CHAPTER 3.0 EFFECTS NOT FOUND TO BE SIGNIFICANT

3.1 Effects Found Not Significant as Part of the EIR Process

This section of the Program EIR provides discussions of those effects that were identified as potentially significant during the Initial Study and process but were concluded not to be significant after further analysis. For the purpose of this Program EIR, the County's *Guidelines of Determination of Significance* apply to both the direct/indirect impacts analysis and the cumulative impact analysis. Where the County's Guidelines for Determining Significance do not address the effects considered, Appendix G of the California Environmental Quality Act (CEQA) Guidelines have been used as the basis for this analysis.

The following environmental areas were found to be not significant during the EIR process: Agricultural Resources, Geology and Soils, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Hydrology and Water Quality, Paleontological Resources, Public Services, Transportation and Traffic, and Utilities and Service Systems. For all of the environmental issues discussed below, the action to approve the Proposed Project would not be significant.

The Proposed Project consists of four renewable energy solar farms in southeastern San Diego County. The following impact analysis has been separated into discussions for each of the four solar farms: Tierra del Sol, Rugged, LanEast, and LanWest, as well as a combined discussion of the Proposed Project as a whole. For the purposes of this Program EIR, the Tierra del Sol and Rugged solar farms are analyzed at a project level, whereas the LanEast and LanWest solar farms are analyzed at a programmatic level as sufficient project-level data has not been developed at this time.

3.1.1 Agriculture and Forestry Resources

This section discusses potential impacts to agricultural resources resulting from the implementation of the Proposed Project. The analysis is based on the review of existing resources, technical data, and applicable laws, regulations, and guidelines, as well as the following technical reports prepared for the Proposed Project:

- *Soitec Solar Development Project LARA Model Results Report* (Appendix 3.1.1-1)
- *Agricultural Preserve Disestablishment Report, Tierra del Sol Solar Farm Project* (Appendix 3.1.1-2).

3.1.1.1 Existing Conditions

This section provides a regional overview of agricultural resources present in San Diego County and summarizes indicators used to assess soil quality, including land capability classifications,

storie index ratings, and farmland mapping and monitoring designations. This section also discusses the agricultural setting and land use designations for each project site.

This section presents agricultural data and analysis, which is based on the information provided in the open space and land use elements of the San Diego County General Plan; the County *Guidelines for Determining Significance and Report Format and Content Requirements: Agricultural Resources* (County of San Diego 2007); the County of San Diego Department of Agriculture, Weights, and Measures (AWM) *2010 Crop Statistics and Annual Report* (County of San Diego 2010a); and the *Mountain Empire Subregional Plan* (County of San Diego 2011a).

3.1.1.1.1 Regional Overview

Agriculture in the County provides an array of economic, environmental, and social benefits that contribute to the quality of life in the region. The County has a subtropical climate that optimizes the production of a variety of crops that would be more difficult to produce elsewhere. The County's unique topography creates a wide fluctuation of microclimates resulting in nearly 30 different types of vegetation communities. The County's climate and vegetation communities support a year-round growing season that facilitates small farms and crop diversification, producing over 200 agricultural commodities—from strawberries along the coast, apples in the mountain areas, to palm trees in the desert. The success of the County's diverse agricultural industry is reflected in 45 commercial crops, each holding a value of over $1 million (County of San Diego 2010a).

Agricultural Land Use

Approximately 302,713 acres are devoted to agricultural production in San Diego County, with a total production value of $1.7 billion. The greatest percentage of agricultural land is devoted to field crops (82% of total acreage); however, the crop of greatest value is nursery and cut flower products (67% of total value) (County of San Diego 2010a). Within the Mountain Empire Subregion of San Diego County, approximately 9,865 acres are actively used for agricultural purposes. While the area is essentially rural in character, the topography, lack of water, and poor soil quality offer little opportunity for instituting any large-scale agricultural operations. Small-scale operations are scattered throughout the subregion, typically dry land farming or grazing. Crops include melons, oats, and squash.

Williamson Act Contract Lands and Agricultural Preserve Lands

The purpose of the Williamson Act contract is to preserve agricultural and open space lands by discouraging premature and unnecessary conversion to urban uses. In the unincorporated County, approximately 80,504 acres of private, federal, and state lands are under Williamson Act contract. During the past 25 years, very few property owners have requested to enter into a

Williamson Act contract within the County. According to the County Assessor's Office, only two contracts were executed in the County between 1980 and 2005, and 40 parcels currently under a Williamson Act contract are in the process of nonrenewal, as defined by the Williamson Act (County of San Diego 2011a).

The adoption of the Williamson Act authorized the County of San Diego to establish Agricultural Preserves and enter into contracts with property owners. An Agricultural Preserve is an area devoted to either agricultural use, open space use, recreational use, or any combination of such uses, and compatible uses which are designated by the County. Preserves are established by the Board of Supervisors for the purpose of defining the boundaries of those areas within which the County is willing to enter into contracts pursuant to the Act. The minimum parcel size to qualify for an Agricultural Preserve is 10 acres for groves or croplands, 80 acres for grazing land, and 40 acres for mixed land uses. Lands within Agricultural Preserves are also rezoned to contain an "A" Special Area Designation to denote the presence of adopted Agricultural Preserve (County of San Diego 2010b). There are currently 55,578 acres of Agricultural Preserves in the Mountain Empire Subregion (County of San Diego 2011a).

Water Resources

Water quality, cost, and availability are key components of a productive agricultural industry. Locally derived water resources in San Diego County are limited. Rainfall is highly variable throughout the County, with coastal areas averaging approximately 10 inches per year, desert locations averaging from 3 to 12 inches per year, and the Laguna Mountains averaging 27 to 30 inches per year. The highest rainfall occurs in the Palomar and Cuyamaca mountains where 33 to 35 inches fall on average per year. Except for extensive dryland farmed field crops, agriculture must be supplemented with imported water or groundwater resources for optimum production. The availability, cost, and quality of water resources are limiting factors for agricultural production in San Diego County.

Water Quality

Salinity or Total Dissolved Solids (TDS) is the concentration of mineral salts dissolved in water. A high concentration of sodium reduces soil moisture penetration, high concentrations of TDS can reduce crop yields, and a high concentration of chloride is toxic to plants. Salinity or TDS occurring at levels above 500 milligrams per liter (mg/L) is problematic to many of the subtropical crops grown in the San Diego region as they do not produce well, and irrigation management is more difficult when irrigated with high TDS water. In other words, as TDS levels rise above 500 mg/L, the water has diminishing value for agricultural use as it can restrict the range of crops that can be irrigated with the water source and increases cost of irrigation maintenance.

Groundwater Resources

The high cost of imported water makes the availability of on-site groundwater resources an important resource for agricultural producers.[1] When compared to the cost of imported water, groundwater is relatively inexpensive. The greatest cost associated with groundwater use is the initial capital investment required to drill, obtain County Major Use Permit for authorized extraction limits, and to install wells. Ongoing costs of groundwater after infrastructure has been installed are relatively low and are based on the costs of energy to pump the water and periodic maintenance. Groundwater quality is also important. A well with high TDS or other specific constituents such as chloride can be problematic for crop production; however, depending on water quality, such impaired water may be utilized for livestock grazing.

In the County there are three primary types of groundwater aquifers: fractured crystalline rock, alluvial and sedimentary aquifers, and desert basins. Fractured rock underlies approximately 73% of the unincorporated area of the County, mostly in mountainous areas. The characteristics of fractured rock aquifers vary significantly. Wells drilled only a few tens of feet from one another may have significantly different water production rates because water-producing fracture locations and orientations are difficult to identify and predict. Fractured rock aquifers typically have much less storage capacity than alluvial and sedimentary aquifers. As a result, pumping from wells in fractured rock typically produces a greater decline in water levels than a similar pumping rate for wells located in alluvial and sedimentary aquifers. Wells in a fractured rock aquifer typically yield relatively low volumes of water and have a low rate of production when compared to other aquifer types. Many fractured rock wells have been drilled in the County to depths of over 1,000 feet.

Alluvial and sedimentary aquifers underlie approximately 13% of the unincorporated area of the County and have significant storage capacity. These aquifers are typically found in river and stream valleys, around lagoons, near the coastline, and in the intermountain valleys and are composed of either consolidated or unconsolidated gravel, sand, silt, and clay. Most of these aquifers have high water-storage capacity although some have relatively thin saturated thickness and therefore limited storage. Alluvial and sedimentary aquifers can be underlain by fractured rock aquifers, which could potentially provide additional storage.

Desert basins are characterized by extremely limited recharge, but typically have large storage capacities. Desert basin wells typically yield relatively high volumes of water due to the coarse-grained nature of the alluvial sediments. Because desert basin wells may be capable of yielding in excess of 1,000 gallons per minute (gpm), and recharge rates can be extremely low, it is easy

[1] Some groundwater resources are pumped by water agencies and delivered to consumers on a fee basis. The discussion of groundwater resources in this section refers to groundwater resources derived from the site where an agricultural commodity is produced, not groundwater resources pumped by a water agency and delivered to a site.

to pump more water from the basin than is naturally recharged. Excessive pumping that exceeds the rate of recharge results in a groundwater overdraft situation, which is not sustainable for long-term groundwater use.

Climate

Climate varies widely throughout the County, from the coastal regions where some weather stations have never recorded freezing temperatures to the inland valleys that are often moderated by the maritime influence, but also are subject to the continental influence which can bring greater temperature extremes and freezing temperatures. Local mountainous areas, such as the community of Julian, receive adequate winter chill to support tree crops that require seasonal cold temperatures for optimal production. Further east, the desert subtropical climate supports successful citrus and nursery operations.

A 1970 University of California Cooperative Extension (UCCE) book entitled, *Climates of San Diego County: Agricultural Relationships* identified five area climates: maritime, coastal, transitional, interior, and desert. Within each area climate, similar climatic conditions are found, affecting suitability for crop production. The UCCE book also identified more detailed plant climates, defined as a "climate in which specific plants, groups, or associations are evident and will grow satisfactorily, assuming water and soil are favorable" (Close et al. 1970). Adapted from the plant climates outlined in the UCCE Study, Generalized Western Plant Climate Zones, or "Sunset Zones," were developed to further differentiate the effect that latitude, elevation, ocean versus continental air mass influence, and local terrain topology have on microclimates, freezing, and air and water drainage.

Soil Quality

Soils in the San Diego region are generally considered poor, with only 6% of the region's soils considered prime agricultural soils. Soil quality measures typically rate local soils as poor because of the County's generally steep terrain and erodible soils. Descriptions of various measures of soil quality are presented below.

Land Capability Classification

Land Capability Classification (LCC) classifies soils according to their limitations when cultivated and according to the way that they respond to management practices. Class I soils have no significant limitation for raising crops. Class II soils have moderate limitations that reduce the choice of plants or require moderate conservation practices. Class III soils have severe limitations that reduce the choice of plants or require special conservation practices, or both. Classes VI through VIII have severe limitations, limiting or precluding their use for agriculture. Capability subclasses are also assigned by adding a small letter to the class designation.

