

CHAPTER 4.0 PROJECT ALTERNATIVES

Section 15126.6 of the California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) describe a range of reasonable alternatives to the Proposed Project or to the Proposed Project location that would feasibly attain most of the Proposed Project objectives but would avoid or lessen any significant environmental impacts. An EIR should evaluate the environmental impacts of the alternatives compared to the Proposed Project. This chapter of the Program EIR describes and evaluates project alternatives and is intended to implement the requirements set forth in the CEQA Guidelines. This chapter also identifies the Environmentally Superior Project Alternative as required by CEQA Guidelines Section 15126.6(e)(2).

4.1 Rationale for Alternatives Selection

The following discussion covers a reasonable range of feasible alternatives that focuses on avoiding or substantially lessening any significant effects of the Proposed Project, even if these alternatives would not attain all of the Proposed Project objectives or would be more costly. The discussion shall focus on alternatives to the Proposed Project that are capable of meeting most of the Proposed Project objectives identified in Chapter 1.0 of this EIR. According to the CEQA Guidelines, many factors may be taken into account when addressing the feasibility of alternatives, such as environmental impacts, site suitability as it pertains to various land use designations, economic viability, availability of infrastructure, regulatory limitations, and jurisdictional boundaries. Also according to CEQA Guidelines Section 15126.6(d), discussion of each alternative should be sufficient “to allow meaningful evaluation, analysis, and comparison with the Proposed Project” (14 CCR 15000 et seq.). Therefore, the significant effects of each alternative are discussed in less detail than those of the Proposed Project, but in enough detail to provide decision makers with perspective and a reasoned choice among alternatives to the Proposed Project.

Additionally, a No Project Alternative is required to be included in the range of alternatives. An EIR need not consider an alternative whose effects cannot be reasonably identified, whose implementation is remote or speculative, or one that would not achieve most of the basic Proposed Project objectives. Finally, the Environmentally Superior Alternative shall be identified and if it is the No Project Alternative, the next Environmentally Superior Alternative shall be identified.

The Proposed Project would result in potentially significant and unavoidable adverse impacts for which feasible mitigation measures would not reduce the impacts to below a level of significance for the following issues: aesthetics (including glare), air quality (due to short-term, construction-related emissions), and land use (due to conflicts with General Plan policies). Implementation of feasible mitigation measures or project design features would reduce potentially significant impacts to the following to less than significant: biological resources, cultural resources, and

noise. Potential impacts to the following were determined not to be significant after further evaluation: agriculture and forestry resources; geology, soils, and seismicity; greenhouse gases; hazards and hazardous materials; hydrology and water quality; paleontological resources; public services; transportation and traffic; and utilities. The following issues were determined to be not significant or have no impact in the Initial Study process: mineral resources, population and housing, and recreation.

The project alternatives evaluated are addressed in Sections 4.3, 4.4, and 4.5 in this chapter and include:

Reduced Project Alternatives

1. Reduced Proposed Project Alternative (Alternative 1)
2. No LanEast and LanWest Alternative (including Reduced Tierra del Sol and Rugged) (Alternative 2)
3. Reduced Proposed Project and Underground Tierra del Sol Gen-tie Alternative (Alternative 3)
4. No LanEast and LanWest (including Reduced Tierra del Sol and Rugged) and Underground Tierra del Sol Gen-tie Alternative (Alternative 4)
5. Tailored Proposed Project and No LanEast and LanWest Alternative (Alternative 2A)

Alternative Location

1. Relocate Tierra del Sol to Los Robles (Alternative 5)
2. Relocate LanEast and LanWest to Los Robles (Alternative 6)
3. Relocate Tierra del Sol, LanEast and LanWest to Los Robles (Alternative 7)
4. Relocate Tierra del Sol, LanEast and LanWest to Los Robles and Maximize Los Robles (Alternative 8)

No Project Alternative

1. No Project Alternative

The above alternatives were selected to avoid or lessen significant impacts associated with the Proposed Project while still meeting the majority of the Proposed Project objectives. These alternatives represent a reasonable range of alternatives as required by CEQA. The alternatives are compared to the impacts of the Proposed Project. A qualitative summary of the alternatives that compares their potential impacts is provided in Table 4-19. The evaluated alternatives were selected, in part, relative to their ability to meet the basic objectives of the Proposed Project.

As described in Chapter 1.0, the Proposed Project objectives are as follows:

1. Assist in achieving the state's Renewable Portfolio Standard (RPS) and greenhouse gas emissions (GHG) reduction objectives by developing and constructing California RPS-qualified solar generation, approved under Senate Bill (SB) X1 2, which established renewable energy targets of 20% total electricity sold to retail customers by the end of 2013, 25% by the end of 2016, and 33% of total electricity sold to retail customers by 2020.
2. Create utility-scale solar energy in-basin to improve reliability for the San Diego region by providing a source of local generation.
3. Locate solar power plant facilities as near as possible to existing or planned electrical transmission facilities, including colocating with existing transmission facilities when feasible.
4. Site solar power plant facilities in areas within the County of San Diego that have excellent solar attributes, including but not limited to high direct normal irradiance (DNI), in order to maximize productivity.
5. No net additional emission of GHGs, including GHG emissions from employee transportation, consistent with the methodology employed by the California Air Resources Board (CARB) pursuant to Division 25.5 (commencing with Section 38500) of the Health and Safety Code.
6. Invest a minimum of \$100 million of economic development to support the local economy through the creation of high wage, highly skilled construction and permanent jobs that pay prevailing and living wages.
7. Develop up to 168.5 megawatts (MW) of renewable solar energy systems that reduce consumption of non-renewable resources and reduce GHG and other long-term air pollutant emissions while minimizing impacts to natural resources.

4.2 Alternatives Considered but Rejected

In addition to the project alternatives listed above, several alternatives were considered but rejected from further analysis in the EIR because they did not accomplish most of the basic Proposed Project objectives, they would be infeasible to analyze, and/or they deviated from the direction given by the County Board of Supervisors. This section describes those alternatives.

Energy Efficiency Ordinance

Energy Conservation and Demand-Side Management programs are designed to reduce customer energy consumption. Regulatory requirements dictate that supply-side and demand-side resource options should be considered on an equal basis in a utility's plan to acquire the lowest cost

resources. These programs are designed to either reduce the overall use of energy or to shift the consumption of energy to off-peak times.

Under the direction of the California Public Utilities Commission (CPUC), San Diego Gas and Electric (SDG&E) offers a number of energy conservation programs for customers, including financial incentives for installing specific energy-efficient appliances or taking other measures to conserve energy. SDG&E also provides programs, such as inline energy profiling and in-home energy audits, to make customers more aware of their energy usage and of ways to conserve, as well as a variety of free brochures on improving energy efficiency. Under this alternative, the Proposed Project would not be built. Instead, the need for the electricity to be generated by the Proposed Project would be met through increased conservation and load-management activities similar to those previously noted.

The energy efficiency alternative would result in significant reduction in impacts as compared with the Proposed Project. However, while energy efficiency would reduce energy demand and overall GHG emissions, but it would not meet the Proposed Project objectives related to achieving the State RPS (Objective 1), creating utility scale solar energy in the San Diego region (Objectives 2), locating solar power plant facilities near existing or planned transmission lines (Objective 3), siting solar energy facilities in areas with excellent solar attributes (Objective 4), contributing no net GHG emissions to the atmosphere (Objective 5), or developing up to 168.5 MW of solar energy (Objective 7) because the energy efficiency alternative would not create a solar energy project. Additionally, since this alternative would not result in the construction of new energy facilities, it would not guarantee the investment of a minimum of \$100 million in economic development and create high-paying jobs that would support the local economy (Objective 6). This alternative is also outside of the control of the project applicant and could not be implemented by the project applicant. Therefore, because this alternative would not meet most Proposed Project objectives, it was eliminated from further consideration in this EIR.

