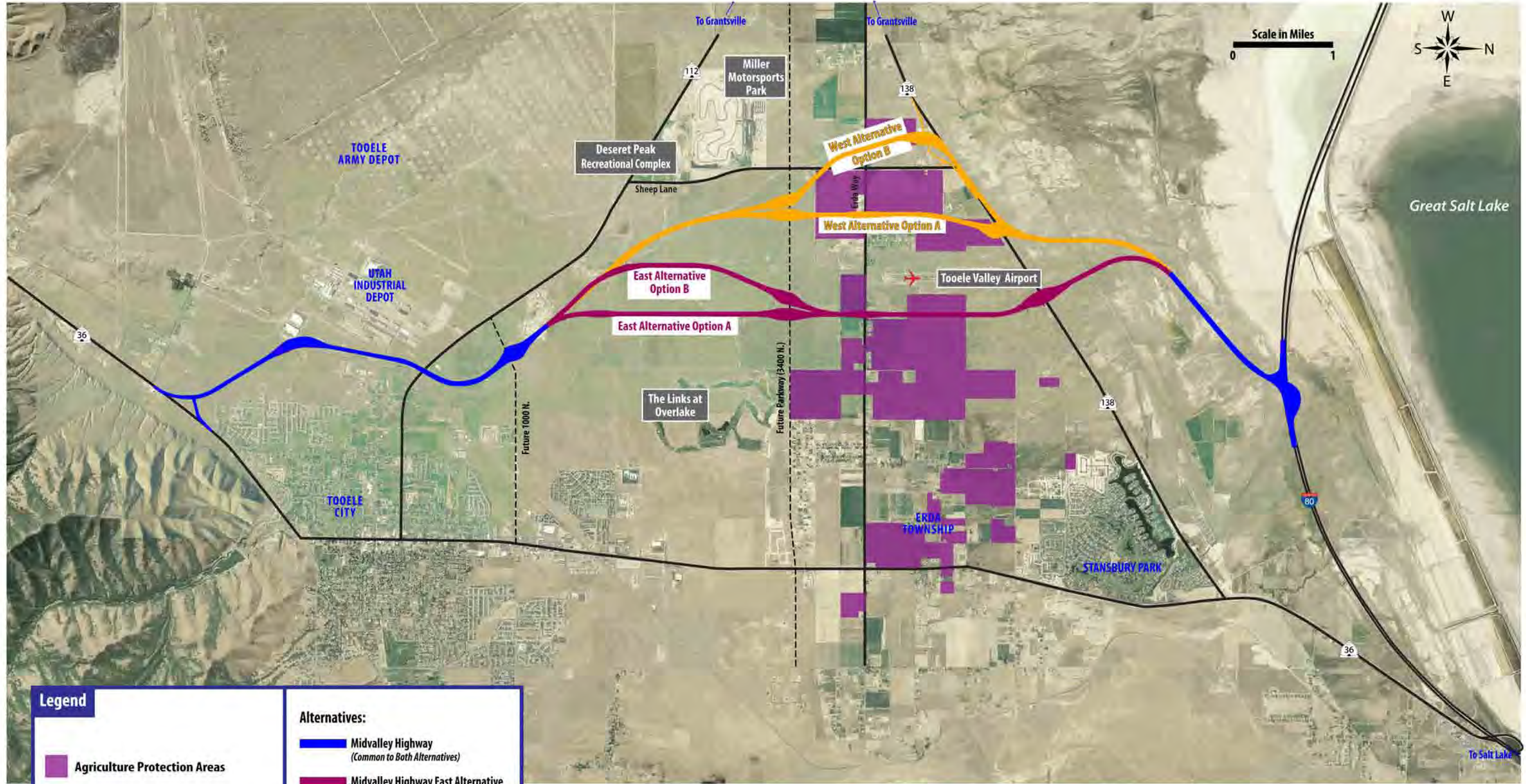
The Midvalley Highway East Alternative (Options A and B) would impact approximately 22 acres of Farmland of Statewide Importance (Table 3.3-1). The impacts are shown on Figure 3.3-3. This impact would be located on the north and south sides of Erda Way and would also disrupt existing irrigation systems located on these parcels.

Rangeland

The Midvalley Highway East Alternative, Option A, would directly impact approximately 208 acres of rangeland; Option B of this alternative would impact 215 acres of rangeland. These impacts are shown in Figure 3.3-1.



