E.4.6 Agriculture

The Modified Route D Alternative route is described in Section E.4.1. It includes three main segments: a southwesterly segment that crosses BLM, CNF and private lands before reaching the Cameron Substation, a westerly segment that follows the southern boundary of the CNF, and a northerly segment that is primarily on CNF land and includes the Modified Route D Substation.

E.4.6.1 Environmental Setting

As shown in Table E.4.6-1, the Modified Route D Alternative would traverse DOC Farmlands, Active Agricultural Operations, and Williamson Act lands. Figures Ap.AG E.4-1 through -5, in the appendix at the end of this section, show the location of Agricultural Resources within the alternative.

Table E.4.6-1. Modified Route D Alternative Agricultural Resources

Milepost	DOC Farmlands	Active Agricultural Operations	Williamson Act Lands
MD 0-3	None	None	None
MD 3-6	None	Grazing Operations	APN*: 6050900400 Contract Year: 2003 Size (Acres): 125.97
			APN: 6050300400 Contract Year: 2003 Size (Acres): 37.07
			APN: Mt Laguna (AG PRES) Contract Year: 2003 Size (Acres): 45753
MD 6-8	Farmland of Local Importance	None	APN: 6050900400 Contract Year: 2003 Size (Acres): 125.97
			APN: 6050800200 Contract Year: 2003 Size (Acres): 245.55 APN: 6050900400
			APN: Mt Laguna (AG PRES) Contract Year: 2003 Size (Acres): 45753
			APN: 6051000100 Contract Year: 2003 Size (Acres): 117.88APN: Mt Laguna (AG PRES) Contract Year: 2003 Size (Acres): 45753
			APN: 6051000100 Contract Year: 2003 Size (Acres): 117.88
MD 8-10	None	Grazing Operations	None
MD 10-21	None	Grazing Operations	APN: None Potrero (AG PRES) Contract Year: 2003 Size (Acres): 18479
MD 21-22	None	None	None
MD 22-28	Grazing Land	Grazing Operations	APN: Barrett Lake (AG PRES) Contract Year: 2003 Size (Acres): 32098

Table E.4.6-1. Modified Route D Alternative Agricultural Resources

Milepost	DOC Farmlands	Active Agricultural Operations	Williamson Act Lands
MD 28-30	None	None	None
MD 30-36.3	None	Grazing Operations	APN: Japatul (AG PRES) Contract Year: 2003 Size (Acres): 4616.6

* APN – Assessor's Parcel Number

DOC Farmlands

The Modified Route D Alternative would traverse DOC Farmlands (Farmland of Local Importance between MPs MD-6 and MD-8 and Grazing Land between MPs MD-22 and MD-27).

Active Agricultural Operations

The Modified Route D Alternative would traverse Active Agricultural Operations (grazing operations) between MPs MD-3 and MD-6, MPs MD-8 and MD-10, MPs MD-10 and MD-21, MPs MD-22 and MD-27, and MPs MD-30 and MD-36.3. Grazing operations apply to calves and cattle that graze in unirrigated pastures.

Williamson Act Lands

The Modified Route D Alternative would traverse Williamson Act lands between MPs MD-5 and MD-9, MPs MD-14 and MD-21, MPs MD-22 and 27, and MPs MD-33 and MD-36.

E.4.6.2 Environmental Impacts and Mitigation Measures

This section presents a discussion of impacts and mitigation measures for the Modification Route D Alternative as a result of construction, operation, and maintenance of the project. The Modified Route D Alternative would permanently impact a total of approximately 656.8 acres of Agricultural Resources, (35.0 acres of DOC Farmlands, 520.7 acres of Active Agricultural Operations, and 415.8 acres of Williamson Act lands). Table E.4.6-2 summarizes the impacts of the Modified Route D Alternative, the Modified Route D Alternative, the Star Valley Option on agriculture. The full text of mitigation measures is provided in Appendix 12.

Table E.4.6-2. Impacts Identified – Modified Route D Alternative – Agriculture

Impact No.	Description	Impact Significance
Modified Route D Alternative (and Modified Route D Alternative Substation)		
AG-1	Construction activities would temporarily interfere with Active Agricultural Operations	Class II, III
AG-2	Operation would permanently convert DOC Farmlands to non-agricultural use	Class I
AG-3	Operation would permanently interfere with Active Agricultural Operations	Class I, II
AG-4	Operation would permanently convert Williamson Act lands to non-agricultural use	Class I
Star Valley Option		
AG-1	Construction activities would temporarily interfere with Active Agricultural Operations	Class II, III
AG-2	Operation would permanently convert DOC Farmlands to non-agricultural use	No Impact
AG-3	Operation would permanently interfere with Active Agricultural Operations	Class I, II, III
AG-4	Operation would permanently convert Williamson Act lands to non-agricultural use	Class I