Distributed Generation Policy – Rooftop Solar Panels and Other Alternative Fuel Supplies

Under this alternative the Proposed Project would not be built. Instead, distributed generation including but not limited to residential and commercial roof-top solar panels, biofuels, hydrogen fuel cells, and other renewable distributed energy sources would be installed throughout San Diego County in place of the Proposed Project.

Distributed generation facilities are defined as non-centralized electric power production facilities less than 20 MW interconnected at the distribution side of the electricity system. (CPUC, Biennial Report on Impacts of Distributed Generation (May 2013).) Existing distributed generation programs sponsored by the state include generation on both the customer-side of the meter (serving a specific electricity user at the point of generation) and on the utility-side of the meter (providing a source of generation for utility use). At the end of 2012, customer-side

distributed generation installations equaled a total of 1,785 MW, and utility-side distributed generation installations had reached 177 MW. (Id.) California's goals for currently active distributed generation programs total approximately 6,000 MW, and are split somewhat evenly between customer-side distributed generation (3,000 MW in the California Solar Initiative, New Solar Homes, and Public Utility PV programs) and utility-side distributed generation (3,000 MW in the Renewable Action Mechanism (RAM) Feed-in Tariff, and Utility Solar PV programs). (Id., Fig. 1-1.)

While this alternative, including rooftop solar, would result in a significant net reduction in project impacts as compared with the Proposed Project, it is outside of the control of, and could not be implemented by, the project applicants. (Soitec Solar Development LLC, 2014.) This is one of the many factors that may be taken into account when addressing the feasibility of alternatives. (CEQA Guidelines §15126.6(f)(1).) It is also outside the control of the County to approve the acquisition of energy from distributed generation sources by investor-owned utilities, such as SDG&E. Instead, the authority to direct investor-owned utilities (IOUs) to procure additional utility-side distributed generation and to determine how customer-side distributed generation is compensated rests with the CPUC. The County can however, implement policies to remove administrative hurdles to taking advantage of programs already established by the CPUC.

This alternative would not meet most of the project objectives for the Proposed Project because it would not meet Objectives 1, 2, 3, 5, or 6.

This alternative would not meet Objective 1 of assisting in achieving the state's RPS and GHG reduction objectives of obtaining 33% of electricity from renewable resources by 2020. With regard to RPS goals, SDG&E and other IOUs are still likely to need to procure additional utility-scale generation even if all of the distributed generation mandates listed above are met. (See, e.g., SDG&E Draft 2014 Renewables Portfolio Standard Procurement Plan at 16-17; Southern California Edison 2014 Renewables Portfolio Standard Procurement Plan, Public Version, Vol. I at 6-7.)

Further, numerous practical and regulatory limitations that would inhibit using small rooftop solar and other small distributed generation for RPS compliance. In order to use the renewable energy credits (RECs) from distributed generation solar energy systems, those systems must report generation to the Western Renewable Energy Generation Information System (WREGIS), and must use a meter that has an independently-verified accuracy rating of 2 percent or higher, before any RECs associated with the distributed generation can count toward a utility's RPS (CEC-California Energy Commission 2013, Renewables Portfolio Standard Eligibility, p. 41.) Furthermore, Senate Bill SBx1-2, which established the current 33% RPS, set significant limits on the use of unbundled RECs for RPS compliance. The CPUC implemented those limitations in Decision 11-12-052. SDG&E can meet only 15% of its RPS obligation through unbundled RECs

from 2014 to 2016, and only 10% of its RPS obligation after 2017 can be met with unbundled RECs. Finally, in significant part due to the transaction costs associated with having net-metered distributed PV participate in the REC market, including reporting and metering costs, and the costs of engaging in a multitude of small transactions, no viable market for such unbundled RECs has yet developed (see Crossborder Energy 2013, Evaluating the Benefits and Costs of Net Energy Metering in California, p. 20). Therefore, the likelihood of distributed generation contributing to SDG&E's 33% RPS obligations in the same manner as the Proposed Project is slim. As a consequence, the lack of a market for tradable RECs means that no agreed mechanism currently exists to allow developers to purchase or trade small-scale distributed generation that could displace the development of utility-scale solar facilities, which contribute to the RPS goals. Therefore any market and consequently any rooftop solar distributed generation solution as an alternative to the Proposed Project would be speculative.

With regard to Objective 1's goal of assisting the state in meeting its GHG goals, Assembly Bill 32 set an initial target of reducing California's GHG emissions to 1990 levels by 2020, and tasked the California Air Resources Board (CARB) with monitoring and regulating GHG emissions. Executive Order S-3-05 set a longer term GHG goal of 80% below 1990 levels by 2050. A recent study conducted by Lawrence Berkeley National Laboratory and supported by CARB's Research Division showed that to meet those goals would require greater than 40% renewable generation by 2020, and up to 51% renewable generation by 2030. (Jeffery Greenblatt, "Policy-Driven Greenhouse Gas Emissions Trajectories in California: The California Greenhouse Gas Inventory Spreadsheet (GHGIS) Model," (<http://eetd.lbl.gov/sites/all/files/lbnl-6451e.pdf>) at 25.) Thus, utilities will be required to procure additional utility-scale renewable generation beyond the amounts needed to meet the State's RPS goals in order to meet the State's GHG reduction objectives.

With respect to larger scale rooftop solar (greater than 1 MW), while it is possible for such larger scale distributed generation resources to be used to meet the state's RPS goals, as noted above, it is speculative whether the CPUC would approve acquisition of additional distributed generation in San Diego County in light of its ongoing programs. Furthermore, it is speculative whether up to 168.5 MW of distributed generation could reach commercial operation prior to 2020 considering the time necessary to achieve CPUC approval, seek bids for applicable projects, and bring the projects to fruition. In fact, SDG&E has recommended that the CPUC not extend the Renewable Auction Mechanism (RAM) program. (SDG&E Draft 2014 Renewables Portfolio Standard Procurement Plan at 24, (<https://www.sdge.com/sites/default/files/regulatory/Public%20Version%20SDGE%202014%20RPS%20Plan%20Cover%20Pleading.pdf>)).) As an example of the difficulty in implementing distributed generation projects, SDG&E has sought since 2010 to implement up to 26 MW of utility-owned solar PV generation under its CPUC-approved Solar Energy Project. As of February 2014, however, SDG&E had only 8.8 MW under development and had abandoned further projects because they were unlikely to meet an April

2016 deadline for commercial operations due to unexpectedly lengthy permitting processes. (CPUC, SDG&E Annual Compliance Report on Solar Energy Project (Feb. 2014).)

This alternative also would not meet Objective 2 since, by definition, it would not only create at most half of the utility-scale solar energy facilities that the Proposed Project would create. Nor would this alternative meet Objective 1 of assisting in achieving the state's RPS and GHG reduction objectives of obtaining 33% of electricity from renewable resources by 2020. Although this alternative would result in increased generation of renewable energy sources, at present, most rooftop solar is ineligible to contribute towards the RPS. Additionally, current trading mechanisms by which distributed generation facilities could contribute to the RPS target are either impractical for small scale systems or ineligible for utility participation. While a CPUC decision was issued authorizing the use of tradable renewable energy credits (RECs) (CPUC Decision 10-03-021), the decision was stayed, and so the market has yet to be defined and is not yet active. As a consequence, the lack of a market for tradable RECs means that no agreed mechanism currently exists to allow developers to purchase or trade small scale distributed generation that could displace the development of utility scale solar facilities, which contribute to the RPS goals. Therefore any market and consequently any distributed generation solution as an alternative to the Proposed Project would be speculative. (CPUC, Biennial Report on Impacts of Distributed Generation (May 2013) [approximately half of 6,000 MW distributed generation goal would constitute utility-scale generation].) The term "utility-scale solar" refers both to where the solar energy project connects to the electrical grid, and to its size. In terms of interconnection, a "utility scale solar" system refers to a solar energy project that is not a customer-side energy generation system, but rather, is utility-side energy generation system that interconnects under contract to a utility. (Berkeley Energy & Resources Collaborative, 2013.) The term also refers to solar energy systems above a certain size. Commentators can and do dispute how big a solar energy project needs to be before it can be considered a "utility-scale solar" project, ranging from 1-2 MW (Berkeley Energy & Resources Collaborative, 2013), to 3 MW (CPUC 2012a, Decision 12-05-035 (defining minimum size for RAM projects), to 4 MW (Wiki-Solar 2013) to 5 MW (National Renewable Energy Laboratory 2014) to 10 MW (California Energy Commission 2014). For the purposes of the Soitec Solar Development Program EIR, a "utility-scale solar" project is one that is greater than 1 MW in size, which is above the limit for the state's net metering program (<http://www.cpuc.ca.gov/PUC/energy/DistGen/netmetering.htm>).