Capability subclasses include the letters e, w, s, or c. The letter e indicates that the main limitation is risk of erosion. The letter w indicates that water in or on the soil interferes with plant growth or cultivation. The letter s indicates that the soil is limited mainly because it is shallow, droughty, or stony. Finally, the letter c is used only in some parts of the United States where cold or dry climates are a concern. Groupings are made according to the limitation of the soils when used to grow crops and the risk of damage to soils when they are used in agriculture. Productive agriculture in San Diego County typically occurs on soils having LCC ratings of III and IV, and a significant number of local soils have the class designations e and s indicating limitations related to erosion and shallow soils.

Storie Index

Storie index (SI), another traditional measure of soil quality, uses a 100-point scale to numerically express the relative degree of suitability or value of a soil for general intensive agriculture. Higher SI ratings indicate higher quality soils. The SI rating is based on several factors including profile characteristics (affecting root penetration), surface soil texture (affecting ease of tillage and capacity of soil to hold water), slope (affecting soil erosion), and other unique limiting factors of the soil such as poor drainage, high water table, salinity, and acidity. Productive agriculture in San Diego County typically occurs on soils with low SI ratings (typically in the 30-point range).

Prime Agricultural Soils

As discussed earlier, only 6% of the San Diego region's soils meet the soil quality criteria defined by the Williamson Act definition of prime agricultural soils. This definition includes all soils that qualify for rating as Class I or Class II in the U.S. Department of Agriculture Natural Resource Conservation Service (NRCS) LCC ratings and land which qualifies for rating 80 through 100 in the SI, among other non-soil related criteria. In San Diego County, prime agricultural soils are sparsely scattered throughout the region and are often constrained by protected biological resources such as wetlands, which restricts their use. Because San Diego County has generally steep terrain and erodible soils, the soil quality measures of LCC and SI rate local soils as poor due to the importance of slope and erodibility in the formulas that determine these soil ratings.

Prime Farmland and Farmland of Statewide Importance

The Farmland Mapping and Monitoring Program (FMMP) produces Important Farmland maps, which identify the suitability of agricultural lands in the State of California on a county-by-county basis. The classification of important farmlands is based on both land use and soil. In order for land to be shown as Prime Farmland or Farmland of Statewide Importance, land must

have been used for irrigated agricultural production at some point within 4 years of the Important Farmland map publishing date and must contain soils that meet the physical and chemical requirements for classification as Prime Farmland/Farmland of Statewide Importance, as determined by NRCS. The NRCS evaluates soil based on a variety of criteria, including available water capacity, soil temperature, acid-alkali balance, soil sodium content, and permeability rate (DOC 2009). The FMMP maps approximately 47.9 million acres of land in 49 counties in the State of California. FMMP maps are updated and released every 2 years. The Important Farmland Map categories and the acreage of the FMMP categories present in the County are described below.

Prime Farmland has the most favorable combination of physical and chemical features, enabling it to sustain long-term production of agricultural crops. This land possesses the soil quality, growing season, and moisture supply needed to produce sustained high yields. In order to qualify for this classification, the land must have produced irrigated crops at some point during the two update cycles prior to NRCS mapping. The County contains 8,251 acres designated Prime Farmland, or about 0.30% of the total County acreage.

Farmland of Statewide Importance is similar to Prime Farmland, but it possesses minor shortcomings, such as greater slopes and/or less ability to store moisture. In order to qualify for this classification, the land must have produced irrigated crops at some point during the two update cycles prior to NRCS mapping. The County contains approximately 10,959 acres of designated Farmland of Statewide Importance (0.40% of the total County acreage).

Unique Farmland is of lesser quality soils and is used for the production of the state's leading agricultural crops. Unique Farmland does not meet the above-stated criteria for Prime Farmland or Farmland of Statewide Importance, but it consists of areas that have been used for the production of specific crops with high economic value during the two update cycles prior to the mapping date. It has the special combination of soil quality, location, growing season, and moisture supply needed to produce sustained high-quality crop and/or high yields of a specific crop when treated and managed according to current farming methods. This land is usually irrigated, but it may include nonirrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped sometime during the 4 years prior to the mapping date. The County contains approximately 53,250 acres designated as Unique Farmland (1.96% of the total County acreage).

Farmland of Local Importance is important to the local agricultural economy, as determined by the County of San Diego Board of Supervisors and a local advisory committee. The County defines Farmland of Local Importance as land with the same characteristics as Prime Farmland or Farmland of Statewide Importance with the exception of irrigation. Approximately 134,892

acres of the County area is designated Farmland of Local Importance (about 4.97% of the total County acreage).

Grazing Land is land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, UCCE, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres. Approximately 106,680 acres of the County is designated Grazing Land (about 3.93% of the total County acreage).

Urban and Built-Up Land consists of land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes. Currently, there are 345,316 acres of Urban and Built-Up Land in the County (about 12.73% of the total County acreage).

Other Land consists of land not included in any other mapping category. Common examples include 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 water bodies smaller than 40 acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is mapped as Other Land. There is approximately 1,507,345 acres of land designated as Other Land in the County (about 55.57% of the total County acreage).

Forestry Resources

The Proposed Project area is located generally within the Peninsular Ranges in a transitional area between the coast and desert. The topography is characterized by gently sloping hills, valleys, and scattered rock outcrops. Vegetation communities in the Proposed Project area primarily consist of upland scrub and chaparral communities. Forest land and timberland do not exist on or in the vicinity of the project sites and there are no forestry resources or timberland production uses on the Proposed Project site. Therefore, the Proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use because it would not be located on forest land and would not affect forest resources; this issue is not discussed further in this section.

3.1.1.1.2 Tierra del Sol

The Tierra del Sol site is located approximately 3.5 miles south of Interstate 8 (I-8) immediately adjacent to the U.S.–Mexico border. Agricultural operations have been occurring on the site since as early as 1923. The northern portion of the site was used as a cattle ranch from 1923 until 1978 (parcel 658-090-310 only) and again between 1995 and 2010 (on parcels 658-090-310, 658-090-550, and 658-120-030). The southeastern portions of the site, including parcels 658-090-540 and 658-120-020, were used for gardening, orchards, and cattle ranching between 1930 and 1956. Currently, the Tierra del Sol site is vacant with no grazing activities occurring on site.

The Tierra del Sol solar farm site has a General Plan land use designation of RL-80 (Rural Lands–1 dwelling unit/80 acres). Approximately 164 acres of the site is zoned A70, Limited Agriculture (APN 658-090-31-00); the remainder of the site (256 acres) is zoned S92, General Rural (APNs 658-090-55-00, 658-090-54-00, 658-120-03-00, 658-120-02-00, and 658-120-04-00) (Figure 3.1.1-1). The area zoned A70 is generally the portion of the project site occurring north of the on-site alignment of the Southwest Powerlink (SWPL) (Figure 3.1.1-1). Properties located immediately to the east of the site are zoned A70 as well. The proposed dual circuit 138-kilovolt (kV) gen-tie transmission line (gen-tie alignment site) would connect the solar farm site to the existing Rebuilt Boulevard Substation and would pass through areas of undeveloped land as well as rural residential properties that are designated RL-80 and zoned S92. The parcel 658-090-310 on the solar farm site that is zoned A70 is also located within and adjacent to County Agricultural Preserve 77-46 (AP 77-46) (Figure 3.1.1-2). This parcel is also subject to a Special Area Designator "A" (Designator) pursuant to Zoning Ordinance Section 5100, which requires findings of compatibility be made by the County (see discussion below under San Diego County Zoning Ordinance). There are no Williamson Act contracts recorded on the Tierra del Sol solar farm site or gen-tie alignment route.

Due to a lack of water resources and absence of agricultural uses, the Tierra del Sol solar farm site and lands along the gen-tie alignment route are designated as "Other Land" by the FMMP (Figure 3.1.1-3). The southern end of the gen-tie alignment route, which would be underground at this point, passes immediately adjacent to a parcel designated as "Farmland of Local Importance"; according to the FMMP definition, this parcel would have the same characteristics as Prime Farmland or Farmland of Statewide Importance with the exception of irrigation (DOC 2009).

Local Agricultural Resource Assessment (LARA) Model Factors

The County of San Diego approved the use of the Local Agricultural Resource Assessment (LARA) model to assess the relative value of agricultural resources in San Diego County. The

following factors were considered in the LARA model: water resources, climate, and soil quality, and are discussed in more detail below.

Water Resources

The Tierra del Sol solar farm site is outside of the County Water Authority (CWA) service area and relies on groundwater for water supply. The solar farm and gen-tie alignment sites are underlain by a fractured crystalline rock aquifer, which typically has less storage capacity than alluvial and sedimentary aquifers. Five inactive water wells and one hand-dug well are located on the solar farm site. Two additional exploratory wells were drilled to depths of 1,000 feet and 1,310 feet to characterize the lithology and determine suitability for groundwater production. Depth to water ranges from 8.83 feet below ground surface (bgs) to 93 feet bgs. Refer to Section 3.1.5 of this Program EIR for further information regarding groundwater usage for the Proposed Project.

Climate

The Tierra del Sol site is located within the Sunset Zone 13. This zone is in the Desert Area climate, which begins at the line of high peaks in the Peninsular Ranges and extends into the rain shadow created by the Peninsular Ranges. The Desert Area climate is dominated to a greater extent by continental air masses than the Interior Area climate; has high daytime summer temperatures with very low humidity; drying and occasional extreme winds; and slight, variable rainfall generally under 5 inches per year and often very unevenly distributed. Zone 13 covers low elevation desert areas (considered subtropical) and is the most extensive of the Plant Climate Zones in the County. These areas have mean daily maximum temperatures in the hottest month of 106° to 108° Fahrenheit (°F). Winters are short with frosts to be expected from December 1 to February 15. The average low temperature is 37°F.

Soil Quality

Soil types on the Tierra del Sol solar farm site include 396 acres of Kitchen Creek loamy coarse sand (5% to 9% slopes), 3 acres of La Posta rocky loamy coarse sand (5% to 30% slopes), and 20 acres of Mottsville loamy coarse sand (2% to 9% slopes). Approximately 95% of the project site is available for agricultural use (not classified as disturbed land or open water) with almost all of it (Kitchen Creek and Mottsville soil types) meeting the criteria for Farmland of Statewide Importance.

3.1.1.1.3 Rugged

The Rugged site is located approximately 0.5 mile north of I-8 and is bordered by sparsely developed private lands to the west, south, and north which are predominantly used for grazing

and scattered rural residential development (the Rough Acres Ranch property extends north of the Rugged site). Public lands managed by the Bureau of Land Management (BLM) are also located to north and to the east (east of the portion of the Rugged site located east of McCain Valley Road). Portions of the Rugged site have historically been used for agricultural grazing and is currently used by cattle and horses as grazing land.

The Rugged site is comprised of nine parcels designated RL-80 (Rural Lands–1 dwelling unit/80 acres) and zoned S92 (General Rural) and A72 (General Agriculture) by the County of San Diego (Figure 3.1.1-4). Portions of the project site zoned A72 (APN 611-110-01-00) and S92 (APN 611 060- 04-00) are adjacent to a County Agricultural Preserve. There are no Williamson Act contracts recorded on the Rugged site (Figure 3.1.1-5).

All parcels in the Rugged site are designated Other Lands by the FMMP (Figure 3.1.1-6).

