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D.6 Agriculture

This section discusses the effects of the construction and operation of the Proposed Project and alternatives on agricultural resources. Specifically, agricultural resources are defined to include (1) applicable Important Farmland categories designated by the California Department of Conservation (DOC); (2) areas with Active Agricultural Operations; and (3) Williamson Act lands under contract or designated as Agricultural Preserves. These three categories are collectively referred to in this section as Agricultural Resources. Effects to non-agricultural land uses along the project route are addressed in Sections D.4 (Land Use) and D.5 (Wilderness and Recreation).

D.6.1 Regional Setting and Approach to Data Collection

The Proposed Project and alternatives would be located within or adjacent to Agricultural Resources in portions of both Imperial and San Diego Counties. The locations of Agricultural Resources in all areas relative to the Proposed Project are illustrated on the Agricultural Resources Appendix at the end of this section (Figures Ap.AG-1 through -19).

In order to identify resources and lands designated for agriculture, data were obtained from the DOC and applicable local sources. Specifically, these data include mapped locations of DOC Important Farmland as well as Williamson Act contract lands and Agricultural Preserves. In addition, information regarding active agriculture was obtained from aerial photographs, local landowners/operators, and field reconnaissance. For purposes of this analysis, lands within 500 feet of the edge of the ROW for the Proposed Project or alternative were mapped in order to determine the existing agricultural setting for the Proposed Project and alternatives, and to identify the types of Agricultural Resources affected. Finally, data regarding agricultural-related operation, health, and safety issues (e.g., obstruction of and disturbance to agricultural land and operations, interference with aerial spraying applications, exposure of livestock to stray voltage and EMF, and avian perching near vineyards) were obtained from local farm bureaus, published literature, agricultural operators, and previous investigations.

California Department of Conservation, Farmland Mapping and Monitoring Program Important Farmland Designations

The DOC Division of Land Resource Protection's Farmland Mapping and Monitoring Program (FMMP) produces maps of Important Farmland and statistical data used for categorizing agricultural potential and analyzing related impacts (DOC, 2007 and 2004). Important Farmlands are rated according to criteria that include irrigation status and soil quality. Soil data used for the Important Farmland maps include the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) soil classifications, which encompass physical and chemical criteria such as moisture regime, soil temperature, pH, groundwater depth, sodium content, flooding, erodibility, permeability, rock fragment content, and rooting depth. The maps are updated every two years based on aerial photograph review, computer mapping analysis, public input, and field reconnaissance.

The Important Farmland designations are tailored to reflect applicable conditions in the State of California. The extent of the Important Farmland coverage in California corresponds to the availability of NRCS "modern soil surveys." In areas without NRCS soil survey data, Important Farmlands are not designated but identified as "Not mapped for Important Farmlands; no NRCS soil survey data available." In addition, Important Farmlands are not mapped in certain other designations, such as state parks. The Imperial County and San Diego County Important Farmland maps include a 10-acre minimum mapping unit, with areas smaller than 10 acres incorporated into the surrounding map classifications (DOC, 2004).

There are eight land use categories identified by the DOC. Summary definitions of each designation are provided, with additional information included in the discussion of project impacts, as appropriate.

- **Prime Farmland.** Prime Farmland has the best combination of physical and chemical features able to sustain long-term agricultural production. It has the soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed, including water management, according to current farming methods. Prime Farmland must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date.
- **Farmland of Statewide Importance.** Farmland of Statewide Importance is similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Farmland of Statewide Importance must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date.
- **Unique Farmland.** Unique Farmland includes areas of lower quality soils that do not meet the criteria for Prime Farmland or Farmland of Statewide Importance, but that have been used for the production of specific high economic value crops during the two update cycles prior to the mapping date.
- **Farmland of Local Importance.** Farmland of Local Importance includes areas other than Prime Farmland, Farmland of Statewide Importance, or Unique Farmland that are either currently producing crops, have the capability of such production, or are used for the production of confined livestock. Farmland of Local Importance may be important to local economies due to its productivity or value, and is defined by each county's local advisory committee and adopted by its Board of Supervisors. Following are the definitions of Farmland of Local Importance for Imperial and San Diego Counties (DOC, 2006a):
 - **Imperial County.** Farmland of Local Importance for Imperial County includes unirrigated and uncultivated areas of Prime Farmland or Farmland of Statewide Importance.
 - **San Diego County.** Farmland of Local Importance for San Diego County includes land that meets all the characteristics of Prime Farmland and Farmland of Statewide Importance, with the exception of irrigation, and farmlands that are not covered by the above categories but are of significant economic importance to the county. Such lands have a history of good production for locally adapted crops. Soils within these lands are grouped in types that are suited for truck crops, such as tomatoes, strawberries, cucumbers, potatoes, celery, squash, romaine lettuce, and cauliflower, and soils suited for orchard crops (e.g., avocados and citrus).
- **Grazing Land.** Grazing Land is land on which the existing vegetation is suited to the grazing of livestock and is, at a minimum, 40 acres.
- **Urban and Built-up Land.** Urban and Built-up Land is occupied by structures with a building density of at least one unit to 1.5 acres, or approximately six structures to a 10-acre parcel. Such lands include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, and water control structures.
- **Other Land.** Other Land is land not included in any other mapping category, such as low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines and borrow pits; and waterbodies smaller than 40 acres. Vacant and non-agricultural land greater than 40 acres and surrounded on all sides by urban development is also mapped as Other Land.
- **Water.** Water includes perennial waterbodies with an extent of at least 40 acres.

Only five of the above designated DOC land types are included in the definition of Agricultural Resources for this analysis: Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Importance, and Grazing Land (Urban and Built-up Land, Other Land, and Water designations are not included as Agricultural Resources). These five Important Farmland designations are hereafter collectively referred to as “DOC Farmlands.” Within the Imperial County, DOC Farmlands total 1.0 million acres, and within San Diego County, DOC Farmlands total 2.2 million acres.

Active Agricultural Operations

Within this analysis, agricultural uses that are in existence along the proposed or alternative route are referred to as “Active Agricultural Operations.” These may or may not be designated DOC Farmland or Williamson Act lands. Active Agricultural Operations within and adjacent to the Proposed Project and alternatives were identified through information from various agencies and the public (e.g., project scoping comments), review of aerial photographs, and site reconnaissance. Where land was accessible for surveying purposes, the occurrence and nature of agricultural use was determined. A number of areas, particularly in the Central and Inland Valley Links, were inaccessible due to locked gates and/or “private property/no trespassing” postings. For these properties, most of which involved potential grazing lands, a conservative approach was used wherein areas identified as including active or potentially active agriculture during map/photo review were assumed to encompass Active Agricultural Operations.

Lands not in active cultivation but exhibiting signs of recent agricultural-related activities (e.g., plowing, weed removal, and/or agricultural infrastructure maintenance) were mapped as Active Agricultural Operations. Areas that ostensibly supported previous agricultural uses but appeared to be inactive and unmaintained for several seasons, as evidenced by substantial weed growth and/or infrastructure and facility disrepair, were not designated or mapped as Active Agricultural Operations.

Active Agricultural Operations within or adjacent to the Proposed Project and alternatives include the six general categories outlined.

- **Cultivation for forage crops.** This category includes areas currently under cultivation (mostly in alfalfa hay), as well as currently inactive or fallow sites with evidence of recent maintenance (e.g., plowing, weed removal or infrastructure maintenance).
- **Cultivation as vineyards.**
- **Dairy operations.** This category includes existing dairies as well as areas where there is an active application on file with the appropriate regulatory body.
- **Apiary operations.** This category is based on observation of hive boxes not in an obvious state of disrepair.
- **Grazing operations.** This category is based on observation of grazing animals and/or conditions or facilities such as animal waste, or actively maintained watering troughs, ponds, or corrals.
- **Orchards.**

Within Imperial County, Active Agricultural Operations traversed by or adjacent to the Proposed Project total 9.5 acres, and within San Diego County, Active Agricultural Operations traversed by or adjacent to the Proposed Project total 20.8 acres.

Williamson Act Land Designations

The California Land Conservation Act of 1965, commonly referred to as the Williamson Act (~~California Administrative Government~~ Code §51200 et seq.), has several purposes:

- To preserve farmland for a secure food supply for the state and nation and for future generations
- To maintain agriculture’s contribution to local and state economic health
- To provide tax relief to farmers and ranchers
- To promote orderly city growth and discourage leapfrog development
- To preserve open space for its scenic, social, aesthetic, and wildlife values.

The Act enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. To enter into a Williamson Act contract, agricultural land must be a minimum of 10 acres (~~California Administrative Government~~ Code §51222). The contract precludes non-agricultural development of the subject property for a period of 10 years. In return, the landowner receives property tax assessments that are lower than normal because the assessments are based on farming and/or open space uses rather than full market value. Local governments receive an annual subvention of forgone property tax revenues from the state via the Open Space Subvention Act of 1971. Williamson Act contracts automatically renew each year for a new 10-year period, unless either party files a Notice of Non-renewal to terminate the contract before the end of the current 10-year period. During the ensuing 10-year cancellation period following a Notice of Non-renewal, property taxes are gradually raised to the applicable level for developable land.

The Williamson Act also authorizes cities and counties to establish Agricultural Preserves, which are areas in which the issuing city or county is willing to enter into Williamson Act contracts. Agricultural Preserves must include at least 100 acres, and generally are intended to avoid areas where public utility improvements and related land acquisitions may be required (~~California Administrative Government~~ Code §51290). That is, local jurisdictions typically do not establish Agricultural Preserves in areas with existing or planned public utility improvements. The Williamson Act does not specifically address the issue of compatible land uses adjacent to Agricultural Preserves or contract lands, other than to require that “[c]ities and counties shall determine the types of uses to be deemed ‘compatible uses’ in a manner which recognizes that a permanent or temporary population increase often hinders or impairs agricultural operations.” (~~California Administrative Government~~ Code §51220.5) In 2004, total reported enrollment under the Williamson Act was 118,522 acres in the Imperial County and 72,946 acres in San Diego County (DOC, 2006b).

D.6.2 Environmental Setting for the Proposed Project

The consistency of the Proposed Project with applicable plans and policies is addressed in Section D.16, where there is specific discussion of each item that was determined in the Appendix 2 screening process to warrant further evaluation. Appendix 2 (Policy Screening Report) lists plans and policies applicable to the Proposed Project, and presents a preliminary screening evaluation of these policies. This discussion of Applicable Regulations, Plans, and Standards provides a general summary of plans applicable to agriculture issues. Refer to Section D.16 for an evaluation of plan consistency.

The following description of environmental setting characterizes the types and classifications of Agricultural Resources traversed by or adjacent to the Proposed Project and alternatives. “Adjacent to the Proposed Project and alternatives” is defined to include areas within 500 feet on either side of the Proposed Project or alternative ROW. This corridor was mapped to provide existing context for the Pro-

posed Project and alternatives. While 500 feet was selected to establish the environmental setting because it was considered to be a reasonable distance to provide an illustration of agricultural uses in the areas surrounding the Proposed Project and alternatives, impacts were assessed only for Agricultural Resources actually disturbed or made unavailable for agriculture. A tabular summary of Agricultural Resources traversed by or adjacent to the Proposed Project is provided in Table D.6-1. Agricultural Resources (DOC Farmland, Active Agricultural Operations, and Williamson Act lands) occur in all of the identified Proposed Project links except the Anza-Borrego Link. Information on Agricultural Resources within individual links is provided in Sections D.6.2.1 through D.6.2.5.

Table D.6-1. Overview of Proposed Project – Agricultural Resources

Link	DOC Farmland				Grazing Land	Williamson Act Lands	Active Agricultural Operations
	Prime Farmland	Farmland of Statewide Importance	Unique Farmland	Farmland of Local Importance			
Imperial Valley	●	●	●	●	—	●	●
Anza-Borrego	—	—	—	—	—	—	—
Central	—	—	—	●	●	●	●
Inland Valley	—	—	—	●	●	●	●
Coastal	—	—	—	●	●	—	—

D.6.2.1 Imperial Valley Link

As shown in Table D.6-2, the proposed route through the Imperial Valley Link would traverse or be adjacent to DOC Farmland, Active Agricultural Operations, and Williamson Act lands. Figures Ap.AG-1 through -7 (at the end of this section) show Agricultural Resources traversed by or adjacent to the Imperial Valley Link.

Table D.6-2. Imperial Valley Link – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands ^{1,2}
8-12	Farmland of Statewide Importance Farmland of Local Importance Prime Farmland	Apiary Forage Cropland	None
12-14	Farmland of Statewide Importance Farmland of Local Importance Prime Farmland	Forage Cropland Dairy Operations	None
14-19	Farmland of Statewide Importance Prime Farmland Unique Farmland	Forage Cropland Dairy Operations	APN ³ : 0342300901 Size: 160.0 APN: 0342501801 Size: 50.8 APN: 0342501901 Size: 204.7

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

² Williamson Act land size is measured in acres.

³ APN = Assessor's Parcel Number

DOC Farmlands

The proposed route through the Imperial Valley Link would traverse or be adjacent to Farmland of Statewide Importance and Prime Farmland between MP 8 and 19, Farmland of Local Importance between MP 8 and 13, and Unique Farmland between MP 16 and 17.

Active Agricultural Operations

The proposed route through the Imperial Valley Link would traverse or be adjacent to an apiary between MP 8 and 9, forage cropland between MP 8 and 19, and dairy operations between MP 13 and 15.

Apiaries. An apiary houses a colony or colonies of bees. Apiaries are, typically maintained for the purposes of procuring honey or pollinating crops. An apiary is located approximately 500 feet south of the proposed route between MP 8 and 9 at the terminus of Arizona Road, approximately 2,900 feet north of County Route S80 (Evan Hewes Highway). Apiary products represented 0.2 percent (\$2.44 million) of the total value of all agriculture within the Imperial Valley (\$1.29 billion) (Imperial County, 2007).

Forage Crops. Forage crops within the Imperial Valley are used to feed livestock, and include alfalfa hay, bermudagrass hay, Kleingrass hay, and Sudangrass hay. In 2005, forage crops represented 78 percent (274,493 acres) of the total acres of field crops harvested within the Imperial County (351,866 acres). Forage crops represented 70 percent (\$189.8 million) of the total value of all field crops in the Imperial County (\$269 million) (Imperial County, 2007).

Dairy Operations. The Proposed Project would traverse or be adjacent to land occupied by the Bullfrog Farms Dairy between MP 14 and 15 on the north side of West Payne Road. Bullfrog Farms Dairy houses 3,200 dairy cows at its dairy facility. The Imperial County Farm Bureau (ICFB) has stated that the area around Bullfrog Farms Dairy “has been designated as an area ideal for additional dairies to relocate to and is currently being considered by some.” (ICFB, 2006) Several other dairy operators have expressed an interest in locating near the existing Bullfrog Farms Dairy (pers. comm., 2007a). However, as of July 2007, no permit applications have been submitted to the County of Imperial for such operations. In 2005, miscellaneous livestock, which includes dairy cows, represented 1.6 percent (\$59.2 million) of the total value of all livestock within the Imperial County (\$362.2 million) (Imperial County, 2007).

Williamson Act Lands

The proposed route through the Imperial Valley Link would traverse or be adjacent to Williamson Act lands between MP 14 and 17.

D.6.2.2 Anza-Borrego Link

The entire proposed route through the Anza-Borrego Link is located within Anza-Borrego Desert State Park. Agricultural use and Williamson Act designations do not occur within the park, and the DOC does not map Farmlands within state parks. Accordingly, no Agricultural Resources are present within or adjacent to the proposed route through the Anza-Borrego Link.

D.6.2.3 Central Link

As shown in Table D.6-3, the proposed route through the Central Link would traverse or be adjacent to DOC Farmland, Active Agricultural Operations, and Williamson Act lands. Figures Ap.AG-10 through -13 (at the end of this section) provide a detailed illustration of Agricultural Resources traversed by or adjacent to the Central Link.

Table D.6-3. Central Link – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands ^{1,2}
83-85	None	Vineyard	APN ³ : 1963200800 Size: 160.0 APN: 1963201200 Size: 80.0 APN: 1963201400 Size: 560.0 (Preserve)
86-88	None	Forage Crops	APN: 1961501800 Size: 80.0
99-100	Farmland of Local Importance Grazing Land	None	None
100-103	Farmland of Local Importance Farmland of Statewide Importance Prime Farmland Other land	Grazing Operations	APN: 1950900100 Size: 531.6 APN: 1951000400 Size: 440.9 APN: 1951000300 Size: 86.0 APN: 2470100100 Size: 166.4 APN: 1950090050 Size: 179.38 APN: 1950100120 Size: 78.49 APN: 1950100130 Size: 274.93 APN: 1950100140 Size: 303.28
103-107	Farmland of Local Importance	Apiary Grazing Operations	APN: 2470100300 Size: 40.5 APN: 2470400600 Size: 48.3 APN: Santa Ysabel Size: 23,112.0 (Preserve) APN: 2470400300 Size: 488.7 APN: 2470400600 Size: 336.5 APN: 2470800500 Size: 456.3
107-109	Farmland of Local Importance Grazing Land	Grazing Operations	APN: 2471401700 Size: 25.7 APN: 2471401500 Size: 562.1 APN: 2480200100 Size: 176.2 APN: Santa Ysabel Size: 23,112.0 (Preserve) APN: 2480300500 Size: 78.2 APN: 2480201300 Size: 80.3 APN: 2480201200 Size: 78.7
109-111	None	Grazing Operations	APN: 2480201100 Size: 86.9 APN: 2481300600

Table D.6-3. Central Link – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands ^{1,2}
			Size: 35.7
			APN: 2481301300
			Size: 21.0
			APN: 2481301200
			Size: 92.3
			APN: 2481301100
			Size: 157.3
			APN: 2481301000
			Size: 151.4
			APN: 2890102000
			Size: 84.4
			APN: 2890101900
			Size: 83.5
			APN: 2890101500
			Size: 80.5

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

² Williamson Act land size is measured in acres.

³ APN = Assessor's Parcel Number

DOC Farmland

The proposed route through the Central Link would traverse or be adjacent to Farmland of Local Importance between MP 99 and 109 and Grazing Land between MP 99 and 100 and MP 107 and 109.

Active Agricultural Operations

The proposed route through the Central Link would traverse or be adjacent to a vineyard between MP 83 and 84, forage cropland between MP 87 and 88, an apiary between MP 105 and 106, and grazing operations between MP 100 and 111.

Vineyards. Grapevine Springs Ranch and Vineyard would be traversed by the proposed route through the Central Link along Grapevine Canyon Road near the community of Ranchita. In 2005, approximately 268 acres of wine grapes were harvested in San Diego County, the total value of which was \$390,798. This accounts for 0.6 percent of the total acres of fruit and nut crops harvested (42,815 acres) and 0.1 percent of the total value of all fruit and nut crops in San Diego County (\$326 million) (San Diego County, 2007).

Forage Crops. Forage crops within San Diego County include barley and oat grain, greenchop, hay, and irrigated pasture. The proposed route through the Central Link would traverse forage crops along Grapevine Canyon Road near the community of Ranchita. The crop area is located directly beneath to within 100 feet east of the proposed route. In 2005, forage crops harvested in San Diego County totaled 213,096 acres and were valued at \$6.15 million (San Diego County, 2007).

Grazing Operations. Grazing activities apply to calves and cattle that graze in unirrigated pastures. Grazing activities are prevalent throughout the Central Link. The Proposed Project would traverse or be adjacent to such activities throughout the Santa Ysabel Valley. Approximately 24,000 head of cattle were reported within San Diego County in 2005, at a value of \$18.6 million (San Diego County, 2007).

Apiaries. Apiaries are typically maintained for the purposes of procuring honey or pollinating crops. An apiary is located approximately 900 feet north of the proposed route, between MP 105 and 106.

Williamson Act Lands

The proposed route through the Central Link would traverse or be adjacent to Williamson Act lands throughout the Central Link.

D.6.2.4 Inland Valley Link

As shown in Table D.6-4, the proposed route through the Inland Valley Link would traverse or be adjacent to DOC Farmland, Active Agricultural Operations, and Williamson Act lands. These areas are depicted in Figures Ap.AG-13 through -16 (at the end of this section).

DOC Farmland

The proposed route through the Inland Valley Link would traverse or be adjacent to Farmland of Local Importance between MP 114 and 115, MP 121 and 124, MP 128 and 129, and MP 130 and 131, and Grazing Land between MP 120 and 122, MP 123 and 131, and MP 135 and 136.

Active Agricultural Operations

The proposed route through the Inland Valley Link would traverse or be adjacent to vineyards between MP 116 and 118; grazing operations between MP 113 and 118, MP 122 and 124, and MP 126 and 129; and orchards between MP 128 and 129.

Vineyards. The Ramona Valley was officially designated an American Viticultural Area (AVA) by the Federal Alcohol Tobacco Tax and Trade Bureau in January 2006. According to the Ramona Valley Vineyard Association, this area was approved for designation based on its unique microclimate, terroir (defined as “a group of vineyards from the same region, belonging to a specific appellation, and sharing the same type of soil, weather conditions, grapes and wine making savoir-faire, which contribute to give its specific personality to the wine”), and history of grape production (Terroir-France, 2007). The Ramona Valley AVA encompasses 89,000 acres covering 139 square miles.

In the portion of the Ramona Valley near Oak Hollow Road, one vineyard is currently in the beginning phases of production. In that area, at least two other residents have stated an interest in pursuing vineyard operations, and the Ramona Valley Vineyard Association has indicated that several new vineyards and wineries are being considered for development within the Ramona Valley, the locations of which are unknown at this time. The Proposed Project would traverse a vineyard on Oak Hollow Road within the Inland Valley Link. In 2005, approximately 268 acres of wine grapes were harvested in San Diego County, the total value of which was \$390,798. This accounts for 0.6 percent of the total acres of fruit and nut crops harvested (42,815 acres) and 0.1 percent of the total value of all fruit and nut crops in San Diego County (\$326 million) (San Diego County, 2007).

Grazing Operations. Grazing activities apply to calves and cattle that graze in unirrigated pastures. Grazing activities are prevalent throughout the Inland Valley Link. Approximately 24,000 head of cattle were reported within San Diego County in 2005, at a value of \$18.6 million (San Diego County, 2007).

Orchards. Orchards include typical southern California tree crops such as avocado and citrus fruits. The Proposed Project traverses an orchard on Foster Truck Trail. In 2005, orchards, as an industry, represented 40,129 acres of all fruit and nut crops (42,815 acres), or 94 percent, in San Diego County. The value of this crop was \$289.8 million, or 89 percent, of the total value of all fruit and nut crops in San Diego County (\$326 million) (San Diego County, 2007).

Williamson Act Lands

The proposed route through the Inland Valley Link would traverse or be adjacent to Williamson Act lands throughout its entire length.

Table D.6-4. Inland Valley Link – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands ^{1,2}			
111-116	Farmland of Local Importance	Grazing Operations	APN: 2890101500 Size: 80.5			
			APN: 2890101700 Size: 80.0			
			APN: 2890101600 Size: 80.0 (Preserve)			
			APN: 2890102300 Size: 92.8			
			APN: 2890700400 Size: 87.6			
			APN: 2861122500 Size: 121.1			
			APN: 2861122400 Size: 125.0			
			APN: 2870502700 Size: 80.1			
			APN: 2870502600 Size: 80.2			
			APN: 2870502500 Size: 77.8			
			APN: 2870502000 Size: 80.1			
			APN: 2870500300 Size: 120.0			
			APN: 2870500600 Size: 37.8 (Preserve)			
			APN: 2870321300 Size: 40.0 (Preserve)			
			APN: 2870321400 Size: 80.0 (Preserve)			
			APN: 2871000800 Size: 40.0 (Preserve)			
			APN: 2871000600 Size: 40.0 (Preserve)			
			APN: 2871000700 Size: 120.0 (Preserve)			
			116-118	None	Grazing Operations Vineyards	APN: 2871001300 Size: 360.0 (Preserve)
						APN: 2871001800 Size: 38.7 (Preserve)
APN: 2871002300 Size: 44.8 (Preserve)						
APN: 2870810200 Size: 183.5 (Preserve)						
120-122	Farmland of Local Importance Grazing Land	None	None			

Table D.6-4. Inland Valley Link – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands ^{1,2}
122-131	Farmland of Local Importance Grazing Land	Grazing Operations Orchards	None
135-136	Grazing Land	None	None

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

2 Williamson Act land size is measured in acres.

3 APN = Assessor's Parcel Number

D.6.2.5 Coastal Link

As shown in Table D.6-5, the proposed route through the Coastal Link, including the reconductoring route, would traverse or be adjacent to DOC Farmland. No Active Agricultural Operations or Williamson Act lands would be traversed by or adjacent to the Coastal Link. These areas are shown on Figures Ap.AG-16 through -19 at the end of this section.