SDG&E and other IOUs need to procure utility-scale solar energy facilities in order to meet CPUC requirements to obtain sufficient local and system generation capacity to ensure that they can serve load, referred to as resource adequacy (RA) requirements. Due to limitations associated with the electric distribution grid, distributed generation has a very limited ability to provide capacity to meet RA requirements. For 2013-2014, the California Independent System

Operator (CAISO), calculated that only 134.61 MW of distributed generation could count toward RA requirements in SDG&E's service territory. (CAISO Resource Adequacy Deliverability for Distributed Generation: 2013-2014 DG Deliverability Assessment Results at 3; SDG&E Draft 2014 Renewables Portfolio Standard Procurement Plan at 31). This is far less than the amount of distributed generation that SDG&E is already obligated to develop, and so SDG&E is required to procure additional utility-scale energy facilities to comply with its RA requirements. Recently, the CPUC also directed SDG&E to procure an additional 200 MW of preferred resources, which include renewable resources such as solar PV, to meet local capacity requirements. (CPUC Decision D.14-03-004.) Any generation capacity developed to satisfy the CPUC's direction to procure 200 MW of preferred resources must meet RA requirements. (SDG&E LTPP/Track 4 Procurement Plan (Preferred Resources) at 2). As explained above, distributed generation has a limited ability to meet those requirements.

Pursuant to Assembly Bill 2514, utilities such as SDG&E also have an obligation to procure energy storage interconnected at the transmission level, distribution level, and behind the meter. However, the majority of that storage must be obtained at the transmission level. (CPUC 2013a (Decision 13-10-040)). There can be significant benefits to siting energy storage facilities with utility-scale renewable energy facilities that generate electricity intermittently. For example, such facilities can assist in the integration of increasing amounts of renewable energy into grid by capturing off-peak and variable electricity generation and delivering it on demand. By failing to meet Objective 2, this alternative would also not provide an opportunity for siting transmission level energy storage facilities to meet transmission level energy storage mandates.

This alternative would not meet Objective 3, which calls for the location of solar power plant facilities as near as possible to existing or planned electrical transmission facilities. As noted above, at least half of California's distributed generation is on the customer-side of the meter and does not interconnect with existing or planned electrical transmission facilities at all. By failing to meet Objective 3, this alternative would inhibit the ability of utilities to meet both the RA requirements and energy storage mandates described above.

Furthermore, this alternative would not meet Objective 5 because distributed energy installers are not required to offset GHG emissions ~~for~~ associated with the installation and operation of each system, and therefore, would not meet the no net additional GHG emissions objective.

And finally, this alternative would not commit to an investment of at least \$100 million in economic development through the creation of high-wage, highly skilled construction and permanent jobs that pay prevailing and living wages (Objective 6). First, based on the speculative nature of the distributed generation alternative, as discussed both above and below, the extent to which the distributed generation alternative would generate economic development is unknown because the CPUC has already called for substantial distributed generation energy

generation and it is unclear whether it will call for more. Second, unlike the Proposed Project, the distributed generation alternative would not be required to pay prevailing and living wages.

Therefore, because this alternative would not meet most of the project objectives, it was eliminated from further consideration from this EIR.

Technological and Legal Feasibility—Distributed Solar Photovoltaic (PV)

As a rough approximation, 100 square feet of solar PV delivers 1 kilowatt (kW) capacity, ~~and~~ the average size of a domestic system in San Diego is about 4.5 kW (San Diego Regional Renewable Energy Study Group 2005). Therefore, to deliver the equivalent capacity of 168.5 MW of the Proposed Project, the proponents would need approximately 38,000 domestic rooftop systems to secure the equivalent capacity and energy proposed by the Proposed Project.

The ~~California Public Utilities Commission (CPUC)~~ reports annually on the number of new solar installations and the cumulative installed capacity in California through its California Solar Initiative (CSI) Program, which provides incentives to for installation of individual solar PV systems within the service territories of California investor-owned utilities (IOU) (CPUC 2013b). The CSI Program does not include wholesale solar power plants, which are designed to serve the electric grid, nor does it contribute toward the utilities' RPS obligations. At the end of 2012, California had installed 1,427 MW of solar capacity at 142,211 sites in the IOU territories (this data does not include solar projects installed in publicly owned utility areas). Within SDG&E's territory, 21,018 systems, providing 123 MW, were connected by the end of 2012. In 2011, approximately 15,499 systems were installed (CPUC 2012b).

Given recent averages for domestic rooftop solar installations, the sheer number of new installations required to deliver up to an additional 168.5 MW of solar electricity by 2020 to meet the state's RPS goals (Objectives 1 and 7) render this alternative highly speculative and therefore infeasible from a technical and commercial perspective. As yet undefined technical hurdles associated with high levels of PV development exist that create imbalances in the grid system. (CPUC 2013c (Biennial Report on Impacts of Distributed Generation, May 2013)). The intermittent performance characteristics of PV result in rapid localized voltage drops. (Id.) As a consequence, extensive upgrading to substations may be required to cope with such variation. Such upgrading may involve environmental impacts that cannot be clearly defined.

As described above, it is outside the applicant's ability to implement the development of distributed generation, and it is beyond the County's legal authority to mandate the development of additional distributed generation systems because that power is reserved to the CPUC.

It is speculative whether the CPUC would allow the IOUs to procure any additional utility-side distributed generation in San Diego County beyond what it has already mandated. The CPUC

has already directed the utilities, including SDG&E, to procure additional utility-side distributed generation through a variety of mechanisms, including the RAM, a Renewable Market Adjusting Tariff (ReMat), Green Tariff Shared Renewables Program, the Bioenergy Feed-In Tariff, and SDG&E's Solar Energy Project. Under these programs, SDG&E alone is required to procure or develop over 325 MW of distributed generation, and the other IOUs have similar goals. It is speculative whether the CPUC would approve the acquisition of additional utility-side distributed generation in San Diego County, especially given that SDG&E still needs to procure approximately 146 MW of utility-side distributed generation under these existing mandates. (SDG&E 2014a (Draft 2014 Renewables Portfolio Standard Procurement Plan at 10-13)). In fact, SDG&E has recommended that the CPUC not extend the RAM program (*id.* at 24), and although SDG&E has sought since 2010 to implement up to 26 MW of utility-owned solar PV generation under its CPUC-approved Solar Energy Project, as of February 2014, SDG&E has 8.8 MW under development and has abandoned further projects because it is unlikely to meet the April 2016 deadline for commercial operations due to unexpectedly lengthy permitting processes. (SDG&E 2014b (Annual Compliance Report on Solar Energy Project, Feb. 2014).)

Accordingly, in addition to failing to meet most of the Proposed Project's objectives, the distributed generation alternative would also be economically, legally, and technically infeasible.