Construction Impacts

Impact AG-1: Construction activities would temporarily interfere with Active Agricultural Operations (Class II, III)

Active Agricultural Operations would be temporarily impacted by construction activities, including construction or expansion of temporary or permanent access roads, use of conductor pulling sites; equipment and vehicle staging areas; and material storage and assembly sites. Construction activities could temporarily interfere with agricultural operations by impeding access to certain fields or plots of land and obstructing farm vehicles and equipment; or disrupting drainage and irrigation systems (including self-propelled irrigation rigs), all of which could result in the temporary withdrawal of land from production, thereby reducing agricultural productivity on the affected land.

The Modified Route D Alternative would incorporate APMs to minimize direct impacts to Active Agricultural Operations. APM LU-1 requires that advance notification be provided to all residents, property owners, and tenants within 300 feet of proposed construction activities. APM LU-3 would compensate farmers for lost crops and would schedule construction activities so as to avoid planting, growing, and harvesting seasons, when feasible. APM LU-4 would require that property owners and tenants whose land may be obstructed by construction activities be notified in advance and alternative access be provided, if feasible. APM LU-6 would require that limits of construction be predetermined and that construction activities remain within the predetermined limits. Refer to Table D.6-6 for details of applicable agriculture APMs.

With incorporation of these APMs, impacts related to obstruction of access to properties and conflicts with irrigation canals would be reduced to a less than significant level (Class III). However, impacts related to the disruption of agricultural operations during construction activities, which would include disruptions relating to the use of farm vehicles and equipment, and grazing activities would not be reduced to a less than significant level. Implementation of Mitigation Measure AG-1a would be necessary to mitigate impacts of the Route D Alternative to agricultural operations to a less than significant level (Class II).

During construction, soils could become compacted as a result of vehicles and construction equipment traversing them. Compaction of agricultural soils, left unaddressed, would impact subsequent agricultural operations. This would be a significant impact. Implementation of Mitigation Measure AG-1a would ensure that impacts to agricultural operations resulting from construction-related soil compaction would be less than significant by requiring that compacted soils be restored. Implementation of Mitigation Measures AG-1a and AG-1b would mitigate impacts of the Route D Alternative to agricultural operations as a result of soil compaction to a less than significant level (Class II).

Mitigation Measures for Impact AG-1: Construction activities would temporarily interfere with Active Agricultural Operations

AG-1a Avoid interference with agricultural operations.

AG-1b Restore compacted soil.

Operational Impacts

Impact AG-2: Operation would permanently convert DOC Farmlands to non-agricultural use (Class I)

The Modified Route D Alternative would permanently convert approximately 35.0 acres of DOC Farmland (24.8 acres of Farmland of Local Importance and 10.2 acres of Grazing Land), which is greater

than the 10-acre threshold for determining significance of impacts to DOC Farmlands. In addition, the Modified Route D Alternative, in conjunction with the Interstate 8 Overhead/Underground Alternative, would significantly impact DOC Farmlands because greater than 10 acres of DOC Farmland overall would be permanently converted. Thus, the Modified Route D Alternative would significantly impact DOC Farmlands (Class I), and no feasible mitigation measure exists to mitigate this impact to a less than significant level.

Impact AG-3: Operation would permanently interfere with Active Agricultural Operations (Class I, II)

The Modified Route D Alternative would permanently remove 520.7 acres of land under Active Agricultural Operation (grazing operations). Both the Modified Route D Alternative itself, and in combination with the Interstate 8 Overhead/Underground Alternative, would exceed the 10-acre threshold for determining significance of impacts due to the removal of land under Active Agricultural Operation. Thus, impacts of the Modified Route D Alternative relating to the loss of land under Active Agricultural Operation would be significant (Class I), and no feasible mitigation measure exists to reduce this impact to a less than significant level.

In addition to the permanent loss of land under Active Agricultural Operation, the Modified Route D Alternative may result in other adverse impacts to agricultural activities. These include disrupting farming facilities or operations and disrupting livestock grazing operations.

Under certain circumstances, the presence of new project components would permanently disrupt active farming operations in nearby areas, by dividing or fragmenting agricultural fields, obstructing access, impeding the delivery and use of water for livestock and irrigation, reducing the efficacy of windbreaks, and/or disrupting the operation of farm equipment.