Table D.6-5. Coastal Link – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands
145-147	Farmland of Local Importance	None	None
147-150	Farmland of Local Importance Grazing Land	None	None
Reconductoring	Grazing Land	None	None

DOC Farmland

The proposed route through the Coastal Link would traverse or be adjacent to Farmland of Local Importance between MP 145 and 148 and MP 149 and 150, and Grazing Land between MP 147 and 150. The proposed reconductoring of existing transmission lines between the Sycamore Canyon and Elliot Substations would also traverse or be adjacent to Grazing Land.

D.6.2.6 Other System Upgrades

In addition to the links noted above, the Proposed Project would require modification of the San Luis Rey Substation in the City of Oceanside and the South Bay Substation in the City of Chula Vista, both of which are located in San Diego County. No Agricultural Resources are traversed by or adjacent to the noted substation sites.

D.6.3 Applicable Regulations, Plans, and Standards

Imperial County General Plan

The Imperial County covers 4,597 square miles in southeastern California. Approximately 50 percent of county lands are undeveloped and under federal ownership and jurisdiction. Presently, 20 percent of the nearly 3 million acres of the county is irrigated for agricultural purposes, most notably the central area known as Imperial Valley. The Imperial County General Plan consists of nine Elements, including the Agriculture Element. These serve as the primary policy statement by the Board of Supervisors for implementing development policies and land uses in Imperial County.

San Diego County General Plan

The current County of San Diego General Plan was last updated in 1979, with substantial amendments made since. The plan has as its overall goal to:

Accommodate population growth and influence its distribution to protect and use scarce resources wisely; preserve the natural environment; provide adequate public facilities and services efficiently and equitable; assist the private sector in the provision of adequate, affordable housing; and promote the economic and social welfare of the region.

In 1998, the county embarked on a multi-year project to update the San Diego General Plan. This is an ongoing process that is not complete. When the process is complete, the Board of Supervisors will adopt a new plan, replacing the existing plan. Until that time, the current plan remains in force.

SANDAG Regional Comprehensive Plan

The San Diego Association of Governments (SANDAG) engages in regional cooperative comprehensive planning. Geographically, it covers San Diego County and its incorporated municipalities. The Regional Comprehensive Plan is based on local general and regional plans. The current Regional Comprehensive Plan integrates land uses, transportation systems, infrastructure needs, and public investment strategies within a regional framework, in cooperation with member agencies and the public.

Environmental Impacts and Mitigation Measures for the Proposed Project

D.6.4 Significance Criteria and Approach to Impact Assessment

This section provides an overview to explain how impacts are defined, identified, and assessed for agricultural resources. Specifically, Section D.6.4.1 presents the significance criteria on which impact determinations are based, Section D.6.4.2 lists the Applicant Proposed Measures (APMs) relevant to agricultural resources, and Section D.6.4.3 defines and lists the overall impacts identified for the Proposed Project and alternatives.

D.6.4.1 Significance Criteria

The following agriculture significance criteria were derived from previous environmental impact assessments and the CEQA Guidelines (Appendix G, Environmental Checklist Form). Impacts to agriculture would be significant if:

- The Proposed Project would convert more than 10 acres of DOC Farmland to non-agricultural use.
- The Proposed Project would involve other changes in the existing environment, which, due to their location or nature, could result in interference with agricultural operations.
- The Proposed Project would convert more than 10 acres of Williamson Act lands to non-agricultural use.

The conversion of DOC Farmland would be considered significant if more than 10 acres of Prime Farmland, Farmland of Statewide Importance, Unique Farmland, Farmland of Local Significance, and/or Grazing Land are converted to non-agricultural use as a result of the Proposed Project. 'Interference

with agricultural operations’ refers to: (1) substantial direct loss of cultivated land (i.e., Active Agricultural Operations); and/or (2) substantial impacts relating to other issues. ‘Substantial direct loss of cultivated land’ refers to the loss of more than 10 acres of land under Active Agricultural Operations. ‘Substantial impacts relating to other issues,’ is defined to include effects that result in a permanent reduction in productivity or the ability to conduct pre-project operations (e.g., obstruction of and disturbance to agricultural land and operations, interference with aerial spraying applications, exposure of livestock to stray voltage and EMF, and avian perching near vineyards). The conversion of Williamson Act lands would be considered significant if greater than 10 acres of contract land or Agricultural Preserves are used for non-agricultural use. The 10-acre threshold for each issue area is based on the fact that 10 acres is both the minimum mapping unit area for DOC Farmlands and the minimum acreage requirement for individual parcels to enter into Williamson Act contracts, as stated in Section 51222 of the California Government Code. Impacts are assessed for the Proposed Project or alternative as a whole and not only within each individual link.

D.6.4.2 Applicant Proposed Measures

APMs identified by SDG&E in its CPCN Application to the CPUC are intended to address potential effects through design, construction, and/or operational features included as part of the Proposed Project. Table D.6-6 presents the Land Use APMs that are relevant to this section. The impact analysis assumes that all APMs will be implemented as defined in Table D.6-6.

Table D.6-6. Applicant Proposed Measures – Agricultural Resources

APM No.	Description
APM LU-1	SDG&E will provide advance notice to residents, property owners, and tenants within 300 feet of construction activities and will appoint a public affairs officer to address public concerns or questions.
APM LU-3	Farmers will be compensated for loss of crops along ROW. Construction activities in croplands will be scheduled to minimize or avoid planting, growing, and harvesting seasons to the extent feasible.
APM LU-4	To facilitate access to properties obstructed by construction activities, SDG&E will notify property owners and tenants in advance of construction activities. SDG&E will provide alternative access if feasible.
APM LU-5	To remedy encroachment and safety conflicts with irrigation canals and flood management structures during construction, SDG&E will coordinate construction activities with appropriate water management representatives.
APM LU-6	The limits of construction activities within the ROW will typically be predetermined, with activity restricted to and confined within those limits. The ROW boundary and limits of construction activity will be flagged in environmentally sensitive areas to alert construction personnel that disturbance to those areas should be minimized or avoided.
APM LU-7	To the extent feasible, facilities for the Proposed Project would be installed along the edges or borders of private property, open space parks, and recreation areas. When it is not feasible to locate the Proposed Project facilities along property borders, SDG&E will consult with affected property owners to identify facility locations that create the least potential impact to property and are mutually acceptable to property owners to the extent feasible.
APM LU-10	SDG&E will match structure locations with existing transmission facilities where feasible and appropriate.

D.6.4.3 Impacts Identified

Table D.6-7 summarizes impacts to Agricultural Resources identified within the Proposed Project area, based on the identified significance criteria. As described in Section D.6.4.1, the term “Agricultural Resources” is used to describe DOC Farmlands, areas with Active Agricultural Operations, and lands within active Williamson Act contracts or preserves. Impacts are classified as No Impact; Class I (significant, cannot be mitigated to a level that is less than significant); Class II (significant, can be mitigated to a level that is less than significant); Class III (adverse, but less than significant); or Class IV (beneficial). A summary of Class I through IV impacts specific to the established significance criteria is provided in Table D.6-7. Detailed discussions of Proposed Project impacts and their specific locations within individual links provided in Section D.6.5.

Table D.6-7. Impacts Identified – Agriculture Resources

Impact No.	Description	Impact Significance
Proposed Project		
AG-1	Construction activities would temporarily interfere with Active Agricultural Operations	No Impact; 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, III
AG-4	Operation would permanently convert Williamson Act lands to non-agricultural use	No Impact; Class I
Proposed Project – Future Expansion		
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
Proposed Project – Connected Actions		
AG-1	Construction activities would temporarily interfere with Active Agricultural Operations	Class II, III

This section presents a detailed discussion of impacts and mitigation measures for the Proposed Project. The discussion is divided to correspond to the five identified project links (Figure B-2 in Section B, Project Description), one in Imperial County and four in San Diego County. Each section addresses both construction and operational impacts pursuant to the significance criteria established in Section D.6.4.1. The discussion includes the significance of each impact, followed by mitigation measures, where appropriate. Lands identified as Agricultural Resources may have multiple characterizations. For example, land that is designated DOC Farmland may also be under Active Agricultural Operation and/or be land under a Williamson Act contract. As a result, the total amount of Agricultural Resources may be less than the simple sum of each type of resource.

Table D.6-8 provides an overview of impacts to Agricultural Resources resulting from the Proposed Project, by link and in total.

Table D.6-8. Agricultural Resources Permanently Impacted by the Proposed Project (acres)

Link	DOC Farmlands					Total DOC Farmlands	Total Active Agricultural Operations	Total Williamson Act Lands	Total Agricultural Resources*
	Prime Farmland	Farmland of Statewide Importance	Unique Farmland	Farmland of Local Importance	Grazing Land				
Imperial Valley	445.5 10.5	105.5 8.7	1.2 0	48.2 6.5	0	270.5 25.7	28.4 29.3	6.7 5.3	491.8 36.2
Anza-Borrego	0	0	0	0	0	0	0	0	0
Central	0.1	0	0	28.6 20.4	8.1 5.3	36.7 25.6	104.8 36.6	124.2 78.4	250.3 78.4
Inland Valley	0	0	0	7.1 2.0	23.7 7.5	30.8 9.4	34.3 3.6	26.5 21.2	102.0 30.7
Coastal	0	0	0	0.7 2	6.0 1.1	6.7 1.3	0	0	32.8 1.3
TOTAL	445.6 10.6	105.5 8.7	1.2 0	54.6 29.1	37.8 13.9	344.7 62.0	167.5 69.5	157.4 104.9	864.1 146.6

* Lands identified as Agricultural Resources may have multiple characterizations such that land may be designated DOC Farmland and/or land under Active Agricultural Operation and/or land under a Williamson Act contract. As a result, the total amount of Agricultural Resources is less than the simple sum of each type of resource.

D.6.5 Imperial Valley Link Impacts and Mitigation Measures

Approximately 491.8 36.2 acres of Agricultural Resources (270.5 25.7 acres of DOC Farmland, 28.4 29.3 acres of land under Active Agricultural Operation, and 6.7 5.3 acres of Williamson Act lands) would be permanently impacted by the Imperial Valley Link. These impacts are described for each impact identified in Table D.6-8.

Environmental Impacts and Mitigation Measures

The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

Construction Impacts

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

Active Agricultural Operations within the Imperial Valley Link 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 Active 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 Proposed Project 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 fea-

sible. 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, or conflicts with irrigation canals. However, impacts related to the disruption of Active 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 ensure that impacts to Active Agricultural Operations as a result of the proposed route through the Imperial Valley Link would be mitigated to a less than significant level (Class II).

Agricultural Soils. Depending upon the extent of construction required for certain aspects of the Proposed Project, soils would 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 reduce impacts to Active Agricultural Operations as a result of compacted soils due to construction activities associated with the proposed route through the Inland Valley Link 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.** The Applicant shall coordinate with property owners and tenants to ensure that project construction will be conducted so as to avoid or minimize interference with agricultural operations. Agricultural operations include, but are not limited to, the use of farm vehicles and equipment, access to property; water delivery, drainage, and irrigation.
- AG-1b** **Restore compacted soil.** The Applicant shall restore soils compacted or disturbed such as by excavation during construction by conferring with the property owner or tenant to identify and then implement a mutually agreed means to restore such soils. Restoration actions may include, but are not be limited to, disking, plowing, removal of excavated soil, or other suitable restoration methods.

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 Proposed Project would permanently convert approximately ~~270.5~~ 25.7 acres of DOC Farmland within the Imperial Valley Link (~~145.6~~ 10.5 acres of Prime Farmland, ~~105.5~~ 8.7 acres of Farmland of

Statewide Importance, ~~1.2 acres of Unique Farmland~~, and ~~18.2~~ 6.5 acres of Farmland of Local Importance), which is greater than the 10-acre threshold for determining significance of impacts due to the conversion of DOC Farmland. Across all links, the Proposed Project would convert ~~663.4~~ 62.0 acres of DOC Farmland to non-agricultural use. For both the Imperial Link and the entire project, the Proposed Project would exceed the 10-acre threshold. In the Imperial Valley Link, there are no non-agricultural areas near the proposed route to which the Proposed Project could be relocated so as to reduce impacts to agriculture. Development on land to the north and west of the Proposed Project is prohibited by the DOD. Land to the south and east is already occupied by agriculture. If the transmission line were moved in this direction, the Proposed Project would no longer border certain agricultural areas, but would actually cross over them, resulting in additional impacts to Active Agricultural Operations. Because the Proposed Project as a whole would convert more than 10 acres of DOC Farmland, impacts to DOC Farmland as a result of the proposed route through the Imperial Valley Link would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

Impact AG-3: Operation would permanently interfere with Active Agricultural Operations (Class I for Disruption of Farming and Aerial Spraying; II for Disruption of Livestock Grazing; III for Avian Perching)

The proposed route through the Imperial Valley Link would permanently remove approximately ~~28.4~~ 29.5 acres of land under Active Agricultural Operation. Across all links, the entire Proposed Project would remove ~~500~~ 69.5 acres of land under Active Agricultural Operation. For both the Imperial Link and the entire project, the Proposed Project would exceed the 10-acre threshold for determining significance of impacts due to the loss of land under Active Agricultural Operation. As such, the Proposed Project would significantly impact Active Agricultural Operations. In the Imperial Link, there are no non-agricultural areas near the proposed route to which the Proposed Project could be relocated so as to reduce impacts to agriculture. Development on land to the north and west of the Proposed Project is prohibited by the DOD. Land to the south and east is already occupied by agriculture. If the transmission line were moved in this direction, the Proposed Project would no longer border certain agricultural areas, but would actually cross over them, resulting in additional impacts to Active Agricultural Operations. Impacts relating to the loss of land under Active Agricultural Operation as a result of the proposed route through the Imperial Valley Link would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

In addition to the permanent loss of land under Active Agricultural Operation, the Proposed Project would result in other adverse agricultural impacts in the vicinity of the project. These include (1) disrupting farming facilities or operations, including dairy; (2) disrupting or altering aerial spraying practices; (3) introducing electric field effects on apiaries; and (4) exposing livestock to stray voltage and electric and magnetic fields.

Disruption of Farming Facilities or Operations (Class II). 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, as noted under Impact AG-1, would ensure that impacts relating to the disruption of Active Agricultural Operations as a result of the proposed route through the Imperial Valley Link would be mitigated to a less than significant level (Class II).

Dairy Operations (Class II). Dairy operations would be permanently disrupted by presence of the transmission line. Specifically, the Proposed Project would traverse over the Bullfrog Farms dairy property and its structures. Transmission line maintenance activities would also disrupt dairy operations. Thus, the Proposed Project's impact upon dairy operations within the Imperial Valley Link would be significant. However, implementation of Mitigation Measure AG-3a would ensure that impacts to dairy operations as a result of the proposed route through the Imperial Valley Link would be mitigated to a less than significant level (Class II).

Aerial Spraying Applications (Class I). Aerial spraying (i.e., crop dusting) is used to control insects, weeds, and diseases that may affect crops in the Imperial Valley. Aerial spraying occurs in those areas of the Imperial Valley actively cultivated with field crops. In relation to the Proposed Project, aerial application could occur at any point between MP 8 and 20. Aerial applicators fly at low elevations and sometimes at speeds in excess of 100 miles per hour. Fatalities associated with aerial applicators can partly be attributed to flying at low altitudes and high speeds, as well as the presence of obstacles such as power lines, trees, towers, or buildings within the flight area (Suarezi, 2000). Where transmission lines exist in an agricultural area, pilots must fly over, beside, and (occasionally) under the lines to complete aerial spraying activities. Transmission lines and towers thus present a substantial obstacle to be avoided, and require additional attention from the pilots.

Transmission lines are especially hazardous when:

- Lines are oriented diagonally relative to field boundaries
- Multiple lines exist side-by-side
- Lines change direction (especially at a 90-degree angle) along the corridor
- New transmission lines and towers are installed
- Towers and lines are not clearly visible (TANC/WAPA, 1986)

Thus, the presence of transmission lines and towers would result in interference with Active 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 could preclude spraying activities in certain areas. As such, impacts to aerial spraying applications as a result of the proposed route through the Imperial Valley Link would remain significant (Class I).

Electric Field Effects on Apiaries (Class II). Power line electric fields have been shown to cause bees to leave their hives. As a result, significant impacts to apiaries located near a new transmission line would occur. However, these impacts would be less than significant (Class II) with implementation of Mitigation Measure AG-3c, which would require SDG&E to identify all apiaries within the area of potential effect and notify owners prior to energizing the line so the apiaries, which are mobile, could be relocated as necessary.

Exposure of Livestock to Stray Voltage and Electric and Magnetic Fields (Class III). Stray voltage and electric and magnetic fields (EMF) are two distinctly different phenomena. Both are described below.

Stray Voltage. Stray voltage is associated with electric utility distribution systems and local low voltage (120/240 volt) wiring on farms, not high voltage transmission lines. Utility distribution systems and low voltage wiring use a neutral conductor that is connected to the ground. In cases where there is not an adequate ground connection to the neutral, the current on the neutral conductor will find other paths to ground, thus, the term stray current or voltage.

Since early reports of stray voltage affecting livestock in 1969, there has been substantial research related to this topic. The vast majority of on-farm stray voltage occurrences are due to wiring and equipment problems which can be remedied by following the requirements of the National Electric Codes (NEC) and the USDA Handbook No. 696, *Effects of Electrical Voltage/Current on Farm Animals: How to Detect and Remedy Problems* (Lefcourt, 1991).

Since stray voltage is due to ground currents associated with distribution lines and farm wiring, this is not an impact that would result from the Proposed Project's high voltage transmission line. Thus, no impact would occur (No Impact), and no mitigation is required.

Electric and Magnetic Fields. Electric and magnetic fields occur both naturally and as a result of human activity across a broad electrical spectrum. Naturally occurring electric and magnetic fields are caused by the weather and the earth's geomagnetic field. The fields caused by human activity result from technological application of the electric and magnetic spectrum for uses such as communications, farm equipment, appliances, and the generation, transmission, and local distribution of electricity.

Electric fields from power lines are created whenever the lines are energized, with the strength of the field dependent directly on the voltage of the line creating it. Electric field strength is typically described in terms of kilovolts per meter (kV/m). Electric field strength attenuates (reduces) rapidly as the distance from the source increases. Electric fields are reduced at many receptors because they are effectively shielded by most objects or materials, such as trees or buildings.

Magnetic fields from power lines are created whenever current flows through power lines at any voltage. The strength of the field is directly dependent on the current in the line. Magnetic field strength is typically measured in milliGauss (mG). Similar to electric fields, magnetic field strength attenuates rapidly with distance from the source. However, unlike electric fields, magnetic fields are not easily shielded by objects or materials. Further discussion regarding the nature of EMF is provided in Section D.10 Public Health and Safety.

This review of EMF focuses on physiological effects and any subsequent animal health impacts that may affect agricultural productivity. Persons engaged in agricultural activities who depend upon livestock (especially cattle) often raise concerns about animal fertility as well as biochemical responses to EMF that could lead to reduced output (e.g., milk production at dairies) and birth rates, or an increase in physical deformities (among other ailments) and mortality rates.

There is a wealth of literature addressing the issue of EMF and its effects upon livestock. Despite the number of studies performed and reported upon in such literature, however, the scientific community remains divided as to whether there is a direct correlation between EMF and various livestock maladies.

As noted above, electric fields are shielded by most objects. Electric fields from overhead high voltage transmission lines can induce voltages on large metal objects such as metal buildings, tractor-trailers, etc. Induced voltage is different from stray voltage in that it is caused by power line electric fields, not ground currents from distribution lines. Information prepared by the Public Service Commission of Wisconsin related to a 345 kV transmission line noted that the voltage a cow would feel from touching a large metal object below the line is estimated to be 0.02 Volts, which is substantially below the 2 to 4 Volt cow-contact threshold provided in USDA Handbook No. 696. Therefore, the electric fields from the Proposed Project's 230 kV and 500 kV lines are not expected to result in induced voltage impacts to livestock.

Magnetic fields are not shielded by most objects and have been shown to cause physiological effects in livestock. However, these physiological effects have not been determined to represent a health hazard for exposed cattle. Some of the most extensive controlled research on EMF and livestock has been performed by McGill University in Canada. The intensity of EMF used in this research was a 10 kV/m electric field and 300 mG magnetic field.

This research found that most of the variables assessed did not show any variation caused by EMF. However, there were positive associations with some variables such as feed consumption and milk fat content. Also, there were changes in the mineral and neurotransmitter metabolite concentrations. It was found that EMF caused a biological response in dairy cattle, affecting productivity variables which remained within the normal distribution for the population of dairy cattle.

Lacking a conclusion in the scientific community that EMF is a health hazard for livestock, and noting that the EMF from the Proposed Project is well below the levels utilized in the referenced research, EMF is not considered a significant impact to Active Agricultural Operations. Thus, impacts as a result of the proposed route through the Imperial Valley Link are considered adverse but not significant (Class III), and no mitigation is required.

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

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

AG-3a **Coordinate with dairy operators.** SDG&E shall coordinate with dairy operators to ensure that agricultural productivity and animal welfare are maintained during project operation (e.g., maintenance activities) to the maximum extent feasible. Coordination efforts shall address issues including, but not necessarily limited to:

- Impairment of cattle movements (e.g., provide alternate routes; reconfigure fencing/gates)
- Impacts to facilities, as well as related effects such as ingress/egress and management activities (e.g., replacement of damaged/removed facilities in kind; provide alternate access)

AG-3b **Consult with and inform aerial applicators.** The Applicant shall consult with landowners and the **Imperial** County Farm Bureaus to determine which aerial applicators operate in the county. The Applicant shall provide written notification to all aerial applicators working in the county and to the CPUC stating when and where the new transmission lines and towers will be erected. The Applicant shall also provide all aerial applicators, the **Imperial** County Farm Bureaus, and the CPUC with aerial photos or topographic maps clearly showing the new lines and towers in relation to agricultural lands.

AG-3c Survey for apiaries and inform owners. The Applicant shall perform a survey of the approved route and identify all apiaries within 1,000 feet of the transmission line. The Applicant shall notify all apiary owners at least 60 days prior to energizing the line that their apiaries are within a zone of potential transmission line effect, and shall advise them to relocate their hives to avoid any potential effects. The survey results and notification process shall be documented to the CPUC and BLM at least 30 days before the line is energized.

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

Operation of the Proposed Project would permanently convert ~~48.2~~ 5.3 acres of Williamson Act lands within the Imperial Valley Link due to the presence of transmission structures and access roads, which would not exceed the 10-acre threshold for determining the significance of impact to Williamson Act lands. ~~In addition~~ However, the Proposed Project as a whole would convert ~~254.3~~ 104.9 acres of Williamson Act lands to non-agricultural use, exceeding the 10-acres threshold. In the Imperial Valley Link, there are no non-agricultural areas near the proposed route to which the Proposed Project could be relocated so as to reduce impacts to agriculture. Development on land to the north and west of the Proposed Project is prohibited by the DOD. Land to the south and east is already occupied by agriculture. If the transmission line were moved in this direction, the Proposed Project would no longer border certain agricultural areas, but would actually cross over them, resulting in additional impacts to Active Agricultural Operations. Because the Proposed Project as a whole would convert more than 10 acres of Williamson Act lands and that movement of the route elsewhere in the surrounding area would not be practical, impacts relating to the conversion of Williamson Act lands as a result of the proposed route through the Imperial Valley Link would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

Modifications to Imperial Valley Substation

No DOC Farmlands, Active Agricultural Operations, or Williamson Act lands would be impacted by the Imperial Valley Substation site. Thus, improvements to the Imperial Valley Substation would not create construction or operational impacts that would temporarily or permanently impact Agricultural Resources (No Impact) and no mitigation would be required.

D.6.6 Anza-Borrego Link Impacts and Mitigation Measures

No DOC Farmlands, Active Agricultural Operations, or Williamson Act lands exist within the Anza-Borrego Desert State Park, through which the Anza-Borrego Link would traverse. Therefore, the proposed route through the Anza-Borrego Link would not create construction or operational impacts that would temporarily or permanently impact Agricultural Resources (No Impact) and no mitigation would be required. Despite the fact that the Anza-Borrego Link would not impact Agricultural Resources, the proposed route overall would impact more than 10 acres each of DOC Farmland, Active Agricultural Operations, and Williamson Act lands, which would constitute Class I impacts to these resources.

