

E.1.6 Agriculture

The 92.7-mile Interstate 8 Alternative would generally parallel I-8 between the Imperial Valley Substation in Imperial County and the community of Alpine in San Diego County, following the existing SWPL transmission line. The alternative route would be 92.7 miles long, about 38.3 miles shorter than the proposed route. In addition to the alternative, five route options are considered in this section: the Campo North Option, three route options in the area of Buckman Springs (i.e., South Buckman Springs Option, Buckman Springs Underground Option, and West Buckman Springs Option), and the Chocolate Canyon Option.

E.1.6.1 Environmental Setting

As shown in Table E.1.6-1, the Interstate 8 Alternative would traverse or be adjacent to DOC Farmland, Active Agricultural Operations, and Williamson Act lands. In the agricultural resources maps at the end of Section E.1.6 (Ap.AG E.1), Figures E.1-1 through -11 provide an illustration of Agricultural Resources traversed by or adjacent to the Interstate 8 Alternative.

DOC Farmlands

The Interstate 8 Alternative would traverse or be adjacent to Farmland of Local Importance between I8-86 and -87, I8-88 and -89, and I8-92 and -92.7, and Grazing Land between I8-76 and -77, I8-78 and -81, and I8 82 and 92.7.

Active Agricultural Operations

Active Agricultural Operations traversed by or adjacent to the Interstate 8 Alternative include an egg ranch between I8-80 and -81, forage crops between I8-33 and -35, and grazing operations between I8-38 and -40, I8-42 and -43, I8-51 and -54, I8-72 and -76, and I8-78 and -81. Embly Egg Ranch is located between MP 80 and MP 81 in the Harbison Canyon area of San Diego County. Forage crops are located between MP 33 and 35 and include those crops used to feed livestock, such as hay. Grazing operations apply to calves and cattle that graze in unirrigated pastures.

Williamson Act Lands

This Interstate 8 Alternative would traverse or be adjacent to Williamson Act lands between I8-52 and -63, I8-72 and -74, and I8-82 and -86.

E.1.6.2 Environmental Impacts and Mitigation Measures

Table E.1.6-2 summarizes the impacts of the Interstate 8 Alternative and the five route options on agriculture.

Table E.1.6-2. Impacts Identified – Interstate 8 Alternative – Agriculture

Impact No.	Description	Impact Significance
Interstate 8 Alternative		
AG-1	Construction activities would temporarily interfere with Active Agricultural Operations	Class II, III
AG-2	Operation would permanently convert DOC Farmland 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
Campo North Option		
AG-1	Construction activities would temporarily interfere with Active Agricultural Operations	Class II, III
AG-2	Operation would permanently convert DOC Farmland to non-agricultural use	No Impact (Class I for overall route)
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	No Impact (Class I for overall route)
Buckman Springs Underground Option		
AG-2	Operation would permanently convert DOC Farmland to non-agricultural use	No Impact (Class I for overall route)
AG-3	Operation would permanently interfere with Active Agricultural Operations	No Impact (Class I for overall route)
AG-4	Operation would permanently convert Williamson Act lands to non-agricultural use	Class I
West Buckman Springs Option and Buckman South Option		
AG-1	Construction activities would temporarily interfere with Active Agricultural Operations	Class II, III
AG-2	Operation would permanently convert DOC Farmland 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
Chocolate Canyon Option		
AG-1	Construction activities would temporarily interfere with Active Agricultural Operations	Class II, III
AG-2	Operation would permanently convert DOC Farmland 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

The Interstate 8 Alternative would permanently impact a total of approximately ~~351.6~~ 124.2 acres of Agricultural Resources (~~135.5~~ 30.3 acres of DOC Farmland, ~~198.8~~ 47.1 acres of Active Agricultural Operations, and ~~141.9~~ 50 acres of Williamson Act lands. Note that there are occasions where the alignment itself does not traverse a particular Agricultural Resource, but access roads and other work areas may impact that particular Agricultural Resource. For instance, while the alignment may not affect Active Agricultural Operations, access roads might.

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

Active Agricultural Operations within the Interstate 8 Alternative would be temporarily impacted by construction activities associated with the construction of the project, 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 damaging or removing crops or precluding planting; 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 Interstate 8 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-5 would ensure that SDG&E would coordinate construction activities with water management representatives to remedy encroachment into and around irrigation canals. 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.

As a result of incorporating these APMs, construction of the Proposed Project would not result in damage or loss of crops, obstruction of access to properties, and conflicts with irrigation canals would be less than significant level (Class III). However, impacts related to the disruption of agricultural operations during construction activities, which

Table E.1.6-1. Interstate 8 Alternative Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands
18 0-33	None	None	None
18 33-35	None	Forage Croplands	None
18 35-38	None	None	None
18 38-40	None	Grazing Operations	None
18 40-42	None	None	None
18 42-43	None	Grazing Operations	None
18 43-45	None	None	None
18 45-47	None	Grazing Operations	None
18 47-51	None	None	None
18 51-52	None	Grazing Operations	None
18 52-54	None	Grazing Operations	APN ¹ : 6050400100 Size (acres): 39.7 APN: 6050300700 Size (acres): 26.4 APN: Mt Laguna (AG PRES) Size (acres): 45,753.0
18 54-64	None	None	APN: Mt Laguna (AG PRES) Size (acres): 45,753.0 APN: 5271200800 Size (acres): 92.5 APN: 5271200500 Size (acres): 15.0 APN: 5271200400 Size (acres): 480.0 APN: Corte Madera (AG PRES) Size (acres): 24,758.0 APN: OUT (AG PRES) Size (acres): 597.7
18 64-67	None	Grazing Operations	None
18 67-72	None	None	None
18 72-76	None	Grazing Operations	APN: 4060522000 Size (acres): 26.9 APN: Alpine (AG PRES) Size (acres): 548.4
18 76-77	Grazing Land	None	None
18 77-78	None	None	None
18 78-81	Grazing Land	Grazing Operations	None
18 81-82	None	None	None
18 82-86	Grazing Land	None	APN: 3900710100 Size (acres): 75.0 APN: El Monte (AG PRES) Size (acres): 425.1 APN: 3900600800 Size (acres): 71.6 APN: 3900600700 Size (acres): 11.9 APN: 3900200300 Size (acres): 88.0 APN: 3900600100 Size (acres): 53.5 APN: 3900200200 Size (acres): 40.0
18 86-92.7	Farmland of Local Importance Grazing Land	None	None