Technical Feasibility—Other Distributed Generation Technologies

Other distributed generation technologies are still as yet unproven or have limited potential growth. For example, fuel cell technologies, including the Bloom Box, have only been installed in a few pilot projects and/or have a limited development potential. Such technology only qualifies as a renewable energy resource if run on biogas. Biogas capacity in California is both limited and expensive. Of the 704 MW potentially available (Rickerson et al. 2008), 35% has already been developed, leaving no more than 451 MW for future development. Replacing the proposed 168.5 MW of solar generation with biogas would not be feasible for the following reasons: (a) the technology is not within the control of the proponent, and it is therefore too speculative to assume that implementation of sufficient biogas facilities is achievable; and (b) approximately 37% of the known available capacity would be needed to offset the solar capacity proposed by the Proposed Project.

For the reasons described above, the distributed generation alternative was eliminated from further consideration in this EIR because it would require substantial installations and would be prohibitively expensive. These installations would render this alternative's ability to meet most of the Proposed Project objectives infeasible from a technical and commercial perspective.

Solar PV Alternative

Under this alternative, the project would use flat-panel PV single-axis tracking systems instead of concentrator photovoltaic electric generation (CPV) trackers. These traditional types of solar panels tend to be rigid and are constructed of materials like tempered glass and aluminum to make them durable enough to withstand being left out in the elements in a permanent installation. A PV solar generation facility using single-axis trackers consists of solar PV panels supported by a north–south oriented galvanized metal tracking system that tracks the Sun from east to west. The PV panels are typically made of thin-film amorphous silicon based material covered with a glass panel with low reflectivity, are black in color, and are highly absorptive. The panels are typically mounted on the trackers in tandem with one panel mounted above a second panel measuring approximately 10 to 14 feet in total combined width. The total height of the two-panel system measured from ground surface would be approximately 8 to 10 feet. The length of each tracker row would be approximately 300 feet along the north–south axis. Beam separation along each row would range from approximately 8 to 14 feet. Spacing between each north–south row would range from approximately 18-24 feet center to center.

This alternative may slightly reduce impacts relative to changes in the visual character due to reduced height and fixed frames (no movement) when compared to the Proposed Project. However, fixed or single-axis tracking PV panels have higher overall reflection levels due mainly to changing, and therefore higher, angle of incidence throughout the day (see Appendix 2.1-3). Despite having higher overall reflection values, it is not known if potential glare impacts to surrounding roadways and residences would be greater than the Proposed Project without knowing how the solar PV panels would be positioned and operate with respect to tracking the sun. Impacts under the Solar PV Alternative related to air quality, biology, cultural resources, GHG emissions and noise would be similar to the Proposed Project including significant, unavoidable air quality impacts due to short-term, construction emissions. This alternative would not substantially reduce any environmental impacts associated with the Proposed Project, and therefore, it was eliminated from further consideration in this EIR.

Wind Energy Alternative

Wind projects are a viable alternative to solar projects; however there is very little land available within San Diego County that has wind resources suitable for utility scale wind farm development (approximately 1.5% of the unincorporated areas of San Diego County). In addition, wind energy projects would likely have greater significant impacts related to aesthetics, biological resources, noise, and land use, as compared to the Proposed Project.

Although the Wind Energy Alternative would help the state meet renewable energy goals, it would not meet the Proposed Project Objectives 1 through 4 related to developing utility scale solar

energy resources in San Diego County. Since this alternative would likely result in greater significant impacts than the Proposed Project and would not meet several of the objectives, it was eliminated from further consideration in this EIR.

Alternate Locations

Section 15126.6(f)(2) of the CEQA Guidelines addresses alternative locations for a project. The key question and first step in the analysis is whether any of the significant effects of the Proposed Project would be avoided or substantially lessened by putting the Proposed Project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for inclusion in the EIR. Further, CEQA Guidelines Section 15126.6(f)(1) states that alternative locations only need be considered if the project proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). The Proposed Project sites have been selected in accordance with Objective 4, which calls for solar power plant facilities to be sited in areas with excellent solar attributes, including but not limited to high DNI, in order to maximize productivity. The sites have also been selected in accordance with Objective 2, which calls for solar energy in-basin, as well as Objective 3, locating solar facilities near existing or planned electrical transmission facilities. The Proposed Project applicants do not own nor have the ability to easily acquire other sites within San Diego County that meet this objective. The Proposed Project site location also provides high DNI, both because of its elevation and because the Boulevard area climate zone provides hot summers and mild winters with minimal coastal marine influence, which is also beneficial for solar energy production. The Proposed Project sites also have access within close proximity to the required point of interconnection (Rebuilt Boulevard Substation), which is essential for solar farm development. The Los Robles site has been identified as an alternative location for the Proposed Project. ~~The applicant has site control of the location and holds the full ability to develop these lands.~~ In addition, similar to the Proposed Project, the Los Robles site is in an area with excellent solar attributes, including a high DNI; is in-basin; and is near a point of interconnection, thereby reducing the length of new transmission facilities. The applicant has explored a number of alternative locations throughout San Diego County and has screened these locations for their capability to meet the project objectives, including the presence of excellent solar attributes. The Los Robles site is the only alternative location which meets the project objectives and for which the project applicant has the ability to acquire the site is Los Robles, and therefore, the Los Robles site is the only other alternative location further considered in this EIR.

4.3 Reduced Project Alternatives

4.3.1 Analysis of the Reduced Proposed Project Alternative (Alternative 1)

4.3.1.1 *Reduced Proposed Project Alternative Description and Setting*

The Reduced Proposed Project Alternative would reduce the amount of development within the Proposed Project as a whole, including the Tierra del Sol, Rugged, LanEast, and LanWest sites, by increasing the setbacks from the property lines on highly visible edges of the project sites.

Under this alternative, the Tierra del Sol project would remove up to six rows of trackers from the northwestern edge of the project site and nine rows of trackers from the northern edge of the project site to increase the setback by approximately 500 feet from the public right-of-way (ROW) (Tierra del Sol Road) (see Figure 4-1, Tierra del Sol Reduced Project Alternative). There would be no trackers removed along the eastern or southern edge of the project because those portions of the project cannot be viewed from the public road. The total number of trackers developed on site would be reduced by approximately 640 trackers (25%), resulting in approximately 2,020 trackers total developed on site. The project would retain a 50-foot fuel modification zone along the edge of the trackers; however, native vegetation would remain in place within the additional 500-foot area of setback. Vegetative screening would not be implemented under this alternative since the large area of native vegetation would remain to screen views of the fence and tracker bases. Under this alternative, the total disturbed acreage on Tierra del Sol would be reduced by approximately 75 acres. The gen-tie location would remain the same for this alternative.

Under this alternative, development on the Rugged site would be reduced by removing trackers from approximately half of the eastern subarea (Assessor's Parcel Number (APN) 611-110-01), eliminating trackers from the western subarea (APNs 611-060-04 and 611-090-02), and removing trackers from the southern edge of the central subarea (APNs 612-030-19 and 612-030-01) (see Figure 4-2, Rugged Reduced Project Alternative). There would be no trackers removed from the northeastern subarea (APN 611-100-07) because these trackers are minimally visible from public ROWs. Under this alternative, approximately 950 trackers (26% of the total trackers) would be removed from the project site. The total disturbed acreage would be reduced by approximately 130 acres.

The LanEast and LanWest solar farms would similarly be reduced by removing rows of CPV trackers at the northern and southern property lines to increase the setbacks from Interstate 8 (I-8) and Old Highway 80. Since LanEast and LanWest are analyzed at a programmatic level, the extent of setbacks and reduction in trackers cannot be specifically determined at this time, but would be anticipated to be reduced by approximately 25% of the total number of

trackers on each solar farm site. However, the setbacks would need to comply with the County Fire Authority to allow for adequate fuel modification buffer areas. The amount of ground disturbance on the LanEast and LanWest sites would also be reduced by approximately 25%.