LARA Model Factors

The Rugged solar farm site is outside of the CWA service area and relies on groundwater for water supply. The solar farm site is underlain by a fractured crystalline rock aquifer. The site is located within Sunset Zone 13, Desert Area climate. There are nine soil types on site: Acid igneous rock land (5.4 acres); Calpine coarse sandy loam, 2% to 5% slopes (11.5 acres); Calpine coarse sandy loam, 5% to 9% slopes (2.7 acres); Kitchen Creek loamy coarse sand, 5% to 9% slopes (15.3 acres); La Posta loamy coarse sand, 5% to 30% slopes, eroded (0.6 acre); La Posta rocky loamy coarse sand, 5% to 30% slopes, eroded (516 acres); Loamy alluvial land (102.7 acres); Mottsville loamy coarse sand, 2% to 9%slopes (95 acres); and Tollhouse rocky coarse sandy loam, 5% to 30% slopes, eroded (14.7 acres). About 40% (the Calpine Kitchen Creek, Loamy alluvial land, and Mottsville) are soil types that are candidates for Prime Farmland or Farmland of Statewide Significance.

3.1.1.1.4 LanEast

The LanEast site is located just east of the community of Boulevard and is bordered by sparsely developed rural residential areas to the west, south, and east. The site is bordered by I-8 to the north and Old Highway 80 to the south. The LanEast property has historically been used for cattle grazing and is currently used by cattle and horses as grazing land.

The LanEast site is designated RL-80 (Rural Lands–1 dwelling unit/80 acres) and zoned S92 (General Rural) by the County of San Diego (Figure 3.1.1-7). There are no County Agricultural Preserves or Williamson Act contracts recorded on the LanEast site (Figure 3.1.1-8).

The LanEast site is designated Other Lands by the FMMP (Figure 3.1.1-9).

LARA Model Factors

The LanEast solar farm site is outside of the CWA service area and relies on groundwater for water supply. The solar farm site is underlain by a fractured crystalline rock aquifer, which typically has less storage capacity than alluvial and sedimentary aquifers. The site is located within Sunset Zone 13, Desert Area climate. There are four soil types on site: La Posta rocky loamy coarse sand, 5% to 30% slopes, eroded (50 acres); Loamy alluvial land (85.7 acres); Mottsville loamy coarse sand, 2% to 9% slopes (71.9 acres); Mottsville loamy coarse sand, 9% to 15% slopes (2.2 acres); and Tollhouse rocky coarse sandy loam, 5% to 30% slopes, eroded (23.2 acres). The Loamy alluvial land and Mottsville soil types are candidates for Prime Farmland or Farmland of Statewide Significance.

3.1.1.1.5 LanWest

The LanWest site is located just east of the community of Boulevard and is bordered by sparsely developed rural residential areas to the west, south, and east. The LanWest site is bordered by I-8 to the north and Old Highway 80 to the south. The LanWest property has historically been used by cattle and horses as grazing land and currently retains this use.

The LanWest site consists of portions of two parcels designated RL-80 (Rural Lands–1 dwelling unit/80 acres) and zoned S92 (General Rural) by the County of San Diego (Figure 3.1.1-7). There are no County Agricultural Preserves or Williamson Act contracts recorded on the LanWest site (Figure 3.1.1-8).

The LanWest site is designated Other Lands by the FMMP (Figure 3.1.1-9).

LARA Model Factors

The LanWest solar farm site is outside of the CWA service area and relies on groundwater for water supply. The solar farm site is underlain by a fractured crystalline rock aquifer, which typically has less storage capacity than alluvial and sedimentary aquifers. The site is located within Sunset Zone 13, Desert Area climate. There are three soil types on site: La Posta rocky loamy coarse sand, 5% to 30% slopes, eroded (27.4 acres); Mottsville loamy coarse sand, 2% to 9% slopes (26.7 acres); and Tollhouse rocky coarse sandy loam, 5% to 30% slopes, eroded (0.5 acres). The Mottsville soil type is a candidate for Farmland of Statewide Significance.

3.1.1.2 Regulatory Setting

Federal Laws and Regulations

Farmland Protection Policy Act (Public Law 97-98, 7 U.S.C. Section 4201)

The Farmland Protection Policy Act (FPPA) is intended to minimize the impact federal programs have on the unnecessary and irreversible conversion of farmland to nonagricultural uses. It assures that—to the extent possible—federal programs are administered to be compatible with state and local units of government and private programs and policies to protect farmland. Federal agencies are required to develop and review their policies and procedures to implement the FPPA every 2 years.

The FPPA does not authorize the federal government to regulate the use of private or nonfederal land or, in any way, affect the property rights of owners. For the purpose of FPPA, farmland includes Prime Farmland, Unique Farmland, and Land of Statewide or Local Importance. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forest land, pastureland, cropland, or other land, but not water or urban built-up land.

Projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a federal agency or with assistance from a federal agency (NRCS 2008).

State Laws and Regulations

Farmland Mapping and Monitoring Program

The FMMP, established in 1982, produces maps and statistical data used for analyzing impacts to California's agricultural resources. Agricultural land is rated according to the soil quality and irrigation status, with the best quality land called Prime Farmland. Maps are updated every 2 years, with current land use information gathered from aerial photographs, a computer mapping system, public review, and field reconnaissance.

California Land Conservation Act (Williamson Act)

Formally known as the California Land Conservation Act of 1965, the Williamson Act permits local governments to restrict specific parcels of land to agricultural or related open space use by entering into voluntary contracts with private landowners. Upon entering into the contract, landowners are afforded lower-than-normal property tax assessments because the assessment is based on farming and open space uses as opposed to full market value. Williamson Act contracts are regulated by 10-year terms (DOC 2009).

Counties and cities are also afforded the opportunity to establish Agricultural Preserves. Only land located in an Agricultural Preserve is eligible to enter into a Williamson Act contract. According to the DOC, an Agricultural Preserve must be no smaller than 100 acres, although smaller parcels of land may be combined to meet the minimum acreage requirement, provided the combined parcels are contiguous (DOC 2009).

California Public Resources Code

Section 4526 of the California Public Resources Code (PRC) defines timberland as land (other than land owned by the federal government and land designated by the board as experimental forest land) that is available for, and capable of, growing a crop of trees of any commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis after consultation with the district committees and others.

According to Section 12220 (g) of the PRC, forest land refers to "land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits."

The County does not include lands zoned specifically for forest land. The Cleveland National Forest (CNF) covers a large part of the unincorporated County, including areas in Alpine, Central Mountain, Jamul–Dulzura, Julian, Mountain Empire, North Mountain, and Pendleton–De Luz. However, the CNF is primarily under the land use jurisdiction of the U.S. Forest Service, not the County.

California Government Code

Government Code Section 51104 (g) defines a timberland production zone as an area that has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses.

The County Zoning Ordinance does not identify timberland production zones within the unincorporated portion of the County.

California Civil Code Section 3482.5 (The Right to Farm Act)

The Right to Farm Act is designed to protect commercial agricultural operations from nuisance complaints that may arise when an agricultural operation is conducting business in a "manner consistent with proper and accepted customs." The code specifies that established operations that

have been in business for 3 or more years that were not nuisances at the time they began shall not be considered a nuisance as a result of a new land use that is developed nearby.

Local Plans, Policies, and Regulations

San Diego County General Plan

Updated (and adopted) in August 2011, the San Diego County General Plan guides future growth in the unincorporated areas of the County and considers projected growth anticipated to occur within various communities. The County's General Plan allows agricultural operations to occur under all land use designations. Most agricultural lands fall within the Rural and Semi-Rural land use designation. The General Plan identifies two agricultural land use designations: (20) General Agriculture and (19) Intensive Agriculture. The General Plan, in particular the Land Use Element, contains policies which address and direct land development in the County. Policies relevant to agriculture and forestry resources are listed below.

Land Use Element

- **Policy LU-5.3: Rural Land Preservation.** Ensure the preservation of existing open space and rural areas (e.g., forested areas, agricultural lands, wildlife habitat and corridors, wetlands, watersheds, and groundwater recharge areas) when permitting development under the Rural and Semi-Rural Land Use Designations.
- **Policy LU-7.1: Agricultural Land Development**. Protect agricultural lands with lower-density land use designations that support continued agricultural operations.

Conservation and Open Space Element

- **Policy COS-6.2 Protection of Agricultural Operations.** Protect existing agricultural operations from encroachment of incompatible land uses by doing the following:
    - Limiting the ability of new development to take actions to limit existing agricultural uses by informing and educating new projects as to the potential impacts from agricultural operations
    - Encouraging new or expanded agricultural land uses to provide a buffer of non-intensive agriculture or other appropriate uses (e.g., landscape screening) between intensive uses and adjacent non-agricultural land uses
    - Allowing for agricultural uses in agricultural areas and designing development and lots in a manner that facilitates continued agricultural use within the development
    - Requiring development to minimize potential conflicts with adjacent agricultural operations through the incorporation of adequate buffers, setbacks, and project design measures to protect surrounding agriculture

- Supporting local and state right-to-farm regulations
- Retain or facilitate large and contiguous agricultural operations by consolidation of development during the subdivision process.

County of San Diego Zoning Ordinance

The Zoning Ordinance regulates land uses in the unincorporated portions of the County of San Diego and specifies permitted uses on established land use zones. The County Zoning Ordinance includes two specific agricultural use regulations: A70 Limited Agriculture and A72 General Agriculture. Both the A70 and A72 use regulations are intended for crop or animal agriculture. The number of animals allowed is specified by neighborhood regulations.

Agricultural Preserve Area Regulations (Section 5100 through 5149)

This section of the County's zoning ordinance is meant to aid in the implementation of the Williamson Act, described above, which intends to encourage the preservation of productive agricultural lands. Landowners within an adopted preserve area may enter into a contract with the County to restrict their land to the uses stated above whereby the tax assessment on their land will be based on its restricted use rather than on its market value. The minimum parcel size to qualify for an Agricultural Preserve is 10 acres for groves or croplands, 80 acres for grazing land, and 40 acres for mixed land uses. Only land located within an Agricultural Preserve is eligible for a Williamson Act contract. For lands under a Williamson Act contract, no use permit shall be granted unless the use is found to comply with all provisions of the Williamson Act and the proposed use would not be incompatible with the continued agricultural use of the land within the Agricultural Preserve. The determination of compatibility shall include a consideration of the following:

- Possible increase in vandalism
- Possible damage from pets
- Possibility that use will lead to restrictions on agricultural spraying, noise or smell
- Possible interference with the movement of farm machinery or agricultural products.

County of San Diego Board of Supervisors Policy I-38, Agricultural Preserves

The County Board of Supervisors Policy I-38 sets forth policies for the implementation of the Williamson Act. In 1965, the California Legislature added to the Government Code Sections 51200 et. seq., which authorized the County to establish Agricultural Preserves. Board Policy I-38 identifies criteria for the establishment, modification, and disestablishment of an Agricultural Preserve, including processing requirements, application fees, and hearing requirements. The policy also establishes minimum sizes that landowners must meet to be eligible for a contract,

requires the application of zoning regulations, establishes eligibility criteria for filing an application for an Agricultural Preserve and contract with the County, and establishes criteria to cancel a contract including cancellation by eminent domain.

LARA Model

San Diego County Departments of Planning & Development Services and Public Works approved the use of the LARA Model to determine the importance of agricultural resources, rather than the California Land Evaluation Site Assessment Model, because the LARA Model accounts for the large number of farms in the County that are less than 10 acres in size and takes into account the County's unique soil conditions. The LARA Model considers soils, climate, and water as primary model factors while also considering the presence of Williamson Act contracts, other preserved lands, and existing land uses in the surrounding area.