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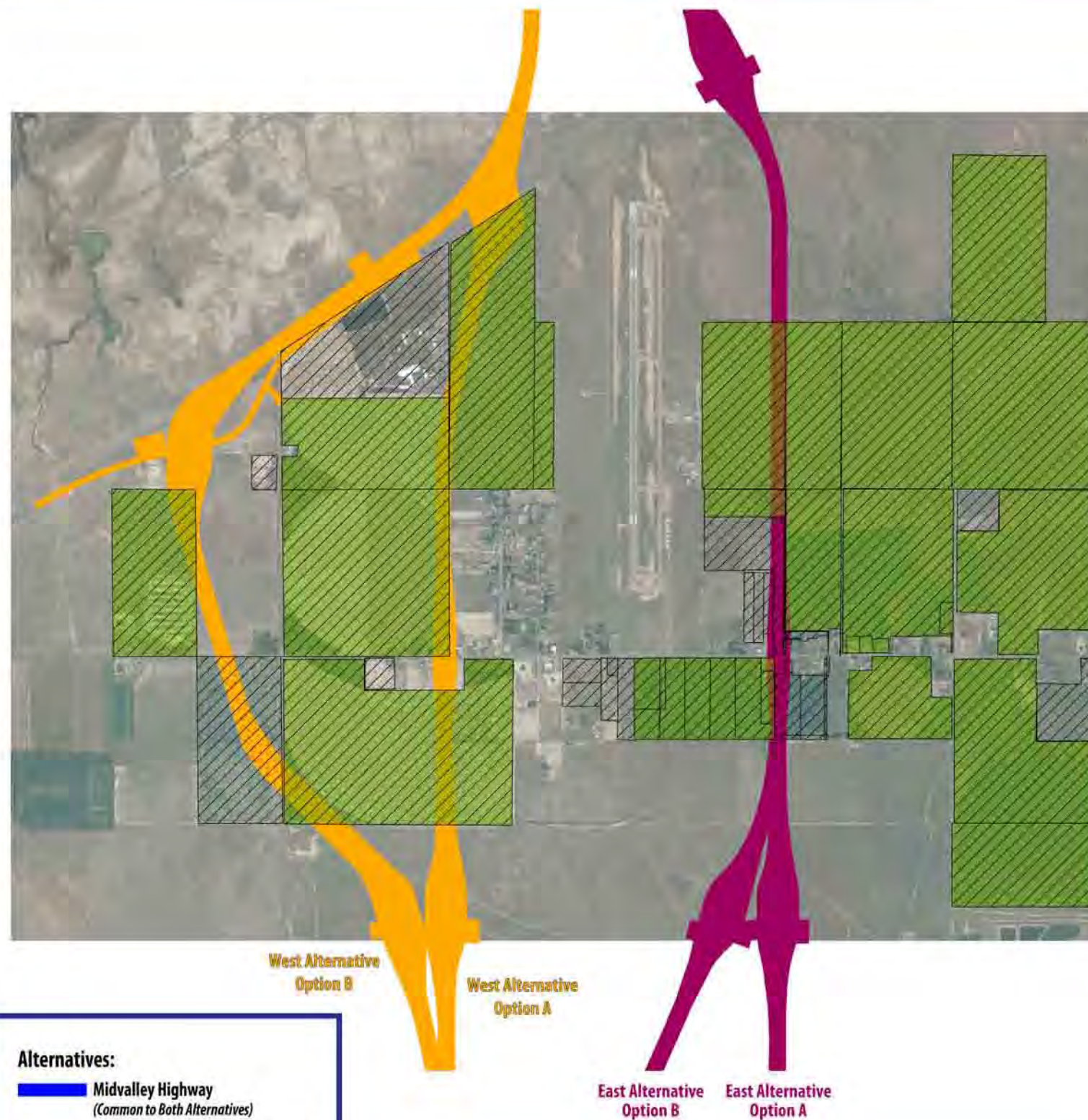


Legend

-  Agriculture Protection Areas
- Alternatives:**
 -  Midvalley Highway
(Common to Both Alternatives)
 -  Midvalley Highway East Alternative
 -  Midvalley Highway West Alternative

GIS Department, shape file "apasp83" provided May 07, 2008.

Figure 3.3-2
Agriculture Protection Areas in the Study Area



Legend

	Agricultural Protection Area
	Farmlands of Statewide Importance

Alternatives:

	Midvalley Highway (Common to Both Alternatives)
	Midvalley Highway East Alternative
	Midvalley Highway West Alternative

Alternatives:

	Midvalley Highway (Common to Both Alternatives)
	Midvalley Highway East Alternative
	Midvalley Highway West Alternative