D.6.7 Central Link Impacts and Mitigation Measures

Approximately ~~250.3~~ 78.4 acres of Agricultural Resources (~~36.7~~ 25.6 acres of DOC Farmland, ~~104.8~~ 36.6 acres of land under Active Agricultural Operation, and ~~124.2~~ 78.4 acres of Williamson Act lands) would be permanently impacted by the proposed route through the Central Link.

Environmental Impacts and Mitigation Measures

The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

Construction Impacts

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

Active Agricultural Operations within the Central Link would be temporarily impacted by 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 Proposed Project would incorporate APMs to minimize direct impacts to Active Agricultural Operations. APM LU-1 requires that notification be provided to all residents, property owners, and tenants within 300 feet of proposed construction activities, and APM LU-3 would ensure that construction activities would avoid agricultural areas during certain seasons and/or provide compensation to farmers for loss of crops. As well, APM LU-4 requires that notification be provided to all properties that would be obstructed by construction activities. In addition, APM LU-6 requires 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. Refer to Table D.6-6 for details of applicable agriculture APMs.

Incorporation of these APMs would reduce impacts relating to the damage and loss of crops and obstruction of access to properties to a less than significant level (Class III). 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 proposed route through the Central Link 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 Proposed Project, soils would 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 reduce impacts to Active Agricultural Operations as a result of compacted soils due to construction activities associated with the proposed route through the Central Link 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.** SDG&E shall coordinate with grazing operators to ensure that agricultural productivity and animal welfare are maintained both during and after construction to the maximum extent feasible. Coordination efforts will address issues including, but not necessarily limited to:

- Interference with access to water (e.g., provide alternate methods for livestock access to water)
- Impairment of cattle movements (e.g., provide alternate routes; reconfigure fencing/gates)
- Removal and replacement of fencing (e.g., during construction install temporary fencing/barriers, as appropriate, and following construction restore equal or better fencing to that which was removed or damaged)
- Impacts to facilities such as corrals and watering structures, as well as related effects such as ingress/egress, and management activities (e.g., replacement of damaged/removed facilities in kind; provide alternate access)

Operational Impacts

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

The Proposed Project would permanently convert approximately ~~36.7~~ 25.6 acres of DOC Farmland (~~28.6~~ 20.4 acres of Farmland of Local Importance and ~~8.1~~ 5.3 acres of Grazing Land) in the Central Link. The Proposed Project would permanently convert a total of ~~663.4~~ 62.0 acres of DOC Farmland overall. For both the Central Link and the entire project, the 10-acre threshold for determining significance of impacts due to the conversion of DOC Farmland would be exceeded. In the Central Link, there are no non-agricultural areas near the proposed route to which the Proposed Project 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. Thus, impacts to DOC Farmland as a result of the proposed route through the Central Link would be considered significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

Impact AG-3: Operation would permanently interfere with Active Agricultural Operations (Class II for Disruption of Farming and Disruption of Livestock Grazing; III for Avian Perching)

The Proposed Project would permanently remove approximately ~~104.8~~ 36.6 acres of land under Active Agricultural Operation within the Central Link. Overall, the Proposed Project would permanently remove 500.0 acres of land under Active Agricultural Operation. For both the Central Link and the entire project, the Proposed Project would exceed the 10-acre threshold for determining significance of impacts due to the loss of land under Active Agricultural Operation. As such, the Proposed Project would significantly impact Active Agricultural Operations. As discussed for DOC Farmland, there are no non-agricultural areas near the proposed route to which the Proposed Project 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. Thus, impacts relating to the loss of land under Active Agricultural Operation as a result of the proposed route through the Central Link would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

In addition to loss of farmland, other Active Agricultural Operations could be permanently impacted as a result of the operation of the Proposed Project. Such impacts relate to (1) the disruption of farming facilities or operations as well as (2) livestock grazing operations, and (3) avian use of transmission lines and structures for perching near vineyards.

Disruption of Farming Facilities or Operations (Class II). The presence of new project components would permanently disrupt active farming operations in surrounding areas, through conditions such as dividing agricultural fields, obstructing access, impeding water delivery, and/or disrupting the operation of farm equipment. In addition, other potential effects include disruption of drainage and irrigation, fragmentation of farmland (e.g., isolating smaller areas that could be uneconomical for continued cultivation), and reducing windbreak efficacy.

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 where feasible and appropriate. If facilities cannot be located along borders, 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 as a result of the proposed route through the Central Link would be mitigated to a less than significant level (Class II).

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, presence of the Proposed Project 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 proposed route through the Central Link would be mitigated to a less than significant level (Class II).

Avian Perching Near Vineyards (Class III). A comment was provided during the EIR/EIS scoping process regarding concerns over avian (bird) perching near vineyards. Specifically, the commenter stated that installation of transmission towers and wires could permanently result in a greater presence of birds in areas surrounding existing and proposed vineyards, and this could result in bird predation on grapes. Known existing and proposed vineyards along the proposed route are all located adjacent to existing 69 kV wires and towers, which are lower than the Proposed Project element, and other features where birds can perch (e.g., fences, buildings, shrubs, trees). For this reason, addition of the proposed route through the Central Link would not provide an opportunity for a permanent significant increase in the presence of birds near vineyards. Such an impact would be considered adverse but not significant (Class III).

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 (Class I)

Operation of the Proposed Project would permanently convert ~~124.2~~ 78.4 acres of Williamson Act lands within the Central Link. Overall, the Proposed Project would permanently convert ~~254.3~~ 104.9 acres of Williamson Act lands. For both the Central Link and the entire project, the Proposed Project would exceed the 10-acre threshold for determining significance of impacts due to the conversion of Williamson Act lands. There are no non-agricultural areas near the proposed route to which the Proposed Project could be relocated so as to reduce impacts to agriculture. Surrounding land is occupied by agriculture, which would generate similar or greater impacts to Active Agricultural Operations. Because the Proposed Project as a whole would convert more than 10 acres of Williamson Act lands and that movement of the route elsewhere in the surrounding area would not be practical, permanent impacts relating to the conversion of Williamson Act lands as a result of the proposed route through the Central Link would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

Proposed Central East Substation

No DOC Farmlands, Active Agricultural Operations, or Williamson Act lands exist within or adjacent to the proposed Central East Substation site. In addition, the Central East Substation would not create impacts due to construction or presence of the substation that would temporarily or permanently impact Agricultural Resources (No Impact), and no mitigation would be required.

D.6.8 Inland Valley Link Impacts and Mitigation Measures

Approximately ~~102.0~~ 30.7 acres of Agricultural Resources (~~30.8~~ 9.4 acres of DOC Farmland, ~~34.3~~ 3.6 acres of land under Active Agricultural Operation, and ~~26.5~~ 21.2 acres of Williamson Act lands) would be permanently impacted by the proposed route through the Inland Valley Link.

Environmental Impacts and Mitigation Measures

The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

Construction Impacts

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

Active Agricultural Operations within the Inland Valley Link would be temporarily impacted by 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 impeding access to certain fields or plots of land, obstructing farm vehicles and equipment, and disrupting grazing activities, all of which could result in the temporary reduction of agricultural productivity.

The Proposed Project would incorporate APMs to minimize direct impacts to Active Agricultural Operations. APM LU-1 requires that notification be provided to all residents, property owners, and tenants within 300 feet of proposed construction activities, and APM LU-4 requires that notification be provided to all properties that would be obstructed by construction activities. Thus, incorporation of APM

LU-1 and APM LU-4 would provide advanced notification of construction activities to properties near and/or potentially obstructed by construction activities (including agricultural fields and operations), 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, incorporation of APM LU-6 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. Refer to Table D.6-6 for details of applicable agriculture APMs.

Incorporation of these APMs would reduce impacts relating to the obstruction of access to properties to a less than significant level (Class III). 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 proposed route through the Inland Valley Link 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 Proposed Project, soils would 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 reduce impacts to Active Agricultural Operations as a result of compacted soils due to construction activities associated with the proposed route through the Inland Valley Link 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.

Operational Impacts

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

Presence of the Proposed Project would permanently convert approximately ~~30.8~~ 9.4 acres of DOC Farmland (~~7.4~~ 2.0 acres of Farmland of Local Importance and ~~23.7~~ 7.5 acres of Grazing Land) within the Inland Valley Link. The Proposed Project would permanently convert a total of ~~663.4~~ 62.0 acres of DOC Farmland overall. For ~~both~~ the Inland Valley Link ~~and the entire project~~, the Proposed Project would not exceed the 10-acre threshold for determining significance of impacts due to the conversion of DOC Farmland. However, The the entire Proposed Project would significantly impact DOC Farmland. There are no non-agricultural areas near the proposed route to which the Proposed Project 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. Because the Proposed Project as a whole would permanently convert more than 10 acres of DOC Farmlands and that movement of the route elsewhere in the surrounding area would not be practical, impacts relating to the conversion of DOC Farmlands as a result of the proposed route through the Inland Valley Link would be significant (Class I), and no feasible mitigation measures exist 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 Proposed Project would permanently remove approximately ~~34.3~~ 3.6 acres of land under Active Agricultural Operation within the Inland Valley Link. Overall, the Proposed Project would permanently remove ~~500.0~~ 69.5 acres of land under Active Agricultural Operation. For ~~both~~ the Inland Valley Link ~~and the entire project~~, the Proposed Project would not exceed the 10-acre threshold for determining significance of impacts due to the loss of land under Active Agricultural Operations. ~~As such~~ However, the entire Proposed Project would significantly impact Active Agricultural Operations by permanently removing 69.5 acres of Active Agricultural Operations. There are no non-agricultural areas near the proposed route to which the Proposed Project 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. Thus, permanent impacts relating to the loss of land under Active Agricultural Operation as a result of the proposed route through the Inland Valley Link would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

In addition to loss of farmland, other Active Agricultural Operations could potentially be impacted as a result of the operation of the Proposed Project. Such impacts relate to the disruption of farming facilities or operations as well as livestock grazing operations, and avian use of transmission lines and structures for perching near vineyards.

Disruption of Farming Facilities or Operations (Class II). The presence of new project components would permanently disrupt active farming operations in surrounding areas, through conditions such as dividing agricultural fields, obstructing access, impeding water delivery, and/or disrupting the operation of farm equipment. In addition, other potential effects include disruption of drainage and irrigation, fragmentation of farmland (e.g., isolating smaller areas that could be uneconomical for continued cultivation), and reducing windbreak efficacy.

APM LU-7 requires that the location of proposed facilities be matched to existing facilities where feasible and appropriate, and APM LU-10 requires that facilities be installed along the edges of private property where feasible and appropriate. If facilities cannot be located along borders, 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 as a result of the proposed route through the Inland Valley Link would be mitigated to a less than significant level (Class II).

Disruption of Livestock Grazing Operations (Class II). Activities such as cattle movement, access to water, feeding, and shipping of livestock would be impeded by new access roads and towers, as well as associated routine maintenance activities. 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 as a result of the proposed route through the Inland Valley Link would be mitigated to a less than significant level (Class II).

Avian Perching Near Vineyards (Class III). A comment was provided during the scoping process regarding concerns over avian perching near vineyards. Specifically, the commenter stated that installation of transmission towers and wires could encourage a greater presence of birds within the areas surrounding existing and proposed vineyards that could be impacted by bird predation on grapes. All known existing and proposed vineyards along the proposed route are currently located adjacent to existing 69 kV wires and towers. For this reason, addition of the proposed route through the Inland Valley Link would not provide an opportunity for a significant increase in the presence of birds near vineyards. Such an impact would be considered adverse but not significant (Class III).

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 (Class I)

Operation of the Proposed Project would permanently convert ~~26.5~~ 21.2 acres of Williamson Act lands due to the presence of transmission structures and access roads. Overall, the Proposed Project would permanently convert ~~254.3~~ 104.9 acres of Williamson Act lands. For both the Inland Valley Link and the entire project, the Proposed Project would exceed the 10-acre threshold for determining significance of impacts due to the conversion of Williamson Act lands. There are no non-agricultural areas near the proposed route to which the Proposed Project 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 DOC Farmland. Because the Proposed Project as a whole would convert more than 10 acres of Williamson Act lands and that movement of the route elsewhere in the surrounding area would not be practical, impacts relating to the conversion of Williamson Act lands as a result of the proposed route through the Inland Valley Link would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

D.6.9 Coastal Link Impacts and Mitigation Measures

Approximately ~~6.6~~ 1.2 acres of DOC Farmland would be permanently impacted by the proposed route through the Coastal Link. No land under Active Agricultural Operation or Williamson Act lands would be impacted by the Coastal Link. Reconductoring activity impacts are included in the analysis of Coastal Link impacts. The full text of individual mitigation measures for all resource topics is provided in Appendix 12.

Environmental Impacts and Mitigation Measures

The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

Construction Impacts

Impact AG-1: Construction activities would temporarily interfere with Active Agricultural Operations (No Impact)

No Active Agricultural Operations would be impacted by construction activities (No Impact), and no mitigation would be required.

Operational Impacts

Impact AG-2: Operation would permanently convert DOC Farmland to non-agricultural use (Class I for overall route, Class III for link)

The Proposed Project would permanently convert approximately ~~6.6~~ 1.3 acres of DOC Farmlands (~~0.7~~ 0.2 acres of Farmland of Local Importance and ~~5.9~~ 1.1 acres of Grazing Land) within the Coastal Link. This is less than the established 10-acre significance criterion and impacts would be less than significant (Class III).

Impact AG-3: Operation would permanently interfere with Active Agricultural Operations (Class I for overall route, No Impact for link)

No Active Agricultural Operations would be impacted within the Coastal Link (No Impact).

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

No Williamson Act lands would be converted within the Coastal Link (No Impact).

Modifications to Sycamore Canyon Substation

No DOC Farmlands, Active Agricultural Operations, or Williamson Act lands would be impacted by the Sycamore Canyon Substation site. Thus, improvements to the Sycamore Canyon Substation would not create construction or operational impacts that would temporarily or permanently impact Agricultural Resources (No Impact), and no mitigation would be required.

Modifications to Peñasquitos Substation

No DOC Farmlands, Active Agricultural Operations, or Williamson Act lands would be impacted by the Peñasquitos Substation site. Thus, improvements to the Peñasquitos Substation would not create construction or operational impacts that would temporarily or permanently impact Agricultural Resources (No Impact), and no mitigation would be required.

D.6.10 Other System Upgrades Impacts and Mitigation Measures

Modifications to San Luis Rey Substation

No DOC Farmlands, Active Agricultural Operations, or Williamson Act lands would be impacted by the San Luis Rey Substation site. Thus, improvements to the San Luis Rey Substation would not create construction or operational impacts that would temporarily or permanently impact Agricultural Resources (No Impact), and no mitigation would be required.

Modifications to South Bay Substation

No DOC Farmlands, Active Agricultural Operations, or Williamson Act lands would be impacted by the South Bay Substation site. Thus, improvements to the South Bay Substation would not create construction or operational impacts that would temporarily or permanently impact Agricultural Resources (No Impact), and no mitigation would be required.

D.6.11 Future Transmission System Expansion

The Proposed Project would facilitate the possible future construction of additional 230 kV and 500 kV transmission lines. These lines are not proposed at this time, but because the construction of the Proposed Project would include a substation and create new transmission corridors that could be used by these additional circuits, impact analysis is presented in this EIR/EIS. However, for the most part, expansions would occur along or in the Proposed Project or alternatives ROWs. Therefore, similar impacts would occur as apply to the project or alternatives.

The 230 kV future lines are addressed in Sections D.6.11.1 and D.6.11.2; the 500 kV future line is addressed in Sections D.6.11.3 and D.6.11.4.

D.6.11.1 Environmental Setting – 230 kV Future Transmission System Expansion

As described in Section B.2.7, the Central East Substation that would be built as a part of the Proposed Project would accommodate up to six 230 kV circuits. Only two circuits are proposed by SDG&E at this time, but construction of additional 230 kV circuits out of the Central East Substation may be required within the next 10 years. This section considers the impacts of construction and operation of these potential future transmission lines. Based on information provided by SDG&E, there are four substation endpoints and five routes that would be most likely for these future lines; each is addressed below. Figure B-12a illustrates the potential routes of each of the 230 kV transmission lines.

Central East Substation to Sycamore Canyon or Peñasquitos Substation

The new 230 kV line would most likely follow the proposed SRPL project route from the Central East Substation to Sycamore Canyon or Peñasquitos Substation and would pass through the Central Link, Inland Valley Link, and Coastal Link.

Central Link

The Central Link would traverse or be adjacent to DOC Farmland, Active Agricultural Operations, and Williamson Act lands. Figures Ap.AG-11 through -13 (at the end of this section) and Table D.6-3 provide details of Agricultural Resources traversed by or adjacent to the Central Link, Figures Ap.AG-13 through -16 and Table D.6-4 provide details of Agricultural Resources traversed by or adjacent to the Inland Valley Link, and Figures Ap.AG-16 through -19 and Table D.6-5 provide details of Agricultural Resources traversed by or adjacent to the Coastal Link. A summary of these resources follows.

DOC Farmland

The proposed route through the Central, Inland and Coastal Links would traverse or be adjacent to Farmland of Local Importance between MP 99 and 109, MP 114 and 115, MP 121 and 124, MP 128 and 129, MP 130 and 131, MP 145 and 148, and MP 149 and 150, and Grazing Land between MP 99 and 100 and MP 107 and 109, MP 120 and 122, MP 123 and 131, MP 135 and 136, and MP 147 and 150.

Active Agricultural Operations

The proposed route through the Central, Inland and Coastal Links would traverse or be adjacent to a vineyard between MP 83 and 84 and MP 116 and 118; forage cropland between MP 87 and 88; grazing operations between MP 100 and 111, MP 113 and 118, MP 122 and 124, and MP 126 and 129; and orchards between MP 128 and 129.

Williamson Act Lands

The proposed route through the Central and Inland Links would traverse or be adjacent to Williamson Act lands throughout the Central Link.

Inland Valley Link

The Inland Valley Link would traverse or be adjacent to DOC Farmland, Active Agricultural Operations, and Williamson Act lands. These areas are depicted in Figures Ap.AG-13 through AG-16, with summaries of individual designations and uses provided in Table D.6-4.

Coastal Link

The Coastal Link, including reconductoring activities, would traverse or be adjacent to DOC Farmlands. No Active Agricultural Operations or Williamson Act lands would be traversed by or adjacent to the Coastal Link. Agricultural Resources are shown on Figures Ap.AG 16 through AG-18, and a breakdown of DOC Farmlands is provided in Table D.6-5.

Central East Substation to Mission Substation

The new 230 kV line would most likely follow the proposed SRPL project route from the Central East Substation to the Sycamore Canyon Substation. Therefore, the environmental setting for the future 230 kV line would be the same as for the proposed SRPL project from these locations. At the Sycamore Canyon Substation, the 230 kV line would turn southwest and most likely follow an existing 69 kV transmission line corridor that runs between Sycamore Canyon and Elliot Substations. DOC Farmland is found along the existing 69 kV transmission line corridor between the Sycamore Canyon and Elliot Substations. Installation of a future 230 kV line between the Sycamore Canyon and Elliot Substations would occur entirely on undeveloped land under the jurisdiction of the Department of Defense (i.e., MCAS Miramar). From the Elliot Substation, the route would continue southwest for an additional 4.0 miles within the existing 69 kV corridor, through Mission Trails Regional Park, and cross I-15 to terminate at the existing Mission Substation, located on Friars Road, which is 0.9 miles north of I-8 and 0.25 miles west of I-805.

The Central East to Mission Substations 230 kV Future Expansion would traverse or be adjacent to DOC Farmland, Active Agricultural Operations, and Williamson Act lands. Agricultural Resources traversed by this 230 kV Future Expansion route are summarized below.

DOC Farmland

The expansion route would traverse or be adjacent to Farmland of Local Importance between MP 99 and 109, MP 114 and 115, MP 121 and 124, MP 128 and 129, MP 130 and 131, and Grazing Land between MP 99 and 100 and MP 107 and 109, MP 120 and 122, MP 123 and 131, and MP 135 and 136. The expansion route between the Sycamore Canyon and Elliot Substations would also traverse or be adjacent to Grazing Land throughout its length. Between MP 136 and the Mission Substation, the expansion route would traverse or be adjacent to Grazing Land.

Active Agricultural Operations

The expansion route would traverse or be adjacent to a vineyard between MP 83 and 84 and MP 116 and 118; forage cropland between MP 87 and 88; grazing operations between MP 100 and 111, MP 113 and 118, MP 122 and 124, and MP 126 and 129; and orchards between MP 128 and 129.

Williamson Act Lands

The expansion route would traverse or be adjacent to Williamson Act lands throughout its length between the Central East Substation and MP 136.

Central East Substation to Los Coches Substation

The future 230 kV line would most likely follow the proposed SRPL project route from the Central East Substation to 1.0 mile south of the Creelman Substation (MP 122.2) in the Town of Ramona. Therefore, the environmental setting for the future 230 kV transmission line would be the same as for the proposed SRPL project from these locations. At MP 122.2, the future expansion 230 kV line could turn south following the existing Creelman-Lakeside 69 kV corridor through unincorporated San Diego County and then 1.6 miles through largely hilly open space on the Barona Reservation east of the San Vicente Reservoir and west of the Barona Creek Golf Club, the Barona Valley Resort and Casino, and Oak Oasis Open Space Preserve. The route would then pass through or adjacent to Louis A. Stelzer County Park, cross the San Diego River and terminate at the existing Los Coches Substation 0.3 miles northwest of Lake Jennings near Lake Jennings County Park and the community of Lakeside.

The Central East to Los Coches Substations 230 kV Future Expansion would traverse or be adjacent to DOC Farmland, Active Agricultural Operations, and Williamson Act lands. Agricultural Resources traversed by this 230 kV Future Expansion route are summarized below.

DOC Farmland

The expansion route would traverse or be adjacent to Farmland of Local Importance between MP 99 and 109, MP 114 and 115, MP 121 and 122, and Grazing Land between MP 99 and 100 and MP 107 and 109, and MP 120 and 122. The expansion route would traverse or be adjacent to Farmland of Local Importance, Unique Farmland, and Grazing Land between MP 122 and the Los Coches Substation.

Active Agricultural Operations

The expansion route would traverse or be adjacent to a vineyard between MP 83 and 84 and MP 116 and 118; forage cropland between MP 87 and 88; and grazing operations between MP 100 and 111, MP 113 and 118, and at MP 122. The expansion route would traverse or be adjacent to two orchards (most likely citrus and/or avocado), one near El Monte Road and the second on Blue Sky Ranch Road; an apiary (approximately 30 hives) on Blue Sky Ranch Road; and a bird (crane) farm on Blue Sky Ranch Road between MP 122 and the Los Coches Substation.

Williamson Act Lands

The expansion route would traverse or be adjacent to Williamson Act lands throughout its length between MP 100 and 118. The expansion route would traverse or be adjacent to Agricultural Preserve land between MP 122 and the Los Coches Substation.

Central East Substation to Escondido Substation

Northern Route

From the proposed Central East Substation, the future 230 kV transmission line route would travel west through Vista Irrigation District land paralleling the proposed SRPL route for approximately 6.6 miles to its intersection with SR79. At SR79 the line would diverge from the proposed SRPL route and head north parallel to SR79 for approximately 1.2 miles to the intersection of County Highway S2 with SR79 at the existing Warner Substation. From there the route would parallel the existing 69 kV corridor west across open space owned by VID north of Lake Henshaw and then it would turn southwest, following the northwest edge of the lake to SR76.

At SR76 the route would turn west-northwest paralleling SR76 for 13.3 miles following the existing Warners-Rincon 69 kV transmission corridor across and/or bordering parcels of the Cleveland National Forest for approximately 4 miles and across La Jolla Reservation for 6 miles and then into the Rincon Substation, which is just north of the Rincon Reservation at the intersection of County Highway S6 with SR76. The hilly route along SR76 is primarily agricultural/open space with scattered rural residences.