4.3.1.2 Comparison of the Effects of the Reduced Proposed Project Alternative to the Proposed Project

Aesthetics

As described in Section 2.1, Aesthetics, the Proposed Project would result in potentially significant impacts related to scenic vistas, visual character or quality and glare. Vegetative screening would be implemented as mitigation to reduce the visibility of trackers from off-site locations; however, impacts related to visual character and quality and glare would not be reduced to a level below significance; therefore, impacts as a result of the Proposed Project would remain significant and unavoidable.

The Proposed Project would result in less-than-significant impacts related to scenic vistas for the Tierra del Sol and Rugged solar farm sites. Under this alternative, impacts to scenic vistas would similarly be less than significant for these sites. Nonetheless, significant and unmitigable impacts related to scenic vistas would remain for the LanEast and LanWest solar farms under this alternative because the project sites would still be visible from I-8.

The Reduced Proposed Project Alternative would reduce impacts to visual character and quality since trackers would be removed from areas of high visibility. Reducing the total number of trackers at each site would result in greater setbacks from the property lines and increased property line setbacks would allow for larger areas of native vegetation to remain between public ROWs and the project sites. However, despite increased setbacks and larger areas of native vegetation, conversion of undeveloped land to solar farms at each of these four sites would still result in significant and unmitigable impacts related to visual character and quality. Additionally, the Tierra del Sol gen-tie line would be developed as proposed by the Proposed Project and would still result in significant and unmitigable aesthetic impacts related to visual character and quality.

Removal of trackers and increased setbacks along public ROWs may reduce the glare anticipated to be received at residences and roadways near the Tierra del Sol and Rugged solar farm sites under this alternative, but it is not known if this would reduce glare impacts to less than significant without mitigation. In addition, the LanEast and LanWest solar farms are highly visible from I-8, and it cannot be determined at this time if increased setbacks on these sites would reduce impacts related to glare to less than significant. Therefore, while aesthetic impacts

would be reduced under this alternative, impacts related to scenic vistas, visual character or quality, and glare would remain significant and unmitigable under both the Proposed Project and this alternative.

Air Quality

As described in Section 2.2, Air Quality, the Proposed Project would not result in significant impacts related to conformance with the Regional Air Quality Strategy (RAQS), conformance to federal and state ambient air quality standards during operation, sensitive receptors, or odors. However, during construction, the Proposed Project would exceed thresholds for NO_x and PM₁₀, which would result in a significant and unavoidable impact related to air quality. The construction-related impacts would also be considered cumulatively considerable and would be unmitigable during the short-term construction period.

Under the Reduced Proposed Project Alternative, the total number of trackers to be installed would be reduced compared to the Proposed Project. Similar to the Proposed Project, this alternative would be in conformance with the RAQS, would conform to federal and state ambient air quality standards during operation, and would result in less-than-significant impacts related to sensitive receptors and odors. The reduction in the number of trackers to be installed and total area to be graded would reduce overall construction time and effort; however, daily effort at peak installation times would not be reduced, and therefore, impacts would remain significant and unmitigable due to the overlap of the Tierra del Sol and Rugged construction schedules. Therefore, this alternative would have reduced impacts related to air quality related to conformance with federal and state ambient air quality standards during construction when compared to the Proposed Project, but impacts would not be reduced to a less-than-significant level.

Biological Resources

As described in Section 2.3, Biological Resources, the Proposed Project would result in potentially significant direct and indirect impacts to sensitive plant and wildlife species, sensitive vegetation communities, jurisdictional resources, and wildlife movement, and would conflict with the Migratory Bird Treaty Act (MBTA). However, with incorporation of mitigation measures, which include the preservation of habitat at the Soitec mitigation site, potentially significant impacts as a result of the Proposed Project would be reduced to less than significant.

Under the Reduced Proposed Project Alternative, fewer trackers would be installed, and less area would be cleared of native vegetation. The project would still implement a 50-foot fuel modification zone along the edge of the trackers; however, approximately 75 fewer acres of chaparral communities would be disturbed on the Tierra del Sol site; approximately 130 fewer acres of mixed vegetation communities would be disturbed on the Rugged site; and an unknown

acreage of mixed vegetation communities would remain undisturbed on the LanEast and LanWest sites. In addition, under this alternative, trackers would be removed from the area in the western subarea of the Rugged site around Tule creek, reducing the potential for blockage of wildlife movement and indirect impacts to riparian areas.

Similar mitigation measures would be implemented under this alternative as for the Proposed Project, which would reduce potentially significant impacts to biological resources to less than significant. Therefore, impacts to biological resources associated with the Tierra del Sol, Rugged, LanEast, and LanWest components under this alternative would be reduced to less than significant.

Cultural Resources

As described in Section 2.4, Cultural Resources, the Proposed Project would result in potentially significant impacts to prehistoric and historical resources, archaeological resources, cultural resources as defined by the Resource Protection Ordinance, and human remains. The mitigation measures identified in Section 2.4 would reduce all potentially significant impacts associated with the Tierra del Sol and Rugged solar farm sites to below a level of significance, and are anticipated to reduce potential impacts on the LanEast and LanWest sites.

Under the Reduced Proposed Project Alternative, fewer trackers would be installed, and less area would be disturbed or graded. Because less trenching and/or digging associated with the installation of trackers and underground collection systems would be required, potential impacts to any subterranean prehistoric, historical, archaeological, and cultural resources and human remains would likely be reduced.

Similar mitigation measures would be implemented under this alternative as for the Proposed Project, which would reduce potentially significant impacts to cultural resources associated with the Tierra del Sol and Rugged solar farms to less than significant, and are anticipated to reduce potentially significant impacts at the LanEast and LanWest sites. Therefore, although the Reduced Proposed Project Alternative may have reduced impacts prior to mitigation, impacts to cultural resources associated with both the Reduced Proposed Project Alternative and the Proposed Project would be reduced to less than significant.

Land Use and Planning

As described in Section 2.5, Land Use and Planning, construction of the Proposed Project would not physically divide a community with incorporation of **PDF-TR-1** through **PDF-TR-3**. Operation of the Proposed Project would also result in less-than-significant impacts related to physically dividing a community. The Proposed Project would be consistent with applicable County Board of Supervisors policies and County Ordinances, and would not conflict with applicable goals and policies of the Mountain Empire Subregional Plan or the Boulevard

Subregional Plan. The Tierra del Sol and Rugged solar farms would be consistent with the County General Plan; however, LanEast and LanWest would conflict with County General Plan policies COS-11.1 and COS-11.3, which require the protection of scenic resources and development siting and design which minimizes visual impacts. Therefore, the Proposed Project would result in a significant and unmitigable impact.

Under the Reduced Proposed Project Alternative, potential construction impacts related to physically dividing a community would similarly be reduced to less than significant with incorporation of project design features, and operational impacts would also be less than significant. This alternative would also similarly be consistent with applicable goals and policies; however, despite the fact that the reduced LanEast and LanWest solar farms under this alternative would reduce potential impacts to visual character or quality and glare, significant impacts would still remain and would conflict with County General Plan policies COS-11.1 and COS-11.3. Therefore, land use impacts would remain significant and unmitigable under this alternative and would be similar to the Proposed Project.

Noise

As described in Section 2.6, Noise, the Proposed Project would result in potentially significant impacts related to operational and construction noise and vibration. However, incorporation of project design features and mitigation measures would reduce potential impacts to less than significant. Impacts associated with corona noise would be less than significant.

The Reduced Proposed Project Alternative would reduce construction and operational noise and vibration by reducing the number of trackers constructed on the four project sites. This reduction would result from increased distance to the project boundaries from noise generating sources and activities including tracker array motors, tracker washing activities, and construction and installation of trackers and collector systems. Noise associated with construction of the Tierra del Sol gen-tie, including helicopter noise, would remain under this alternative. Similar to the Proposed Project, the Reduced Proposed Project Alternative would incorporate project design features and mitigation measures to reduce potential noise impacts to less than significant, although the increased setbacks could eliminate the need for some project design features along some project boundaries (e.g tracker washing).