Mountain Empire Subregional Plan

The *Mountain Empire Subregional Plan* (a supplement to the County General Plan) establishes goals and policies to guide development within the areas of Tecate, Potrero, Boulevard, Campo/Lake Morena, Jacumba, and the Mountain Empire Balance (including the community of Tierra del Sol) which together comprise the Mountain Empire Subregion of southeastern San Diego County. The goals and policies of the Subregional Plan are intended to be more specific than those of the County General Plan as they consider the distinct history, character, and identity of Mountain Empire communities.

The following policy in the Mountain Empire Subregional Plan relates specifically to agricultural and forestry resources.

- **Agricultural Goal.** Encourage the expansion and continuance of agricultural uses in the subregion.

Boulevard Subregional Plan

There are no policies relevant to agricultural or forestry resources in the plan.

3.1.1.3 Analysis of Project Effects and Determination as to Significance

The Proposed Project consists of four renewable energy solar farms in southeastern San Diego County. The following impact analysis has been separated into discussions for each of the four projects: Tierra del Sol, Rugged, LanEast, and LanWest solar farms, as well as a combined discussion of the Proposed Project as a whole. For the purposes of this Program EIR, the Tierra del Sol and Rugged solar farms will be analyzed at a project-level, whereas the LanEast and LanWest solar farms will be analyzed at a programmatic level as sufficient project-level data has

not been developed at this time. The Tierra del Sol site consists of two components: the solar farm site and the gen-tie alignment route, both of which are analyzed below.

The analysis includes a review of aerial photographs and relevant maps, including the California Department of Conservation (DOC) FMMP map (DOC 2008), the Williamson Act map for San Diego County, and San Diego County Land Use Designation and Zoning maps.

The evaluation of agricultural resources was conducted using the County's LARA Model; the model is focused on the underlying physical resources present on the Proposed Project site and not on the economic loss of a particular agricultural commodity that may have been grown there. This is based on the requirements under CEQA to evaluate the changes to the physical environment that would occur as a result of the conversion of agriculture to a nonagricultural use and not to consider economic changes as significant effects on the environment. The quality of the site's soil in combination with water availability and climate defines the quality of the physical agricultural resource that CEQA requires lead agencies to evaluate.

The LARA Model focuses on evaluating the quality of a site's physical agricultural resources. This approach recognizes the fact that the agricultural industry will change in response to markets and economic conditions over time, but that impacts to agricultural lands with inherent physical value must be analyzed pursuant to CEQA. Ultimately, if a site is determined to be important pursuant to the LARA Model, quality soil is the primary resource that should be preserved to avoid significant impacts to the agricultural resource.

To apply the LARA Model, the factors are each rated and then the results are interpreted using Table 3.1.1-1, Interpretation of LARA Model Results.

3.1.1.3.1 Impacts to Important On-Site Agricultural Resources

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's *Guidelines for Determining Significance: Agricultural Resources* (2007) applies to both the direct impact analysis and the cumulative impact analysis.

A significant impact to important on-site agricultural resources would result if:

- The project site has important agricultural resources as defined by the LARA Model; and the project would result in the conversion of agricultural resources that meet the soil quality criteria for Prime Farmland or Farmland of Statewide Importance, as defined by the FMMP; and as a result, the project would substantially impair the ongoing viability of the site for agricultural use.

Analysis

Tierra del Sol

The Tierra del Sol solar farm would result in conversion of the entire site to a solar farm. The Tierra del Sol solar farm site was last used for gardening and orchards in 1956, and more recently has been used for cattle grazing. Since 2010, the Tierra del Sol site has been vacant with no grazing activities occurring on site. The County LARA Model was utilized to determine the significance of agricultural resources on the solar farm site. The three required factors—water, climate, and soil quality—were assessed. Because the site is located outside of the CWA and within a fractured crystalline aquifer, the site received a "low" importance Water Availability rating. Due to the temperature extremes characteristic of the Sunset Zone 13, Desert Area climate, the solar farm site received a "moderate" importance Climate Zone rating. Because approximately 94% of the site consists of soil types which are candidates for designation as Farmland of Statewide Significance and which are available for agricultural production, the Tierra del Sol site received a "high" importance Soil Quality rating. Because at least one of the required factors (Water Availability) is rated as "low" importance, the project site falls within Scenario 5 as shown on Table 3.1.1-1 and is not considered an important County agricultural resource; refer to Appendix 3.1.1-1 for further details. The complementary factors are not applicable for this scenario, and thus, were not analyzed.

Implementation of the Tierra del Sol solar farm would not convert an important County agricultural resource to a nonagricultural use; therefore, impacts would be **less than significant.**

Gen-Tie Route

As described above, the gen-tie alignment route traverses both undeveloped land and rural residential properties. The County LARA Model was utilized to determine the significance of agricultural resources along the gen-tie route. The three required factors—water, climate, and soil quality—were assessed. Because the site is located outside of the CWA and within a fractured crystalline aquifer, the site received a "low" importance Water Availability rating. Due to the temperature extremes characteristic of the Sunset Zone 13, Desert Areaclimate, the gen-tie alignment route received a "moderate" importance Climate Zone rating. The Tierra del Sol gen-tie alignment route received a "moderate" importance Soil Quality rating. Because at least one of the required factors (Water Availability) is rated as "low" importance, the gen-tie alignment route falls within Scenario 5 as shown on Table 3.1.1-1 and is not considered an important County agricultural resource; refer to Appendix 3.1.1-1 for further details. Therefore, implementation of the Tierra del Sol gen-tie alignment would not convert an important County agricultural resource to a nonagricultural use; therefore, impacts would be **less than significant.**

Rugged

The Rugged solar farm would result in the conversion of approximately 460 acres (approximately 60% of the site) of undeveloped land currently used for cattle grazing to an 80-megawatt (MW) solar farm. Grazing lands occupy the greatest acreage of all agricultural land in the County, but represent a category of low value agricultural land use (County of San Diego 2011b). The County LARA Model was utilized to determine the significance of agricultural resources on the site. The three required factors—water, climate, and soil quality—were assessed. The Rugged solar farm site received a "low" Soil Quality Matrix score; however, because the site has more than 10 acres of contiguous Prime Farmland and Statewide Importance soils (including a 44.5 acres contiguous area of Loamy alluvial land), the site received a "moderate" importance Soil Quality rating. Because the site is located outside of the CWA, as with the Tierra del Sol site, and within a fractured crystalline aquifer, indicating limited water availability, the Rugged site received a "low" importance Water Availability rating. Due to the temperature extremes characteristic of the Sunset Zone 13, Desert Area climate, the project site received a "moderate" importance Climate Zone rating. Because at least one of the required factors (Water Availability) is rated as "low" importance, the project site falls within Scenario 5 as shown on Table 3.1.1-1, and the Rugged solar farm site would not be considered an important County agricultural resource; refer to Appendix 3.1.1-1 for further details.

Implementation of the Rugged solar farm would not convert an important County agricultural resource to a nonagricultural use; therefore, impacts would be **less than significant.**

LanEast

The LanEast solar farm would be located on land designated as Other Land according to the FMMP. The LanEast property has historically been used by cattle and horses as grazing land and currently retains this use. Grazing lands occupy the greatest acreage of all agricultural land in the County, but represent a category of low value agricultural land use (County of San Diego 2011b). The County LARA Model was utilized to determine the significance of agricultural resources on the site. The three required factors—water, climate, and soil quality—were assessed. The LanEast solar farm site received a "high" importance Soil Quality rating. Because the site is located outside of the CWA and within a fractured crystalline aquifer, indicating limited water availability, the site received a "low" importance Water Availability rating. Due to the temperature extremes characteristic of the Sunset Zone 13, Desert Area climate, the project site received a "moderate" importance Climate Zone rating. Because at least one of the required factors (Water Availability) is rated as "low" importance, the project site falls within Scenario 5 as shown on Table 3.1.1-1, and the LanEast solar farm site would not be considered an important County agricultural resource; refer to Appendix 3.1.1-1 for further details.

Implementation of the LanEast solar farm would not convert an important County agricultural resource to a nonagricultural use; therefore, impacts would be **less than significant.**

LanWest

The LanWest solar farm would be located on land designated as Other Land according to the FMMP. The LanWest property has historically been used by cattle and horses as grazing land and currently retains this use. Grazing lands occupy the greatest acreage of all agricultural land in the County, but represent a category of low value agricultural land use (County of San Diego 2011b). The County LARA Model was utilized to determine the significance of agricultural resources on the site. The three required factors—water, climate, and soil quality—were assessed. The LanWest solar farm site received a "moderate" importance Soil Quality rating. Because the site is located outside of the CWA and within a fractured crystalline aquifer, indicating limited water availability, the site received a "low" importance Water Availability rating. Due to the temperature extremes characteristic of the Sunset Zone 13, Desert Area climate, the project site received a "moderate" importance Climate Zone rating. Because at least one of the required factors (Water Availability) is rated as "low" importance, the project site falls within Scenario 5 as shown on Table 3.1.1-1, and the LanWest solar farm site would not be considered an important County agricultural resource; refer to Appendix 3.1.1-1 for further details.

Implementation of the LanWest solar farm would not convert an important County agricultural resource to a nonagricultural use; therefore, impacts would be **less than significant.**

Proposed Project

The Proposed Project as a whole would result in approximately 1,200 acres of land designated Other Land by the FMMP being developed with solar farms. As described above, the four solar farm sites are currently used for grazing purposes, and none of the sites support active agricultural production. Additionally, the location of the Proposed Project area outside of the CWA and within a fractured crystalline aquifer limits the availability of water for agricultural production and reduces the agricultural importance of the area. Therefore, implementation of the Proposed Project would not convert an important County agricultural resource to a nonagricultural use, and direct impacts would be **less than significant.**

3.1.1.3.2 Indirect Impacts to Agricultural Resources

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's *Guidelines for Determining Significance: Agricultural Resources* (2007) applies to both the direct impact analysis and the cumulative impact analysis.

A significant indirect impact to agricultural resources would result if:

- The project proposes a non-agricultural land use within one-quarter mile of an active agricultural operation or land under a Williamson Act Contract (Contract) and as a result of the project, land use conflicts between the agricultural operation or Contract land and the proposed project would likely occur and could result in conversion of agricultural resources to a non-agricultural use.
- The project proposes a school, church, day care or other use that involves a concentration of people at certain times within one mile of an agricultural operation or land under Contract and as a result of the project, land use conflicts between the agricultural operation or Contract land and the proposed project would likely occur and could result in conversion of agricultural resources to a non-agricultural use.
- The project would involve other changes to the existing environment, which due to their location or nature, could result in the conversion of off-site agricultural resources to a non-agricultural use or could adversely impact the viability of agriculture on land under a Williamson Act Contract.

Analysis

Land uses proposed near an active agricultural use have the potential to cause the conversion of these lands to a nonagricultural use because of the potential incompatibility between the proposed use and existing agricultural activity. Potential adverse impacts caused by incompatible development near agricultural uses include farm practice complaints; restrictions on agricultural spraying, noise, or smell; liability concerns; economic instability caused by changing land values; possible increase in vandalism; damage to equipment, crops, and livestock; competition for water; possible interference with the movement of farm machinery or agricultural products; exposure of livestock to electric and magnetic fields (EMFs), shading of crops from inappropriate buffering; effects of glare on livestock; and difficulty for remaining ranchers and farmers to cost-effectively obtain the supplies and services (e.g. veterinarian care) they need to maintain their pastures, crops, and animals.