At Rincon Substation the route would diverge from SR76 and would follow the existing Rincon-Escondido 69 kV corridor, generally parallel to County Highway S6 south, through the Rincon Reservation for 3 miles passing through some medium density single-family residential and commercial land uses. South of the Rincon Reservation, the route would turn west in the Valley Center Substation area generally paralleling County Highway S6, passing on the west side of Hellhole Canyon County Open Space Preserve (approximately 0.30 miles from the ROW), and then would turn south on the east side of County Highway S6 for 1.6 miles before turning southwest, crossing County Highway S6, and entering the City of Escondido after approximately 0.75 miles. The new line could run adjacent to or cross Daley Ranch near Escondido. In the City of Escondido, the route would turn south and then southwest for approximately 8 miles following the existing 69 kV corridor into Escondido Substation.

The Central East to Escondido Substation 230 kV Future Expansion northern route would traverse or be adjacent to DOC Farmland, Active Agricultural Operations, and Williamson Act lands.

DOC Farmland

The northern route would traverse or be adjacent to Farmland of Local Importance, Farmland of Statewide Importance, Prime Farmland, Unique Farmland, and Grazing Land between the Warner and Escondido Substations.

Active Agricultural Operations

The northern route would traverse or be adjacent to grazing operations throughout the route along and near to Pala Road and Valley Center Road. In addition, the northern route would traverse or be adjacent to many orchards (likely citrus and/or avocado) throughout the route along and near to Pala Road and Valley Center Road. As well, approximately five apiaries are located along Pala Road between Lake Henshaw and its intersection with Valley Center Road. Finally, ranches for chicken and/or cattle are traversed by or adjacent to the northern route on Valley Center Road.

Williamson Act Lands

The northern route would traverse or be adjacent to Williamson Act Agricultural Preserve land between the Warner and Escondido Substations.

Southern Route

The southern route between the Central East and Escondido Substations would likely follow the Proposed Project route from the Central East Substation to the Chicarita Substation, at which point the southern route would diverge and head north, following an existing 69 kV corridor into the Escondido Substation. The Central East to Escondido Substation 230 kV Future Expansion southern route would traverse or be adjacent to DOC Farmland, Active Agricultural Operations, and Williamson Act lands.

DOC Farmland

The southern route would traverse or be adjacent to Farmland of Local Importance between MP 99 and 100, MP 103 to 109, MP 111 to 116, and MP 120 to 131, and Grazing Land between MP 99 and 100, MP 107 to 109, MP 120 to 131, and MP 135 to 136. The expansion route would traverse or be adjacent to Farmland of Local Importance, Farmland of Statewide Importance, Prime Farmland, Unique Farmland, and Grazing Land between MP 143 and the Escondido Substation.

Active Agricultural Operations

The southern route would traverse or be adjacent to a vineyard between MP 116 and 118; grazing operations between MP 100 and 111, MP 113 and 118, and at MP 122; an apiary between MP 105 and 106; and an orchard between MP 128 and 129. The expansion route would traverse or be adjacent to numerous orchards (most likely citrus and/or avocado) and field crops to the south and west of Del Dios Highway and Lake Hodges between the Chicarita and Escondido Substations.

Williamson Act Lands

The southern route would traverse or be adjacent to Williamson Act lands throughout its length between MP 100 and 118.

D.6.11.2 Environmental Impacts – 230 kV Future Transmission System Expansion

The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

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 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 Expansion 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 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 kV Future Expansion would permanently convert DOC Farmland, including Prime Farmland, 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 kV Future Expansion between the Central Substation and either the Los Coches Substation, Mission Substation, Peñasquitos Substation, or Escondido Substation (northern or southern route) 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 kV Future Expansion from the Central Substation. 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 kV Future Expansion 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 kV Future Expansion between the Central Substation and either the Los Coches Substation, Mission Substation, Peñasquitos Substation, or Escondido Substation (northern or southern route) 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 kV Future Expansion from the Central Substation. No feasible mitigation measures have been identified to mitigate this impact to a less than significant level.

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 kV Future Expansion 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).

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 kV Future Expansion 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 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]

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 kV Future Expansion as a whole between the Central Substation and either the Los Coches Substation, Mission Substation, Peñasquitos Substation, or Escondido Substation (northern or southern route). 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 Expansion from the Central Substation. As such, impacts relating to the conversion of Williamson Act lands as a result of the 230 kV Future Expansion would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

D.6.11.3 Environmental Setting – 500 kV Future Transmission System Expansion

As described in Section B.7.2 and illustrated in Figure B-12b, the potential Future 500 kV Circuit would connect the proposed Central East Substation to the Southern California Edison (SCE) transmission system at a new substation north of Interstate 15 (I-15), about 20 miles west of SCE's Valley Substation.

The Central East to Escondido Substation 230 kV Future Expansion northern route would traverse or be adjacent to DOC Farmland, Active Agricultural Operations, and Williamson Act lands.

DOC Farmland

The 500 kV Future Transmission Expansion route would traverse or be adjacent to Farmland of Local Importance, Farmland of Statewide Importance, Prime Farmland, Unique Farmland, and Grazing Land throughout its length.

Active Agricultural Operations

The 500 kV Future Transmission Expansion route would traverse or be adjacent to grazing operations throughout the route. In addition, it would traverse or be adjacent to many orchards (likely citrus and/or avocado) throughout the route. As well, approximately five apiaries are located along Pala Road between Lake Henshaw and its intersection with Valley Center Road.

Williamson Act Lands

The 500 kV Future Transmission Expansion route would traverse or be adjacent to Williamson Act contracted land and Agricultural Preserves throughout its length.

D.6.11.4 Environmental Impacts – 500 kV Future Transmission System Expansion

The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

Construction Impacts

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

Active Agricultural Operations would be temporarily impacted by 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 500 kV Future Expansion System 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 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 500 kV Future Expansion System route 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 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 500 kV 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 500 kV Future Transmission System Expansion route would permanently convert DOC Farmland, including Farmland of Local Importance, Farmland of Statewide Importance, Prime Farmland, Unique Farmland, 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 500 kV Future Expansion between the Central Substation and the Future Switching Station 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 500 kV Future Expansion System Route from the Central Substation. 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 500 kV Future Transmission System Expansion 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 500 kV Future Expansion between the Central Substation and the Future Switching Station 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 500 kV Future Expansion from the Central Substation. No feasible mitigation measures have been identified to mitigate this impact to a less than significant level.

In addition to loss of farmland, other Active Agricultural Operations could permanently be impacted as a result of the 500 kV Future Expansion System route. 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 500 kV Future Expansion 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 500 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 500 kV Future Expansion System route would disrupt livestock grazing operations, a significant impact. Implementation of Mitigation Measure AG-1c would ensure that impacts to livestock grazing operations as a result of the 500 kV Future Expansion System 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 500 kV Future Expansion System route would permanently convert Williamson Act contract lands and Agricultural Preserves. 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 500 kV Future Expansion as a whole between the Central Substation and the Future Switching Station. 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 500 kV Future Expansion from the Central Substation. As such, impacts relating to the conversion of Williamson Act lands as a result of the 500 kV Future Expansion System route would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

D.6.12 Connected Actions and Indirect Effects

Section B.6 describes the other projects that have been found to be related to the Sunrise Powerlink Project. They fall into two categories:

- **Connected Actions.** The ~~four~~ three projects found to be connected to the Sunrise Powerlink Project are the Stirling Energy Systems solar facility, ~~two components of the IID 230 kV transmission system upgrades,~~ the Esmeralda-San Felipe Geothermal Project, and the Jacumba Substation (as a component of the Sempra Rumorosa Wind Energy Project). The first two~~ese~~ projects are addressed in Sections D.6.12.1 ~~through and~~ D.6.12.24. The Draft EIR/EIS also included analysis of two components of the IID 230 kV transmission system upgrades, but this is no longer considered to be a connected action, based on comments from IID. Therefore, this analysis has been deleted and is struck out in this section.

The Jacumba Substation, originally addressed in Section D.6.12.4, was modified and expanded in Section 2 of the Recirculated Draft EIR/Supplemental Draft EIS, superseding the original analysis. Therefore, the original analysis from the Draft EIR/EIS has been deleted and is struck out in this section. The replacement analysis in the Recirculated Draft EIR/Supplemental Draft EIS includes consideration of the larger, relocated Jacumba Substation as well as other transmission and substation components that would be required to interconnect the Sempra Rumorosa Wind Energy Project (RWEP) to the SDG&E transmission system.

- **Indirect Effects.** One project, the SCE La Rumorosa Wind Project, was analyzed in the Draft EIR/EIS. This analysis was modified and expanded in Section 2 of the Recirculated Draft EIR/Supplemental Draft EIS, superseding the analysis presented in the Draft EIR/EIS. Therefore, the original analysis from the Draft EIR/EIS has been deleted and is struck out in this section ~~would create effects as a result of the construction and operation of the Sunrise Powerlink Project. That project is addressed in Section D.6.12.5.~~

D.6.12.1 Stirling Energy Systems Solar Two LLC Project

As agreed in a Power Purchase Agreement (PPA) approved by the CPUC, SDG&E would purchase up to 900 MW of solar power produced at a proposed 8,000-acre Concentrating Solar Power (CSP) facility in the Imperial Valley (see Section B.6.1). At least 600 MW of this total would be transmitted via the SRPL. Stirling Energy Systems (SES) Solar Two, LLC would construct, own and operate the CSP facility and an associated 230 kV transmission line. The CSP site would be leased by SES from BLM, and additional individual private parcels within the site boundaries would be acquired. The transmission line would be constructed within a new ROW easement just north of and adjacent to the SWPL.

As described in Section B.6, the CPUC and BLM have determined that the Stirling CSP facility and associated 230 kV transmission line are so closely related to the Proposed Project as to be considered “connected actions” under the National Environmental Policy Act (NEPA). Therefore, the Stirling site and transmission line are discussed in this EIR/EIS in order to fully disclose the potential for this project

to be constructed as a result of the presence of the SRPL (if it is approved and constructed). Approval of the SRPL would not result in automatic approval of the Stirling CSP facility or transmission line discussed below, and the project would require SES permit applications to CEC and BLM and compliance with CEQA and NEPA, followed by approvals from the CEC and BLM prior to construction on BLM lands.

Environmental Setting

The SES Solar Two, LLC Project would not traverse or be adjacent to DOC Farmland, Active Agricultural Operations, and Williamson Act lands. The facility itself would be on non-agricultural land north of I-8 to an existing railroad. The power line connecting to Imperial Valley Substation would be adjacent to the existing SWPL transmission line and would not traverse or be adjacent to agricultural land.

D.6.12.2 IID Transmission System Upgrades

~~As part of Phase 2 of the Imperial Valley Study Group's development plan (see Section A.4.3), IID would construct a new 230 kV line from the Bannister Substation to a new San Felipe 500/230 kV Substation to interconnect to the proposed Imperial Valley to San Diego 500 kV line (i.e., the Sunrise Powerlink line). This San Felipe Substation could potentially provide an additional interconnection between the IID and CAISO systems, and thus another point for the delivery of renewable resources to Southern California loads. IID would construct, own and operate these upgrades.~~

~~As described in Section B.6, the CPUC and BLM have determined that these IID Transmission System Upgrades are so closely related to the Proposed Project as to be considered "connected actions" under the National Environmental Policy Act (NEPA). Therefore, IID Transmission System Upgrades are discussed in this EIR/EIS in order to fully disclose the potential for a Bannister San Felipe 230 kV transmission line and new San Felipe 500/230 kV Substation to be constructed as a result of the presence of the SRPL (if it is approved and constructed). Mitigation measures that would reduce significant impacts of the IID Transmission System Upgrades projects have been included in the environmental impact analysis below; however, implementation of specific mitigation measures would be developed and executed by IID at the time of project permitting and approval.~~

~~Approval of the SRPL would not result in automatic approval of the IID Transmission System Upgrades discussed below, and the projects would require applications by IID, compliance with CEQA and NEPA, followed by approvals from BLM prior to construction on BLM lands.~~

~~Environmental Settingx~~

~~There are no DOC Farmlands, Active Agricultural Operations or Williamson Act lands that would be traversed by or adjacent to the 230 kV transmission line route or within the substation site. Thus, no Agricultural Resources would be traversed by or adjacent to this project.~~

~~Environmental Impacts and Mitigation Measures~~

~~No Agricultural Resources would be impacted by the new San Felipe Substation site or along the 230 kV transmission route. Therefore, construction and operation of the new San Felipe Substation and IID 230 kV transmission line would not create impacts that would temporarily or permanently impact Agricultural Resource (No Impact), and no mitigation would be required.~~

D.6.12.23 Esmeralda–San Felipe Geothermal Project

An EIS is being prepared by BLM to analyze the leasing of geothermal resources for exploration, development, and use in the Truckhaven Geothermal Leasing Area (Truckhaven) located in western Imperial County, California (see Figure B-46 in Section B). Currently, BLM has non-competitive geothermal lease applications pending for portions of this land, including lease applications from Esmeralda Energy, LLC (Esmeralda); however, the land must first be assessed under NEPA regulations before leases can be granted. Under the Proposed Action being analyzed in the EIS, BLM would approve the pending non-competitive leases and offer competitive leases for all other available lands at Truckhaven.

The Esmeralda–San Felipe Geothermal Project would develop 20 MW of geothermal resources within the Truckhaven Geothermal Leasing Area; however, Esmeralda is not able to submit a project application to BLM for the Esmeralda–San Felipe Geothermal Project until its pending lease applications with BLM for Truckhaven are approved. In the absence of a formal Project application, it is assumed that roughly half of the components identified under the Reasonably Foreseeable Development (RFD) scenario in BLM’s Truckhaven EIS would apply to the Esmeralda–San Felipe Geothermal Project. Additionally, the description of the environmental setting and likely impacts are partially adapted from the Draft EIS for the Truckhaven Geothermal Leasing Area (February 2007). The RFD describes the anticipated development that would occur at Truckhaven to facilitate geothermal resources exploration, development, and use, should the leases be approved by BLM. The RFD includes new wells, a power plant and transmission lines, as described in Section B.6.3. Geothermal energy derives heat from the earth. Steam or brine is extracted through geothermal wells and is then transported via pipeline and used to drive turbines to generate electricity.

As described in Section B.6, the CPUC and BLM have determined that the Esmeralda–San Felipe Geothermal Project is so closely related to the Proposed Project as to be considered a “connected action” under the National Environmental Policy Act (NEPA). Therefore, the Esmeralda–San Felipe Geothermal Project is discussed in this EIR/EIS in order to fully disclose the potential for a new geothermal plant and associated linears to be constructed as a result of the presence of the SRPL (if it is approved and constructed). Mitigation measures that would reduce significant impacts of the Esmeralda–San Felipe Geothermal Project have been included in the environmental impact analysis below. However, implementation of specific mitigation measures would be developed and executed by Esmeralda at the time of project permitting and approval.

Approval of the SRPL would not result in automatic approval of the Esmeralda–San Felipe Geothermal Project discussed below, and the project would require applications by Esmeralda Energy, LLC, compliance with CEQA and NEPA, followed by approvals from the BLM prior to construction on BLM lands.

Environmental Setting

Most of the regional agriculture occurs in the irrigated valleys about 30 miles to the south and 30 miles to the north of the Truckhaven area. The Imperial Valley is south of the Salton Sea, and the Coachella Valley is north of the Salton Sea. Both valleys feature intensive irrigated agriculture, producing livestock and a variety of winter crops. However, soils present at Truckhaven are not used as farmland; they may be rocky, alkaline or have other limitations that make them unsuitable as farmland. In most areas, the lack of irrigation water limits agricultural development. The nearest agriculture is about 3 miles southeast of the Truckhaven area along the Salton Sea. No DOC Farmlands, Active Agricultural Operations, or Williamson Act lands would be traversed by or be adjacent to the Truckhaven Geothermal Leasing Area. Thus, no Agricultural Resources exist within this Project.

Environmental Impacts and Mitigation Measures

No Agricultural Resources would be impacted by this project. Thus, the Esmeralda-San Felipe Geothermal Project would not result in construction or operational impacts that would temporarily or permanently impact Agricultural Resources (No Impact), and no mitigation would be required.

D.6.12.4 Jacumba Substation

~~In its testimony during the CPUC's Phase 1 hearings on the need and economics of the Proposed Project, SDG&E staff stated that a new 230/500 kV substation would be required to allow future wind generation projects to transmit generated power via the existing 500 kV Southwest Powerlink (SWPL) transmission line. The SWPL currently has limited available capacity, but if the Sunrise Powerlink Project is approved and constructed, some electricity currently carried by the SWPL will be transmitted via Sunrise, making more capacity available on the SWPL. There are a number of possible new wind generation projects near the Jacumba area (about 5 miles west of the San Diego/Imperial County line), some in San Diego County (Crestwood wind area) and some in Mexico (La Rumorosa wind area). Therefore, the impacts of this substation are evaluated as part of the Proposed Project.~~

~~This 230/500 kV substation would allow incoming transmission lines at 230 kV from wind farms in either the Crestwood or La Rumorosa areas. The power would be transformed to 500 kV in order to allow it to be transmitted via the SWPL to the Miguel Substation in San Diego. The substation is assumed to occupy about 20 acres, and while its location has not been defined by SDG&E, for the purposes of this EIR/EIS it is assumed to be located just east of the point where the Interstate 8 Alternative diverges from the SWPL. Figure B-47 (Section B) illustrates the approximate location and size of the substation area. The impacts of this substation are also evaluated as a part of the wind component of the Non-Wires In Area Renewable Generation Alternative, as defined and analyzed in Section E.5. Approval of the SRPL would not result in automatic approval of the Jacumba Substation discussed below, and the project would require applications by SDG&E, and compliance with CEQA and NEPA.~~

Environmental Setting

~~There are no DOC Farmlands, Active Agricultural Operations or Williamson Act lands that would be traversed by or adjacent to the substation site. Thus, no Agricultural Resources would be traversed by or adjacent to this Project.~~

Environmental Impacts and Mitigation Measures

~~No Agricultural Resources would be impacted by the new Jacumba Substation. Therefore, construction and operation of the new Jacumba Substation line would not create impacts that would temporarily or permanently impact Agricultural Resource (No Impact), and no mitigation would be required.~~

D.6.12.5 SCE La Rumorosa Wind Project

Environmental Setting

~~**United States.** A new 230 kV transmission line would be required to connect the "Rumorosa Wind Developers II" (RWD) to the existing 500 kV SWPL, about 10 miles to the north of the existing Tijuana/La Rosita 230 kV Transmission line. The 1.7 miles of new 230 kV transmission line would be sited in the United States on private land. No DOC Farmlands, Active Agricultural Operations, or Williamson Act lands would be traversed by or be adjacent to transmission line, and thus, no Agricultural Resources exist within this transmission line ROW. The closest agriculture land is located northeast of the town of Jacumba approximately 1 mile from the Jacumba Substation.~~

~~**Mexico.** The RWD project would be located east of the town of La Rumorosa, in the municipality of Tecate. It would include 20 miles of new 230 kV line following the existing Tijuana/Mexicali transmission line, and approximately 7 miles of 230 kV transmission line on new ROW up to the U.S./Mexico border. There is very little agriculture in and around La Rumorosa due to its rocky soil and limited water resources. Some agriculture exists adjacent to the existing 230 kV Tijuana/Mexicali ROW in Luis Echeverria Alvarez, where the RWD transmission line would turn north-northeast until reaching the U.S./Mexico border. The ROW would be adjacent to approximately 0.5 miles of agriculture; however the existing Tijuana/Mexicali transmission line is separated from the 0.5 miles of agriculture by Highway Mexico 2. Cattle ranching occurs in Jácume across the border from the town of Jacumba.~~

Environmental Impacts and Mitigation Measures

~~Since the RWD project facilities would be located within lands void of DOC designation and Williamson Act lands, Impacts AG-2 (Operation would permanently convert DOC Farmland to non agricultural) and AG-4 (Operation would permanently convert Williamson Act lands to non agricultural use) would not occur for this project. The full text for individual mitigation measures for all resource topics is provided in Appendix 12.~~

Construction Impacts

Impact AG-1: Construction activities would temporarily interfere with Active Agricultural Operations (Class III for the United States; Class II for Mexico)

~~**United States.** A new 230 kV transmission line would be required to connect the RWD to the existing 500 kV SWPL (about 10 miles to the north of the existing Tijuana/La Rosita 230 kV Transmission line). The 1.7 miles of new 230 kV transmission line would be sited on private land designated as rural lands that may grazing lands. If the land is used for grazing purposes, the impacts would be adverse but less than significant (Class III) and no mitigation is required.~~

~~**Mexico.** Active agricultural operation (grazing operations in the region of Jácume) would potentially be impacted by construction activities when the 230 kV line is built. These construction activities would temporarily interfere with agricultural operations by impeding access to certain fields or obstructing farm vehicles, which could result in the temporary reduction of access to grazing lands, which would be a significant impact without mitigation. Near Luis Echeverria Alvarez there are also active agriculture lands; however, they are separated from the existing Tijuana/Mexicali transmission line ROW by a four-lane highway, impacts would be adverse but less than significant (Class II).~~

~~In the region of Jácume, Mitigation Measures AG-1a, AG-1d, AG-3e, L-1d, L-1e, L-1f, would reduce impacts to the grazing land 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-1d** — Compensate farmers for lost crops along ROW. [APM LU 1]~~

~~**AG-3e** — Install project facilities along borders. [APM LU 7]~~

~~**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

~~No impacts to agriculture from operation of the La Rumorosa Wind Project were identified for either the United States or the Mexico portions of the project.~~

D.6.13 Overall Agriculture Impacts of Proposed Project

Construction Impacts

Significant temporary impacts (Class I) to Active Agricultural Operations would occur during construction of the Proposed Project, the Future Transmission Systems, and the Connected Actions and Indirect Effects (specifically the Stirling Energy Systems and the La Rumorosa ~~Wind Project~~ Wind Energy Projects). Incorporation of APMs, in addition to implementation of mitigation measures, would mitigate impacts to a less than significant level (Class II). The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

No DOC Farmlands, Active Agricultural Operations, or Williamson Act lands would be impacted by construction of or modifications to substations associated with the Proposed Project.

Operational Impacts

The Proposed Project would create significant and unmitigable (Class I) permanent impacts to approximately ~~69.6~~ 62.0 acres of DOC Farmland, ~~121.4~~ 69.5 acres of land under Active Agricultural Operations, and ~~130.8~~ 104.9 acres of Williamson Act lands. Operational impacts to Active Agricultural Operations that would be associated with the Proposed Project include obstruction of and disturbance to agricultural land and operations (Class II impact), interference with aerial spraying applications (Class I impact), exposure of livestock to stray voltage and EMF (No Impact and Class II), and avian perching near vineyards (Class III).

No DOC Farmlands, Active Agricultural Operations, or Williamson Act lands would be impacted by the operation of the proposed or modified substations associated with the Proposed Project.

Impacts associated with Future Transmission System Expansion would be similar to those associated with the Proposed Project within the Central, Inland Valley, and Coastal Links. Specifically, impacts to DOC Farmlands and Williamson Act lands within the Future Expansion are assumed to be Class I (greater than 10 acres overall). Impacts to Active Agricultural Operations would also be similar to those impacts associated with the Proposed Project, and would include Class I impacts relating to the permanent loss of land under Active Agricultural Operations (also assumed to be greater than 10 acres, although the quantitative loss is not known at this time), Class II impacts relating to the permanent disruption of agricultural activities, including grazing operations, and Class III impacts relating to a permanent increase in avian perching near vineyards.

Within the Connected Actions and Indirect Effects, impacts associated with the SES Solar Two, LLC Project would be similar to those associated with the Imperial Valley Link; specifically, the SES Solar Two, LLC Project would have: Class I impacts to DOC Farmland, land under Active Agricultural Operation, and Williamson Act lands; Class II impacts to farming facilities and operations; and Class I impacts to aerial spraying applications. No impacts would occur as a result of ~~HD Transmission System Upgrades~~, the Esmeralda-San Felipe Geothermal Project, or the proposed Jacumba Substation. ~~No impacts would occur as a result of the operation of the La Rumorosa wind project.~~

Environmental Impacts and Mitigation Measures for Alternatives Along Proposed Project Route

Table D.6-9 summarizes the impacts that have been identified for the alternatives along the Proposed Project route.