1 Williamson Act lands shown are contract lands unless otherwise noted. All contracts were renewed in 2003.

2 Williamson Act land size is measured in acres.

3 APN = Assessor's Parcel Number

would include disruptions relating to the use of farm vehicles and equipment as well as private drainage and irrigation systems (including self-propelled irrigation rigs), would be significant. Implementation of Mitigation Measure AG-1a would be necessary in order to mitigate construction-related impacts to active agricultural operations to a less than significant level (Class II).

During construction, soils would 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-1b would ensure that impacts to agricultural operations resulting from construction-related soil compaction would be less than significant by requiring that compacted soils within DOC Farmland be restored. Implementation of Mitigation Measures AG-1a and AG-1b would mitigate impacts 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 Farmland to non-agricultural use (Class I)

Impacts to DOC Farmland would occur where the location of project facilities, such as access roads and towers, would permanently convert the land upon which they are situated to non-agricultural use. The Interstate 8 Alternative would permanently convert approximately ~~135.5~~124.2 acres of DOC Farmland (~~88.58.0~~ acres of Farmland of Local Importance and ~~47.022.2~~ acres of Grazing Land), which is greater than the 10-acre threshold for determining the significance of impacts. Thus, the Interstate 8 Alternative would significantly impact DOC Farmland (Class I), and 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)

The Interstate 8 Alternative would permanently remove ~~174.622.2~~ acres of grazing operations. The alternative would permanently remove more than 10 acres of land under Active Agricultural Operation. Thus, the Interstate 8 Alternative would significantly impact Active Agricultural Operation (Class I), and no feasible mitigation exists to mitigate this impact to a less than significant level.

In addition to the permanent loss of land under Active Agricultural Operation, the Interstate 8 Overhead/Underground Alternative would result in other adverse agricultural impacts in the vicinity of the project. These include (1) disrupting farming facilities or operations, (2) disrupting or altering aerial spraying practices, and (3) disrupting livestock grazing operations

~~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 incorporation of APM LU-10 would ensure that facilities are installed along the edges of private property (also where feasible and appropriate). 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 these APMs would minimize impacts to farming operations through avoidance of areas to the greatest extent feasible, but such impacts would not be reduced to a less than significant level. Implementation of Mitigation Measure AG-1a would ensure that impacts relating to the disruption of Active Agricultural Operations would be mitigated to a less than significant level (Class II).

Transmission lines and towers present a substantial obstacle for aerial spraying applicators to avoid, and require additional attention from the pilots. Thus, the presence of transmission lines and towers associated with the Interstate 8 Alternative would result in interference with agricultural operations, a significant impact. Implementation of Mitigation Measure AG-3b would ensure that aerial applicators would be notified of the project location and components in order to educate pilots to significant dangers that would exist as a result of development of the Proposed Project. However, even with implementation of Mitigation Measure AG-3b, hazards to aerial spraying would continue to pose safety hazards to aerial applicators, or can preclude spraying activities in certain areas. As such, impacts to aerial spraying applications would remain significant (Class I).

Mitigation Measure for Impact AG-3: Operation would permanently interfere with Active Agricultural Operations

AG-1a **Avoid interference with agricultural operations.**

AG-3b **Consult with and inform aerial applicators.**

AG-1c **Coordinate with grazing operators.**

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

Operation of the Interstate 8 Alternative would permanently convert 141,950.0 acres of Williamson Act lands. Impacts due to either the main alternative or the option alternative would be significant because greater than 10 acres of Williamson Act lands would be converted to non-agricultural use overall. There are no non-agricultural areas near the option route to which the option alternative could be relocated so as to reduce impacts to agriculture. Surrounding land is occupied by agriculture, which would generate similar or potentially greater impacts to Active Agricultural Operations. For the fact that the alternative and the option alternative would convert more than 10 acres of Williamson Act lands to non-agricultural use and that movement of the option alternative's route elsewhere in the surrounding area would not be practical, impacts to Williamson Act lands as a result of the Interstate 8 Alternative and Interstate 8 West Buckman Springs Option would be considered significant (Class I), and no feasible mitigation exists to reduce this impact to a less than significant level.

E.1.6.3 Interstate 8 Alternative Substation

The Interstate 8 Alternative Substation would be immediately adjacent to the Interstate 8 Alternative at MP 18-56. The site is use for grazing. Agricultural Resources at the site have been included with the Interstate 8 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 sig-

nificant (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 acres) and would be a significant and unmitigable impact (Class I).

E.1.6.4 Interstate 8 Route Options

Campo North Option

This option route would remain north of the freeway in the vicinity of the existing wind farm, passing immediately adjacent to the southernmost wind turbine in the Kumeyaay Wind Energy Project (at about MP I8-45), just north of the Caltrans ROW. This option would avoid two freeway crossings, shortening the Interstate 8 Alternative route by about 0.5 miles.