Incorporation of APM LU-7 would ensure that the location of proposed facilities are matched to existing facilities (where feasible and appropriate), and if facilities cannot be located along property or field boundaries, APM LU-7 would ensure that SDG&E would consult with affected property owners to identify facility locations that would create the least potential for impact. Incorporation of APM LU-10 would ensure that facilities are installed along the edges of private property (also where feasible and appropriate). Incorporation of these APMs would minimize effects to farming operations such that impacts would not be significant (Class III).

Activities associated with grazing livestock, such as cattle movement, access to water, feeding, and shipping of livestock, would be permanently impeded by new access roads and towers, as well as associated routine maintenance activities. As such, presence of the Proposed Project would disrupt livestock grazing operations, a significant impact. Implementation of Mitigation Measure AG-1c would ensure that impacts of the Modified Route D Alternative to livestock grazing operations would be mitigated to a less than significant level (Class II).

Impact AG-4: Operation would permanently convert Williamson Act lands to non-agricultural use (Class I)

Operation of the Modified Route D Alternative would permanently convert 415.8 acres of Williamson Act lands. Overall, the Modified Route D Alternative itself and the Modified Route D Alternative, in conjunction with the Interstate 8 Overhead/Underground Alternative, would permanently convert more than 10 acres of Williamson Act lands to non-agricultural use. Thus, impacts to Williamson Act lands

as a result of the Modified Route D Alternative would be significant (Class I), and no feasible mitigation measure exists to reduce this impact to a less than significant level.

E.4.6.3 Modified Route D Alternative Substation

The Modified Route D Alternative Substation would be south of the Interstate 8 Alternative at MPs MD 33.5 and MD-34. The site is use for grazing. Agricultural Resources at the site have been included with the Modified Route D Alternative analysis. The impacts on agriculture from construction and operation of the substation would be similar to those discussed for the alternative, and the same APMs and mitigation measures would apply. With inclusion of the APMs and mitigation measures, impacts will be less than significant (Class II), with the exception of permanent impacts resulting from taking agricultural land. Based on the entire project, this would exceed the level of significance (10 aces) and would be a significant and unmitigable impact (Class I).

E.4.6.4 Star Valley Option

Environmental Setting

As shown in Table E.4.6-3, the Star Valley Option would traverse or be adjacent to Active Agricultural Operations and Williamson Act lands; no DOC Farmlands would be traversed by or adjacent to this option. Figure Ap.AG E.4-5 provides an illustration of Agricultural Resources within the Star Valley Option.

The Star Valley Option would not traverse DOC Farmlands, but would traverse grazing operations between MPs SVO-0 and SVO-1 and MPs SVO-2 and SVO-3. It would also traverse Williamson Act lands between MPs SVO-1 and SVO-2.

Table E.4.6-3. Star Valley Option Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands
SVO 0-1	None	Grazing Operations	None
SVO1-2	None	None	No Info Available*
SVO 2-3	None	Grazing Operations, Orchards	None

* No Info Available = these are contract lands, but no information was available regarding their size or assessor property number.

Environmental Impacts and Mitigation Measures

This section presents a discussion of impacts and mitigation measures for the Star Valley Option as a result of construction, operation, and maintenance of the project. The Star Valley Option would permanently impact a total of approximately 1.1 acres of Agricultural Resources (1.1 acres of Active Agricultural Operations). Table E.4.6-2 summarizes the impacts of The Star Valley on agriculture.

Construction Impacts

Impact AG-1: Construction activities would temporarily interfere with Active Agricultural Operations (Class II, III)

Active Agricultural Operations would be temporarily impacted by construction activities, including construction or expansion of temporary or permanent access roads, use of conductor pulling sites; equipment and vehicle staging areas; and material storage and assembly sites. Construction activities could temporarily interfere with agricultural operations by impeding access to certain fields or plots of land

and obstructing farm vehicles and equipment; or disrupting drainage and irrigation systems (including self-propelled irrigation rigs), all of which could result in the temporary withdrawal of land from production, thereby reducing agricultural productivity on the affected land.

The Star Valley Option would incorporate APMs to minimize direct impacts to Active Agricultural Operations. APM LU-1 requires that advance notification be provided to all residents, property owners, and tenants within 300 feet of proposed construction activities. APM LU-3 would compensate farmers for lost crops and would schedule construction activities so as to avoid planting, growing, and harvesting seasons, when feasible. APM LU-4 would require that property owners and tenants whose land may be obstructed by construction activities be notified in advance and alternative access be provided, if feasible. APM LU-6 would require that limits of construction be predetermined and that construction activities remain within the predetermined limits. Refer to Table D.6-6 for details of applicable agriculture APMs.