Tierra del Sol

The eastern boundary of the Tierra del Sol site is immediately adjacent to lands under a Williamson Act contract; however, the Tierra del Sol solar farm site is not under a contract. A portion of the Tierra del Sol site (the entirety of APN 658-090-31-00) is zoned A70 and contains a Special Area "A" Designator (Designator) which denotes inclusion of the parcel within an adopted County of San Diego Agricultural Preserve. AP 77-46 is approximately 389 acres in land area (164 acres of which is within the site) and is comprised of four parcels: APNs 658-090-

31-00, 658-090-30-00, 659-130-01-00, and 659-130-02-00. A nonrenewal was filed and approved in 1988, and the contract was canceled by the County, but AP 77-46 still remains over a portion of the project site. The disestablishment of AP 77-46 and removal of the Special Area Designator "A" over a portion of the project site would not remove the Agricultural Preserve or Special Area Designator "A" on the adjacent property. The adjacent property would be of a sufficient size (225 acres) to meet the minimum acreage requirements (80 acres for grazing land) for an Agricultural Preserve under County Board of Supervisors Policy I-38.

The type of agricultural use and the sensitivity of the proposed use are key considerations in determining agricultural compatibility. There is the potential for agricultural production, in particular grazing due to the lack of water for irrigated crop production, to occur on the adjacent properties located within AP 77-46 and a Contract, in the future. However, it is anticipated that any future agricultural production, and, in particular, livestock grazing, on adjacent properties would be compatible with the proposed solar farm use on the project site. The solar farm would not include any sensitive uses or habitation of the project site that could result in farm practice complaints or restrictions on agricultural practices. Traffic and use of the area post-construction would not increase substantially such that it would interfere with the movement of farm equipment or livestock. Operational water use would be approximately 6 acre-feet per year (rounded up) and would be provided by on-site wells, and therefore, would not result in competition for water. Air quality project design features and conditions of approval, such as soil binders, would reduce dust impacts to any future off-site agricultural production activities. Accordingly, there will be no impact to agricultural uses on adjacent properties (see analysis presented in Sections 3.1.5.3.4 and 3.1.9.3.1 for additional detail).

As discussed in Section 2.1, Aesthetics, the intensity of glare produced by the trackers is anticipated to be lower than that of man-made surfaces (metal roofs, glass, etc.) and water. In addition, the generated reflection values of tracker surfaces are not considered hazardous to vision (see Appendix 2.1-3, Boulevard Glare Study). During the day, trackers would follow the Sun until it reaches a vertical position facing west 5° and this could result in some spillover shading to the edges of adjacent properties. However, the shading would be minimal, and as potential future agricultural uses on adjacent properties are anticipated to consist of livestock grazing and not row crops, the minimal shading would not result in an adverse effect. Additionally, fuel modification areas around the perimeter of the project site would further reduce the potential for spillover of shading. And finally, as discussed in Section 3.1.4, Hazards and Hazardous Materials, exposure to EMFs are not anticipated to expose nearby residents to health risks, and therefore, would similarly not expose future livestock grazed on adjacent properties to health risks.

Therefore, the Tierra del Sol solar farm would not result in land use conflicts between adjacent agricultural lands which could result in conversion of agricultural resources to a

nonagricultural use. Nor would the project involve other changes to the existing environment, which due to their location or nature, could result in the conversion of off-site agricultural resources to a nonagricultural use or could adversely impact the viability of agriculture on land under a Williamson Act contract. As such, indirect impacts to agricultural resources would be **less than significant**.

The Tierra del Sol solar farm would not place a school, church, day care, or other use that involves a concentration of people at certain times within 1 mile of an agricultural operation or land under contract. Therefore, this guideline is not applicable to the Tierra del Sol solar farm, and there would be **no impact**.

Gen-Tie

As discussed above, the gen-tie alignment route traverses undeveloped land and rural residential properties. The alignment does not pass through nor is immediately adjacent to any areas under Williamson Act contract or within a County Agricultural Preserve, or with agricultural zoning. Therefore, activities associated with the construction and operation of the gen-tie alignment would not impact active agricultural operations. The Tierra del Sol gen-tie alignment does not include a school, church, day care or other use that involves a concentration of people. Therefore, the Tierra del Sol gen-tie alignment would not involve other changes to the existing environment, which due to their location or nature, could result in the conversion of off-site agricultural resources to a nonagricultural use or could adversely impact the viability of agriculture on land under a Williamson Act contract; impacts would be **less than significant**.

Rugged

There are no lands under Williamson Act contract within 0.25 mile of the Rugged site; however, some adjacent lands are within County Agricultural Preserves. Agricultural production on adjacent properties currently includes some grazing uses; no farming currently occurs on adjacent properties. Construction and operation of the Rugged solar farm is anticipated to be compatible with agricultural production on adjacent properties. The Rugged solar farm does not include any sensitive uses or habitation of the project site that could result in farm practice complaints or restrictions on agricultural practices. Traffic and use of the area post-construction would not increase substantially such that it would interfere with the movement of farm equipment or livestock. Operational water use would be approximately 8.7 acre-feet per year and would be provided by on-site wells, and therefore, would not result in competition for water. Air quality project design features and conditions of approval, such as soil binders, would reduce dust impacts to any future off-site agricultural production activities. Accordingly, there will be no impact to agricultural uses on adjacent properties (see analysis presented in Sections 3.1.5.3.4 and 3.1.9.3.1 for additional detail).

As discussed in Section 2.1, Aesthetics, the intensity of glare produced by the trackers is anticipated to be lower than that of man-made surfaces (metal roofs, glass, etc.) and water. In addition, the generated reflection values of tracker surfaces are not considered hazardous to vision (see Appendix 2.1-3, Boulevard Glare Study). Therefore, it is anticipated that glare would not affect future livestock grazing on adjacent parcels. During the day, trackers would follow the sun until it reaches a vertical position facing west 5° and could potentially shade areas around the trackers. However, as potential future agricultural uses on adjacent properties are anticipated to consist of livestock grazing and not row crops, shading would not result in an adverse effect. Additionally, fuel modification areas around the perimeter of the project site would further reduce the potential for spillover of shading. And finally, as discussed in Section 3.1.4, Hazards and Hazardous materials, exposure to EMFs are not anticipated to expose nearby residents to health risks, and therefore, would similarly not expose future livestock grazed on adjacent properties to health risks.

Therefore, the Rugged solar farm would not result in land use conflicts with an adjacent agricultural operation or contract land which could result in conversion of agricultural resources to a nonagricultural use. Nor would the project involve other changes to the existing environment, which due to their location or nature, could result in the conversion of off-site agricultural resources to a nonagricultural use or could adversely impact the viability of agriculture on land under a Williamson Act contract. Additionally, defensible space would be implemented around the perimeter of the site for fuel modification purposes (see Section 3.1.4, Hazards and Hazardous Materials), which would further reduce the potential for conflicts with agricultural production on adjacent properties. Therefore, indirect impacts to agricultural resources would be **less than significant.**

The Rugged solar farm would not involve placement of a school, church, day care, or other use that involves a concentration of people at certain times within 1 mile of an agricultural operation or land under contract. Therefore, this guideline is not applicable to the Rugged solar farm; there would be **no impact**.

LanEast

There are no lands under a Williamson Act contract or a County Agricultural Preserve within 0.25 mile of the LanEast site, nor is there active agricultural production in the surrounding vicinity. Construction and operation of the LanEast solar farm would not introduce a sensitive land use that would be incompatible with agricultural uses. Therefore, implementation of the LanEast solar farm would not result in land use conflicts with an adjacent agricultural operation or contract land which could result in conversion of agricultural resources to a nonagricultural use. Additionally, the LanEast solar farm would not result in the conversion of off-site agricultural resources to a non-agricultural use or adversely impact the viability of agriculture on

land under a Williamson Act contract. Indirect impacts would be **less than significant**.

The LanEast solar farm would not involve the placement of a school, church, day care, or other use that involves a concentration of people at certain times within 1 mile of an agricultural operation or land under contract. Therefore, this guideline is not applicable to the LanEast solar farm; there would be **no impact**.

LanWest

There are no lands under a Williamson Act contract or County Agricultural Preserve within 0.25 mile of the LanWest site, nor is there active agricultural production in the surrounding vicinity. Construction and operation of the LanWest solar farm would not introduce a sensitive land use that would be incompatible with agricultural uses. Therefore, implementation of the LanEast solar farm would not result in land use conflicts with an adjacent agricultural operation or contract land which could result in conversion of agricultural resources to a nonagricultural use. Additionally, the project would not result in the conversion of off-site agricultural resources to a nonagricultural use or adversely impact the viability of agriculture on land under a Williamson Act contract. Indirect impacts would be **less than significant.**

The LanWest solar farm would not involve the placement of a school, church, day care, or other use that involves a concentration of people at certain times within 1 mile of an agricultural operation or land under contract. Therefore, this guideline is not applicable to the LanWest solar farm; there would be **no impact**

Proposed Project

As previously described, implementation of the Proposed Project would not include sensitive uses that would be incompatible with agricultural uses on adjacent properties, and construction and operational activities would not result in adverse effects related to water use, dust, shading, or EMFs to adjacent agricultural uses. Therefore, the Proposed Project would not result in indirect effects which could result in the conversion of agricultural land to a nonagricultural use. Impacts would be **less than significant.**

3.1.1.3.3 Conflicts with Agricultural Zoning and Williamson Act Contracts

Guidelines for the Determination of Significance

For the purpose of this EIR, the County's *Guidelines for Determining Significance: Agricultural Resources* (2007) applies to both the direct impact analysis and the cumulative impact analysis.

A significant impact would result if:

- The project conflicts with a Williamson Act Contract (Contract) or the provisions of the California Land Conservation Act of 1965 (Williamson Act).

Analysis

Tierra del Sol

The Tierra del Sol site is not under a Williamson Act contract; however, a portion of the Tierra del Sol site (the entirety of APN 658-090-31-00) is zoned A70 and contains a Designator which denotes inclusion of the parcel within an adopted County of San Diego Agricultural Preserve. AP 77-46 is approximately 389 acres in land area (164 acres of which is within the site) and is comprised of four parcels: APNs 658-090-31-00, 658-090-30-00, 659-130-01-00, and 659-130-02-00. A nonrenewal for a portion of the site that was under a Williamson Act contract was filed and approved in 1988, and the contract was canceled by the County, but the Agricultural Preserve still remains over this portion of the solar farm site.

Given the existing land use development pattern and general lack of Agricultural Preserves in the immediate area, disestablishment by shifting the boundary of AP 77-46 that covers the subject parcel (APN 658-090-31-00) would be consistent with surrounding land uses and character of the community (see Appendix 3.1.1-2). The surrounding area can be described as primarily rural in nature and comprised of vacant land and modest, single-story residential structures on large lots. Figure 3.1.1-1 depicts the zoning designations applicable to AP 77-46 and surrounding parcels. As shown on Figure 3.1.1-1 AP 77-46 is comprised of parcels zoned A70 (Limited Agricultural) and is surrounded by General Rural (S-92) zoning.