Environmental Setting

As shown in Table E.1.6-3, the Campo North Option would not traverse or be adjacent to DOC Farmland or Williamson Act Lands. It would traverse or be adjacent to Active Agricultural Operations. Active Agricultural Operations traversed by or adjacent to the Campo North Option include grazing operations between NC 1 and 1.4. Grazing operations apply to calves and cattle that graze in unirrigated pastures

Table E.1.6-3. Campo North Option Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands
NC 1-1.4	None	Grazing Operations	None

Environmental Impacts and Mitigation Measures

The Campo North Option would permanently impact ~~0.4~~ 0.3 acres of Active Agricultural Operations.

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

Active Agricultural Operations within the Campo North Option would be temporarily impacted by construction activities associated with the construction of the project, 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 damaging or removing crops or precluding planting; 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 Campo North 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.

As a result of incorporating these APMs, construction of the Proposed Project would not result in damage or loss of crops, obstruction of access to properties, and conflicts with irrigation canals would be 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 as well as private drainage and irrigation systems (including self-propelled irrigation rigs), would be significant. Implementation of Mitigation Measure AG-1a would be necessary in order to mitigate construction-related impacts to active agricultural operations to a less than significant level (Class II).

During construction, soils would 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-1b would ensure that impacts to agricultural operations resulting from construction-related soil compaction would be less than significant by requiring that compacted soils within DOC Farmland be restored. Implementation of Mitigation Measures AG-1a and AG-1b would mitigate impacts 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 Farmland to non-agricultural use (No Impact, Class I for overall route)

No DOC Farmlands would be impacted by the Campo North Option. Thus, no permanent impacts to DOC Farmland would occur due to operation of the Campo North Option. However, the Campo North Option, in conjunction with the Interstate 8 Alternative would convert greater than 10 acres of DOC Farmland. As such, impacts to DOC Farmland would be significant (Class I), and 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 for overall route, Class II for option)

The Campo North Option would permanently remove ~~0.4~~0.3 acres of grazing operations. While this is less than the 10-acre significance threshold established for conversion of land under Active Agricultural Operation, the Campo North Option, in conjunction with the Interstate 8 Alternative, would significantly impact Active Agricultural Operations (Class I) because greater than 10 acres as a whole would be converted to non-agricultural use. No feasible mitigation exists to mitigate this impact to a less than significant level.

In addition to the permanent loss of land under Active Agricultural Operation, the Campo North Option would result in other adverse agricultural impacts in the vicinity of the project. These include disrupting farming facilities or operations and disrupting livestock grazing operations

~~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 incorporation of APM LU-10 would ensure that facilities are installed along the edges of private property (also where feasible and appropriate). 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 these APMs would minimize impacts to farming operations through avoidance of areas to the greatest extent feasible, but such impacts would not be reduced to a less than significant level. Implementation of Mitigation Measure AG-1a would ensure that impacts relating to the disruption of Active Agricultural Operations would be mitigated to a less than significant level (Class II).

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 to livestock grazing operations would be mitigated to a less than significant level (Class II).

Mitigation Measures for Impact AG-3: Operation would permanently interfere with Active Agricultural Operations

AG-1a **Avoid interference with agricultural operations.**

AG-1c **Coordinate with grazing operators.**

Impact AG-4: Operation would permanently convert Williamson Act lands to non-agricultural use (No Impact for option, Class I for overall route)

No Williamson Act lands would be permanently converted by operation of the Campo North Option. However, the Campo North Option, in conjunction with the Interstate 8 Alternative would convert greater than 10 acres of Williamson Act lands to non-agricultural use. As such, impacts to Williamson Act lands would be significant (Class I), and no feasible mitigation exists to mitigate this impact to a less than significant level.

Buckman Springs Underground Option

The Buckman Springs Underground Option would require construction of two overhead/underground transition stations for the 500 kV line, and installation of an underground route segment for approximately 1.9 miles. The route would continue north/east of I-8, and then transition to an underground at a transition structure located at MP I8-55. The underground route would parallel I-8 just east of the Buckman Springs Caltrans Rest Area, then transition back overhead at MP I8 57.

Environmental Setting

As shown in Table E.1.6-4, the Buckman Springs Underground Option would not traverse or be adjacent DOC Farmland or Active Agricultural Operation. However, it would traverse or be adjacent to Williamson Act lands for the length of the option, permanently impacting ~~35.3~~ 27.6 acres.

Figure E.1.6-7 provides an illustration of Agricultural Resources traversed by or adjacent to the Buckman Springs Underground Option.

Table E.1.6-4. Buckman Springs Underground Option Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands
BSU 0-2.7	None	None	APN: Mt Laguna (AG PRES) Size (acres): 45,753.0
			APN: 5271200500 Size (acres): 15.0
			APN: 5271200400 Size (acres): 480.0
			APN: 5271200600 Size (acres): 26.0

Environmental Impacts and Mitigation Measures

No Active Agricultural Operations would be impacted by construction of the Buckman Springs Underground Option. Therefore, this impact is not considered further.

Operational Impacts

Impact AG-2: Operation would permanently convert DOC Farmland to non-agricultural use (No Impact for option, Class I for overall route)

No DOC Farmland would be permanently impacted by operation of the Buckman Springs Underground Option. Thus, no permanent impacts to DOC Farmland would occur due to operation of the Buckman Springs Underground Option. However, this option, in conjunction with the Interstate 8 Alternative would convert greater than 10 acres of DOC Farmland. As such, impacts to DOC Farmland would be significant (Class I), and 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 (No Impact for option, Class I for overall route)

No Active Agricultural Operations would be permanently impacted by operation of the Buckman Springs Underground Option. Thus, no permanent impacts to Active Agricultural Operations would occur due to operation of the Buckman Springs Underground Option. However, this option, in conjunction with the Interstate 8 Alternative would convert greater than 10 acres of Active Agricultural Operations. As such, impacts to DOC Farmland would be significant (Class I), and no feasible mitigation exists to mitigate this impact to a less than significant level.