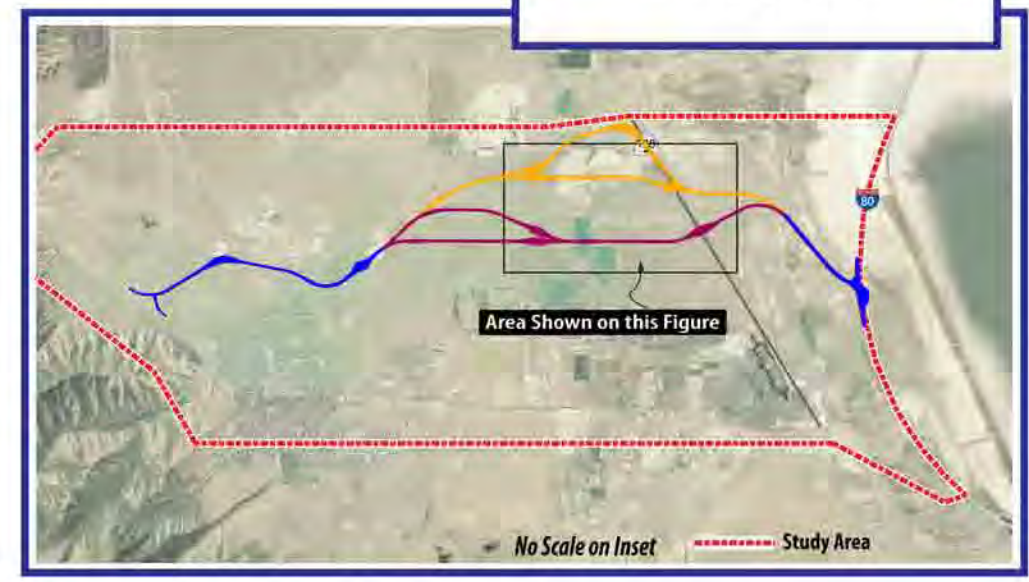


Figure 3.3-3
Impacts to Farmlands of Statewide Importance and Agricultural Protection Areas

Agriculture Protection Areas

The Midvalley Highway East Alternative (Options A and B) would convert 24 acres of Agriculture Protection Areas to a transportation use. The impacted acreage of the individual Agriculture Protection Areas is illustrated in Figure 3.3-3. It should be noted that the APA designation is independent of the Farmland of Statewide Importance designation.

TABLE 3.3-1, AGRICULTURAL IMPACTS FROM THE MIDVALLEY HIGHWAY EAST ALTERNATIVE

Farmland Type	Acres of Impact	
	Option A	Option B
Farmland of Statewide Importance	22	22
Rangeland	208	215
Total Impact	230	237
Agriculture Protection Areas	24	24

Farmland Conversion Impact Rating

The Farmland Conversion Impact Rating for the Midvalley Highway East Alternative (considered for both Options A and B) was completed in accordance with NRCS guidance. Exceeding a threshold of 160 points would require the joint lead agencies for the Midvalley Highway project to evaluate alternatives that would minimize or avoid the impact. The Farmland Conversion Impact Rating for the Midvalley Highway East Alternative totaled 141 points for Options A and B which is below the 160 point threshold. A copy of the Farmland Conversion Impact Rating is found in Appendix A.

3.3.3.3 Midvalley Highway West Alternative (Options A and B)

Farmland of Statewide Importance

The Midvalley Highway West Option A would impact approximately 46 acres of Farmland of Statewide Importance. The impacts to Farmland of Statewide Importance are shown on Figure 3.3-3. The impact would be located on property owned and operated by the LDS Church. This option would require the use of a strip of the farmland along the eastern edge of the property and would require the reconfiguration of three irrigation pivots. In addition, a barn located on the property would require relocation. The southernmost farmland would be bisected by the Midvalley Highway West Option A.

The Midvalley Highway West Option B would impact approximately 37 acres. It would not require the reconfiguration of irrigation pivots. The pivot irrigation systems used by the LDS Church would not be impacted by this alternative. However, the Midvalley Highway West Option B would impact one field that uses wheel line irrigation.

Rangeland

The Midvalley Highway West Alternative Option A would impact approximately 155 acres of rangeland (see Table 3.3-2). Option B would impact approximately 153 acres of rangeland.

Agriculture Protection Areas

The Midvalley Highway West Alternative Option A would directly impact 61 acres of Agriculture Protection Areas. The impacted acreage to individual APAs is illustrated in

Figure 3.3-3. The LDS Church owned farming operation impacted by this alternative has been placed within an APA. This farm includes three large pivot irrigation systems and other farming support structures. Modifications to the pivot irrigation systems would be required to maintain this area as viable farmland. Option B would impact 19 acres of APA.