With incorporation of these APMs, impacts related to obstruction of access to properties and conflicts with irrigation canals would be reduced to a less than significant level (Class III). However, impacts related to the disruption of agricultural operations during construction activities, which would include disruptions relating to the use of farm vehicles and equipment, and grazing activities would not be reduced to a less than significant level. Implementation of Mitigation Measure AG-1a would be necessary to mitigate impacts of the Route D Alternative to agricultural operations to a less than significant level (Class II).

During construction, soils could become compacted as a result of vehicles and construction equipment traversing them. Compaction of agricultural soils, left unaddressed, would impact subsequent agricultural operations. This would be a significant impact. Implementation of Mitigation Measure AG-1a would ensure that impacts to agricultural operations resulting from construction-related soil compaction would be less than significant by requiring that compacted soils be restored. Implementation of Mitigation Measures AG-1a and AG-1b would mitigate impacts of the Route D Alternative to agricultural operations as a result of soil compaction to a less than significant level (Class II).

Mitigation Measures for Impact AG-1: Construction activities would temporarily interfere with Active Agricultural Operations

AG-1a Avoid interference with agricultural operations.

AG-1b Restore compacted soil.

Operational Impacts

Impact AG-2: Operation would permanently convert DOC Farmlands to non-agricultural use (No Impact)

The Star Valley Option would not convert any DOC Farmland. However, impacts to DOC Farmlands would still be considered significant because greater than 10 acres of DOC Farmlands would be impacted for the overall route (Interstate 8 Alternative plus any combination of alternatives). This would exceed the threshold of significance. Thus, although the Star Valley Option would not convert DOC Farmlands, it would be a part of a longer route that would significantly impact DOC Farmlands. No feasible mitigation exists to mitigate this impact to a less than significant level.

Impact AG-3: Operation would permanently interfere with Active Agricultural Operations (Class I, II, III)

The Star Valley Option would permanently remove 1.1 acres of land under Active Agricultural Operation (0.01 acres of grazing operations and 1.1 acres of orchards). While the Star Valley Option itself would not exceed the 10-acre significance threshold, the option in combination with the Interstate 8 Alternative, would exceed the 10-acre threshold for determining significance of impacts due to the removal of land under Active Agricultural Operation. Thus, impacts of the Star Valley Option relating to the loss of land under Active Agricultural Operation would be significant (Class I), and no feasible mitigation exists to reduce this impact to a less than significant level.

In addition to the permanent loss of land under Active Agricultural Operation, the Star Valley Option may result in other adverse impacts to agricultural activities. These include disrupting farming facilities or operations and disrupting livestock grazing operations.

Under certain circumstances, the presence of new project components would permanently disrupt active farming operations in nearby areas, by dividing or fragmenting agricultural fields, obstructing access, impeding the delivery and use of water for livestock and irrigation, reducing the efficacy of windbreaks, and/or disrupting the operation of farm equipment.

Incorporation of APM LU-7 would ensure that the location of proposed facilities are matched to existing facilities (where feasible and appropriate), and if facilities cannot be located along property or field boundaries, APM LU-7 would ensure that SDG&E would consult with affected property owners to identify facility locations that would create the least potential for impact. Incorporation of APM LU-10 would ensure that facilities are installed along the edges of private property (also where feasible and appropriate). Incorporation of these APMs would minimize effects to farming operations such that impacts would not be significant (Class III).

Activities associated with grazing livestock, such as cattle movement, access to water, feeding, and shipping of livestock, would be permanently impeded by new access roads and towers, as well as associated routine maintenance activities. As such, presence of the Proposed Project would disrupt livestock grazing operations, a significant impact. Implementation of Mitigation Measure AG-1c would ensure that impacts of the Star Valley Option to livestock grazing operations would be mitigated to a less than significant level (Class II).

Impact AG-4: Operation would permanently convert Williamson Act lands to non-agricultural use (Class I)

Operation of the Star Valley Option would not permanently convert Williamson Act lands. However, impacts to Williamson Act lands would still be considered significant because greater than 10 acres of Williamson Act lands would be impacted for the overall route (Interstate 8 Alternative plus any combination of alternatives). This would exceed the threshold of significance. Thus, although the Star Valley Option would not convert Williamson Act lands, it would be a part of a longer route that would significantly impact Williamson Act lands. No feasible mitigation exists to mitigate this impact to a less than significant level.

E.4.6.5 Future Transmission System Expansion

For the Proposed Project and route alternatives along the Proposed Project route, Section B.2.7 identifies Future Transmission System Expansion routes for both 230 kV and 500 kV future transmission lines. These routes are identified, and impacts are analyzed in Section D of this EIR/EIS, because

SDG&E has indicated that transmission system expansion is foreseeable, possibly within the next 10 years. For the SWPL alternatives, 500 kV and 230 kV expansions would also be possible. The potential expansion routes for the Route D Alternative are described in the following paragraphs.