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

The Buckman Springs Underground Option would permanently convert ~~35.3~~ 27.6 acres of Williamson Act lands, which is greater than the 10-acre threshold for determining the significance of impacts to Williamson Act lands. In addition, the Buckman Springs Underground Option, in conjunction with the Interstate 8 Alternative would convert greater than 10 acres of Williamson Act lands to non-agricultural

use overall. As such, impacts to Williamson Act lands would be significant (Class I), and no feasible mitigation exists to mitigate this impact to a less than significant level.

West Buckman Springs Option

The West Buckman Springs Option would minimize hang gliding and paragliding impacts by moving the transmission line to a location west of Buckman Springs Valley, rather than where the route is currently, to the east. At MP 18-54, the route would cross to the south side of the interstate, to follow the west side of Buckman Springs Road north for approximately 4 miles, passing just west of the Boulder Oaks Campground and within two miles northeast of the Morena Reservoir.

Environmental Setting

As shown in Table E.1.6-5, the West Buckman Springs Option would not traverse or be adjacent to DOC Farmland. However, it would traverse or be adjacent to Active Agricultural Operations and Williamson Act lands. Figure Ap E.1.-5 provides an illustration of Agricultural Resources traversed by or adjacent to the West Buckman Springs Option.

Table E.1.6-5. West Buckman Springs Option Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands
0-5.6	None	Grazing Operations	APN: Mt Laguna (AG PRES) Size (acres): 45,753.0 APN: Corte Madera (AG PRES) Size (acres): 24,758.0 APN: OUT (AG PRES) Size (acres): 157.0

Active Agricultural Operations

Active Agricultural Operations traversed by or adjacent to the West Buckman Springs Option include grazing operations throughout its entire length. Grazing operations apply to calves and cattle that graze in unirrigated pastures.

Williamson Act Lands

The West Buckman Springs Option would traverse and/or be adjacent to Williamson Act lands (agricultural preserves) throughout its entire length.

Environmental Impacts and Mitigation Measures

The West Buckman Springs Option would permanently impact ~~67.6~~ 18.0 acres of agricultural resources (~~20.0 acres of DOC Farmland, 29.3~~ 18.0 acres of Active Agricultural Operations, ~~63.6~~ and 18.0 acres of Williamson Act lands).

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

Active Agricultural Operations within the West Buckman Springs Option would be temporarily impacted by construction activities associated with the construction of the project, 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 damaging or removing crops or precluding planting; 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 West Buckman Springs 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.

As a result of incorporating these APMs, construction of the Proposed Project would not result in damage or loss of crops, obstruction of access to properties, and conflicts with irrigation canals would be 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 as well as private drainage and irrigation systems (including self-propelled irrigation rigs), would be significant. Implementation of Mitigation Measure AG-1a would be necessary in order to mitigate construction-related impacts to active agricultural operations to a less than significant level (Class II).

During construction, soils would 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-1b would ensure that impacts to agricultural operations resulting from construction-related soil compaction would be less than significant by requiring that compacted soils within DOC Farmland be restored. Implementation of Mitigation Measures AG-1a and AG-1b would mitigate impacts 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 Farmland to non-agricultural use (Class I)~~

~~Operation of the West Buckman Springs Option would permanently convert 20.0 acres of DOC Farmlands (Farmland of Local Importance) to non-agricultural use, which is greater than the 10-acre threshold for determining the significance of impacts. Thus, the West Buckman Springs Option itself would significantly impact DOC Farmland. In addition, the West Buckman Springs Option, in conjunction with the Interstate 8 Alternative, would significantly impact DOC Farmland (Class I) because greater than 10 acres of DOC Farmland would be permanently converted to non-agricultural use overall. 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)

The West Buckman Springs Option would permanently remove ~~29.3~~ 18.0 acres of grazing operations, which is greater than the 10-acre threshold for determining the significance of impacts for conversion of land under Active Agricultural Operation. In addition, the West Buckman Springs Option, in conjunction with the Interstate 8 Alternative, would significantly impact Active Agricultural Operations (Class I) because greater than 10 acres of grazing operations as a whole would be converted to non-agricultural use. No feasible mitigation exists to mitigate this impact to a less than significant level.

In addition to the permanent loss of land under Active Agricultural Operation, the West Buckman Springs Option would result in other adverse agricultural impacts in the vicinity of the project. These include disrupting farming facilities or operations and disrupting livestock grazing operations

~~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 incorporation of APM LU-10 would ensure that facilities are installed along the edges of private property (also where feasible and appropriate). 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 these APMs would minimize impacts to farming operations through avoidance of areas to the greatest extent feasible, but such impacts would not be reduced to a less than significant level. Implementation of Mitigation Measure AG-1a would ensure that impacts relating to the disruption of Active Agricultural Operations would be mitigated to a less than significant level (Class II).

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 to livestock grazing operations would be mitigated 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-1c **Coordinate with grazing operators.**

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

The West Buckman Springs Option would permanently convert ~~67.6~~ 18.0 acres of Williamson Act lands, which is greater than the 10-acre threshold for determining the significance of impacts to Williamson Act lands. In addition, the West Buckman Springs Option, in conjunction with the Interstate 8 Alternative would convert greater than 10 acres of Williamson Act lands to non-agricultural use. As such, impacts to Williamson Act lands would be significant (Class I), and no feasible mitigation exists to mitigate this impact to a less than significant level.