Table D.6-9. Impacts Identified – Alternatives – Agriculture

Impact No.	Description	Impact Significance
Overall Project		
AG-1	Construction activities would temporarily interfere with Active Agricultural Operations	No Impact, Class II, Class 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
AG-4	Operation would permanently convert Williamson Act lands to non-agricultural use	Class I
FTHL Eastern 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	No Impact
SDG&E West of Dunaway 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 III
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	No Impact
SDG&E West Main Canal–Huff Road Modification 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, III
AG-4	Operation would permanently convert Williamson Act lands to non-agricultural use	Class III
Partial Underground 230 kV ABDSP SR78 to S2 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	No Impact
AG-3	Operation would permanently interfere with Active Agricultural Operations	Class II, III
AG-4	Operation would permanently convert Williamson Act lands to non-agricultural use	Class I
Overhead 500 kV ABDSP Within Existing ROW Alternative		
AG-1	Construction activities would temporarily interfere with Active Agricultural Operations	Class II
AG-2	Operation would permanently convert DOC Farmland to non-agricultural use	Class III
AG-3	Operation would permanently interfere with Active Agricultural Operations	Class II, III
AG-4	Operation would permanently convert Williamson Act lands to non-agricultural use	Class III
Santa Ysabel Existing ROW 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 III
AG-3	Operation would permanently interfere with Active Agricultural Operations	Class I, II

Table D.6-9. Impacts Identified – Alternatives – Agriculture

Impact No.	Description	Impact Significance
AG-4	Operation would permanently convert Williamson Act lands to non-agricultural use	Class I
Santa Ysabel Partial Underground 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 III
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
Santa Ysabel SR79 All Underground Alternative		
AG-1	Construction activities would temporarily interfere with Active Agricultural Operations	No Impact
AG-2	Operation would permanently convert DOC Farmland to non-agricultural use	Class I
AG-3	Operation would permanently interfere with Active Agricultural Operations	No Impact
AG-4	Operation would permanently convert Williamson Act lands to non-agricultural use	Class I
SDG&E Mesa Grande Alternative		
AG-1	Construction activities would temporarily interfere with Active Agricultural Operations	No Impact
AG-2	Operation would permanently convert DOC Farmland to non-agricultural use	Class I
AG-3	Operation would permanently interfere with Active Agricultural Operations	No Impact
AG-4	Operation would permanently convert Williamson Act lands to non-agricultural use	Class I
CNF Existing 69 kV Route 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	No Impact
AG-3	Operation would permanently interfere with Active Agricultural Operations	Class II, III
AG-4	Operation would permanently convert Williamson Act lands to non-agricultural use	Class III
Oak Hollow Road Underground 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	No Impact
AG-3	Operation would permanently interfere with Active Agricultural Operations	Class II, III
AG-4	Operation would permanently convert Williamson Act lands to non-agricultural use	Class III
San Vicente Road Transition Alternative – No Impacts		
Chuck Wagon Road Transition Alternative		
AG-1	Construction activities would temporarily interfere with Active Agricultural Operations	No Impact
AG-2	Operation would permanently convert DOC Farmland to non-agricultural use	Class III
AG-3	Operation would permanently interfere with Active Agricultural Operations	No Impact
AG-4	Operation would permanently convert Williamson Act lands to non-agricultural use	Class I
Pomerado Road to Miramar Area North		
AG-1	Construction activities would temporarily interfere with Active Agricultural Operations	No Impact
AG-2	Operation would permanently convert DOC Farmland to non-agricultural use	Class III
AG-3	Operation would permanently interfere with Active Agricultural Operations	No Impact
AG-4	Operation would permanently convert Williamson Act lands to non-agricultural use	No Impact

Table D.6-9. Impacts Identified – Alternatives – Agriculture

Impact No.	Description	Impact Significance
Los Peñasquitos Canyon Preserve–Mercy Road Alternative – <i>No Impacts</i>		
Black Mountain to Park Village Road Underground Alternative – <i>No Impacts</i>		
Coastal Link System Upgrade Alternative – <i>No Impacts</i>		
Top of the World Substation 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	No Impact
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

D.6.14 Imperial Valley Link Alternatives Impacts and Mitigation Measures

There are three alternatives analyzed in the Imperial Valley Link, the FTHL Eastern Alternative, the SDG&E West of Dunaway Alternative, and the SDG&E West Main Canal–Huff Road Modification Alternative.

D.6.14.1 FTHL Eastern Alternative

This alternative was developed by the EIR/EIS team as a way to avoid almost 2 miles within the Flat-Tailed Horned Lizard (FTHL) Management Area. Instead the 500 kV overhead route would follow section lines within agricultural lands and would be approximately 1.5 miles shorter than the proposed route.

Environmental Setting

As shown in Table D.6-10, this alternative would traverse or be adjacent to DOC Farmland and land under Active Agricultural Operation. No Williamson Act lands would be traversed by or adjacent to this alternative. Figures Ap.AG-1 and -2 at the end of this section are maps of Agricultural Resources within the FTHL Eastern Alternative.

Table D.6-10. FTHL Eastern Alternative – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands
FTHL 0-4	Farmland of Statewide Importance Prime Farmland	Forage Cropland	None
FTHL 4-4.6	Farmland of Statewide Importance Prime Farmland Unique Farmland	Forage Cropland	None

DOC Farmlands

The FTHL Eastern Alternative would traverse or be adjacent to Farmland of Statewide Importance and Prime Farmland throughout its entire length as well as Unique Farmland between MP FTHL 4 and 4.6.

Active Agricultural Operations

The FTHL Eastern Alternative would traverse or be adjacent to forage cropland throughout its entire length. Forage crops include those crops used to feed livestock, such as hay.

Williamson Act Lands

No Williamson Act lands would be traversed by or adjacent to the FTHL Eastern Alternative.

Environmental Impacts and Mitigation Measures

The FTHL Eastern Alternative would permanently impact a total of approximately ~~14.2~~ 7.1 acres of Agricultural Resources (~~11.6~~ 6.3 acres of DOC Farmland and ~~14.0~~ 7.0 acres of land under Active Agricultural Operation). No Williamson Act lands would be impacted by this alternative. The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

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 associated with this alternative, including 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, or disrupting drainage and irrigation systems (including self-propelled irrigation rigs), all of which could result in the temporary reduction of agricultural productivity.

The alternative would incorporate APMs to minimize direct impacts to Active Agricultural Operations. APM LU-1 requires that notification be provided to all residents, property owners, and tenants within 300 feet of proposed construction activities, and APM LU-3 would ensure that construction activities would avoid agricultural areas during certain seasons and/or provide compensation to farmers for loss of crops. As well, APM LU-4 requires that notification be provided to all properties that would be obstructed by construction activities. In addition, APM LU-5 would ensure that SDG&E would coordinate construction activities with water management representatives to remedy encroachment into and around irrigation canals. Finally, APM LU-6 would ensure that construction activities remain within pre-determined limits, which would serve to minimize disruption to agricultural lands and operations outside of the limits of construction to the greatest extent feasible. Refer to Table D.6-6 for details of applicable agriculture APMs.

Incorporation of these APMs would reduce impacts relating to the damage and loss of crops, obstruction of access to properties, and conflicts with irrigation canals to a less than significant level (Class III). 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, as well as private drainage and irrigation systems (including self-propelled irrigation rigs), would not be reduced to a less than significant level. Implementation of Mitigation Measure AG-1a would be necessary in order to ensure that impacts to Active Agricultural Operations as a result of the FTHL Eastern Alternative 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.

Agricultural Soils (Class II). Depending upon the extent of construction required for certain aspects of the Proposed Project, 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 FTHL Eastern Alternative to a less than significant level (Class II).

Mitigation Measures for Impact AG-1: Construction activities would temporarily interfere with Active 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 this land to non-agricultural use. This alternative would permanently impact approximately ~~11.6~~ 6.3 acres of DOC Farmland (~~8.0~~ 3.4 acres of Farmland of Statewide Importance and ~~3.6~~ 2.9 acres of Prime Farmland), which is ~~greater~~ less than the 10-acre threshold for determining significance of impacts to DOC Farmland. ~~In addition~~ However, the Proposed Project, in combination with this alternative, would impact greater than 10 acres of DOC Farmland overall. There are no non-agricultural areas near the proposed route to which the alternative could be relocated so as to reduce impacts to agriculture. Land to the west is designated FTHL Management Area, which would place the transmission line directly within the FTHL Management Area, thereby negating the purpose of the alternative, and land to the east is occupied by agriculture, which would generate impacts similar to or potentially greater than the alternative. In addition, if the transmission line were moved in this direction, the Proposed Project would no longer border certain agricultural areas, but actually cross over them, resulting in additional impacts to Active Agricultural Operations. Thus, impacts to DOC Farmland as a result of the FTHL Eastern Alternative would be considered significant (Class I), and no feasible mitigation measures exist 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 alternative would permanently remove approximately ~~14.0~~ 7.0 acres of land under Active Agricultural Operation, which is ~~greater~~ less than the 10-acre threshold for determining significance of impacts to Active Agricultural Operations. ~~In addition~~ However, the Proposed Project, in combination with this alternative, would impact greater than 10 acres of land under Active Agricultural Operation. There are no non-agricultural areas near the proposed route to which the alternative could be relocated so as to

reduce impacts to agriculture. Land to the west is designated FTHL Management Area, which would place the transmission line directly within the FTHL Management Area, thereby negating the purpose of the alternative. Land to the east is occupied by agriculture, which would generate impacts to Active Agricultural Operations similar to or potentially greater than the alternative. In addition, if the transmission line were moved in this direction, the Proposed Project would no longer border certain agricultural areas, but would actually cross over them, resulting in additional impacts to Active Agricultural Operations. Thus, impacts relating to the loss of land under Active Agricultural Operation as a result of the FTHL Eastern Alternative would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

In addition to the loss of farmland, other Active Agricultural Operations could potentially be impacted as a result of the alternative. Such impacts relate to disruption of farming facilities or operations and aerial spraying applications.

Disruption of Farming Facilities or Operations (Class II). The presence of new project components would permanently disrupt active farming operations in surrounding areas, through conditions such as dividing agricultural fields, obstructing access, impeding water delivery, and/or disrupting the operation of farm equipment. In addition, other potential effects include disruption of drainage and irrigation, fragmentation of farmland (e.g., isolating smaller areas that could be uneconomical for continued cultivation), and reducing windbreak efficacy.

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 borders, 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 mitigate impacts relating to the disruption of Active Agricultural Operations as a result of the FTHL Eastern Alternative to a less than significant level (Class II).

Aerial Spraying Applications (Class I). Transmission lines and towers associated with the alternative would present a substantial obstacle for aerial applicators to avoid, and require additional attention from the pilots. Thus, the presence of transmission lines and towers would result in permanent interference with Active 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 minimize pilot exposure 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 pose safety hazards to aerial applicators, or preclude spraying activities in certain areas. As such, impacts to aerial spraying applications as a result of the FTHL Eastern Alternative 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.**

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

No Williamson Act lands would be impacted by the FTHL Eastern Alternative (No Impact).

D.6.14.2 SDG&E West of Dunaway Alternative

This 6.1-mile alternative was suggested by SDG&E and approved by the proposed land use developer in the area. It would be an overhead 500 kV transmission line, and would be 2.2 miles longer than the Proposed Project.

Environmental Setting

As shown in Table D.6-11, Agricultural Resources traversed by or adjacent to the SDG&E West of Dunaway Alternative include DOC Farmland and land under Active Agricultural Operation. No Williamson Act lands would be traversed by or adjacent to this alternative. Figures Ap.AG-1 and -2 are maps of Agricultural Resources within the SDG&E West of Dunaway Alternative.

Table D.6-11. SDG&E West of Dunaway Alternative – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands
WD 0-5	None	None	None
WD 5-6.1	Farmland of Local Importance	Forage Cropland	None

DOC Farmlands

The SDG&E West of Dunaway Alternative would traverse or be adjacent to Farmland of Local Importance between MP WD 5 and 6.1.

Active Agricultural Operations

The SDG&E West of Dunaway Alternative would traverse or be adjacent to Active Agricultural Operations (forage cropland) between MP WD 5 and 6.1. Forage crops include livestock feed, such as hay.

Williamson Act Lands

No Williamson Act lands would be traversed by or adjacent to the SDG&E West of Dunaway Alternative.

Environmental Impacts and Mitigation Measures

The SDG&E West of Dunaway Alternative would permanently impact a total of approximately 0.6 acres of Agricultural Resources (0.6 acres of DOC Farmland and 0.6 acres of Active Agricultural Operations; no Williamson Act lands would be impacted by this alternative). The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

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 associated with this alternative, including 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, or disrupting drainage and irrigation systems (including self-propelled irrigation rigs), all of which could result in the temporary reduction of agricultural productivity.

The alternative would incorporate APMs to minimize direct impacts to Active Agricultural Operations. APM LU-1 requires that notification be provided to all residents, property owners, and tenants within 300 feet of proposed construction activities, and APM LU-3 would ensure that construction activities would avoid agricultural areas during certain seasons and/or provide compensation to farmers for loss of crops. As well, APM LU-4 requires that notification be provided to all properties that would be obstructed by construction activities. In addition, APM LU-5 would ensure that SDG&E would coordinate construction activities with water management representatives to remedy encroachment into and around irrigation canals. Finally, APM LU-6 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. Refer to Table D.6-6 for details of applicable agriculture APMs.

Incorporation of these APMs would reduce impacts relating to the damage and loss of crops, obstruction of access to properties, and conflicts with irrigation canals to a less than significant level (Class III). 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, as well as private drainage and irrigation systems (including self-propelled irrigation rigs), would not be reduced to a less than significant level. Implementation of Mitigation Measure AG-1a would be necessary in order to ensure that impacts to Active Agricultural Operations as a result of the FTHL Eastern Alternative 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.

Agricultural Soils (Class II). Depending upon the extent of construction required for certain aspects of the Proposed Project, 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 FTHL Eastern Alternative to a less than significant level (Class II).

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

AG-1b Restore compacted soil.

Operational Impacts

Impact AG-2: Operation would permanently convert DOC Farmland to non-agricultural use (Class I for overall route, Class III for alternative segment)

Impacts to DOC Farmland would occur where the location of project facilities, including access roads and towers, would permanently convert DOC Farmland to non-agricultural use. This alternative would permanently convert approximately 0.6 acres of DOC Farmland (Farmland of Local Importance). This is less than the 10-acre threshold established for determining significance and would therefore be less than significant (Class III). However, the Proposed Project, in combination with this alternative, would impact greater than 10 acres of DOC Farmland overall. Thus, impacts to DOC Farmland as a result of the SDG&E West of Dunaway Alternative would be considered significant (Class I), and no feasible mitigation measures exist 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 I and II for operations, Class III for alternative segment)

The alternative would permanently remove approximately 0.6 acres of land under Active Agricultural Operation, which is less than the 10-acre threshold for determining significance of impacts to Active Agricultural Operations and so therefore the impact would be less than significant (Class III).

In addition to the loss of farmland, other Active Agricultural Operations could potentially be impacted as a result of the alternative. Such impacts relate to disruption of farming facilities or operations and aerial spraying applications.

Disruption of Farming Facilities or Operations (Class II). The presence of new project components would permanently disrupt active farming operations in surrounding areas, through conditions such as dividing agricultural fields, obstructing access, impeding water delivery, and/or disrupting the operation of farm equipment. In addition, other potential effects include disruption of drainage and irrigation, fragmentation of farmland (e.g., isolating smaller areas that could be uneconomical for continued cultivation), and reducing windbreak efficacy.

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 borders, 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 mitigate impacts relating to the disruption of Active Agricultural Operations as a result of the FTHL Eastern Alternative to a less than significant level (Class II).

Aerial Spraying Applications (Class D). Transmission lines and towers associated with the alternative would present a substantial obstacle for aerial applicators to avoid, and require additional attention from the pilots. Thus, the presence of transmission lines and towers would result in permanent interference with Active 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 minimize pilot exposure 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 pose safety hazards to aerial applicators, or preclude spraying activities in certain areas. As such, impacts to aerial spraying applications as a result of the FTHL Eastern Alternative 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.**

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

No Williamson Act lands would be permanently converted to non-agricultural use as a result of operation of this alternative (No Impact).

D.6.14.3 SDG&E West Main Canal–Huff Road Modification Alternative

This 4.9-mile alternative would follow the IID Westside Main Canal to the east-northeast, and then turn north on Huff Road. Existing IID 92 kV transmission lines are located on the west side of Huff Road along most of this segment; however, where the IID line would turn northwest, this alternative would continue straight along Huff Road to reconnect with the Proposed Project 0.2 miles south of Wheeler Road (MP 15.9). The lengths of the alternative and the proposed routes would be essentially the same; however, this route would avoid direct effects to the Bullfrog Farms and also to the Raceway development.

Environmental Setting

As shown in Table D.6-12, this alternative would traverse or be adjacent to DOC Farmland and land under Active Agricultural Operation; no Williamson Act lands would be impacted by this alternative. Figure Ap.AG-2 at the end of this section provides an illustration of Agricultural Resources traversed by or adjacent to the SDG&E West Main Canal–Huff Road Modification Alternative.

Table D.6-12. SDG&E West Main Canal–Huff Road Modification Alternative – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands
WMC 0-1	Farmland of Statewide Importance Farmland of Local Importance Prime Farmland	Forage Cropland	None
WMC 1-2	Farmland of Local Importance Prime Farmland	Forage Cropland	None
WMC 2-3	Farmland of Local Importance Farmland of Statewide Importance Prime Farmland	Forage Cropland	None
WMC 3-4.9	Farmland of Statewide Importance Prime Farmland Unique Farmland	Forage Cropland	None; No Info Available*

* Williamson Act land under contract occurs between MP WMC 3 and 4.9, but details of the contract are not known/available.

DOC Farmlands

The SDG&E West Main Canal–Huff Road Modification Alternative would traverse or be adjacent to Farmland of Statewide Importance between MP WMC 0 and 1; and MP WMC 2 and 4.9, Farmland of Local Importance between MP WMC 0 and 3, and Prime Farmland throughout its entire length.

Active Agricultural Operations

The SDG&E West Main Canal–Huff Road Modification Alternative would traverse or be adjacent to forage cropland throughout its entire length. Forage crops include livestock feed, such as hay.

Williamson Act Lands

The SDG&E West Main Canal–Huff Road Modification Alternative would traverse or be adjacent to Williamson Act lands between MP WMC 3 and 4.9, although no specific information is available on these lands, as noted in Table D.6-12.

Environmental Impacts and Mitigation Measures

The SDG&E West Main Canal–Huff Road Modification Alternative would permanently impact approximately ~~15.3~~ 8.7 acres of Agricultural Resources (~~12.7~~ 6.7 acres of DOC Farmland, ~~14.0~~ 8.1 acres of Active Agricultural Operations, and ~~2.3~~ 0.2 acres of Williamson Act lands). The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

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 associated with this alternative, including 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, or disrupting drainage and irrigation systems (including self-propelled irrigation rigs), all of which could result in the temporary reduction of agricultural productivity.

The alternative would incorporate APMs to minimize direct impacts to Active Agricultural Operations. APM LU-1 requires that notification be provided to all residents, property owners, and tenants within 300 feet of proposed construction activities, and APM LU-3 would ensure that construction activities would avoid agricultural areas during certain seasons and/or provide compensation to farmers for loss of crops. As well, APM LU-4 requires that notification be provided to all properties that would be obstructed by construction activities. In addition, APM LU-5 would ensure that SDG&E would coordinate construction activities with water management representatives to remedy encroachment into and around irrigation canals. Finally, APM LU-6 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. Refer to Table D.6-6 for details of applicable agriculture APMs.

Incorporation of these APMs would reduce impacts relating to the damage and loss of crops, obstruction of access to properties, and conflicts with irrigation canals to a less than significant level (Class III). 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 as well as private drainage and irrigation systems (including self-propelled irrigation rigs), would not be reduced to a less than significant level. Implementation of Mitigation Measure AG-1a would be necessary in order to mitigate impacts to Active Agricultural Operations as a result of the SDG&E West Main Canal-Huff Road Modification Alternative 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.

Agricultural Soils (Class II). Depending upon the extent of construction required for certain aspects of the Proposed Project, 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 SDG&E West Main Canal-Huff Road Modification Alternative to a less than significant level (Class II).

Mitigation Measures for Impact AG-1: Construction activities would temporarily interfere with Active 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, including access roads and towers, would permanently convert DOC Farmland to non-agricultural use. This alternative would permanently impact approximately ~~12.7~~ 6.7 acres of DOC Farmland (~~5.8~~ 2.4 acres of Farmland of Statewide Importance, ~~4.2~~ 0.6 acres of Farmland of Local Importance, and 4.9 3.7 acres of Prime Farmland, ~~and 0.8 acres of Unique Farmland~~), which is greater less than the 10-acre threshold for determining the significance of impacts to DOC Farmland. There are no non-agricultural areas near the proposed route to which the alternative could be relocated so as to reduce impacts to agriculture. Relocating the alternative to the northwest would place the transmission line over the existing Bullfrog Farms Dairy. This would negate the purpose of the alternative, which is to avoid dairy farmlands. In addition, land to the southeast is occupied by agriculture, which would generate similar or potentially greater impacts to Active Agricultural Operations. However, the Proposed Project, in combination with this alternative, would impact greater than 10 acres of DOC Farmland overall. Based on the fact that the alternative would convert more than 10 acres of DOC Farmland to non-agricultural use and that

movement of the alternative route elsewhere in the surrounding area would not be practical, impacts to DOC Farmland as a result of the SDG&E West Main Canal–Huff Road Modification Alternative would be considered significant and unmitigable (Class I), and no feasible mitigation measures exist 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 alternative would permanently remove approximately ~~14.0~~ 8.1 acres of land under Active Agricultural Operation, which is greater less than the 10-acre threshold for determining significance of impacts to Active Agricultural Operations. However, the Proposed Project, in combination with this alternative, would impact greater than 10 acres of DOC Farmland overall. There are no non-agricultural areas near the proposed route to which the alternative could be relocated so as to reduce impacts to agriculture. Relocating the alternative to the northwest would place the transmission line over the existing Bullfrog Farms Dairy. This would negate the purpose of the alternative, which is to avoid dairy farmlands. As well, land to the southeast is occupied by agriculture, which would generate similar or potentially greater impacts to Active Agricultural Operations. Thus, impacts relating to the loss of land under Active Agricultural Operation as a result of the SDG&E West Main Canal–Huff Road Modification Alternative would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

Disruption of Farming Facilities or Operations (Class II). The presence of new project components would permanently disrupt active farming operations in surrounding areas, through conditions such as dividing agricultural fields, obstructing access, impeding water delivery, and/or disrupting the operation of farm equipment. In addition, other potential effects include disruption of drainage and irrigation, fragmentation of farmland (e.g., isolating smaller areas that could be uneconomical for continued cultivation), and reducing windbreak efficacy.

Incorporation of APM LU-7 would ensure that the locations of the proposed facilities are matched to existing facilities where feasible, and APM LU-10 would ensure that facilities are installed along the edges of private property where feasible and appropriate. If facilities cannot be located along borders, 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 as a result of the SDG&E West Main Canal–Huff Road Modification Alternative would be mitigated to a less than significant level (Class II).

Aerial Spraying Applications (Class I). Transmission lines and towers associated with the alternative present a substantial obstacle for aerial applicators to avoid, and require additional attention from the pilots. Thus, the presence of transmission lines and towers associated with the alternative would result in interference with Active Agricultural Operations, a significant impact. Implementation of Mitigation Measure AG-3b would ensure that aerial applicators would be notified of the alternative location and components in order to minimize pilot exposure to significant dangers that would exist as a result of development. However, even with implementation of Mitigation Measure AG-3b, hazards to aerial spraying would pose safety hazards to aerial applicators, or preclude spraying activities in certain areas. As such, impacts to aerial spraying applications as a result of the SDG&E West Main Canal–Huff Road Modification Alternative would remain significant (Class I).

Exposure of Livestock to Stray Voltage and Electric and Magnetic Fields (Class III). Stray voltage and electric and magnetic fields (EMF) are two distinctly different phenomena. Both issues are addressed briefly below, but greater detail on these matters is provided under Impact AG-4 within the Imperial Valley Link for the Proposed Project.

Stray voltage is associated with electric utility distribution systems and local low voltage wiring on farms, not high voltage transmission lines such as those proposed for the project or this alternative. Since stray voltage is due to ground currents associated with distribution lines and farm wiring, this is not an impact that would result from the high voltage transmission line associated with this alternative. Thus, no impact would occur (No Impact), and no mitigation is required.