With the exception of those parcels associated with AP 77-46, the Designator is not applicable to and has not been applied by the County to parcels within the immediate area. Removal of the Designator and shifting of AP 77-46 boundary from the project parcels would not affect the existing preserve, nor would it impact the adjacent lands under contract because the Tierra del Sol site is not currently under agricultural production; it is located outside of the CWA service area; and disestablishment of the agricultural preserve on the project site will not result in disestablishment on the adjacent site, as described in more detail below.

Although the Tierra del Sol site is located on Other Land as determined by the San Diego County Important Farmland 2008 Map and the site is not actively farmed, the Tierra del Sol solar farm would require a rezone to remove the Designator and ensure compliance with the zoning ordinance. An Agricultural Preserve Disestablishment would also be required to develop the site as proposed. A decision by the Board of Supervisors is required to disestablish an Agricultural Preserve, or portions thereof, pursuant to Board Policy I-38.

AP 77-46 is the lone agricultural preserve located in the Tierra del Sol vicinity (see Figure 3.1.1-2). The existing land uses in the surrounding area include single-family homes, ranch lands, tribal lands, and private lands proposed for renewable energy development (see description and location of proposed projects on Table 1-12 and Figure 1-12), and lands designated rural by the County of San Diego General Plan.

Disestablishment of that portion of the preserve covering APN 658-090-31-00 would not significantly impact AP 77-46's viability as a protected area because the subject parcel has long since ceased to be an agricultural resource. First, the subject parcel is not actively engaged in agricultural production (farming or grazing), and has not been farmed for many years. Aerial photographs indicate that there are no current agricultural or grazing operations and no FMMP designation applied to the site that would suggest that the site consists of either Prime Farmland, Farmland of Statewide Importance, or Farmland of Local Importance. The first record of on-site agricultural operations occurred as early as 1923; portions of the parcel were used for gardening and orchards between 1930 and 1956; and cattle grazed on portions of the site between 1923 and 1978 and again between 1995 and 2010. In addition, APN 658-090-31-00 has been cleared in the past and four large lattice steel towers associated with the 500 kV SWPL transmission line traverse the central portion of the fenced site.

Second, the subject parcel is located outside of the CWA service area and relies on groundwater for water supply. Therefore, despite its current inclusion in AP 77-46, the subject parcel APN 658-090-31-00 is not an agricultural resource, as was determined by the LARA Model; see Section 3.1.1.3.1.

Finally, disestablishment of AP 77-46 and removal of the Designator over the project parcels will not affect the ability of the adjacent landowner to maintain the land under contract within the preserve .

Disestablishment of that portion of AP 77-46 that applies to parcel APN 658-090-31-00 and removal of the Designator would be consistent with the surrounding land uses and zoning designations existing in the immediate area and would not impact adjacent agricultural uses if they occur in the future. Refer to Section 3.1.1.3.1 for further details. Therefore, the impacts

would be **less than significant** because the Tierra del Sol solar farm does not conflict with a Williamson Act contract or conflict with provisions of the Williamson Act.

Gen-Tie

The Tierra del Sol gen-tie alignment route is not under a Williamson Act contract or within an Agricultural Preserve. Therefore, the Tierra del Sol gen-tie alignment would not conflict with a Williamson Act contract or the provisions of the Williamson Act; **no impacts** would result.

Rugged

The Rugged site is not under a Williamson Act Contract or within an Agricultural Preserve. Some lands adjacent to the Rugged site are within an Agricultural Preserve; however, as described in section 3.1.1.3.2, construction and operation of the Rugged solar farm would not affect the ability of adjacent properties to continue agricultural production. Therefore, the Rugged solar farm would not conflict with a Williamson Act contract or the provisions of the Williamson Act; **no impacts** would result.

LanEast

The LanEast solar farm site is not under a Williamson Act contract or within an Agricultural Preserve. Therefore, the LanEast solar farm would not conflict with a Williamson Act contract or the provisions of the Williamson Act; **no impacts** would result.

LanWest

The LanWest solar farm site is not under a Williamson Act contract or within an Agricultural Preserve. Therefore, the LanWest solar farm would not conflict with a Williamson Act contract or the provisions of the Williamson Act; **no impacts** would result.

Proposed Project

As previously described, there are no Williamson Act contracts on the Proposed Project site. Additionally, the Rugged, LanEast, and LanWest solar farm sites do not have any parcels within a County Agricultural Preserve. The Tierra del Sol solar farm site contains parcels which are within a County Agricultural Preserve (AP 77-46). Disestablishment of the Agricultural Preserve that covers the subject parcels would not affect the ability of adjacent landowners to maintain land under contract within AP 77-46 should they wish to do so. Additionally, the Proposed Project site is not currently under agricultural production and is located outside of the CWA service area. Therefore, the Proposed Project would not conflict with a Williamson Act contract, the provisions of the Williamson Act, or with agricultural zoning; impacts would be **less than significant.**

3.1.1.4 Cumulative Impact Analysis

Geographic Extent

The geographic extent for the analysis of cumulative impacts associated with agricultural resources includes the vicinity of all reasonably foreseeable cumulative projects and extends throughout southeastern San Diego County, as shown in Figure 1-12. Since the project sites are located within the County jurisdiction, cumulative projects in western Imperial County are excluded from the cumulative impact analysis. The cumulative projects are summarized in Table 1-12.

Existing Cumulative Conditions

San Diego County possesses extensive existing rural land uses, including agriculture. However, as shown in Figure 3.1.1-10, Cumulative Projects—FMMP Lands, DOC Farmlands do not occur to a large extent in the project vicinity. As described above, the main instance of DOC Farmlands occurs near Jacumba. Also, due to a lack of water resources and poor soil quality, there are minimal lands within the study area that are under a Williamson Act contract, as shown on Figure 3.1.1-11 (DOC 2008).

3.1.1.4.1 Impacts to On-Site Agricultural Resources

Regionally, conversion and/or expansion of agricultural lands has been ongoing throughout most areas of the cumulative study area for decades. Per Figure 3.1.1-10, the following reasonably foreseeable cumulative projects would potentially impact DOC Farmlands: the Campo Wind Energy project, the San Diego Gas and Electric (SDG&E) Master Special Use Permits, the EGP Jewel Valley MET facilities (EGP Jewel Valley project), and the Silverado Power solar project. Some projects lie within areas designated "Area Not Mapped." However, given the arid conditions and rocky soils prevalent in this area, DOC Farmlands are considered unlikely to be affected by these projects.

Cumulative projects would impact approximately 29,878 acres of mapped DOC Farmland within the cumulative study area, including approximately 717 acres of Farmland of Local Importance, 29,058 acres of Other Land, 48 acres of Grazing Land, and 55 acres of Urban/Built-Up Land. An unknown acreage of Prime Farmland and Farmland of Statewide Importance would be impacted by the Border Patrol Fence project.

The Proposed Project would impact approximately 1,168 acres of DOC Farmland designated Other Land, which is not considered to be an agricultural resource. In addition, the Proposed Project does not contain important agriculture resources as defined by the LARA Model and would not impact Prime Farmland, Farmland of Statewide Importance, or Farmland of Local

Importance. Therefore, the Proposed Project's cumulative contribution to the loss of important agricultural resources would be **less than significant**.

3.1.1.4.2 Indirect Impacts to Agricultural Resources

The majority of lands surrounding the Proposed Project are designated General Rural (S92); however, there are lands in the vicinities of the Tierra del Sol and Rugged sites that are designated Limited and General Agriculture (A70 and A72). There is also land adjacent to the Tierra del Sol site under a Williamson Act contract. Construction and operation of the Proposed Project would not introduce sensitive uses that could be affected by adjacent agricultural operation, nor would the Proposed Project conflict with adjacent agricultural uses as shown in the analysis above in Section 3.1.1.3.2. Therefore, the Proposed Project would not result in indirect impacts to agricultural resources.

Large cumulative projects that would be constructed adjacent to areas that could potentially be used for agricultural production include the SDG&E master special use permit, the Silverado Power solar project, the Wind Measurement Towers project, the EGP Jewel Valley project, and the National Quarries wind testing site. In addition, other development projects (i.e., residential, commercial, public facilities, cell towers, etc.) could be located adjacent to agricultural uses. These cumulative projects could introduce uses that may not be compatible with agricultural uses, and therefore, could result in the conversion of agricultural land to a nonagricultural use or could adversely impact the viability of agriculture on land under a Williamson Act contract. However, as discussed above, the Proposed Project would not result in indirect impacts to agricultural resources; therefore, the Proposed Project's cumulative contribution to indirect impacts to agricultural resources would be **less than significant**.

3.1.1.4.3 Conflicts with Agricultural Zoning and Williamson Act Contracts

As previously analyzed, the Proposed Project would not result in impacts to existing Williamson Act lands. The Tierra del Sol and Rugged solar farms contain lands zoned Limited and General Agriculture (A70 and A72), respectively, as well as lands currently under a County Agricultural Preserve. However, the proposed uses are consistent with the zoning, and impacts would be **less than significant**. The LanEast and LanWest solar farms do not contain land zoned for agriculture result in impacts to existing agricultural zoning or lands under an Agricultural Preserve.

Conversion of agricultural lands, including Williamson Act and County Agricultural Preserve lands has been ongoing in the vicinity of the Proposed Project. Projects within the cumulative study area would impact approximately 2,108 acres of lands within an Agricultural Preserve and 612 acres of land under Williamson Act contract. More than 2,444 acres of agriculturally zoned land would be impacted. The SDG&E master special use permit project would impact approximately 472 acres of lands within an Agricultural Preserve; the Silverado Power solar

project would impact approximately 797 acres within an Agricultural Preserve; and the Wind Measurement Towers project would impact approximately 683 acres within an Agricultural Preserve. Other projects that would impact less than 100 acres of lands within an Agricultural Preserve include the EGP Jewel Valley project and the National Quarries wind testing site. The SDG&E master special use permit project and the EGP Jewel Valley project would also impact land under Williamson Act contract. The Campo Wind Energy project would impact 858 acres of land zoned A70, and the Silverado Power solar project would impact 797 acres of land zoned A72. The SDG&E master special use permit project would also impact agriculturally zoned land.

Other cumulative projects also have the potential to impact land zoned for agricultural use or within an Agricultural Preserve or Williamson Act contract, as shown on Figures 3.1.1-11 and 3.1.1-12. However, the exact acreage is unknown. As discussed above, the Proposed Project would not convert any Williamson Act lands to nonagricultural uses; however, the Tierra del Sol solar farm would result in the disestablishment of Agricultural Preserves on approximately 164 acres. However, as these parcels are not currently in active agricultural production and disestablishment of the portions of the Agricultural Preserves that cover the subject parcels would be consistent with the surrounding character of the community; the Proposed Project's cumulative contribution to indirect impacts to any conflict with agricultural zoning or Williamson Act contracts would be **less than significant.**

Pursuant to the County Guidelines, if a project site: 1) is not an important agricultural resource; 2) does not conflict with a Williamson Act/Agricultural Preserve; and 3) does not generate a significant indirect impact to surrounding agricultural resources, then the site would not exhibit a potential to contribute to a significant cumulative impact. Since the subject project matches those three criteria, the Proposed Project's cumulative contribution to the loss of important agricultural resources would be **less than significant**.

3.1.1.5 Conclusion

The following discussion provides a synopsis of the conclusion reached in each of the above impact analyses. As discussed above, no mitigation would be required, since the Proposed Project would not result in potentially significant impacts.