South Buckman Springs Option
Environmental Setting

The South Buckman Spring Option would ~~not~~ traverse or be adjacent to 0.8 acres of DOC Farmland.

Active Agricultural Operations

Active Agricultural Operations traversed by or adjacent to the Buckman South Option include grazing operations between Milepost SBS 0 and 3.7. Grazing operations apply to calves and cattle that graze in unirrigated pastures.

Williamson Act Lands

The Buckman South Option would traverse or be adjacent to Williamson Act lands throughout its entire length.

Environmental Impacts and Mitigation Measures

The South Buckman Springs Option would permanently impact ~~20.3~~ 13.9 acres of agricultural resources (~~2.8~~ 0.8 acres of DOC Farmlands, ~~5.4~~ 2.6 acres of Active Agricultural Operations, and ~~20.3~~ 13.9 acres of Williamson Act lands).

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

Active Agricultural Operations within the South Buckman Springs Option would be temporarily impacted by construction activities associated with the construction of the project, 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 damaging or removing crops or precluding planting; 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 Buckman South 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.

Table E.1.6-6. South Buckman Springs Option Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands
SBS 0-1	None	Grazing Operations	No Info Available*
SBS 1-2	Farmland of Local Importance	Grazing Operations	No Info Available*
SBS 2-3.7	None	Grazing Operations	No Info Available*

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

As a result of incorporating these APMs, construction of the Proposed Project would not result in damage or loss of crops, obstruction of access to properties, and conflicts with irrigation canals would be 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 as well as private drainage and irrigation systems (including self-propelled irrigation rigs), would be significant. Implementation of Mitigation Measure AG-1a would be necessary in order to mitigate construction-related impacts to active agricultural operations to a less than significant level (Class II).

During construction, soils would 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-1b would ensure that impacts to agricultural operations resulting from construction-related soil compaction would be less than significant by requiring that compacted soils within DOC Farmland be restored. Implementation of Mitigation Measures AG-1a and AG-1b would mitigate impacts 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 Farmland to non-agricultural use (Class I)

Operation of the Buckman South Option would permanently convert 0.8 acres of DOC Farmlands (Farmland of Local Importance) to non-agricultural use, which is greater less than the 10-acre threshold for determining the significance of impacts. Thus, the Buckman South Option itself would not significantly impact DOC Farmland. However, Buckman South Option, in conjunction with the Interstate 8 Alternative, would significantly impact DOC Farmland (Class I) because greater than 10 acres of DOC Farmland would be permanently converted to non-agricultural use overall. No feasible mitigation exists to mitigate this impact to a less than significant level.

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

The Buckman South Option would permanently convert 2.8 acres of DOC Farmlands, which would be less than the 10-acre threshold for determining significance of impacts to DOC Farmland. Thus, no permanent impacts to DOC Farmland would occur due to operation of the Buckman South Option. However, the Buckman South Option, in conjunction with the Interstate 8 Alternative would convert greater than 10 acres of DOC Farmland. As such, impacts to DOC Farmland would be significant (Class I), and 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)

The Buckman South Option would permanently remove ~~5.4~~ 2.6 acres of grazing operations. While this is less than the 10-acre significance threshold established for conversion of land under Active

Agricultural Operation, the Buckman South Option, in conjunction with the Interstate 8 Alternative, would significantly impact Active Agricultural Operations (Class I) because greater than 10 acres as a whole would be converted to non-agricultural use overall. No feasible mitigation exists to mitigate this impact to a less than significant level.

In addition to the permanent loss of land under Active Agricultural Operation, the South Buckman Springs Option would result in other adverse agricultural impacts in the vicinity of the project. These include disrupting farming facilities or operations and disrupting livestock grazing operations

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 incorporation of APM LU-10 would ensure that facilities are installed along the edges of private property (also where feasible and appropriate). 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 these APMs would minimize impacts to farming operations through avoidance of areas to the greatest extent feasible, but such impacts would not be reduced to a less than significant level. Implementation of Mitigation Measure AG-1a would ensure that impacts relating to the disruption of Active Agricultural Operations would be mitigated to a less than significant level (Class II).

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 to livestock grazing operations would be mitigated to a less than significant level (Class II).

Mitigation Measure for Impact AG-3: Operation would permanently interfere with Active Agricultural Operations

AG-1a **Avoid interference with agricultural operations.**

AG-1c **Coordinate with grazing operators.**

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

Operation of the Buckman South Option would permanently convert ~~20.3~~ 13.9 acres of Williamson Act lands, which is greater than the 10-acre threshold for determining the significance of impacts to Williamson Act lands. Thus, operation of the Buckman South Option would significantly impact Williamson Act lands (Class I). In addition, the Buckman South Option, in conjunction with the Interstate 8 Alternative would convert greater than 10 acres of Williamson Act lands to non-agricultural use overall. As such, impacts to Williamson Act lands would be significant (Class I), and no feasible mitigation exists to mitigate this impact to a less than significant level.

Chocolate Canyon Option

The Chocolate Canyon Option would depart the I8 Alternative route north of Alpine and run north across I-8 and continuing along Chocolate Canyon and the south side of Capitan Lake, rejoining the I8

Alternative west of the dam, near MP I8-82.2. There are no agricultural resources in the Chocolate Canyon Option.