Electric fields from power lines are created whenever the lines are energized, with the strength of the field dependent directly on the voltage of the line creating it. Magnetic fields from power lines are created whenever current flows through power lines at any voltage, with the strength of the field dependent directly on the current in the line. Further discussion regarding the nature of EMF is provided in Section D.10, Public Health and Safety. There is a wealth of literature addressing the issue of EMF and its effects upon livestock. Despite the number of studies performed and reported upon in such literature, however, the scientific community remains divided as to whether there is a direct correlation between EMF and various livestock maladies. Lacking a conclusion in the scientific community that EMF is a health hazard for livestock, and noting that the EMF from the proposed transmission line would be well below the levels utilized in research referenced under the EMF discussion for the Proposed Project and in Section D.10, EMF is not considered a significant impact to Active Agricultural Operations. Thus, impacts associated with the SDG&E West Main Canal–Huff Road Modification Alternative are considered adverse but not significant (Class III), and no mitigation is required.

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.**

Impact AG-4: Operation would permanently convert Williamson Act lands to non-agricultural use (Class I for overall route, Class III for alternative segment)

The alternative would permanently convert ~~2-3~~ 0.2 acres of Williamson Act lands to non-agricultural use due to the presence of transmission structures and access roads. This is less than the 10-acre threshold for determination of significance; ~~established and~~ therefore, the impact is less than significant (Class III) for the alternative per se. However, the Proposed Project, in combination with this alternative, would impact greater than 10 acres of Williamson Act lands; therefore, the SDG&E West Main Canal–Huff Road Modification Alternative would be considered significant and unmitigable (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

D.6.15 Anza-Borrego Link Alternatives Impacts and Mitigation Measures

Two alternatives are considered in the Anza-Borrego Link: the Partial Underground 230 kV ABDSP SR78 to S2 Alternative (also considered with an All Underground Option) and the Overhead 500 kV ABDSP within Existing ROW Alternative.

D.6.15.1 Partial Underground 230 kV ABDSP SR78 to S2 Alternative

This alternative was developed by the EIR/EIS team and would include installation of a double-circuit bundled 230 kV line (as opposed to an overhead 500 kV with the Proposed Project) that would be installed underground in SR78 through ABDSP. The proposed Central East Substation would not be constructed with this alternative and approximately 2 miles of transmission line (one mile of 500 kV and one mile of 230 kV) to and from that substation would be eliminated. Instead a new 500 kV/230 kV substation would be constructed adjacent to the existing IID San Felipe Substation to accommodate the new transmission line.

Environmental Setting

As seen in Table D.6-13, this alternative would traverse or be adjacent to land under Active Agricultural Operation and Williamson Act lands; no DOC Farmland would be traversed by or adjacent to this alternative. Figures Ap.AG-6 through -11 at the end of this section provide an illustration of Agricultural Resources traversed by or adjacent to the Partial Underground 230 kV ABDSP SR78 to S2 Alternative

Table D.6-13. Partial Underground 230 kV ABDSP SR78 to S2 Alternative – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands
SR 0-2	None	None	None
SR 2-23	None	Grazing Operations	None
SR 23-35	None	None	None Yes; No Info- APNs Available*

* Williamson Act land under contract occurs throughout the alternative length between MP SR 23 and 35, but APN information for these lands is not known/available. However, it is possible to calculate the acreage affected even without the APNs.

DOC Farmlands

The Partial Underground 230 kV ABDSP SR78 to S2 Alternative would not traverse or be adjacent to DOC Farmland.

Active Agricultural Operations

The Partial Underground 230 kV ABDSP SR78 to S2 Alternative would traverse or be adjacent to grazing operations between MP SR 2 and 3. Grazing operations apply to calves and cattle that graze in unirrigated pastures.

Williamson Act Lands

The Partial Underground 230 kV ABDSP SR78 to S2 Alternative would traverse or be adjacent to Williamson Act lands between MP SR 23 and 35.

Environmental Impacts and Mitigation Measures

The Partial Underground 230 kV ABDSP SR78 to S2 Alternative would permanently impact a total of approximately ~~38.4~~ 21.9 acres of Agricultural Resources, including 0.2 acres of land under Active Agricultural Operation and ~~38.4~~ 21.6 acres of Williamson Act lands. No DOC Farmlands would be impacted by this alternative. The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

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 associated with this alternative, including 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, or disrupting drainage and irrigation systems (including self-propelled irrigation rigs), all of which could result in the temporary reduction of agricultural productivity.

The alternative would incorporate APMs to minimize direct impacts to Active Agricultural Operations. APM LU-1 requires that notification be provided to all residents, property owners, and tenants within 300 feet of proposed construction activities, and APM LU-3 would ensure that construction activities would avoid agricultural areas during certain seasons and/or provide compensation to farmers for loss of crops. As well, APM LU-4 requires that notification be provided to all properties that would be obstructed by construction activities. Finally, APM LU-6 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. Refer to Table D.6-6 for details of applicable agriculture APMs.

Incorporation of these APMs would reduce impacts relating to the damage and loss of crops, obstruction of access to properties, and conflicts with irrigation canals to a less than significant level (Class III). 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 as well as private drainage and irrigation systems (including self-propelled irrigation rigs), would not be reduced to a less than significant level. Implementation of Mitigation Measure AG-1a would be necessary in order to mitigate impacts to Active Agricultural Operations as a result of the Partial Underground 230 kV ABDSP SR78 to S2 Alternative 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.

Agricultural Soils (Class II). Depending upon the extent of construction required for certain aspects of the Proposed Project, 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 Partial Underground 230 kV ABDSP SR78 to S2 Alternative to a less than significant level (Class II).

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

AG-1b Restore compacted soil.

Operational Impacts

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

No DOC Farmland would be converted by the Partial Underground 230 kV ABDSP SR78 to S2 Alternative (No Impact).

Impact AG-3: Operation would permanently interfere with Active Agricultural Operations (Class I for overall route, Class II for facilities/operation, Class III for alternative segment)

The alternative would permanently remove approximately 0.2 acres of land under Active Agricultural Operation, which is less than the 10-acre threshold for determining significance of impacts to Active Agricultural Operations and therefore less than significant (Class III) for the alternative per se. However, the Proposed Project, in combination with this alternative, would impact greater than 10 acres of Active Agricultural Operations; therefore, the Partial Underground 230 kV ABDSP SR78 to S2 Alternative would be considered significant and unmitigable (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

Disruption of Farming Facilities or Operations (Class II). The presence of new project components would permanently disrupt active farming operations in surrounding areas, through conditions such as dividing agricultural fields, obstructing access, impeding water delivery, and/or disrupting the operation of farm equipment. In addition, other potential effects include disruption of drainage and irrigation, fragmentation of farmland (e.g., isolating smaller areas that could be uneconomical for continued cultivation), and reducing windbreak efficacy.

Incorporation of APM LU-7 would ensure that the locations of the proposed facilities are matched to existing facilities where feasible, and APM LU-10 would ensure that facilities are installed along the edges of private property where feasible and appropriate. If facilities cannot be located along borders, 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 as a result of the Partial Underground 230 kV ABDSP SR78 to S2 Alternative 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.

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

Operation of the alternative would permanently convert ~~38.4~~ 21.6 acres of Williamson Act lands to non-agricultural use. The 10-acre threshold for determining significance of impacts due to the conversion of Williamson Act lands would be exceeded. Thus, impacts relating to the conversion of Williamson Act lands

as a result of the Partial Underground 230 kV ABDSP SR78 to S2 Alternative would be considered significant (Class I), and no feasible mitigation exists that would reduce these impacts to a less than significant level.

San Felipe Substation

The Partial Underground 230 kV ABDSP SR78 to S2 Alternative would also require construction of a major 230/500 kV substation adjacent to the existing IID San Felipe Substation. The substation would be located at MP SR 0. Grazing is the only active agriculture in the vicinity, and occurs two miles distant, at MP SR 2 and 3. There are no DOC Farmland or Williamson Act lands in the vicinity of the substation. Therefore, there would be no impacts to agriculture in the area of the San Felipe Substation and no mitigation measures would be required.

All Underground Option

In the All Underground Option overhead segments from MP SR-25 to MP SR-26 and from MP SR-29 to near MP SR-37.4 would be replaced by corresponding underground segments. These underground segments would be within SR78 and S2, rather than cross country, as would occur under the alternative. A transition tower structure would be required near MP SR 37.4 to bring the line overhead once again.

No Active Agriculture or DOC Farmland occurs in the vicinity of those portions of the alternative that would be changed from overhead to underground. Changing the overhead 230 kV line from cross-country to underground within roadway would have no impact on Williamson Act lands in the vicinity of the option. Therefore, there would be no impacts to agriculture and no mitigation measures would be required in this portion of the alignment. Less Williamson Act land would be affected under the option as compared to the alternative itself. However, while this would reduce the impact on Williamson Act lands within this link, for the overall project the conversion of Williamson Act land would remain significant.

D.6.15.2 Overhead 500 kV ABDSP within Existing ROW Alternative

The alternative would differ from the proposed route in the Grapevine Canyon area (in the Angelina Springs Cultural District), in the vicinity of Tamarisk Grove Campground, and in a few areas east of Tamarisk Grove Campground along SR78. The alternative would remain within the existing SDG&E 69 kV ROW/easement. This alternative would eliminate towers within State-designated Wilderness. Undergrounding of the existing 69 kV and 92 kV lines would not occur with this alternative; those lines would be underbuilt on Delta lattice towers.

An option to part of the alternative was suggested by SDG&E. It is called the East of Tamarisk Grove Campground 150-Foot Option. The option would change the alternative between the eastern Park boundary (MP 60.9) to Tamarisk Grove Campground (MP 74.8). The option would follow the Proposed Project route in the 150-foot proposed alignment, and not the existing ROW.

Environmental Setting

The Overhead 500 kV ABDSP within Existing ROW Alternative would have Agricultural impacts similar to those of the Proposed Project in the Anza-Borrogo Link. As seen in Table D.6-14, this alternative would traverse or be adjacent to DOC Farmland, land under Active Agricultural Operation and Williamson Act lands. Figures Ap.AG-7 through -10 provide an illustration of Agricultural Resources traversed by or adjacent to the Overhead 500 kV ABDSP within Existing ROW Alternative.

Table D.6-14. Overhead 500 kV ABDSP within Existing ROW Alternative – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands
ER 0-23	None	None	None
ER 23-23.3	Farmland of Local Importance	Vineyard	No Info Available*

* Williamson Act land under contract occurs throughout the alternative length between MP ER 23 and 23.3, but APN information for these lands is not known/available.

DOC Farmlands

The Overhead 500 kV ABDSP within Existing ROW Alternative would traverse or be adjacent to Farmland of Local Importance between MP ER 23 and 23.3.

Active Agricultural Operations

The Overhead 500 kV ABDSP within Existing ROW Alternative would traverse or be adjacent to a vineyard between MP ER 23 and 23.3.

Williamson Act Lands

The Overhead 500 kV ABDSP within Existing ROW Alternative would traverse or be adjacent to Williamson Act lands between MP ER 23 and 23.3.

Environmental Impacts and Mitigation Measures

The Overhead 500 kV ABDSP within Existing ROW Alternative would permanently impact a total of approximately ~~0.3~~ 0.1 acres of Agricultural Resources, including ~~0.03 acres of DOC Farmland~~, ~~0.3~~ 0.1 acres of land under Active Agricultural Operation, and ~~0.3~~ 0.1 acres of Williamson Act lands (note: rounding causes discrepancies in total). The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

Construction Impacts

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

Active Agricultural Operations would be temporarily impacted by construction activities associated with this alternative, including 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, or disrupting drainage and irrigation systems (including self-propelled irrigation rigs), all of which could result in the temporary reduction of agricultural productivity.

The alternative would incorporate APMs to minimize direct impacts to Active Agricultural Operations. APM LU-1 requires that notification be provided to all residents, property owners, and tenants within 300 feet of proposed construction activities, and APM LU-3 would ensure that construction activities would avoid agricultural areas during certain seasons and/or provide compensation to farmers for loss of crops. As well, APM LU-4 requires that notification be provided to all properties that would be obstructed by

construction activities. Finally, APM LU-6 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. Refer to Table D.6-6 for details of applicable agriculture APMs.

Incorporation of these APMs would reduce impacts relating to the damage and loss of crops, obstruction of access to properties, and conflicts with irrigation canals to a less than significant level (Class III). 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 as well as private drainage and irrigation systems (including self-propelled irrigation rigs), would not be reduced to a less than significant level. Implementation of Mitigation Measure AG-1a would be necessary in order to mitigate impacts to Active Agricultural Operations as a result of the Overhead 500 kV ABDSP within Existing ROW Alternative 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.

Agricultural Soils (Class II). Depending upon the extent of construction required for certain aspects of the Proposed Project, 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 Overhead 500 kV ABDSP within Existing ROW Alternative to a less than significant level (Class II).

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

AG-1b Restore compacted soil.

Operational Impacts

Impact AG-2: Operation would permanently convert DOC Farmland to non-agricultural use (Class I for overall route, Class III for alternative segment)

The Overhead 500 kV ABDSP within Existing ROW Alternative would permanently convert ~~0.3~~ 0.1 acres of DOC Farmland (Farmland of Local Importance). This is less than the 10-acre threshold for determining significance of impacts to DOC Farmland, and therefore less than significant (Class III) for the alternative per se. However, the Proposed Project, in combination with this alternative, would impact greater than 10 acres of DOC Farmland; therefore, the Overhead 500 kV ABDSP within Existing ROW Alternative would be considered significant and unmitigable (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

Impact AG-3: Operation would permanently interfere with Active Agricultural Operations (Class I for the overall route, II and III for alternative segment)

The alternative would permanently remove approximately ~~0.3~~ 0.1 acres of land under Active Agricultural Operation (vineyard), which is less than the 10-acre threshold for determining significance of impacts to Active Agricultural Operations and therefore less than significant (Class III) for the alternative per se. However, the Proposed Project, in combination with this alternative, would impact greater than 10 acres of Active Agricultural Operations; therefore, the Overhead 500 kV ABDSP within Existing ROW Alternative would be considered significant and unmitigable (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

Disruption of Farming Facilities or Operations (Class II). The presence of new project components would permanently disrupt active farming operations in surrounding areas, through conditions such as dividing agricultural fields, obstructing access, impeding water delivery, and/or disrupting the operation of farm equipment. In addition, other potential effects include disruption of drainage and irrigation, fragmentation of farmland (e.g., isolating smaller areas that could be uneconomical for continued cultivation), and reducing windbreak efficacy.

Incorporation of APM LU-7 would ensure that the locations of the proposed facilities are matched to existing facilities where feasible, and APM LU-10 would ensure that facilities are installed along the edges of private property where feasible and appropriate. If facilities cannot be located along borders, 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 as a result of the Overhead 500 kV ABDSP within Existing ROW Alternative would be mitigated to a less than significant level (Class II).

Avian Perching Near Vineyards (Class III). The impacted vineyard along the alternative route is located adjacent to existing 69 kV wires and towers, which are lower than the proposed facilities, and other features where birds can perch (e.g., fences, buildings, shrubs, trees). For this reason, addition of the alternative route would not provide an opportunity for a permanent significant increase in the presence of birds near vineyards. Such an impact would be considered adverse but not significant (Class III).

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

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

Impact AG-4: Operation would permanently convert Williamson Act lands to non-agricultural use (Class I for overall route, Class III for alternative segment)

Operation of the alternative would permanently convert 0.3 acres of Williamson Act lands to non-agricultural use. This is less than the 10-acre threshold for determining significance of impacts to Williamson Act lands and therefore less than significant (Class III) for the alternative per se. However, the Proposed Project, in combination with this alternative, would impact greater than 10 acres of Williamson Act lands; therefore, the Overhead 500 kV ABDSP within Existing ROW Alternative would be considered significant and unmitigable (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

East of Tamarisk Grove Campground 150-Foot Option

Under this option, the first part of the Overhead 500 kV ABDSP within Existing ROW Alternative would follow the Proposed Project route from the eastern Park boundary (MP 60.9) to Tamarisk Grove Campground (MP 74.8). From that point it would continue northwest, as stated in the alternative. There are no Agricultural Lands within the area of where the option would occur. Thus, there are no agricultural impacts and no mitigation would be required.

D.6.16 Central Link Alternatives Impacts and Mitigation Measures

Four Central Link Alternatives are considered in this section: the Santa Ysabel Existing ROW Alternative, the Santa Ysabel Partial Underground Alternative, the Santa Ysabel SR79 All Underground Alternative, and the Mesa Grande Alternative.

D.6.16.1 Santa Ysabel Existing ROW Alternative

This alternative would follow an existing 69 kV transmission line ROW on the west side of SR79 in the northern half and east of SR79, along the toe of the hill slope in the southern portion of the alternative. This route would pass east of the existing Santa Ysabel Substation and continue to follow the existing 69 kV line south of SR78 until it rejoins the proposed corridor.

Environmental Setting

As shown in Table D.6-15, this alternative would traverse or be adjacent to DOC Farmland, land under Active Agricultural Operation, and Williamson Act lands. Figure Ap.AG-11 through -13 provide an illustration of Agricultural Resources traversed by or adjacent to the Santa Ysabel Existing ROW Alternative.

Table D.6-15. Santa Ysabel Existing ROW Alternative – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands ^{1,2}
SYR 0-1	Farmland of Local Importance	None	APN: ³ 1950900100 Size (Acres): 531.6 APN: RHO Santa Ysabel (AG PRES) Size (Acres): 23112.0
SYR 1-2	Farmland of Statewide Importance Farmland of Local Importance Prime Farmland	Grazing Operations	APN: 1950900100 Size (Acres): 531.6 APN: 1950900200 Size (Acres): 34.4 APN: 1951000400 Size (Acres): 440.9 APN: 1951000500 Size (Acres): 197.7
SYR 2-3	None	Grazing Operations	APN: 1951000700 Size (Acres): 82.54 APN: 1951000800 Size (Acres): 81.0 APN: 1951000900 Size (Acres): 80.1 APN: 1951001000 Size (Acres): 83.0

Table D.6-15. Santa Ysabel Existing ROW Alternative – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands ^{1,2}
			APN: 2470102100 Size (Acres): 98.1
			APN: 1951001100 Size (Acres): 82.9
SYR 3-8.8	Farmland of Local Importance Grazing Land	Grazing Operations	APN: 1951001100 Size (Acres): 82.9
			APN: RHO Santa Ysabel (AG PRES) Size (Acres): 23,112.0
			APN: 2470100500 Size (Acres): 204.2
			APN: 2470310200 Size (Acres): 257.8
			APN: 2470310200 Size (Acres): 257.8
			APN: RHO Santa Ysabel (AG PRES) Size (Acres): 23112.0
			APN: 2470620100 Size (Acres): 311.2
			APN: 2470620200 Size (Acres): 305.9
			APN: 2470620100 Size (Acres): 311.21
			APN: RHO Santa Ysabel (AG PRES) Size (Acres): 23,112.0
			APN: 2471000100 Size (Acres): 12.31
			APN: 2471000500 Size (Acres): 183.91
			APN: 2471001300 Size (Acres): 278.87
			APN: 2471001200 Size (Acres): 1.54
			APN: RHO Santa Ysabel (AG PRES) Size (Acres): 23,112.0
			APN: 2471601400 Size (Acres): 84.3
			APN: OUT (AG PRES) Size (Acres): 47.07
			APN: 2480300900 Size (Acres): 7.5
			APN: 2480300800 Size (Acres): 97.7
			APN: Pine Hills–Bould (AG PRES) Size (Acres): 37,978.0
			APN: 2480300300 Size (Acres): 166.1

Table D.6-15. Santa Ysabel Existing ROW Alternative – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands ^{1,2}
			APN: 2480300700 Size (Acres): 85.1
			APN: 2480300600 Size (Acres): 80.5
			APN: 2480300500 Size (Acres): 78.2
			APN: 2480201300 Size (Acres): 80.3
			APN: 2480300400 Size (Acres): 12.67
			APN: 2481300800 Size (Acres): 40.0
			APN: 2481300700 Size (Acres): 160
			APN: 2481300600 Size (Acres): 35.65
			APN: 2481301300 Size (Acres): 21.0

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

DOC Farmlands

DOC Farmlands traversed by or adjacent to the alternative include Farmland of Statewide Importance between Milepost SYR 1 and 2, Farmland of Local Importance between SYR 0 and 2 and SYR 3 and 8.8, Prime Farmland between SYR 1 and 2, and Grazing Land between SYR 3 and 8.8.

Active Agricultural Operations

Active Agricultural Operations traversed by or adjacent to the alternative include grazing operations between MP SYR 1 and 8.8. Grazing operations apply to calves and cattle that graze in unirrigated pastures, and they are prevalent throughout the entire Santa Ysabel Existing ROW Alternative.

Williamson Act Lands

Williamson Act lands would be traversed by or adjacent to the Santa Ysabel Existing ROW Alternative throughout its entire length.

Environmental Impacts and Mitigation Measures

The Santa Ysabel Existing ROW Alternative would impact approximately ~~52.6~~ 31.5 acres of Agricultural Resources (~~13.5~~ 7.9 acres of DOC Farmland, ~~30.8~~ 22.4 acres of Active Agricultural Operations, and ~~53.9~~ 31.0 acres of Williamson Act lands). The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

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 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 impeding access to certain fields or plots of land, obstructing farm vehicles and equipment, and disrupting grazing activities, all of which could result in the temporary reduction of agricultural productivity.

The alternative would incorporate APMs to minimize direct impacts to Active Agricultural Operations. APM LU-1 requires that notification be provided to all residents, property owners, and tenants within 300 feet of proposed construction activities, and APM LU-3 would ensure that construction activities would avoid agricultural areas during certain seasons and/or provide compensation to farmers for loss of crops. As well, APM LU-4 requires that notification be provided to all properties that would be obstructed by construction activities. In addition, APM LU-6 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. Refer to Table D.6-6 for details of applicable agriculture APMs.

Incorporation of these APMs would reduce impacts relating to the obstruction of access to properties to a less than significant level (Class III). 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 Measures AG-1a and AG-1c would be necessary in order to ensure that impacts to Active Agricultural Operations as a result of the Santa Ysabel Partial Underground Alternative 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.**

Operational Impacts

Impact AG-2: Operation would permanently convert DOC Farmland to non-agricultural use (Class I for overall route, Class III for alternative segment)

Presence of the alternative would permanently convert approximately ~~6-8~~ 4.4 acres of Farmland of Local Importance, ~~0.04 acres of Prime Farmland~~, and ~~6-8~~ 3.5 acres of Grazing Land. This is less than the 10-acre threshold for determining the significance of impacts to DOC Farmland and therefore less than significant (Class III) for the alternative per se. However, the Proposed Project, in combination with this alternative, would impact greater than 10 acres of DOC Farmland; therefore, the Santa Ysabel Existing ROW Alternative would be considered significant and unmitigable (Class I), and no feasible mitigation measures exist 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 alternative would permanently remove approximately ~~30.8~~ 24.4 acres of land used for grazing operations, which is greater than the 10-acre threshold for determining the significance of impacts to Active Agricultural Operations. There are no non-agricultural areas near the proposed route to which the alternative could be relocated so as to reduce impacts to agriculture. Land in the surrounding area is occupied by agriculture, which would generate impacts to Active Agricultural Operations similar to or potentially greater than the alternative. Because moving the route elsewhere in the surrounding area would not be practical, impacts relating to the loss of land under Active Agricultural Operation as a result of the Santa Ysabel Partial Underground Alternative would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

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

Disruption of Farming Facilities or Operations (Class II). The presence of new project components would permanently disrupt active farming operations in surrounding areas, through conditions such as dividing agricultural fields, obstructing access, impeding water delivery, and/or disrupting the operation of farm equipment.

Incorporation of APMs 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 where feasible and appropriate. If facilities cannot be located along borders, 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 mitigate impacts relating to the disruption of Active Agricultural Operations as a result of the Santa Ysabel Partial Underground Alternative to a less than significant level (Class II).

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, presence of the alternative would permanently disrupt livestock grazing operations, a significant impact. Implementation of Mitigation Measure AG-1c would mitigate impacts of the Santa Ysabel Partial Underground Alternative to livestock grazing operations 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 (Class I)

Operation of the alternative would impact ~~53.9~~ 31.0 acres of Williamson Act lands, which would exceed the 10-acre threshold for determining the significance of impacts to Williamson Act lands. There are no non-agricultural areas near the proposed route to which the alternative could be relocated so as to reduce

impacts to agriculture. Land in the surrounding area is occupied by agriculture, which would generate impacts to Active Agricultural Operations similar to or greater than the alternative. Because both the alternative would convert more than 10 acres of Williamson Act lands overall and moving the route elsewhere in the surrounding area would not be practical, impacts relating to the conversion of Williamson Act lands as a result of the Santa Ysabel Partial Underground Alternative would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

D.6.16.2 Santa Ysabel Partial Underground Alternative

This 230 kV alternative would begin at MP 105.5 where the proposed route would join Mesa Grande Road at the base of the hills at the western side of the Santa Ysabel Valley. The alternative would transition underground at the southern side of Mesa Grande Road and would travel underground in Mesa Grande Road, SR79 and then, south of SR78, following property lines for approximately one mile to rejoin the proposed route at approximately MP 109.5 where it would transition overhead. The route would be 0.7 miles longer than the proposed route.