230 and 500 kV Future Transmission System Expansion

The Modified Route D Alternative would begin at approximately MP I8-47 and would head southwest then northward until it reached the Interstate 8 Alternative at approximately MP I8-71. A substation could be built to convert the 500 kV line to 230 kV at approximately MD-34, the Modified Route D Alternative Substation. The double-circuit 230 kV line would exit the substation overhead, then continue north into the CNF, joining the Interstate 8 Alternative at approximately MP I8-71 where it transitions to underground at the east end of Alpine Boulevard. The Modified Route D Substation would accommodate up to six 230 kV circuits and a 500 kV circuit. Only two 230 kV circuits are proposed at this time, but construction of additional 230 kV circuits and a 500 kV circuit out of the Modified Route D Substation may be required in the future. There are three routes that are most likely for these future lines; each is described below. Figure E.1.1-6 illustrates the potential routes of the future transmission lines.

- Two additional 230 kV circuits could be installed underground within Alpine Boulevard, with appropriate compact duct banks and engineering to avoid, or possibly relocate, existing utilities. This route would follow the Interstate 8 Alternative route from the Interstate 8 Alternative Substation until MP I8-70.8 where it would transition underground until MP I8-79 where it would transition overhead again. The future transmission line route would continue to follow the Interstate 8 Alternative's overhead 230 kV route to the point where it meets the Proposed Project at MP 131. See Section E.1.6.1 and E.1.6.2 for the Agriculture setting, impacts, and mitigation measures along the I-8 route. The future transmission route would then join the proposed route corridor to the west, continuing past the Sycamore Canyon Substation to the Chicarita Substation. See Section D.6.2, D.6.8, and D.6.9 for the Agriculture setting, impacts, and mitigation measures for the Inland Valley and Coastal Links. It could then follow the Proposed Project's 230 kV Future Transmission Expansion route (see description in Section B.2.7) from Chicarita to the Escondido Substation shown in Figure B-12a. See Section D.6.11 for the setting, impacts, and mitigation measures for the Future Transmission System Expansion of the Proposed Project.
- Additional 230 and 500 kV circuits could follow the Route D Alternative corridor (see description in Section E.3.1) to the north of Descanso, after following the Interstate 8 Alternative 230 kV route from the Interstate 8 Substation to MP I8-70.3. See Section E.3.6.1 and E.3.6.2 for the Agriculture setting, impacts, and mitigation measures along Route D. The Route D corridor would connect with the Proposed Project corridor at Milepost 114.5, and could then follow either: (1) the Proposed Project southwest to the Chicarita Substation and then follow the Proposed Project's 230 kV Future Transmission Expansion route (see description in Section B.2.7) from Chicarita to the Escondido Substation; or (2) the Proposed Project northeast to the Proposed Central East Substation and then follow the Proposed Project's 500 kV Future Transmission Expansion route shown in Figure B-12b (see description in Section B.2.7). See Section D.6.2, D.6.7, D.6.8, and D.6.9 for the setting, impacts, and mitigation measures for the Central, Inland Valley, and Coastal Links of the Proposed Project. See Section D.6.11 for the setting, impacts, and mitigation measures for the Future Transmission System Expansion of the Proposed Project.
- The future 230 and 500 kV lines could follow the Modified Route D Alternative corridor (within the 368 Corridor identified by the Department of Energy's Draft West-wide Corridor Programmatic EIS) south for 8 miles to MP MD-26. See Section E.4.6.1 and E.4.6.2 for the Agriculture setting, impacts, and mitigation measures along Modified Route D. At MP MD-26, new 230 or 500 kV

circuits would turn west and connect with the northernmost segment of the West of Forest Alternative route as described in Section E.1.1. See Section E.1.6.5 for the Agriculture setting, impacts, and mitigation measures along MP MD-26 to MP I8-79 corridor. This route would meet up with the Interstate 8 Alternative at approximately MP I8-79 and would follow the Interstate 8 Alternative's overhead 230 kV route to the point where it meets the Proposed Project at MP 131 (for a description of the Interstate 8 transmission corridor see Section E.1.1). The future transmission route would then join the proposed route corridor to the west, continuing past the Sycamore Canyon Substation to the Chicarita Substation. It could then follow the Proposed Project's 230 kV Future Transmission Expansion System (see description in Section B.2.7) from Chicarita to the Escondido Substation. See Section D.6.11 for the setting, impacts, and mitigation measures for the Future Transmission System Expansion of the Proposed Project.