Environmental Setting

As shown in Table E.1.6-7, the Chocolate Canyon Option would traverse or be adjacent to Active Agricultural Operations and Williamson Act lands. Figure ap.AG E.1-10 provides an illustration of Agricultural Resources traversed by or adjacent to the Chocolate Canyon Option. The Chocolate Canyon Option would not traverse or be adjacent to any DOC Farmlands.

Table E.1.6-7. Chocolate Canyon Option Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands
0-5.6	None	Grazing Operations	APN: Mt Laguna (AG-PRES) Size (acres): 45,753.0 APN: Corte Madera (AG-PRES) Size (acres): 24,758.0 APN: OUT (AG-PRES) Size (acres): 157.0

Active Agricultural Operations

Active Agricultural Operations traversed by or adjacent to the Chocolate Canyon Option include grazing operations throughout its entire length. Grazing operations apply to calves and cattle that graze in unirrigated pastures.

Williamson Act Lands

The Chocolate Canyon Option would traverse and/or be adjacent to Williamson Act lands (agricultural preserves) throughout its entire length.

Environmental Impacts and Mitigation Measures

The Chocolate Canyon Option would permanently impact 67.6 acres of agricultural resources (20.0 acres of DOC Farmland, 29.3 acres of Active Agricultural Operations, 63.6 acres of Williamson Act lands).

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

Active Agricultural Operations within the Chocolate Canyon Option would be temporarily impacted by construction activities associated with the construction of the project, 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 damaging or removing crops or precluding planting; 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 Chocolate Canyon 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 5 would ensure that SDG&E would coordinate construction activities with water management representatives to remedy encroachment into and around irrigation canals. 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.~~

~~As a result of incorporating these APMs, construction of the Proposed Project would not result in damage or loss of crops, obstruction of access to properties, and conflicts with irrigation canals would be 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 as well as private drainage and irrigation systems (including self propelled irrigation rigs), would be significant. Implementation of Mitigation Measure AG-1a would be necessary in order to mitigate construction related impacts to active agricultural operations to a less than significant level (Class II).~~

~~During construction, soils would 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-1b would ensure that impacts to agricultural operations resulting from construction related soil compaction would be less than significant by requiring that compacted soils within DOC Farmland be restored. Implementation of Mitigation Measures AG-1a and AG-1b would mitigate impacts 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 Farmland to non-agricultural use (Class I)**~~

~~Operation of the Chocolate Canyon Option would permanently convert 20.0 acres of DOC Farmlands (Farmland of Local Importance) to non-agricultural use, which is greater than the 10-acre threshold for determining the significance of impacts. Thus, the Chocolate Canyon Option itself would significantly impact DOC Farmland. In addition, the Chocolate Canyon Option, in conjunction with the Interstate 8 Alternative, would significantly impact DOC Farmland (Class I) because greater than 10 acres of DOC Farmland would be permanently converted to non-agricultural use overall. 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)**~~

~~The Chocolate Canyon Option would permanently remove 29.3 acres of grazing operations, which is greater than the 10-acre threshold for determining the significance of impacts for conversion of land under Active Agricultural Operation. In addition, the Chocolate Canyon Option, in conjunction with the Interstate 8 Alternative, would significantly impact Active Agricultural Operations (Class I) because~~

~~greater than 10 acres of grazing operations as a whole would be converted to non agricultural use. No feasible mitigation exists to mitigate this impact to a less than significant level.~~

~~In addition to the permanent loss of land under Active Agricultural Operation, the Chocolate Canyon Option would result in other adverse agricultural impacts in the vicinity of the project. These include disrupting farming facilities or operations and disrupting livestock grazing operations~~

~~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 incorporation of APM LU 10 would ensure that facilities are installed along the edges of private property (also where feasible and appropriate). 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 these APMs would minimize impacts to farming operations through avoidance of areas to the greatest extent feasible, but such impacts would not be reduced to a less than significant level. Implementation of Mitigation Measure AG 1a would ensure that impacts relating to the disruption of Active Agricultural Operations would be mitigated to a less than significant level (Class II).~~

~~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 to livestock grazing operations would be mitigated to a less than significant level (Class II).~~

~~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 to livestock grazing operations would be mitigated to a less than significant level (Class II).~~

~~**Mitigation Measure for Impact AG 3: Operation would permanently interfere with Active Agricultural Operations**~~

~~**AG 1a — Avoid interference with agricultural operations.**~~

~~**AG 1c — Coordinate with grazing operators.**~~

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

~~The Chocolate Canyon Option would permanently convert 67.6 acres of Williamson Act lands, which is greater than the 10 acre threshold for determining the significance of impacts to Williamson Act lands. In addition, the Chocolate Canyon Option, in conjunction with the Interstate 8 Alternative would convert greater than 10 acres of Williamson Act lands to non agricultural use. As such, impacts to Williamson Act lands would be significant (Class I), and no feasible mitigation exists to mitigate this impact to a less than significant level.~~

E.1.6.5 Future Transmission System Expansion for Interstate 8 Alternative

As described in Section E.1.1, the Interstate 8 Alternative Substation that would be built as a part of the Interstate 8 Alternative would accommodate up to six 230 kV circuits and a 500 kV circuit. Only two 230 kV circuits are proposed by this alternative at this time, but construction of additional 230 kV circuits and a 500 kV circuit out of the Interstate 8 Alternative Substation may be required in the future. This section considers the impacts of construction and operation of these potential future transmission lines. There are three routes that are most likely for these future lines; each is addressed below. Figure Ap.1-29 illustrates the potential routes of the transmission lines.

Environmental Setting – 230 and 500 kV Future Transmission System Expansion

The future 230 and/or 500 kV lines from the Interstate 8 Alternative Substation would most likely follow one or more of the following routes:

Interstate 8 route including underground within Alpine Boulevard

Please note the Interstate 8 route including underground within Alpine Boulevard would only be applicable for future 230 kV lines.