Environmental Setting

As shown in Table D.6-16, this alternative would traverse or be adjacent to DOC Farmland, land under Active Agricultural Operation, and Williamson Act lands. Figures Ap.AG-11 through -13 provide an illustration of Agricultural Resources traversed by or adjacent to the Santa Ysabel Partial Underground Alternative.

Table D.6-16. Santa Ysabel Partial Underground Alternative – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands ^{1,2}
SYPU 0-5	Farmland of Local Importance Grazing Land	Grazing Operations	APN ³ : 270400600
			Size (Acres): 336.5
			APN: 2470800500
			Size (Acres): 456.3
			APN: 2471000500
			Size (Acres): 183.9
			APN: 2470400500
			Size (Acres): 196.1
			APN: 2470620300
			Size (Acres): 5.3
			APN: 2470620100
			Size (Acres): 311.2
			APN: 2471000100
			Size (Acres): 12.3
APN: RHO Santa Ysabel (AG PRES)			
Size (Acres): 23,112.0			
APN: 2471001300			
Size (Acres): 278.9			
APN: 2471001200			
Size (Acres): 1.5			
APN: 2471600100			
Size (Acres): 19.1			
APN: 2471600700			
Size (Acres): 41.9			

Table D.6-16. Santa Ysabel Partial Underground Alternative – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands ^{1,2}
			APN: 2471601400 Size (Acres): 84.3
			APN: 2471600600 Size (Acres): 188.5
			APN: OUT (AG PRES) Size (Acres): 47.1
			APN: Pine Hills–Bould (AG PRES) Size (Acres): 37,978.0
			APN: 2480300700 Size (Acres): 85.1
			APN: 2480300800 Size (Acres): 97.7
			APN: 2480300900 Size (Acres): 7.5
			APN: 2480300300 Size (Acres): 166.1
			APN: 2480300400 Size (Acres): 12.7
			APN: 2481300700 Size (Acres): 160.0
			APN: 2480200300 Size (Acres): no data
			APN: 2481300600 Size (Acres): 35.7
			APN: 2481301300 Size (Acres): 21.0
			APN: 2480201100 Size (Acres): 86.9
			APN: 2480201200 Size (Acres): 78.7
			APN: 2480201300 Size (Acres): 80.3
			APN: 2480300500 Size (Acres): 78.2
			APN: 2480300600 Size (Acres): 80.5

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

DOC Farmlands

The Santa Ysabel Partial Underground Alternative would traverse or be adjacent to Farmland of Local Importance throughout its entire length, and Grazing Land between MP SYPU 1 and 4.

Active Agricultural Operations

The Santa Ysabel Partial Underground Alternative would traverse or be adjacent to grazing operations throughout its entire length. Grazing operations, which are prevalent throughout the Santa Ysabel Partial Underground Alternative, apply to calves and cattle that graze in unirrigated pastures.

Williamson Act Lands

The Santa Ysabel Partial Underground Alternative would traverse or be adjacent to Williamson Act lands throughout its entire length.

Environmental Impacts and Mitigation Measures

The Santa Ysabel Partial Underground Alternative would impact approximately ~~17.3~~ 13.2 acres of Agricultural Resources (~~6.9~~ 6.3 acres of DOC Farmland, ~~16.3~~ 12.2 acres of Active Agricultural Operations, and ~~17.3~~ 13.2 acres of Williamson Act lands). The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

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 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 impeding access to certain fields or plots of land, obstructing farm vehicles and equipment, and disrupting grazing activities, all of which could result in the temporary reduction of agricultural productivity.

The alternative would incorporate APMs to minimize direct impacts to Active Agricultural Operations. APM LU-1 requires that notification be provided to all residents, property owners, and tenants within 300 feet of proposed construction activities, and APM LU-3 would ensure that construction activities would avoid agricultural areas during certain seasons and/or provide compensation to farmers for loss of crops. As well, APM LU-4 requires that notification be provided to all properties that would be obstructed by construction activities. In addition, APM LU-6 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. Refer to Table D.6-6 for details of applicable agriculture APMs.

Incorporation of these APMs would reduce impacts relating to the obstruction of access to properties to a less than significant level (Class III). 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 Measures AG-1a and AG-1c would be necessary in order to ensure that impacts to Active Agricultural Operations as a result of the Santa Ysabel Partial Underground Alternative 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.**

Operational Impacts

Impact AG-2: Operation would permanently convert DOC Farmland to non-agricultural use (Class I for overall route, Class III for alternative segment)

Presence of the alternative would permanently convert approximately ~~6.9~~ 6.3 acres of Farmland of Local Importance. This is less than the 10-acre threshold for determining the significance of impacts to DOC Farmland and therefore less than significant (Class III) for the alternative per se. However, the Proposed Project, in combination with this alternative, would impact greater than 10 acres of DOC Farmland; therefore, the Santa Ysabel Partial Underground Alternative would be considered significant and unmitigable (Class I), and no feasible mitigation measures exist 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 alternative would permanently remove approximately ~~16.3~~ 12.2 acres of land used for grazing operations, which is greater than the 10-acre threshold for determining the significance of impacts to Active Agricultural Operations. There are no non-agricultural areas near the proposed route to which the alternative could be relocated so as to reduce impacts to agriculture. Land in the surrounding area is occupied by agriculture, which would generate impacts to Active Agricultural Operations similar to or potentially greater than the alternative. Because the alternative would convert more than 10 acres of land under Active Agricultural Operation and moving the route elsewhere in the surrounding area would not be practical, impacts relating to the loss of land under Active Agricultural Operation as a result of the Santa Ysabel Partial Underground Alternative would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

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

Disruption of Farming Facilities or Operations (Class II). The presence of new project components would permanently disrupt active farming operations in surrounding areas, through conditions such as dividing agricultural fields, obstructing access, impeding water delivery, and/or disrupting the operation of farm equipment.

Incorporation of APMs 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 where feasible and appropriate. If facilities cannot be located along borders, 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 mitigate impacts relating to the disruption of Active Agricultural Operations as a result of the Santa Ysabel Partial Underground Alternative to a less than significant level (Class II).

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, presence of the alternative would permanently disrupt livestock grazing operations, a significant impact. Implementation of Mitigation Measure AG-1c would mitigate impacts of the Santa Ysabel Partial Underground Alternative to livestock grazing operations 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 (Class I)

Operation of the alternative would impact ~~17.3~~ 13.2 acres of Williamson Act lands, which is greater than the 10-acre threshold for determining the significance of impacts to Williamson Act lands. There are no non-agricultural areas near the proposed route to which the alternative could be relocated so as to reduce impacts to agriculture. Land in the surrounding area is occupied by agriculture, which would generate impacts to Active Agricultural Operations similar to or greater than the alternative. Because the alternative would convert more than 10 acres of Williamson Act lands and moving the route elsewhere in the surrounding area would not be practical, impacts relating to the conversion of Williamson Act lands as a result of the Santa Ysabel Partial Underground Alternative would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

D.6.16.3 Santa Ysabel SR79 All Underground Alternative

This alternative would diverge from the Proposed Project at MP 100, just south of the crossing of SR78. It would start as an overhead 230 kV line, which would then transition to an underground route on private property, west of SR79. It would be underground along existing dirt roads and within hay fields and SR79 through the Santa Ysabel Valley, rejoining the proposed route south of SR78.

Environmental Setting

As shown in Table D.6-17, Agricultural Resources traversed by or adjacent to this alternative include DOC Farmland, Active Agricultural Operations, and Williamson Act lands. Figures Ap.AG-11 through -13 provide an illustration of Agricultural Resources traversed by or adjacent to the Santa Ysabel SR79 All Underground Alternative.

DOC Farmlands

DOC Farmlands traversed by or adjacent to the Santa Ysabel SR79 All Underground Alternative include Farmland of Statewide Importance between MP SYAU 0 and 1, Farmland of Local Importance between SYAU 0 and 3 and MP SYAU 4 and 9, and Grazing Land between MP SYAU 4 and 8.

Active Agricultural Operations

Active Agricultural Operations traversed by or adjacent to the Santa Ysabel SR79 All Underground Alternative include grazing operations between MP SYAU 1 and 9.2. Grazing operations apply to calves and cattle that graze in unirrigated pastures.

Williamson Act Lands

Williamson Act lands traversed by or adjacent to the Santa Ysabel SR79 All Underground Alternative are found throughout its entire length.

Table D.6-17. Santa Ysabel SR79 All Underground Alternative – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands ^{1,2}
SYAU 0-9.2	Farmland of Statewide Importance Farmland of Local Importance Prime Farmland Grazing Land	Grazing Operations	APN ³ : 1950900100 Size (Acres): 531.6 APN: RHO Santa Ysabel (AG PRES) Size (Acres): 23,112.0 APN: 1950900200 Size (Acres): 34.4 APN: 1951000400 Size (Acres): 440.9 APN: 1951000500 Size (Acres): 197.7 APN: 1951000700 Size (Acres): 82.5 APN: 1951001000 Size (Acres): 83.0 APN: 1951001100 Size (Acres): 82.9 APN: 2470310300 Size (Acres): 2.6 APN: 2470620100 Size (Acres): 311.2 APN: 2470620200 Size (Acres): 305.9

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

Environmental Impacts and Mitigation Measures

The Santa Ysabel SR79 All Underground Alternative would impact approximately ~~27.4~~ 21.0 acres of Agricultural Resources (~~11.4~~ 9.9 acres of DOC Farmland and ~~27.4~~ 21.0 acres of Williamson Act lands; no Active Agricultural Operations would be impacted by this alternative). The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

Construction Impacts

Impact AG-1: Construction activities would temporarily interfere with Active Agricultural Operations (No Impact)

No Active Agricultural Operations would be impacted by construction of the Santa Ysabel SR79 All Underground Alternative (No Impact), and no mitigation would be required.

Operational Impacts

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

Presence of the alternative would permanently convert approximately ~~11.4~~ 9.9 acres of Farmland of Local Importance, which is ~~greater~~ less than the 10-acre threshold for determining the significance of impacts to DOC Farmland. ~~In-addition~~ However, the Proposed Project, in combination with the

alternative, would impact more than 10 acres of DOC Farmland overall. Thus, the 10-acre threshold for determining significance of impacts to DOC Farmland would be exceeded. There are no non-agricultural areas near the proposed route to which the alternative could be relocated so as to reduce impacts to agriculture. Land in the surrounding area is occupied by agriculture, which would generate impacts to Active Agricultural Operations similar to or potentially greater than the alternative. Thus, impacts to DOC Farmland as a result of the Santa Ysabel SR79 All Underground Alternative would be considered significant (Class I), and no feasible mitigation measures exist 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, No Impact for alternative segment)

No Active Agricultural Operations would be permanently impacted by operation of the Santa Ysabel SR79 All Underground Alternative (No Impact).

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

Operation of the alternative would impact ~~27.4~~ 21.0 acres of Williamson Act lands, which would exceed the 10-acre threshold for determining the significance of impacts. There are no non-agricultural areas near the proposed route to which the alternative could be relocated so as to reduce impacts to agriculture. Land in the surrounding area is occupied by agriculture, which would generate impacts to Active Agricultural Operations similar to or greater than the alternative. Because the alternative would convert more than 10 acres of Williamson Act lands and moving the route elsewhere in the surrounding area would not be practical, impacts relating to the conversion of Williamson Act lands as a result of the Santa Ysabel SR79 All Underground Alternative would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

D.6.16.4 SDG&E Mesa Grande Alternative

This alternative to a one-mile portion of the proposed overhead 230 kV route was proposed by the landowner and also by SDG&E in order to reduce the visibility of the overhead line west of Mesa Grande Road. It would diverge from the proposed route at MP 102.2, and rejoin it before MP 104.

Environmental Setting

As shown in Table D.6-18, this alternative would traverse or be adjacent to DOC Farmland, land under Active Agricultural Operation, and Williamson Act lands. Figures Ap.AG-11 and -12 provide an illustration of Agricultural Resources traversed by or adjacent to the SDG&E Mesa Grande Alternative.

DOC Farmlands

The SDG&E Mesa Grande Alternative would traverse or be adjacent to Farmland of Local Importance between MP MG 1 and 1.8.

Active Agricultural Operations

The SDG&E Mesa Grande Alternative would not traverse or be adjacent to Active Agricultural Operations.

Williamson Act Lands

The SDG&E Mesa Grande Alternative would traverse or be adjacent to Williamson Act lands throughout its entire length.

Environmental Impacts and Mitigation Measures

The SDG&E Mesa Grande Alternative would permanently impact approximately ~~29.7~~ 10.7 acres of Agricultural Resources (~~1.2~~ 0.1 acres of DOC Farmland and ~~29.6~~ 10.7 acres of Williamson Act lands; no Active Agricultural Operations would be impacted by this alternative). The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

Construction Impacts

Impact AG-1: Construction activities would temporarily interfere with Active Agricultural Operations (No Impact)

No Active Agricultural Operations would be impacted by construction of the Santa Ysabel SR79 All Underground Alternative (No Impact), and no mitigation would be required.

Operational Impacts

Impact AG-2: Operation would permanently convert DOC Farmland to non-agricultural use (Class I for overall route, Class III for alternative segment)

Presence of the alternative would permanently convert approximately ~~1.2~~ 0.1 acres of Farmland of Local Importance, which is less than the 10-acre threshold for determining the significance of impacts to DOC Farmland. Therefore the impact would be less than significant (Class III) for the alternative per se. However, the Proposed Project, in combination with this alternative, would impact greater than 10 acres of DOC Farmland; therefore, the SDG&E Mesa Grande Alternative would be considered significant and unmitigable (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

Table D.6-18. Mesa Grande Alternative – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands ^{1,2}
MG 0-1	None	None	APN ³ : 1950900100 Size (Acres): 531.6 <hr/> APN: 1942002400 Size (Acres): 859.6 <hr/> APN: 1951000400 Size (Acres): 440.9 <hr/> APN: 1951000100 Size (Acres): 124.4 <hr/> APN: 1951000300 Size (Acres): 86.0
MG 1-1.8	Farmland of Local Importance	None	APN: 1951000300 Size (Acres): 86.0 <hr/> APN: 2470100100 Size (Acres): 166.4 <hr/> APN: 2450500300 Size (Acres): 82.5 <hr/> APN: 2470100300 Size (Acres): 40.5 <hr/> APN: 2450500500 Size (Acres): 466.9 <hr/> APN: RHO Santa Ysabel (AG PRES) Size (Acres): 23,112.0

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

Impact AG-3: Operation would permanently interfere with Active Agricultural Operations (Class I for overall route, No Impact for alternative segment)

The alternative would not permanently impact any land under Active Agricultural Operation (No Impact).

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

Operation of the alternative would permanently convert ~~29.6~~ 10.7 acres of Williamson Act lands, which is greater than the 10-acre threshold for determining the significance of impacts to Williamson Act lands. There are no non-agricultural areas near the proposed route to which the alternative could be relocated so as to reduce impacts to agriculture. Land in the surrounding area is occupied by agriculture, which would generate impacts to Active Agricultural Operations similar to or potentially greater than the alternative. Because the alternative would convert more than 10 acres of Williamson Act lands and moving the route elsewhere in the surrounding area would not be practical, impacts as a result of the SDG&E Mesa Grande Alternative relating to the conversion of Williamson Act lands would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

D.6.17 Inland Valley Link Alternatives Impacts and Mitigation Measures

Four alternatives are considered within the Inland Valley Link: the CNF Existing 69 kV Route Alternative, the Oak Hollow Road Underground Alternative, the San Vicente Road Transition Station Alternative, and the Chuck Wagon Road Alternative.

D.6.17.1 CNF Existing 69 kV Route Alternative

This 0.5-mile alternative segment would start at MP 111.3 where the proposed 230 kV and existing 69 kV transmission lines would be routed west for 0.5 miles and then south for approximately 0.5 miles to avoid Cleveland National Forest (CNF). The alternative would remain in the existing 69 kV ROW heading southwest through Cleveland National Forest to rejoin the proposed route at MP 111.8. This alternative would be 0.5 miles shorter than the Proposed Project and the existing 69 kV transmission line would not need to be relocated out of the existing ROW.

Environmental Setting

As shown in Table D.6-19, this alternative would traverse or be adjacent to Active Agricultural Operations and Williamson Act lands. No DOC Farmlands would be traversed by or adjacent to this alternative. Figure Ap.AG-13 provides an illustration of these areas.

Table D.6-19. CNF Existing 69 kV Route Alternative – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands ^{1,2}
0-1.3	None	Grazing Operations	APN ³ : 2890101500 Size (Acres): 80.5 <hr/> APN: 2890101400 Size (Acres): 100.9 <hr/> APN: 2890101700 Size (Acres): 80.0 <hr/> APN: 2890102300 Size (Acres): 92.8 <hr/> APN: 2890700500 Size (Acres): 115.9 <hr/> APN: 2890700400 Size (Acres): 87.6 <hr/> APN: 2861122500 Size (Acres): 124.1 <hr/> APN: Ramona (AG PRES) Size (Acres): 28,612.0

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

DOC Farmlands

No DOC Farmlands would be traversed by or adjacent to the CNF Existing 69 kV Route Alternative.

Active Agricultural Operations

The CNF Existing 69 kV Route Alternative would traverse or be adjacent to grazing operations, which apply to calves and cattle that graze in unirrigated pastures.

Williamson Act Lands

The CNF Existing 69 kV Route Alternative would traverse or be adjacent to Williamson Act lands.

Environmental Impacts and Mitigation Measures

The CNF Existing 69 kV Route Alternative would permanently impact approximately ~~7.0~~ 5.8 acres of Agricultural Resources (~~1.4~~ 1.2 acres of Active Agricultural Operations and ~~7.0~~ 5.8 acres of Williamson Act lands; no DOC Farmlands would be impacted by this alternative). The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

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 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 impeding access to certain fields or plots of land, obstructing farm vehicles and equipment, and disrupting grazing activities, all of which could result in the temporary reduction of agricultural productivity.

The alternative would incorporate APMs to minimize direct impacts to Active Agricultural Operations. APM LU-1 requires that notification be provided to all residents, property owners, and tenants within 300 feet of proposed construction activities, and APM LU-3 would ensure that construction activities would avoid agricultural areas during certain seasons and/or provide compensation to farmers for loss of crops. As well, APM LU-4 requires that notification be provided to all properties that would be obstructed by construction activities. In addition, APM LU-6 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. Refer to Table D.6-6 for details of applicable agriculture APMs.

Incorporation of these APMs would reduce impacts relating to the obstruction of access to properties to a less than significant level (Class III). 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 Measures AG-1a and AG-1c would be necessary in order to ensure that impacts to Active Agricultural Operations as a result of the CNF Existing 69 kV Route Alternative 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.**

Operational Impacts

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

No DOC Farmlands would be permanently converted by the CNF Existing 69 kV Route Alternative (No Impact).

Impact AG-3: Operation would permanently interfere with Active Agricultural Operations (Class I for overall route, Class II and III for alternative segment)

The alternative would permanently remove approximately ~~1.4~~ 1.2 acres of land under Active Agricultural Operation. This is less than the 10-acre threshold for determining the significance of impacts to Active Agricultural Operations and therefore less than significant (Class III) for the alternative per se. However, the Proposed Project, in combination with this alternative, would impact greater than 10 acres of Active Agricultural Operations; therefore, the CNF Existing 69 kV Route Alternative would be considered significant and unmitigable (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

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

Disruption of Farming Facilities or Operations (Class II). The presence of new project components would permanently disrupt active farming operations in surrounding areas, through conditions such as dividing agricultural fields, obstructing access, impeding water delivery, 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 where feasible and appropriate. If facilities cannot be located along borders, 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, as noted under Impact AG-1, would mitigate impacts relating to the disruption of Active Agricultural Operations as a result of the CNF Existing 69 kV Route Alternative to a less than significant level (Class II).

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, presence of the alternative would disrupt livestock grazing operations, a significant impact. Implementation of Mitigation Measure AG-1c would ensure that impacts to livestock grazing operations as a result of the CNF Existing 69 kV Route Alternative 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 for overall route, Class III for alternative segment)

Operation of the alternative would impact ~~7.0~~ 5.8 acres of Williamson Act lands. This is less than the 10-acre threshold for the determination of significance established and therefore less than significant (Class III) for the alternative per se. However, the Proposed Project, in combination with this alternative, would impact greater than 10 acres of Williamson Act lands; therefore, the CNF Existing 69 kV Route Alternative would be considered significant and unmitigable (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

D.6.17.2 Oak Hollow Road Underground Alternative

The purpose of this alternative would be to extend the proposed underground to the east of Mount Gower County Open Space Preserve so the line would be underground through the valley area. The alternative would require 0.6 miles of additional underground 230 kV transmission line, and the existing 69 kV would remain overhead.

Environmental Setting

As shown in Table D.6-20, this alternative would traverse or be adjacent to Active Agricultural Operations and Williamson Act lands. No DOC Farmland would be traversed by or adjacent to this alternative. Figure Ap.AG-14 provides an illustration of Agricultural Resources traversed by or adjacent to the Oak Hollow Road Underground Alternative.

Table D.6-20. Oak Hollow Road Underground Alternative – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands ^{1,2}
OH 0-0.9	None	Vineyard Grazing Operations	APN ³ : Ramona (AG PRES) Size (Acres): 28612

¹ Williamson Act lands shown are contract lands unless otherwise noted. The contract was renewed in 2003.

² Williamson Act land size is measured in acres.

³ APN = Assessor’s Parcel Number

DOC Farmlands

No DOC Farmland would be traversed by or adjacent to the Oak Hollow Road Underground Alternative.

Active Agricultural Operations

The Oak Hollow Road Underground Alternative would traverse a vineyard and grazing operations on Oak Hollow Road.

Williamson Act Lands

The Oak Hollow Road Underground Alternative would traverse or be adjacent to Williamson Act lands.

Environmental Impacts and Mitigation Measures

The Oak Hollow Road Underground Alternative would permanently impact approximately ~~8.0~~ 5.3 acres of Agricultural Resources (~~5.1~~ 4.1 acres of land currently under Active Agricultural Operation and ~~7.6~~ 5.3 acres of Williamson Act lands; no DOC Farmlands would be impacted by this alternative). The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

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 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, and disrupting drainage and irrigation systems (including self-propelled irrigation rigs), all of which could result in the temporary reduction of agricultural productivity.

The alternative would incorporate APMs to minimize direct impacts to Active Agricultural Operations. APM LU-1 requires that notification be provided to all residents, property owners, and tenants within 300 feet of proposed construction activities, and APM LU-3 would ensure that construction activities would avoid agricultural areas during certain seasons and/or provide compensation to farmers for loss of crops. As well, APM LU-4 requires that notification be provided to all properties that would be obstructed by construction activities. In addition, APM LU-6 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. Refer to Table D.6-6 for details of applicable agriculture APMs.

Incorporation of these APMs would reduce impacts relating to the damage and loss of crops and obstruction of access to properties to a less than significant level (Class III). 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, would not be reduced to a less than significant level. Implementation of Mitigation Measures AG-1a would be necessary in order to ensure that impacts of the Oak Hollow Road Underground Alternative to Active Agricultural 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.

Agricultural Soils (Class II). Depending upon the extent of construction required for certain aspects of the Proposed Project, 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. 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 of the Oak Hollow Road Underground Alternative to Active Agricultural Operations as a result of compacted soils to a less than significant level (Class II).

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

AG-1b Restore compacted soil.

Operational Impacts

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

No DOC Farmland would be permanently converted by the Oak Hollow Road Underground Alternative (No Impact).