Impacts to Important On-Site Agricultural Resources

The project site does not contain important agricultural resources as defined by the LARA Model. Each of the four solar farm sites is designated as Other Land by the FMMP and is located outside the CWA. Therefore, the Proposed Project's potential direct and cumulative impacts to important agricultural resources would be **less than significant**.

Indirect Impacts to Agricultural Resources

Development of the Proposed Project would not result in significant indirect impacts due to the conversion of farmland or forest land. Properties adjacent to the four solar farm sites are currently not actively farmed and implementation of the Proposed Project would not involve other changes to the existing environment, which due to their location or nature, could result in the conversion of off-site agricultural resources to a nonagricultural use or could adversely impact the viability of agriculture on land under a Williamson Act contract. Therefore, indirect impacts (including cumulative) would be **less than significant.**

Conflicts with Agricultural Zoning and Williamson Act Contracts

Development of the Proposed Project would not result in significant impacts related to conflicts with agricultural zoning and Williamson Act contracts. The Tierra del Sol solar farm site is under a County Agricultural Preserve; however, the on-site portion of this Agricultural Preserve would be disestablished as part of the Proposed Project. The Proposed Project would not conflict with agricultural zoning, Williamson Act contracts, or the provisions of the Williamson Act; direct and cumulative impacts would be **less than significant.**

Cumulative Impacts

Pursuant to the County Guidelines, if a project site: 1) is not an important agricultural resource; 2) does not conflict with a Williamson Act/Agricultural Preserve; and 3) does not generate a significant indirect impact to surrounding agricultural resources, then the site would not exhibit a potential to contribute to a significant cumulative impact. Since the subject project matches those three criteria, the Proposed Project's cumulative contribution to the loss of important agricultural resources would be **less than significant**.

Table 3.1.1-1
Interpretation of LARA Model Results

LARA Model Results			LARA Model Interpretation
Possible Scenarios	*Required Factors*	*Complementary Factors*	
Scenario 1	All three factors[1] rated high	At least one factor rated high or moderate	The site is an important agricultural resource.
Scenario 2	Two factors rated high, one factor rated moderate	At least two factors rated high or moderate	
Scenario 3	One factor rated high, two factors rated moderate	At least two factors rated high	
Scenario 4	All factors rated moderate	All factors rated high	
Scenario 5	At least one factor rated low importance	N/A	The site is not an important agricultural resource.
Scenario 6	All other model results		

[1] The three required factors rated by the LARA Model include Water Availability, Soil Quality, and Climate Zone.

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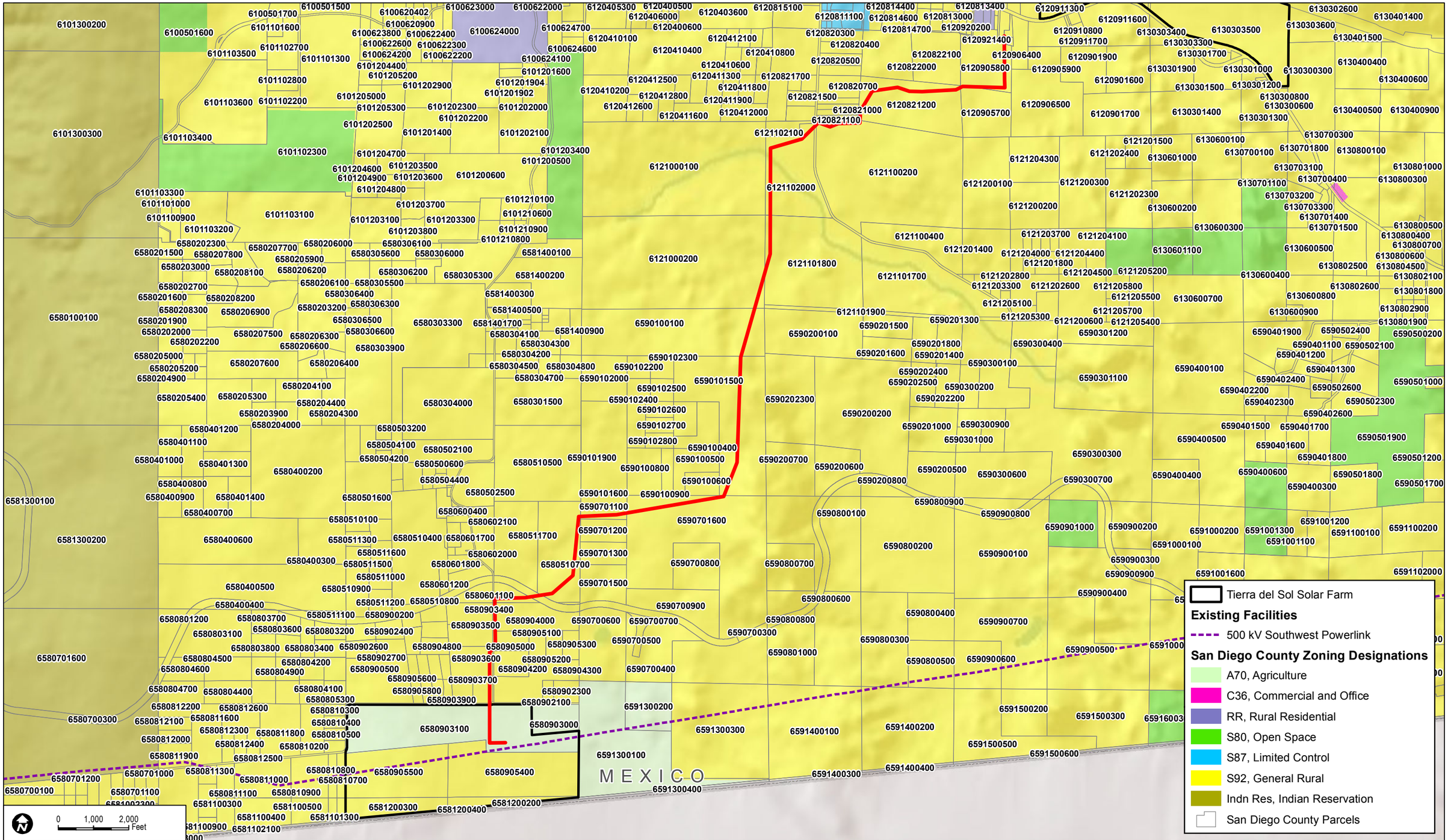

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SOURCE: SanGIS 2013; SANDAG 2013; AECOM 2013; Soitec 2012

FIGURE 3.1.1-1

Tierra del Sol Solar Farm - County Zoning

SOITEC SOLAR DEVELOPMENT PROGRAM EIR

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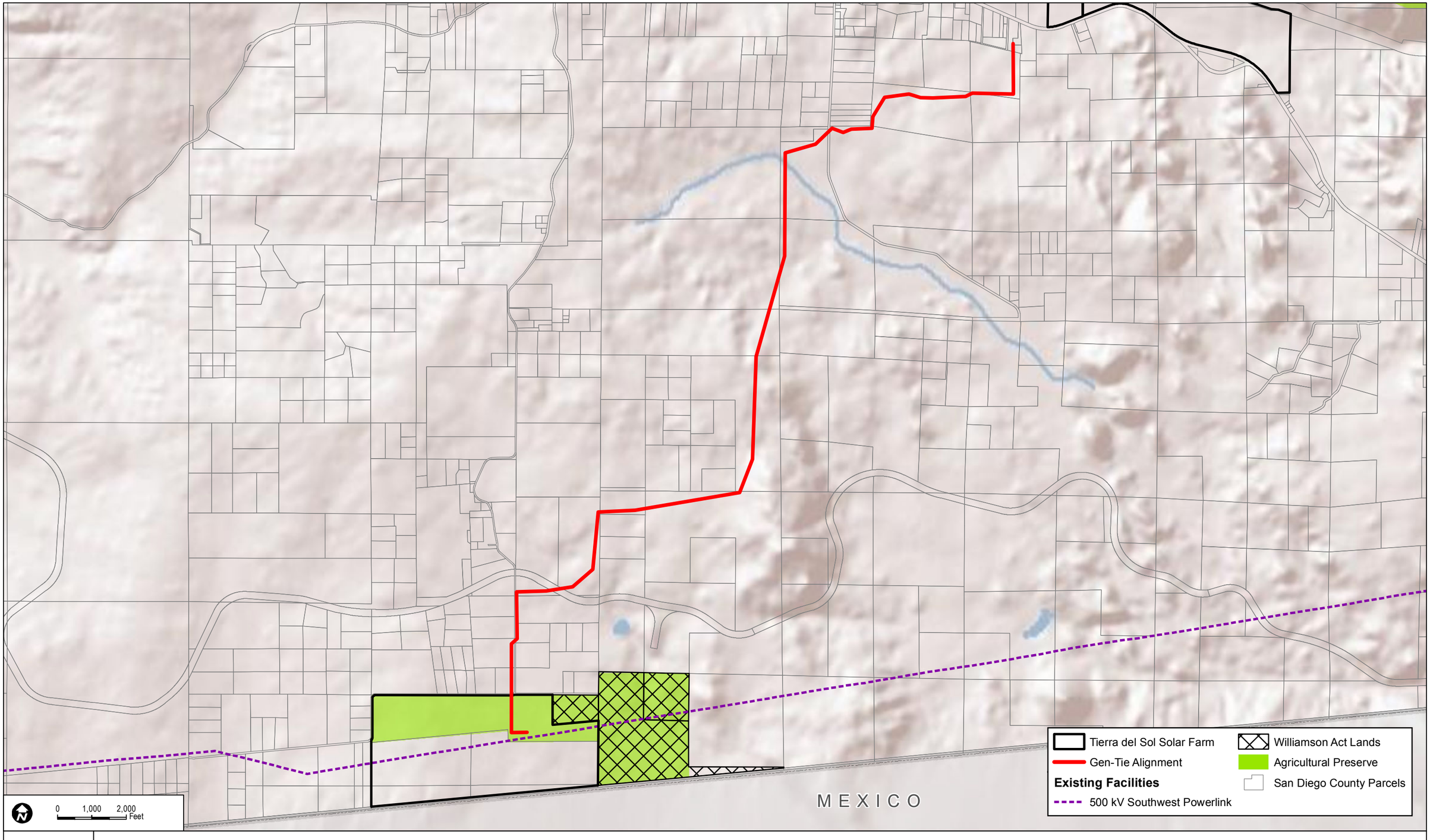

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SOURCE: SanGIS 2013; SANDAG 2013; AECOM 2013; Soitec 2012