Other Resource Topics

Impacts associated with the Reduced Proposed Project Alternative related to agriculture and forestry resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, paleontological resources, public services, traffic and transportation, and utilities would be the same as or less than those associated with the Proposed Project. Specifically, GHG emissions would be reduced under this alternative due to a reduced

overall construction effort from the installation of fewer trackers. Also, impacts to hydrology and water quality and utilities related to water demand would be reduced since no landscape screening, and associated irrigation, would be required under this alternative.

4.3.1.3 Summary of the Reduced Proposed Project Alternative

The Reduced Proposed Project Alternative (Alternative 1) would generally result in similar or slightly reduced impacts to the environmental resource areas considered within this EIR compared to the Proposed Project. This alternative would reduce impacts related to aesthetics and air quality, although not to less than significant levels, and therefore, significant and unmitigable impacts would still remain. This alternative would also reduce impacts related to biological and cultural resources, and noise. This alternative would meet all project objectives, although not to the degree that the Proposed Project would. For example, Alternative 1 would result in approximately 17,580 fewer homes¹ served as compared to the Proposed Project, and therefore, it would not achieve project objectives 1, 6, and 7 to the degree that the Proposed Project would.

4.3.2 Analysis of the No LanEast and LanWest Alternative (Alternative 2)

4.3.2.1 No LanEast and LanWest Alternative Description and Setting

The No LanEast and LanWest Alternative would include the reduced Tierra del Sol and Rugged solar farms as described above and would remove the LanEast and LanWest solar farms from the Proposed Project. The Tierra del Sol gen-tie would be the same as the Proposed Project under this alternative.

4.3.2.2 Comparison of the Effects of the No LanEast and LanWest Alternative to the Proposed Project

Aesthetics

As described in Section 2.1, Aesthetics, the Proposed Project would result in potentially significant impacts related to scenic vistas, visual character or quality, and glare. Vegetative screening would be implemented as mitigation to reduce the visibility of trackers from off-site

¹ The number of homes not served by the Reduced Proposed Project Alternative compared to the Proposed Project was calculated based on the following equation:

$L*Y/X = \text{HNS}$ (homes not served) where L = number of trackers less than the Proposed Project; Y = annual kilowatt hour (kWh) production per tracker (assumed approximately 64,260 kWh per 1,000 Volt tracker); and X = average annual kWh of energy used per home in California (estimated at 6,876 kWh (U.S. Energy Information Administration 2013, Table 5A).

locations; however, impacts related to visual character and quality and glare would not be reduced to a level below significance; therefore, impacts as a result of the Proposed Project would remain significant and unavoidable.

The Proposed Project would result in less-than-significant impacts related to scenic vistas for the Tierra del Sol and Rugged solar farm sites. Under this alternative, impacts to scenic vistas would similarly be less than significant for these sites. In addition, since the LanEast and LanWest solar farms would not be constructed under this alternative, significant and unmitigable impacts related to scenic vistas would not occur.

The No LanEast and No LanWest Alternative would avoid impacts to visual character and quality and glare from these sites since they would not be constructed, and on the Tierra del Sol and Rugged sites trackers would be removed from areas of high visibility and would have greater setbacks from the property lines adjacent to public ROW. However, despite increased setbacks and larger areas of native vegetation, conversion of undeveloped land to solar farms at the Tierra del Sol and Rugged sites would still likely result in significant and unmitigable impacts related to visual character and quality. Additionally, the Tierra del Sol gen-tie line would be developed as proposed by the Proposed Project and would still result in significant and unmitigable aesthetic impacts related to visual character and quality.

Removal of trackers and increased setbacks along public ROWs may reduce the glare anticipated to be received at residences and roadways near the Tierra del Sol and Rugged solar farm sites under this alternative, but it is not known if this would reduce glare impacts to less than significant without mitigation. However, by removing the LanEast and LanWest solar farms, potentially significant glare impacts related to the proximity of these sites to I-8 and Old Highway 80 would be avoided. Therefore, under the No LanEast and LanWest Alternative, overall aesthetic impacts (and more specifically, scenic vista and glare impacts) would be substantially reduced as compared to the aesthetic impacts of the Proposed Project, but significant and unmitigable impacts would likely remain for the Tierra del Sol and Rugged solar farms.

Air Quality

As described in Section 2.2, Air Quality, the Proposed Project would not result in significant impacts related to conformance with the RAQS, conformance to federal and state ambient air quality standards during operation, sensitive receptors, or odors. However, during construction, the Proposed Project would exceed thresholds for NO_x and PM_{10} , which would result in a significant and unavoidable impact related to air quality. The construction-related impacts would also be considered cumulatively considerable and would be unmitigable during the short-term construction period.

Under the No LanEast and LanWest Alternative, the construction and operational emissions associated with the LanWest and LanEast components would not occur. Therefore, the elimination of the LanWest and LanEast components would reduce this alternative's contribution of NO_x and PM₁₀ during construction since no construction would occur at the LanWest or LanEast sites. The reduced Tierra del Sol and Rugged solar farms would also result in slightly less construction activities and equipment and therefore, less overall emissions associated with construction. However, because the Tierra del Sol and Rugged construction schedules would overlap and combined daily construction emissions would continue to exceed the threshold during peak construction periods, this alternative would still result in a significant and unmitigable impact related to short-term construction emissions. Therefore, this alternative would have reduced impacts related to air quality related to conformance with federal and state ambient air quality standards during construction when compared to the Proposed Project, but not reduced to a less-than-significant level.

Biological Resources

As described in Section 2.3, Biological Resources, the Proposed Project would result in potentially significant direct and indirect impacts to sensitive plant and wildlife species, sensitive vegetation communities, jurisdictional resources, and wildlife movement, and would conflict with the MBTA. However, with incorporation of mitigation measures, which include the preservation of habitat at the Soitec mitigation site, potentially significant impacts as a result of the Proposed Project would be reduced to less than significant.

Under the No LanEast and LanWest Alternative, ground disturbance would be greatly reduced (by about 35% compared to the Proposed Project) because the LanEast and LanWest sites would not be developed as solar farms, and fewer trackers would be developed on the Tierra del Sol and Rugged solar farms. All impacts to biological resources as a result of the proposed LanEast and LanWest components of the Proposed Project (including impacts to jurisdictional drainages/wetlands and sensitive flower fields) would be avoided under this alternative. Although potentially significant impacts would occur as a result of the Tierra del Sol and Rugged components, these impacts would be reduced to less than significant through implementation of the proposed mitigation measures. Therefore, impacts to biological resources under this alternative would be reduced to less than significant, similar to the Proposed Project, although potential impacts would be substantially less prior to the implementation of mitigation.

Cultural Resources

As described in Section 2.4, Cultural Resources, the Proposed Project would result in potentially significant impacts to prehistoric and historical resources, archaeological resources, cultural resources as defined by the Resource Protection Ordinance, and human remains. The mitigation measures identified in Section 2.4 would reduce all potentially significant impacts associated with

the Tierra del Sol and Rugged solar farm sites to below a level of significance, and are anticipated to reduce potential impacts on the LanEast and LanWest sites, although this cannot be confirmed until those sites are tested for significance.

Under the No LanEast and No LanWest Alternative, ground disturbance would be greatly reduced (by about 35% compared to the Proposed Project) because the LanEast and LanWest sites would not be developed and fewer trackers would be developed on the Tierra del Sol and Rugged solar farms. Therefore, under this alternative, all potential impacts to cultural resources as a result of the proposed LanEast and LanWest components of the Proposed Project would be avoided; however, similar mitigation measures would be implemented under this alternative as for the Proposed Project, which would reduce potentially significant impacts to cultural resources associated with the Tierra del Sol and Rugged solar farms to less than significant.