Impact AG-3: Operation would permanently interfere with Active Agricultural Operations (Class I for overall route, Class II and III for alternative segment)

The alternative would permanently remove approximately ~~5.1~~ 4.1 acres of land under Active Agricultural Operation (~~4.7~~ 3.7 acres of vineyard and ~~0.4~~ 0.3 acres of grazing operations). ~~5.1~~ 4.1 acres is less than the 10-acre threshold for the determination of significance established and therefore the impact is less than significant (Class III) for the alternative per se. However, the Proposed Project, in combination with this alternative, would impact greater than 10 acres of Active Agricultural Operations; therefore, the Oak Hollow Road Underground Alternative would be considered significant and unmitigable (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

In addition to loss of farmland, other Active Agricultural Operations could potentially be impacted as a result of the operation of the Proposed Project. Such impacts relate to the disruption of farming facilities or operations and increased avian use of transmission lines and structures for perching near vineyards.

Disruption of Farming Facilities or Operations (Class II). The presence of new project components would permanently disrupt active farming operations in surrounding areas, through conditions such as dividing agricultural fields, obstructing access, impeding water delivery, and/or disrupting the operation of farm equipment. In addition, other potential effects include disruption of drainage and irrigation, fragmentation of farmland (e.g., isolating smaller areas that could be uneconomical for continued cultivation), and reducing windbreak efficacy.

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 where feasible and appropriate. If facilities cannot be located along borders, 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 mitigate impacts of the Oak Hollow Road Underground Alternative relating to the disruption of Active Agricultural Operations to a less than significant level (Class II).

Avian Perching Near Vineyards (No Impact). All known existing and proposed vineyards along the alternative route are currently located adjacent to existing 69 kV wires and towers. Addition of the alternative would not provide an opportunity for the increased presence of birds near vineyards because all new lines would be placed underground. Thus, no associated impacts due to the Oak Hollow Road Underground Alternative would occur (No Impact), and no mitigation would be required.

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

AG-1a Avoid interference with agricultural operations.

Impact AG-4: Operation would permanently convert Williamson Act lands to non-agricultural use (Class I for overall route, Class III for alternative segment)

Operation of the alternative would permanently convert 7.6 5.3 acres of Williamson Act lands. This is less than the 10-acre threshold for determination of significance established and therefore the impact is less than significant (Class III) for the alternative per se. However, the Proposed Project, in combination with this alternative, would impact greater than 10 acres of Williamson Act lands; therefore, the Oak Hollow Road Underground Alternative would be considered significant and unmitigable (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

D.6.17.3 San Vicente Road Transition Alternative

The alternative would move the transition structure from its proposed location along San Vicente Road (MP 121.9) approximately 0.3 miles west to MP 122.2. The underground line would follow San Vicente Road within a 60-foot ROW for an additional 2,100 feet and would cross under an existing Creelman–Los Coches 69 kV transmission line, before it would turn north and would travel through open space for approximately 200 feet to the overhead transition point.

Environmental Setting

No Agricultural Resources would be traversed by or adjacent to this alternative.

Environmental Impacts and Mitigation Measures

The San Vicente Road Transition Alternative would not impact any Agricultural Resources. Despite the fact that the San Vicente Road Transition Alternative would not impact Agricultural Resources, the proposed route, in combination with the alternative, would impact more than 10 acres each of DOC Farmland, Active Agricultural Operations, and Williamson Act lands, which would constitute Class I impacts to these resources.

D.6.17.4 Chuck Wagon Road Alternative

This alternative would diverge from the proposed route in San Vicente Boulevard, turning south in Chuck Wagon Road approximately 0.2 miles east of the proposed transition point at MP 121.7. It would continue south for approximately 1.6 miles before passing under the existing Creelman–Los Coches 69 kV transmission line ROW. At this point, the route would transition to overhead and turn west for approximately 1.2 miles to rejoin the proposed route at MP 125.6.

Environmental Setting

As shown in Table D.6-21, this alternative would traverse or be adjacent to DOC Farmland and land under Active Agricultural Operation. No Williamson Act lands would be traversed by or adjacent to this alternative. Figures Ap.AG-14 and -15 provide an illustration of Agricultural Resources traversed by or adjacent to the Chuck Wagon Road Alternative.

Table D.6-21. Chuck Wagon Road Overhead/Underground Alternative – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands
CWR 0-3.1	Farmland of Local Importance Grazing Land	Grazing Operations	None

DOC Farmlands

The Chuck Wagon Road Alternative would traverse or be adjacent to Farmland of Local Importance and Grazing Land throughout its length.

Active Agricultural Operations

This alternative would traverse or be adjacent to grazing operations between MP CWR 0 and 3.1. Grazing operations encompass calves and cattle that graze in unirrigated pastures.

Williamson Act Lands

No Williamson Act lands would be traversed by or adjacent to the Chuck Wagon Road Alternative.

Environmental Impacts and Mitigation Measures

The Chuck Wagon Road Alternative would permanently impact approximately ~~5.9~~ 3.8 acres of Agricultural Resources (~~5.9~~ 3.8 acres of DOC Farmland; no Active Agricultural Operations or Williamson Act lands would be impacted by this alternative). The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

Construction Impacts

Impact AG-1: Construction activities would temporarily interfere with Active Agricultural Operations (No Impact)

No Active Agricultural Operations would be impacted by construction.

Operation Impacts

Impact AG-2: Operation would permanently convert DOC Farmland to non-agricultural use (Class I for overall route, Class III for alternative segment)

Impacts to DOC Farmland would occur where the location of project facilities, such as access roads, would permanently convert DOC Farmland to non-agricultural use. This alternative would permanently convert approximately ~~5.9~~ 3.8 acres of DOC Farmland (~~2.5~~ 1.2 acres of Farmland of Local Importance and ~~3.5~~ 2.6 acres of Grazing Land). This is less than the 10-acre threshold for determining the significance of impacts to DOC Farmland and the impact would be less than significant (Class III) for the alternative per se. However, the Proposed Project, in combination with this alternative, would impact greater than 10 acres of DOC Farmland; therefore, the Chuck Wagon Road Overhead/Underground Alternative Alternative would be considered significant and unmitigable (Class I), and no feasible mitigation measures exist 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, No Impact for alternative segment)

No land under Active Agricultural Operation would be impacted by operation of the alternative (No Impact).

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

No Williamson Act lands would be converted by the Chuck Wagon Road Alternative (No Impact).

D.6.18 Coastal Link Alternatives Impacts and Mitigation Measures

Four alternatives are considered within the Coastal Link: the Pomerado Road to Miramar Area North Alternative, the Los Peñasquitos Canyon Preserve–Mercy Road Alternative, the Black Mountain to Park Village Road Underground Alternative, and the Coastal Link System Upgrade Alternative.

D.6.18.1 Pomerado Road to Miramar Area North Alternative

This alternative would be underground with the exception of the east and west ends where the line is overhead within existing SDG&E transmission ROWs. This alternative would exit the Sycamore Substation at MCAS Miramar overhead westerly within an existing ROW toward Pomerado Road. The line would transition to underground beneath Pomerado Road in the vicinity of Legacy Road, then continuing underground in Miramar Road, Kearny Villa Road, Black Mountain Road, Activity Road, Camino Ruiz, Miralani Drive, Arjons Drive, Trade Place, Camino Santa Fe, Carroll Road/Carroll Canyon Road and Scranton Road. At the western end, the line would transition to overhead and would be located within the existing 230 kV ROW heading northward into the Peñasquitos Substation.

Environmental Setting

As shown in Table D.6-22, the Pomerado Road to Miramar Area North Alternative would traverse or be adjacent to DOC Farmland; no Active Agricultural Operations or Williamson Act Lands would be traversed by or adjacent to the alternative. Figures Ap.AG-16 through -18 provide an illustration of Agricultural Resources traversed by or adjacent to the Pomerado Road to Miramar Area North Alternative.

Table D.6-22. Pomerado Road to Miramar Area North Alternative – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands
PM 1-3	None	None	None
PM 3-5	Grazing Land	None	None
PM 5-9	None	None	None
PM 9-12.7	Farmland of Local Importance Grazing Land	None	None

DOC Farmlands

The Pomerado Road to Miramar Area North Alternative would traverse or be adjacent to Farmland of Local Importance between MP PM 9 and 12.7 as well as Grazing Land between MP PM 3 and 5; and MP PM 9 and 12.7.

Active Agricultural Operations

No Active Agricultural Operations would be traversed by or adjacent to the Pomerado Road to Miramar Area North Alternative.

Williamson Act Lands

No Williamson Act lands would be traversed by or adjacent to the Pomerado Road to Miramar Area North Alternative.

Environmental Impacts and Mitigation Measures

The Pomerado Road to Miramar Area North Alternative would permanently impact approximately ~~3-6~~ 0.3 acres of DOC Farmland. No Active Agricultural Operations or Williamson Act lands would be impacted by this alternative. The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

Construction Impacts

Impact AG-1: Construction activities would temporarily interfere with Active Agricultural Operations (No Impact)

No Active Agricultural Operations would be impacted by construction of the Pomerado Road to Miramar Area North Alternative (No Impact), and no mitigation would be required.

Operational Impacts

Impact AG-2: Operation would permanently convert DOC Farmland to non-agricultural use (Class I for overall route, Class III for alternative segment)

Impacts to DOC Farmland would occur where the location of project facilities, such as access roads, would permanently convert DOC Farmland to non-agricultural use. This alternative would permanently convert approximately ~~3-6~~ 0.3 acres of DOC Farmland (~~0.9 acres of Farmland of Local Importance and 2-7~~ 0.3 acres of Grazing Land) due to the presence of permanent access roads. This is less than the 10-acre threshold for determining the significance of impacts to DOC Farmland and the impact would therefore be less than significant (Class III) for the alternative per se. However, the Proposed Project, in combination with this alternative, would impact greater than 10 acres of DOC Farmland; therefore, the Pomerado Road to Miramar Area North Alternative would be considered significant and unmitigable (Class I), and no feasible mitigation measures exist 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, No Impact for alternative segment)

No Active Agricultural Operations would be impacted by this alternative (No Impact).

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

No Williamson Act lands would be converted by this alternative, and no mitigation would be required (No Impact).

D.6.18.2 Los Peñasquitos Canyon Preserve–Mercy Road Alternative

This alternative route would bypass the Chicarita Substation and connect to existing ROW along Scripps Poway Parkway in the vicinity of Ivy Hill Drive. The line would then transition to underground and follow Scripps Poway Parkway/Mercy Road, Mercy Road, Black Mountain Road, and finally Park Village Drive, where the alternative route would rejoin the proposed route.

Environmental Setting

As shown in Table D.6-23, the Los Peñasquitos Canyon Preserve–Mercy Road Alternative would traverse or be adjacent to DOC Farmland; no Active Agricultural Operations or Williamson Act Lands would be traversed by or adjacent to the alternative. Figure Ap.AG-17 provides an illustration of Agricultural Resources traversed by or adjacent to the Los Peñasquitos Canyon Preserve–Mercy Road Alternative.

Table D.6-23. Los Peñasquitos Canyon Preserve–Mercy Road Alternative – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands
LPCM 0-3.7	Farmland of Local Importance Grazing Land	None	None

DOC Farmlands

The Los Peñasquitos Canyon Preserve–Mercy Road Alternative would traverse or be adjacent to Farmland of Local Importance and Grazing Land between MP LPCM 1 and 3.

Active Agricultural Operations

No Active Agricultural Operations would be traversed by or adjacent to the Los Peñasquitos Canyon Preserve–Mercy Road Alternative.

Williamson Act Lands

No Williamson Act lands would be traversed by or adjacent to the Los Peñasquitos Canyon Preserve–Mercy Road Alternative.

Environmental Impacts and Mitigation Measures

No DOC Farmlands, Active Agricultural Operations, or Williamson Act lands would be impacted by this alternative. Therefore, the Los Peñasquitos Canyon Preserve–Mercy Road Alternative would not create construction or operational impacts that would temporarily or permanently impact Agricultural Resources (No Impact) and no mitigation would be required. Despite the fact that the Los Peñasquitos Canyon Preserve–Mercy Road Alternative would not impact Agricultural Resources, the proposed route, in conjunction with this alternative, would impact more than 10 acres each of DOC Farmland, Active Agricultural Operations, and Williamson Act lands, which would constitute Class I impacts to these resources.

D.6.18.3 Black Mountain to Park Village Road Underground Alternative

This alternative would deviate from the Proposed Project alignment where the route approaches Black Mountain Road. Under this alternative, the line would remain underground but would be located underneath Black Mountain Road and would turn west onto Park Village Drive, following the project alignment into the Peñasquitos Substation via the Los Peñasquitos Canyon Preserve.

Environmental Setting

No Agricultural Resources would be traversed by or adjacent to the Black Mountain to Park Village Road Underground Alternative.

Environmental Impacts and Mitigation Measures

No DOC Farmlands, Active Agricultural Operations, or Williamson Act lands would be impacted by this alternative. Therefore, the Black Mountain to Park Village Road Underground Alternative would not create construction or operational impacts that would temporarily or permanently impact Agricultural Resources (No Impact) and no mitigation would be required. Despite the fact that the Black Mountain to Park Village Road Underground Alternative would not impact Agricultural Resources, the proposed route, in conjunction with this alternative, would impact more than 10 acres each of DOC Farmland, Active Agricultural Operations, and Williamson Act lands, which would constitute Class I impacts to these resources.

D.6.18.4 Coastal Link System Upgrade Alternative

The Coastal Link System Upgrade Alternative would be a system modification to install a third 230/69 kV transformer at the existing Sycamore Canyon Substation. Expansion of the Sycamore Canyon Substation would occur within the existing substation easement. Additionally, SDG&E would either (a) install a new 230/138 kV transformer at the existing Encina Substation or (b) upgrade (reconductor) the existing Sycamore Canyon–Chicarita 138 kV circuit using 34 existing wood frame structures.

Environmental Setting

No Agricultural Resources would be traversed by or adjacent to the Coastal Link System Upgrade Alternative.

Environmental Impacts and Mitigation Measures

The Coastal Link System Upgrade Alternative would eliminate the impacts associated with the Proposed Project segment between Sycamore Canyon and Peñasquitos Substations. No DOC Farmlands, Active Agricultural Operations, or Williamson Act lands would be impacted by this alternative. Therefore, the Coastal Link System Upgrade Alternative would not create construction or operational impacts that would temporarily or permanently impact Agricultural Resources (No Impact), and no mitigation would be required. Despite the fact that the Coastal Link System Upgrade Alternative would not impact Agricultural Resources, the proposed route, in conjunction with this alternative, would impact more than 10 acres each of DOC Farmland, Active Agricultural Operations, and Williamson Act lands, which would constitute Class I impacts to these resources.

D.6.19 Top of the World Substation Alternative

The substation site would be located approximately one mile west of the proposed Central East Substation on Vista Irrigation District land. The transmission line routes into the substation would follow the Proposed Project route to approximately MP 92.7, then the alternative 500 kV route would turn west for 1.1 miles to enter the alternative site. Exiting the substation the line would travel southwest for 400 feet and then west and north-northwest to rejoin the Proposed Project around MP 95.

The site is currently vacant and surrounded on all sides by land use for grazing operations.

Environmental Setting

As shown in Table D.6-24, the Top of the World Substation Alternative would traverse or be adjacent to Active Agricultural Operations. No DOC Farmlands or Williamson Act lands would be traversed by or adjacent to this alternative. Figure Ap.AG-11 shows Agricultural Resources within or adjacent to this alternative substation.

Table D.6-24. Top of the World Substation Alternative – Agricultural Resources

Milepost	DOC Farmland	Active Agricultural Operations	Williamson Act Lands
—	None	Grazing Operations	None

DOC Farmlands

No DOC Farmlands would be within or adjacent to the Top of the World Substation Alternative.

Active Agricultural Operations

The Top of the World Substation Alternative would be within or adjacent to grazing operations, which encompasses calves and cattle that graze in unirrigated pastures.

Williamson Act Lands

No Williamson Act lands would be within or adjacent to the Top of the World Substation Alternative.

Environmental Impacts and Mitigation Measures

The Top of the World Substation Alternative would permanently impact approximately ~~45.1~~ 41.6 acres of Active Agricultural Operations. No DOC Farmlands or Williamson Act lands would be converted by this alternative. The full text for individual mitigation measures for all resource topics is provided in Appendix 12.

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 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 impeding access to certain fields or plots of land, obstructing farm vehicles and equipment, and disrupting grazing activities, all of which could result in the temporary reduction of agricultural productivity.

The alternative would incorporate APMs to minimize direct impacts to Active Agricultural Operations. APM LU-1 requires that notification be provided to all residents, property owners, and tenants within 300 feet of proposed construction activities, and APM LU-4 requires that notification be provided to all properties that would be obstructed by construction activities. Thus, incorporation of APM LU-4 would provide advanced notification of construction activities to properties near and/or potentially obstructed by construction activities (including agricultural fields and operations), 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, incorporation of APM LU-6 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. Refer to Table D.6-6 for details of applicable agriculture APMs.

Incorporation of these APMs would reduce impacts relating to the obstruction of access to properties to a less than significant level (Class III). 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 Top of the World Substation Alternative 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.**

Operational Impacts

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

No DOC Farmlands would be converted by the Top of the World Substation Alternative (No Impact).

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

The alternative would permanently remove approximately ~~45.1~~ 41.6 acres of land under Active Agricultural Operation (grazing operations), which is greater than the 10-acre threshold for determining the significance of impacts due to the loss of land under Active Agricultural Operation. Because the alternative would convert more than 10 acres of land under Active Agricultural Operation, impacts of the Top of the World Substation Alternative to Active Agricultural Operations would be significant (Class I), and no feasible mitigation measures exist to mitigate this impact to a less than significant level.

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

Disruption of Farming Facilities or Operations (Class II). The presence of new project components would permanently disrupt active farming operations in surrounding areas, through conditions such as dividing agricultural fields, obstructing access, impeding water delivery, 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 where feasible and appropriate. If facilities cannot be located along borders, 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 as a result of the Top of the World Substation Alternative would be mitigated to a less than significant level (Class II).

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, presence of the alternative would disrupt livestock grazing operations, a significant impact. Implementation of Mitigation Measure AG-1c would ensure that impacts of the Top of the World Substation Alternative 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 for overall route, No Impact for alternative segment)

No Williamson Act lands would be converted by the Top of the World Substation Alternative (No Impact).

D.6.20 Mitigation Monitoring, Compliance, and Reporting Table

Table D.6-25 presents the mitigation monitoring, compliance and reporting table for Agriculture. Mitigation measures not originating in the agriculture analyses do not appear in the table; they appear only in the mitigation monitoring, compliance and reporting table for the section in which they were originally recommended. For a summary of all Proposed Project impacts and their respective mitigation measures, please see the Impact Summary Tables at the end of the Executive Summary.

Sections D.6.11 and D.6.12 recommend mitigation measures for the projects described under Future Transmission System Expansion and Connected Actions/Indirect Effects. Those mitigation measures are presented for consideration by the agencies that will issue permits for construction of the connected and future projects. Because those projects would not be constructed as a result of approval of the Sunrise Powerlink Project, the recommended mitigation measures are not included in this mitigation monitoring table.

Table D.6-25. Mitigation Monitoring Program – Agriculture Resources

MITIGATION MEASURE	AG-1a: Avoid interference with agricultural operations. The Applicant shall coordinate with property owners and tenants to ensure that project construction will be conducted so as to avoid or minimize interference with agricultural operations. Agricultural operations include, but are not limited to, the use of farm vehicles and equipment, access to property; water delivery, drainage, and irrigation.
Location	Locations where the project could interfere with agricultural operations
Monitoring / Reporting Action	CPUC/BLM monitors verify that signed agreements between SDG&E and affected landowners have been submitted, and ensure that construction schedules occur during time periods agreed upon in the agreement and that agreed upon restoration occurs.
Effectiveness Criteria	Affected landowners are in agreement with construction activities
Responsible Agency	CPUC, BLM Offices
Timing	Sixty (60) days prior to the start of project construction
MITIGATION MEASURE	AG-1b: Restore compacted soil. The Applicant shall restore soils compacted <u>or disturbed such as by excavation</u> during construction by conferring with the property owner or tenant to identify and then implement a mutually agreed means to restore such soils. Restoration actions may include, but are not be limited to, disking, plowing, <u>removal of excavated soil</u> , or other suitable restoration methods.
Location	Locations where changes to the existing environment due to construction activities could result in compacted soil.
Monitoring / Reporting Action	After construction is completed, land is restored per agreement with landowner. Monitors will verify that restoration activity has been completed and landowner has concurred that restoration effort is consistent with original agreement. SDG&E shall provide copies of the original agreements and the restoration concurrence acknowledgement from the landowner.
Effectiveness Criteria	Affected landowners are in agreement with restoration
Responsible Agency	CPUC, BLM Offices
Timing	Thirty (30) days after completion of construction clean-up and site restoration at each property.
MITIGATION MEASURE	AG-1c: Coordinate with grazing operators. SDG&E shall coordinate with grazing operators to ensure that agricultural productivity and animal welfare are maintained both during and after construction to the maximum extent feasible. Coordination efforts will address issues including, but not necessarily limited to: <ul style="list-style-type: none"> • Interference with access to water (e.g., provide alternate methods for livestock access to water) • Impairment of cattle movements (e.g., provide alternate routes; reconfigure fencing/gates) • Removal and replacement of fencing (e.g., during construction install temporary fencing/barriers, as appropriate, and following construction restore equal or better fencing to that which was removed or damaged) • Impacts to facilities such as corrals and watering structures, as well as related effects such as ingress/egress, and management activities (e.g., replacement of damaged/removed facilities in kind; provide alternate access)

Table D.6-25. Mitigation Monitoring Program – Agriculture Resources

Location	Locations where the project could interfere with grazing operations
Monitoring / Reporting Action	Verify coordination has taken place and an agreement has been reached.
Effectiveness Criteria	Coordination has been conducted with appropriate landowners or tenants and reasonable procedures to implement the mitigation measure have been agreed to by all parties.
Responsible Agency	CPUC, BLM Offices
Timing	Sixty (60) days prior to the start of project construction and Thirty (30) days after construction on each property.
MITIGATION MEASURE	<p>AG-3a: Coordinate with dairy operators. SDG&E shall coordinate with dairy operators to ensure that agricultural productivity and animal welfare are maintained during project operation (e.g., maintenance activities) to the maximum extent feasible. Coordination efforts shall address issues including, but not necessarily limited to:</p> <ul style="list-style-type: none"> • Impairment of cattle movements (e.g., provide alternate routes; reconfigure fencing/gates) • Impacts to facilities, as well as related effects such as ingress/egress and management activities (e.g., replacement of damaged/removed facilities in kind; provide alternate access)
Location	Locations where changes to the existing environment could result in interference with dairy operations.
Monitoring / Reporting Action	Verify coordination has taken place and an agreement has been reached.
Effectiveness Criteria	Coordination has been conducted with appropriate landowners or tenants and reasonable procedures to implement the mitigation measure have been agreed to by all parties.
Responsible Agency	CPUC, BLM Offices
Timing	Sixty (60) days prior to the start of project construction.
MITIGATION MEASURE	<p>AG-3b: Consult with and inform aerial applicators. The Applicant shall consult with landowners and the Imperial County Farm Bureaus to determine which aerial applicators operate in the county. The Applicant shall provide written notification to all aerial applicators working in the county and to the CPUC stating when and where the new transmission lines and towers will be erected. The Applicant shall also provide all aerial applicators, the Imperial County Farm Bureaus, and the CPUC with aerial photos or topographic maps clearly showing the new lines and towers in relation to agricultural lands.</p>
Location	Locations where changes to the existing environment could result in interference with dairy operations.
Monitoring / Reporting Action	Verify coordination has taken place and actions called for in Mitigation Measure AG-3b have been implemented.
Effectiveness Criteria	Communications have been provided to all aerial applicators operating in affected areas.
Responsible Agency	CPUC, BLM
Timing	Sixty (60) days prior to erection of any structure that could affect aerial applicator operations.
MITIGATION MEASURE	<p>AG-3c: Survey for apiaries and inform owners. The Applicant shall perform a survey of the approved route and identify all apiaries within 1,000 feet of the transmission line. The Applicant shall notify all apiary owners at least 60 days prior to energizing the line that their apiaries are within a zone of potential transmission line effect, and shall advise them to relocate their hives. The survey results and notification process shall be documented to the CPUC and BLM at least 30 days before the line is energized.</p>
Location	Locations where apiaries are located within 1000 feet of the alignment.
Monitoring / Reporting Action	Verify that coordination has taken place and SDG&E and the apiary owner have reached agreement on action to be taken with regard to the apiary relocation.
Effectiveness Criteria	Communications have been provided to landowners or tenants regarding the need to relocate hives.
Responsible Agency	CPUC, BLM
Timing	Sixty (60) days prior to energizing the transmission line.

D.6.21 References

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