FIGURE 3.1.1-2

Tierra del Sol Solar - Williamson Act

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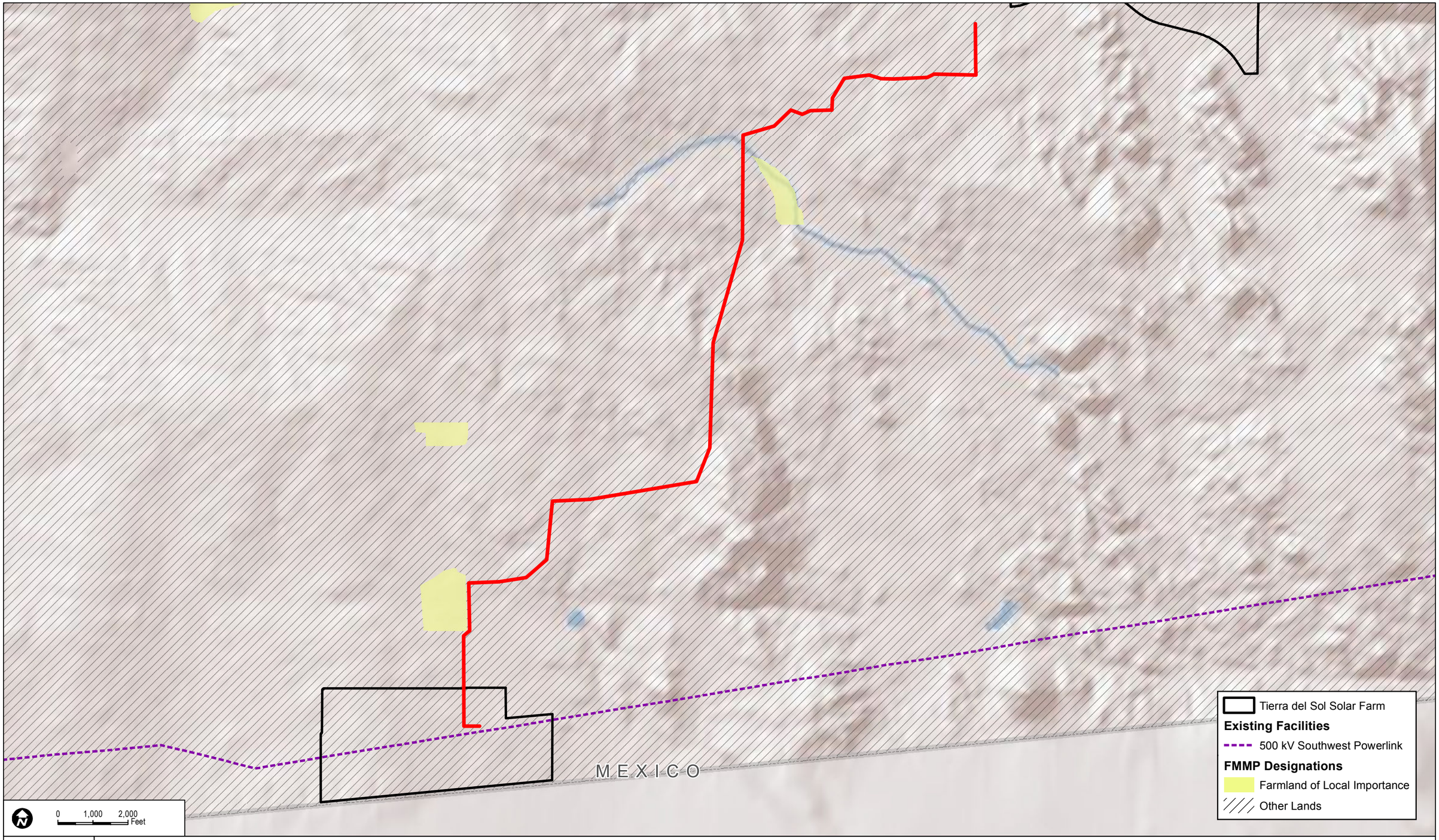

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SOURCE: SanGIS 2013; SANDAG 2013; AECOM 2013; Soitec 2012

FIGURE 3.1.1-3

Tierra del Sol Solar - Farmland Mapping and Monitoring Program (FMMP) Lands

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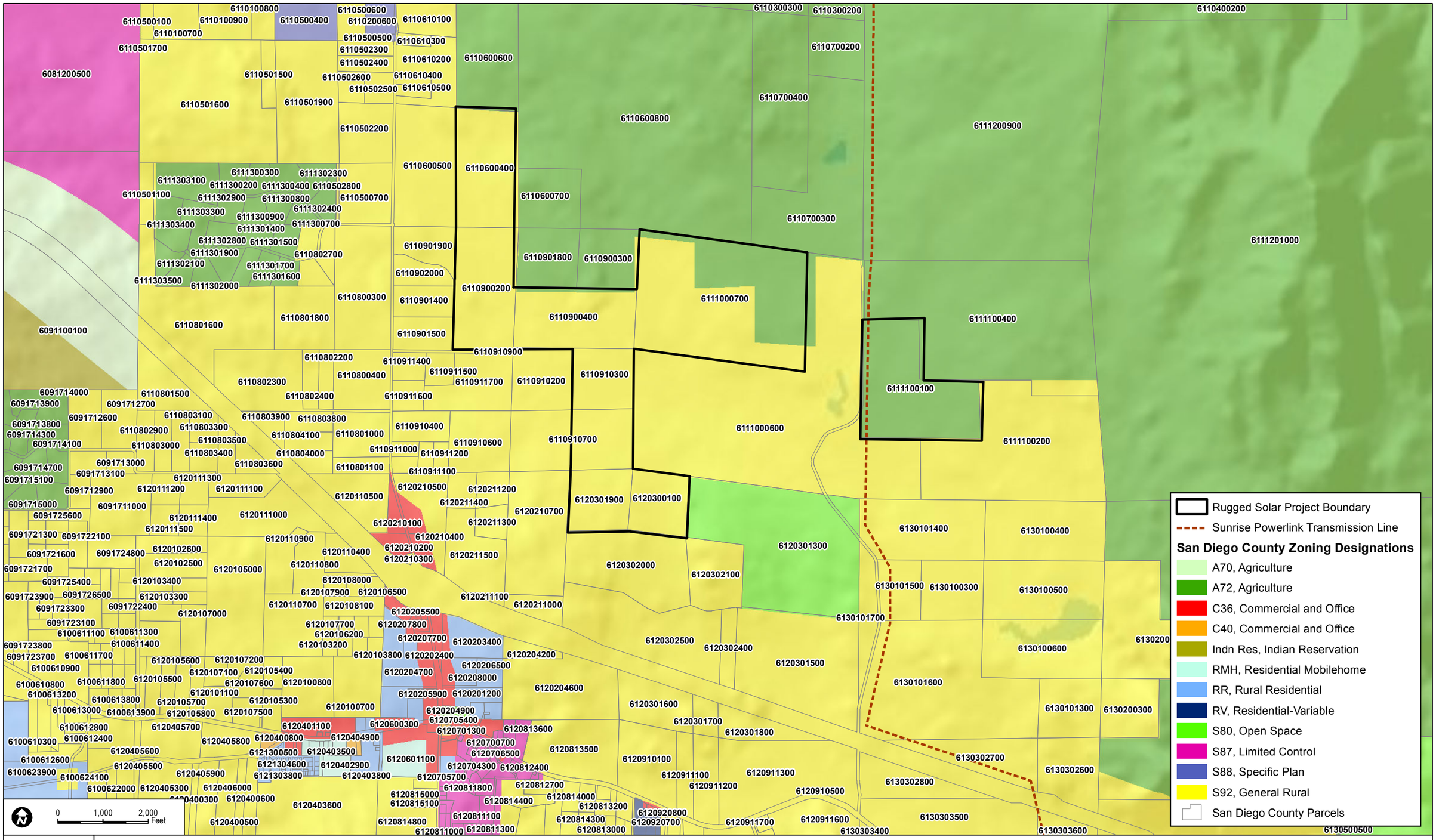

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SOURCE: SanGIS 2011; AECOM 2012; Soitec 2012

FIGURE 3.1.1-4

Rugged Solar - County Zoning

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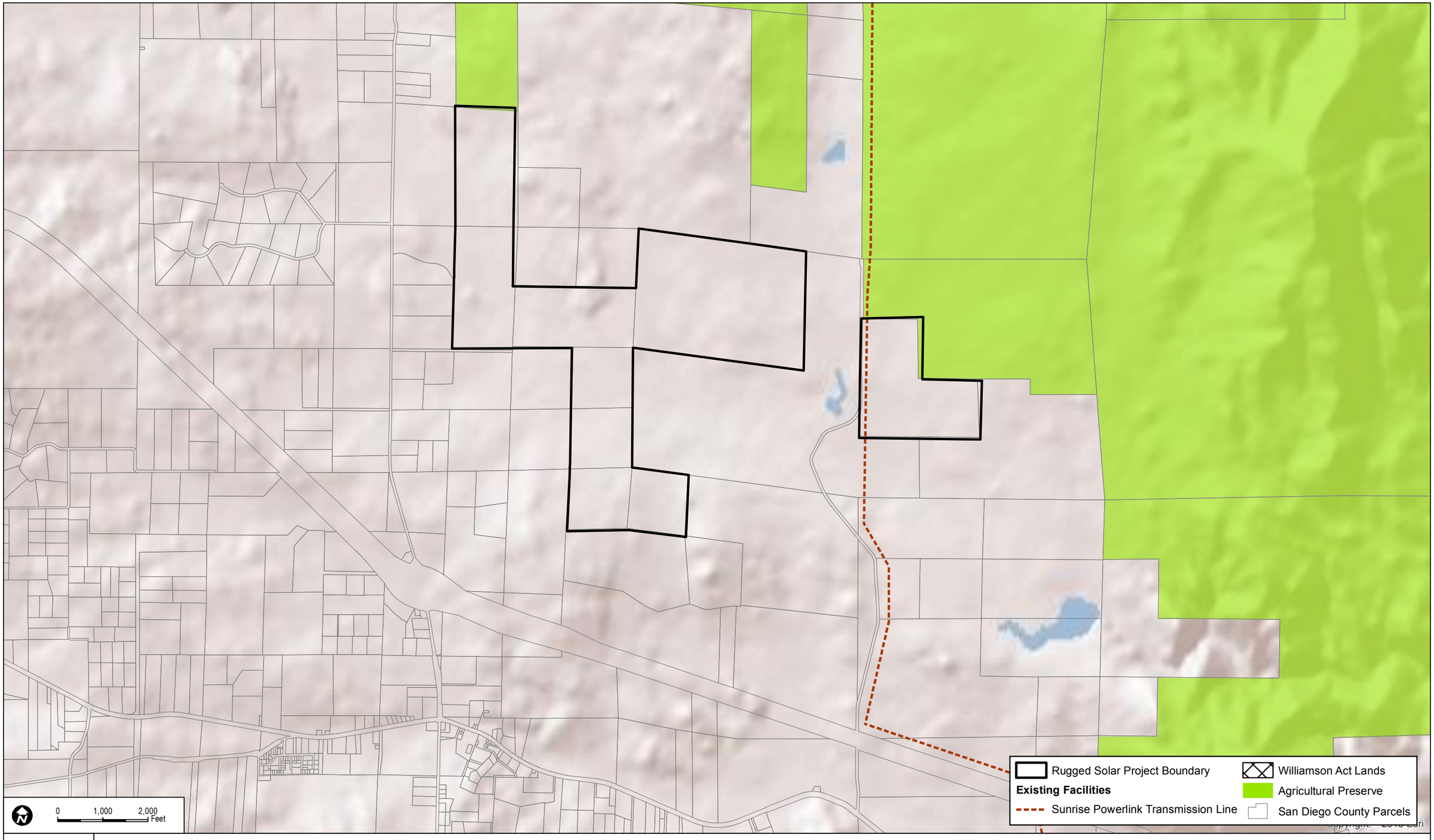

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SOURCE: SanGIS 2013; AECOM 2012; Soitec 2012; Department of Conservation 2009

FIGURE 3.1.1-5

Rugged Solar - Williamson Act

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