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. See Section E.1.6.1 and E.1.6.2 for a description of the Environmental Setting and Mitigation Measures for Agriculture for the Interstate 8 Alternative. The future transmission line route would follow the Interstate 8 Alternative's 230 kV route to the point where it meets the Proposed Project at MP 131. 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 a description of the environmental setting and mitigation measures for the Inland Valley Link and the Coastal Link of the Proposed Project. The Interstate 8 230 kV future transmission route could then follow the Proposed Project's 230 kV Future Transmission Expansion route from Chicarita to the Escondido Substation shown in Figure B-12a. See Section D.6.11 for a description of the Environmental Setting and Mitigation Measures for the Proposed Project's Future Transmission Expansion route.

Route D Alternative corridor

Additional 230 or 500 kV circuits could follow the Route D Alternative corridor to the north of Descanso, after following the Interstate 8 Alternative 230 kV route from the Interstate 8 Substation to MP I8 70.3. The environmental setting and mitigation measures for Agriculture of the Route D Alternative can be found in Section E.3.6.1 and in Section E.3.6.2. It should be noted, however, that the Route D Alternative Visual impacts and mitigation measures are for a 500 kV transmission line, and the Interstate 8 future transmission line as detailed above could be either a 500 kV line or a 230 kV line. For a description of a typical 500 kV transmission support structure and a typical 230 kV support structure see Section B.3.1.

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 for more informa-

tion on the agriculture setting of the Central, Inland Valley, and Coastal Links respectively of the Proposed Project.

For the agriculture setting, impacts, and mitigation measures of the Proposed Project's 230 kV Future Transmission Expansion route and the Proposed Project's 500 kV Future Transmission Expansion route see Section D.6.11.

Interstate 8 Alternative with Modified Route D alignment and West of Forest alignment

The future 230 or 500 kV lines could follow the proposed Interstate 8 Alternative route from the Interstate 8 Alternative Substation until reaching the Modified Route D Alternative corridor (within the 368 Corridor identified by the Department of Energy's Draft West-wide Corridor Programmatic EIS) and then follow the Modified Route D Alternative corridor south for 11 miles to MP MD-26. See Section E.4.6 for the environmental setting and impacts along the Modified Route D. At this point, 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. This route would meet up with the Interstate 8 Alternative at approximately MP I8-79 and would follow the I8 Alternative's overhead 230 kV route to the point where it meets the Proposed Project at MP 131. 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 route (see description in Section B.2.7) from Chicarita to the Escondido Substation.

The alignment between MP MD-26 and MP I8-79 would traverse or be adjacent to DOC Farmland, Active Agricultural Operations, and Williamson Act lands. Because any future transmission expansions are not well-defined as to location of towers, access, and other needs, it is not possible to accurately tabulate the amount of these lands affected. However, information regarding agricultural resources on or near the route is known, as discussed below. The total Agricultural Resources impacted by this alignment would be 1655.0 acres

DOC Farmland

The future transmission line route from MP MD-26 to MP I8-79 would traverse or be adjacent to approximately 220 acres of Farmland of Local Importance ~~for a total of 222.8 acres,~~ and would traverse or be adjacent to approximately 900 acres of Grazing Land ~~for a total of 896.9 acres.~~

Active Agricultural Operations

The future transmission line route from MP MD-26 to MP I8-79 would traverse or be adjacent to approximately 140 acres of active grazing operations ~~for a total of 140.0 acres,~~ and would traverse or be adjacent to approximately 5 acres of active orchards ~~for a total of 4.9 acres.~~

Williamson Act Lands

The future transmission line route from MP MD-26 to MP I8-79 would traverse or be adjacent to Williamson Act lands. The future transmission line would traverse or be adjacent to approximately 340 ~~total of 337.6~~ acres of agriculture preserves, and would traverse or be adjacent to approximately 170.0 acres of land under Williamson Act ~~contracted acres.~~

Environmental Impacts – 230 or 500 kV Future Transmission System Expansion

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 230 and 500 kV Future Expansion construction activities associated with the construction and/or expansion of access roads, both temporary and permanent; pulling sites and construction equipment/vehicle staging areas; and the installation of tower structures and wires. These construction activities could temporarily interfere with Active Agricultural Operations by damaging or removing crops, impeding access to certain fields or plots of land, obstructing farm vehicles and equipment, disrupting drainage and irrigation systems (including self-propelled irrigation rigs), and disrupting grazing activities, all of which could result in the temporary reduction of agricultural productivity.

The future transmission route would require mitigation measures to minimize direct impacts to Active Agricultural Operations. Mitigation Measure L-1d requires that notification be provided to all residents, property owners, and tenants within 300 feet of proposed construction activities, and Mitigation Measure L-1e requires that notification be provided to all properties that would be obstructed by construction activities. Thus, implementation of Mitigation Measures L-1d and L-1e would provide advanced notification of construction activities to properties near and/or potentially obstructed by construction activities, including agricultural fields, operations, and drainage and irrigation systems, which would ensure that access to agricultural fields would not be impeded, and it would help to ensure that disruption to Active Agricultural Operations, including the use of farm vehicles and equipment and grazing activities, would be minimized. In addition, implementation of Mitigation Measure L-1f would ensure that construction activities remain within predetermined limits, which would serve to minimize disruption to agricultural lands and operations outside of the limits of construction to the greatest extent feasible. As well, implementation of Mitigation Measure AG-1d would ensure that construction activities would avoid agricultural areas during certain seasons and/or provide compensation to farmers for loss of crops.