Land Use and Planning

As described in Section 2.5, Land Use and Planning, impacts related to physically dividing a community would be less than significant. The Proposed Project would be consistent with applicable County Board of Supervisors policies and County Ordinances, and would not conflict with applicable goals and policies of the Mountain Empire Subregional Plan or the Boulevard Subregional Plan. The Tierra del Sol and Rugged solar farms would be consistent with the County General Plan; however, LanEast and LanWest would conflict with County General Plan policies COS-11.1 and COS-11.3. Therefore, the Proposed Project would result in a significant and unmitigated impact.

Under the No LanEast and LanWest Alternative, potential construction impacts related to physically dividing a community would similarly be reduced to less than significant with incorporation of project design features, and operational impacts would also be less than significant. This alternative would similarly be consistent with applicable goals and policies, including County General Plan policies COS-11.1 and COS-11.3, since the LanEast and LanWest solar farms would not be developed under this alternative. Therefore, land use impacts would be less than significant under this alternative and would be reduced to less than significant, compared to the Proposed Project which has a significant and unmitigable impact.

Noise

As described in Section 2.6, Noise, the Proposed Project would result in potentially significant impacts related to operational and construction noise and vibration. However, incorporation of project design features and mitigation measures would reduce potential impacts to less than significant. Impacts associated with corona noise would be less than significant.

The No LanEast and LanWest Alternative would reduce construction and operational noise and

vibration by reducing the number of trackers on the Tierra del Sol and Rugged sites and by eliminating noise-producing sources and activities at the LanEast and LanWest solar farms entirely. This alternative would reduce noise generated by tracker array motors, reduce the duration of panel/array washing, and reduce the amount of grading for tracker foundations. Noise associated with the construction of the Tierra del Sol gen-tie would remain under this alternative. However, similar to the Proposed Project, project design features and mitigation measures would be incorporated under this alternative that would reduce potential noise impacts associated with the Tierra del Sol and Rugged components of the Proposed Project to less than significant, although the increased setbacks could eliminate the need for some project design features along some project boundaries (e.g tracker washing). Therefore, impacts under this alternative would be reduced compared to the Proposed Project, but both would be less than significant.

Other Resource Topics

Impacts associated with the No LanEast and LanWest Alternative related to agriculture and forestry resources, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, paleontological resources, public services, traffic and transportation, and utilities would be the same as or less than those associated with the Proposed Project. Specifically, GHG emissions would be reduced under this alternative due to a reduced overall construction effort from the installation of fewer trackers. Elimination of the LanEast and LanWest solar farms under this alternative would reduce impacts to hazards and hazardous materials by reducing the risk for wildlife. Also, impacts to hydrology and water quality and utilities related to water demand would be reduced since no landscape screening, and associated irrigation, would be required under this alternative.

4.3.2.3 Summary of the No LanEast and No LanWest Alternative

This alternative would reduce impacts related to aesthetics, especially those associated with LanEast and LanWest being highly visible from I-8 and Old Highway 80, and air quality. However, aesthetic and air quality impacts from the Tierra del Sol and Rugged sites are not anticipated to be reduced to a level below significance, and therefore, significant and unmitigable impacts would still remain. Significant and unmitigable impacts to land use from the LanEast and LanWest sites would be avoided and overall impacts related to land use would be reduced to less than significant under this alternative. This alternative would generally meet all project objectives, although not to the degree that the Proposed Project would. For example, using the calculation formula described in Section 4.3.1.3, Alternative 2 would result in approximately 25,736 fewer homes served as compared to the Proposed Project, and therefore, it would not achieve project objectives 1, 6, and 7 to the degree that the Proposed Project would.

4.3.3 Analysis of the Reduced Proposed Project and Underground Tierra del Sol Gen-tie Alternative (Alternative 3)

4.3.3.1 Reduced Proposed Project and Underground Tierra del Sol Gen-tie Alternative Description and Setting

The Reduced Proposed Project and Underground Tierra del Sol Gen-tie Alternative would include the reduced Tierra del Sol, Rugged, LanEast, and LanWest solar farms described under Alternative 1, reducing the amount of ground disturbance on each of the sites and increasing setbacks from public ROWs. This alternative would also include an entirely underground gen-tie line for all 6 miles of the gen-tie route, as compared to the Proposed Project which includes 3.5 miles of overhead gen-tie. The gen-tie would be constructed within a 50- to 100-foot-wide easement along the same alignment as the Proposed Project.

4.3.3.2 Comparison of Alternative 3 to the Proposed Project

Aesthetics

As described in Section 2.1, Aesthetics, the Proposed Project would result in potentially significant impacts related to scenic vistas, visual character, or quality and glare. Vegetative screening would be implemented as mitigation to reduce the visibility of trackers from off-site locations; however, impacts related to visual character and quality and glare would not be reduced to a level below significance; therefore, impacts as a result of the Proposed Project would remain significant and unavoidable.

Under this alternative, impacts to scenic vistas would be less than significant for Tierra del Sol and Rugged. Nonetheless, significant and unmitigable impacts related to scenic vistas would remain for the LanEast and LanWest solar farms under this alternative because the project sites would still be visible from Interstate 8 and Old Highway 80.

Alternative 3 would reduce impacts to visual character and quality since trackers would be removed from areas of high visibility, and there would be greater setbacks from property lines facing public ROWs, as described above under Alternative 1. In addition, the Tierra del Sol gen-tie would be entirely underground, which would avoid impacts associated with the aboveground transmission lines and structures as included in the Proposed Project. However, despite the increased setbacks, visual character and quality impacts would remain significant and unavoidable for all sites.

Removal of trackers at all sites may reduce glare anticipated to be received at adjacent residences or public roadways; however, it cannot be determined at this time if increased setbacks would reduce impacts related to glare to less than significant. Therefore, while

aesthetic impacts would be reduced under this alternative, and in particular aesthetics impacts associated with the gen-tie would be eliminated, impacts related to scenic vistas, visual character or quality, and glare are anticipated to remain significant and unmitigable under both the Proposed Project and this alternative.

Air Quality

As described in Section 2.2, Air Quality, the Proposed Project would not result in significant impacts related to conformance with the RAQS, conformance to federal and state ambient air quality standards during operation, sensitive receptors, or odors. However, during construction, the Proposed Project would exceed thresholds for NO_x and PM_{10} , which would result in a significant and unavoidable impact related to air quality. The construction-related impacts would also be considered cumulatively considerable and would be unmitigable during the short-term construction period.

Similar to the Proposed Project, this alternative would be in conformance with the RAQS, would conform to federal and state ambient air quality standards during operation, and would result in less-than-significant impacts related to sensitive receptors and odors.

Under Alternative 3, the number of trackers to be installed on the four solar farm sites would be reduced compared to the Proposed Project, reducing overall construction time and effort, and thereby reducing overall air quality impacts. Alternative 3 would not substantially reduce maximum daily emissions during peak tracker installation days, and the overlap of the Tierra del Sol and Rugged construction schedules would result in the exceedance of significance thresholds and a significant and unmitigable impact. Additionally, the installation of an entirely underground Tierra del Sol gen-tie would require trenching along an additional 3.5 miles of the gen-tie alignment, which would increase air quality impacts associated with this earthwork.

Therefore, this alternative would have similar impacts related to air quality related to conformance with federal and state ambient air quality standards during construction when compared to the Proposed Project, and impacts would not be reduced to a less-than-significant level.

Biological Resources

As described in Section 2.3, Biological Resources, the Proposed Project would result in potentially significant direct and indirect impacts to sensitive plant and wildlife species, sensitive vegetation communities, jurisdictional resources, wildlife movement, and would conflict with the MBTA. However, with incorporation of mitigation measures, which include the preservation of habitat at the Soitec mitigation site, potentially significant impacts as a result of the Proposed Project would be reduced to less than significant.