TABLE 3.3-2, AGRICULTURAL IMPACTS FROM THE MIDVALLEY HIGHWAY WEST ALTERNATIVE

Farmland Type	Acres of Impact	
	Option A	Option B
Farmland of Statewide Importance	46	37
Rangeland	127	153
Total Impact	173	190
Agriculture Protection Areas	61	19

Farmland Conversion Impact Rating

The Farmland Conversion Impact Rating for the Midvalley Highway West Alternative (both options) was completed in accordance with NRCS guidance. Exceeding a threshold of 160 points would require the joint lead agencies for the Midvalley Highway project to evaluate alternatives that would minimize or avoid the impact. The Farmland Conversion Impact Rating for the Midvalley Highway West Alternative totaled 155 points, below the 160 point threshold as identified by the NRCS. A copy of the Farmland Conversion Impact Rating is found in Appendix A.

3.3.3.4 Impact Summary for the Midvalley Highway Alternatives

Table 3.3-3 summarizes the impacts of the Midvalley Highway alternatives on agricultural resources by two farmland types (Farmland of Statewide Importance and rangeland). Table 3.3-3 lists the acreage of impact to Agriculture Protection Areas; APAs are not calculated as part of the "Total Impact" row of this table.

TABLE 3.3-3, SUMMARY OF IMPACTED ACREAGE FOR THE MIDVALLEY HIGHWAY ALTERNATIVES

Farmland Type	Impacted Acreage by Alternative				
	No Build	Midvalley Highway East		Midvalley Highway West	
		Option A	Option B	Option A	Option B
Farmland of Statewide Importance	0	22	22	46	37
Rangeland	0	208	215	127	153
TOTAL IMPACT*	0	230	237	173	190
Agriculture Protection Areas	0	24	24	61	19

* Total impacted acreage only includes Farmland of Statewide Importance and rangeland, not Agriculture Protection Areas.

3.3.3.5 Indirect Impacts

Much of the project study area consists of agricultural lands. As discussed in this section, agricultural lands have been separated into two categories: Farmland of Statewide Importance and rangeland. The Farmland of Statewide Importance exists mainly along or near Erda Way; rangeland exists mainly between SR-112 and SR-138 (see Figure 3.3-1). The majority of agricultural land is located between SR-112 in the south and SR-138 in the north. In addition, some agricultural lands have been placed into an Agricultural Protection Area by the property owner.

No Build Alternative

Agricultural lands may convert to other uses such as commercial and residential under this alternative. However, the rate at which agricultural land uses would convert to commercial or other uses would be slower under the No Build Alternative compared to the Midvalley Highway alternatives. Some agricultural lands are already planned for development, such as the Overlake Estates residential development within Tooele City and the recently approved Miller Motorsports Business Park. Both developments would convert large parcels considered agricultural lands (rangeland).

Midvalley Highway Alternatives

With the construction of the Midvalley Highway, interchanges are planned at the future 1000 North roadway, future parkway (3400 North), and SR-138. These interchange areas would likely result in project-related development pressure to convert existing agricultural lands to commercial or residential uses.

3.3.4 Mitigation

This section discusses mitigation for the impacts to agricultural lands. The discussion includes both of the Midvalley Highway alternatives. The land not directly impacted and in agricultural production, including irrigated cropland, could still continue its current use.

3.3.4.1 Purchase of Property

Tooele County and UDOT would coordinate with individual land owners impacted by the Midvalley Highway. Compensation to impacted agricultural lands would be in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act. If the Midvalley Highway severed a parcel and made it inaccessible, the parcel would be purchased under the same act.

3.3.4.2 Access

Tooele County and UDOT will maintain access to existing farmland and agricultural areas as part of the roadway design (where reasonable). Access to agricultural lands divided by the Midvalley Highway would be provided, if reasonable, and may include culverts or other structures beneath the Midvalley Highway. This would ensure that the agricultural lands would remain viable for agricultural purposes after the completion of the project. If during the right-of-way negotiations, Tooele County and UDOT determine that providing access to either side of the Midvalley Highway is unreasonable, the entire parcel would be purchased as part of the project cost.

3.3.4.3 Irrigation

The reconfiguration of impacted irrigation systems by the Midvalley Highway would be compensated or included as part of the project. Tooele County and UDOT would coordinate

with impacted agricultural owners/operators during final design to ensure that the impacted agricultural parcels remain viable. Impacted irrigation features (i.e. sprinklers, ponds) would be restored during the construction phase. If during the right-of-way negotiations, Tooele County and UDOT determine that providing irrigation to affected parcels is unreasonable, the entire parcel would be purchased as part of the project cost.

3.3.4.4 Agriculture Protection Areas

Tooele County has identified parcels that are protected by the Agriculture Protection Areas defined by Utah Code. Prior to construction, Tooele County and UDOT would coordinate with impacted property owners who have placed their lands in an APA. The removal of the APA status would require the approval of the land owner or the Tooele County Commission.