Implementation of these mitigation measures would reduce significant impacts relating to the obstruction of access to properties to a less than significant level (Class II). However, impacts relating to the disruption of Active 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 and AG-1c would be necessary in order to ensure that impacts to Active Agricultural Operations as a result of the Future Expansion would be mitigated to a less than significant level (Class II).

Agricultural Soils (Class II). Depending upon the extent of construction required for certain aspects of the 230 and 500 kV Future Expansion, soils could be compacted as a result of construction activities, including the use of heavy construction equipment. This would create a temporary disturbance to agricultural soils that would impact Active Agricultural Operations, such as the planting of crops, a significant impact. Compacted soils could be restored upon completion of construction activities such that impacts relating to the disturbance of agricultural soils would not be significant. Implementation of Mitigation Measure AG-1a would ensure that impacts relating to the disruption of Active Agricultural Operations resulting from soil compaction during construction would not be significant, and Mitigation Measure AG-1b would ensure that compacted soils within DOC Farmland would be restored after construction activities are complete. Implementation of Mitigation Measures AG-1a and AG-1b would mitigate

impacts to Active Agricultural Operations as a result of compacted soils due to construction activities associated with the Future Expansion 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.**
- AG-1c** **Coordinate with grazing operators.**
- AG-1d** **Compensate farmers for lost crops along ROW. [APM LU-1]**
- L-1d** **Provide advance notice and appoint public affairs officer. [APM LU-3]**
- L-1e** **Notify property owners and provide access. [APM LU-4]**
- L-1f** **Flag ROW boundary and environmentally sensitive areas. [APM LU-6]**

Operational Impacts

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

The 230 and 500 kV future transmission route would permanently convert DOC Farmland, including Farmland of Local Importance and Grazing Land. Impacts relating to the conversion of DOC Farmland would be significant and unmitigable (Class I) if the total amount of Important Farmland converted by the 230 and 500 kV future transmission route between MP MD-26 and MP I8-79 exceeds the 10-acre significance criterion threshold established for permanent conversion of DOC Farmland, as discussed in Section D.6.4.1. While the exact amount of DOC Farmland that would be converted is not known at this time, it is assumed that more than 10 acres of land would be converted to nonagricultural use as a result of the 230 or 500 kV future transmission route given the extent to which the route is adjacent or crosses DOC Farmland. No feasible mitigation measures have been identified 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 230 and 500 kV future transmission route would permanently remove land under Active Agricultural Operation, which would be significant and unmitigable (Class I) if the total amount of land converted by the 230 and 500 kV future transmission route between MP MD-26 and MP I8-79 exceeds the 10-acre significance criterion threshold established for permanent conversion of land under Active Agricultural Operation, as discussed in Section D.6.4.1. While the exact amount of Active Agricultural Operations that would be converted is not known at this time, it is assumed that more than 10 acres of land would be converted to nonagricultural use as a result of the 230 and 500 kV future transmission route.

In addition to loss of farmland, other Active Agricultural Operations could permanently be impacted as a result of Future Expansion. Such impacts relate to the disruption of farming facilities or operations and livestock grazing operations.

Disruption of Farming Facilities or Operations (Class II). Implementation of Mitigation Measures AG-3e and AG-3f would minimize permanent impacts of the 230 and 500 kV future transmission route to farming operations through avoidance of areas to the greatest extent feasible, but such impacts would not be reduced to a less than significant level. Implementation of Mitigation Measure AG-1a would

ensure that impacts relating to the disruption of Active Agricultural Operations as a result of the 230 kV Future Expansion would be mitigated to a less than significant level (Class II).

Mitigation Measures for Impact AG-3: Operation would permanently interfere with Active Agricultural Operations

- AG-1a** **Avoid interference with agricultural operations.**
- AG-3e** **Install project facilities along borders. [APM LU-7]**
- AG-3f** **Match structure locations. [APM LU-10]**

Disruption of Livestock Grazing Operations (Class II). 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, the 230 and 500 kV future transmission route would disrupt livestock grazing operations, a significant impact. Implementation of Mitigation Measure AG-1c would ensure that Proposed Project impacts to livestock grazing operations as a result of the future transmission route would be mitigated to a less than significant level (Class II).

Mitigation Measures for Impact AG-3: Operation would permanently interfere with Active Agricultural Operations

- AG-1c** **Coordinate with grazing operators.**

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

The 230 kV Future Expansion would permanently convert Williamson Act lands. This impact would be significant and unmitigable if greater than 10 acres of Williamson Act lands would be permanently converted to non-agricultural use as a result of the 230 and 500 kV future transmission route between MP MD-26 and MP I8-79 as a whole. While the exact amount of Williamson Act lands that would be converted is not known at this time, it is assumed that more than 10 acres of land would be converted as a result of the 230 kV future transmission route. As such, impacts relating to the conversion of Williamson Act lands as a result of the 230 and 500 kV future transmission route would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

Figure E.1.6-1. Interstate 8 Alternative
[CLICK HERE TO VIEW](#)

Figure E.1.6-2. Interstate 8 Alternative
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Figure E.1.6-3. Interstate 8 Alternative
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Figure E.1.6-4. Interstate 8 Alternative
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Figure E.1.6-5. Interstate 8 Alternative
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Figure E.1.6-6. Interstate 8 Alternative
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Figure E.1.6-7. Interstate 8 Alternative
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Figure E.1.6-8. Interstate 8 Alternative
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Figure E.1.6-9. Interstate 8 Alternative
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Figure E.1.6-10. Interstate 8 Alternative
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Figure E.1.6-11. Interstate 8 Alternative
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