Under Alternative 3, fewer trackers would be installed on the solar farm sites, and therefore, ground disturbance would be reduced. However, undergrounding an additional 3.5 miles of the Tierra del Sol gen-tie would require additional ground disturbance due to excavation, and due to the linear nature of the gen-tie route, sensitive vegetation may not be avoided. Therefore, impacts to sensitive biological resources, including coast live oak woodland and jurisdictional wetlands, would be greater under this alternative. However, potential impacts related to collisions of avian species with the gen-tie would be eliminated by undergrounding the gen-tie.

Impacts to biological resources are anticipated to be greater under this alternative; however, similar mitigation measures would be implemented under this alternative as for the Proposed Project, which are expected to reduce potentially significant impacts to biological resources to less than significant.

Cultural Resources

As described in Section 2.4, Cultural Resources, the Proposed Project would result in potentially significant impacts to prehistoric and historical resources, archaeological resources, cultural resources as defined by the Resource Protection Ordinance, and human remains. The mitigation measures identified in Section 2.4 would reduce all potentially significant impacts associated with the Tierra del Sol and Rugged solar farms to below a level of significance, and are anticipated to reduce potential impacts on the LanEast and LanWest sites, although this cannot be confirmed until those sites are tested for significance.

Under Alternative 3, fewer trackers would be installed on the solar farm sites, and less area would be disturbed or graded. Because less trenching and/or digging associated with the installation of trackers and underground collection systems would be required, potential impacts to any subterranean prehistoric, historical, archaeological, and cultural resources and human remains would likely be reduced. However, undergrounding the Tierra del Sol gen-tie would involve additional ground disturbance due to excavation in areas where cultural resources sites have not been tested for significance, and therefore, would increase potential impacts to cultural resources.

Similar mitigation measures would be implemented under this alternative as for the Proposed Project, which would reduce potentially significant impacts to cultural resources associated with the Tierra del Sol and Rugged solar farms, and Tierra del Sol gen-tie, to less than significant. Although impacts to cultural resources associated with both this alternative and the Proposed Project are anticipated to be reduced to less than significant, Alternative 3 would have slightly greater impacts prior to mitigation because it is not known if significant resources exist where the gen-tie would be undergrounded.

Land Use and Planning

As described in Section 2.5, Land Use and Planning, impacts related to physically dividing a community would be less than significant. The Proposed Project would be consistent with applicable County Board of Supervisors policies and County ordinances, and would not conflict with applicable goals and policies of the Mountain Empire Subregional Plan or the Boulevard Subregional Plan. The Tierra del Sol and Rugged solar farms would be consistent with the County General Plan; however, LanEast and LanWest would conflict with County General Plan policies COS-11.1 and COS-11.3. Therefore, the Proposed Project would result in a significant and unmitigated impact.

Under Alternative 3, potential construction impacts related to physically dividing a community would similarly be reduced to less than significant with incorporation of project design features, and operational impacts would also be less than significant. Alternative 3 would also similarly be consistent with applicable goals and policies; however, despite the fact that the reduced LanEast and LanWest solar farms under this alternative would reduce potential impacts to visual character or quality and glare, impacts would still remain and would still conflict with County General Plan policies COS-11.1 and COS-11.3. Therefore, land use impacts would remain significant and unmitigable under this alternative and would be similar to the Proposed Project.

Noise

As described in Section 2.6, Noise, the Proposed Project would result in potentially significant impacts related to operational and construction noise and vibration. However, incorporation of project design features and mitigation measures would reduce potential impacts to less than significant. Impacts associated with corona noise would be less than significant.

Alternative 3 would reduce construction and operational noise and vibration by reducing the number of trackers installed on the four solar farm sites. This reduction would result from increased distance to the project boundaries from noise-generating sources and activities such as tracker array motors, tracker washing activities, and construction and installation of trackers and collector systems. The increased setbacks could eliminate the need for some project design features along some project boundaries (e.g tracker washing). In addition, noise associated with inspection and maintenance of the overhead gen-tie (helicopter noise) would not occur. However, construction-related noise associated with the excavation for the underground Tierra del Sol gen-tie would increase under this alternative. Therefore, impacts under this alternative would be similar to the Proposed Project, but both would be less than significant with mitigation.

Other Resource Topics

Impacts associated with the Reduced Proposed Project and Underground Tierra del Sol Gen-Tie Alternative related to agriculture and forestry resources, geology and soils, GHG emissions,

hydrology and water quality, paleontological resources, public services, traffic and transportation, and utilities would be the same as or less than those associated with the Proposed Project. Specifically, impacts to hydrology and water quality and utilities related to water demand would be reduced since no landscape screening, and associated irrigation, would be required under this alternative.

4.3.3.3 Summary of Reduced Proposed Project and Underground Tierra del Sol Gen-tie Alternative

The reduction in the number of trackers constructed at each of the four solar farm sites would reduce aesthetic and air quality impacts, but not to a level less than significant. Impacts to biological and cultural resources and from noise would also be reduced due to the reduction in the number of trackers constructed at each of the four sites and increased setbacks. Impacts to land use would remain significant and unmitigable. However, undergrounding the Tierra del Sol gen-tie may possibly increase impacts related to air quality, biological resources, and cultural resources, from the additional excavation and trenching activities needed. Therefore, this Alternative is anticipated to result in overall similar impacts than the Proposed Project. This alternative would generally meet all project objectives, although not to the degree that the Proposed Project would. For example, Alternative 3 would result in approximately 17,580 fewer homes served as compared to the Proposed Project, and therefore, it would not achieve project objectives 1, 6, and 7 to the degree that the Proposed Project would.

4.3.4 Analysis of the Reduced Tierra del Sol and Rugged Solar Farms, No LanEast and LanWest, and Underground Tierra del Sol Gen-Tie Alternative (Alternative 4)

4.3.4.1 Reduced Tierra del Sol and Rugged Solar Farms, No LanEast and LanWest, and Underground Tierra del Sol Gen-Tie Alternative Description and Setting

Alternative 4 would include the reduced Tierra del Sol and Rugged solar farms as described above under Alternative 1, would remove the LanEast and LanWest solar farms, as described under Alternative 2, from the Proposed Project, and would construct the Tierra del Sol gen-tie entirely underground for all 6 miles of the gen-tie route, as described above under Alternative 3.

4.3.4.2 Comparison of the Effects of Alternative 4 to the Proposed Project

Aesthetics

As described in Section 2.1, Aesthetics, the Proposed Project would result in potentially significant impacts related to scenic vistas, visual character, or quality and glare. Vegetative

screening would be implemented as mitigation to reduce the visibility of trackers from off-site locations; however, impacts would not be reduced to a level below significance. Therefore, impacts as a result of the Proposed Project would remain significant and unavoidable.

Alternative 4 would reduce impacts to visual character and quality and glare since the Tierra del Sol and Rugged sites would have greater setbacks from the property lines adjacent to public ROWs and larger buffer areas of native vegetation would remain; however, impacts would not be reduced to a less-than-significant level. However, by removing the LanEast and LanWest solar farms, potentially significant scenic vista, visual character or quality, and glare impacts related to the high visibility of these sites from I-8 and Old Highway 80 would be avoided. In addition, the Tierra del Sol gen-tie would be entirely underground, which would reduce impacts associated with the introduction of aboveground transmission lines and structures as included in the Proposed Project. Therefore, under this alternative, overall aesthetic impacts would be substantially reduced as compared to the aesthetic impacts of the Proposed Project; however, overall impacts from the Tierra del Sol and Rugged sites would still be considered to be significant and unmitigable.

Air Quality

As described in Section 2.2, Air Quality, the Proposed Project would not result in significant impacts related to conformance with the RAQS, conformance to federal and state ambient air quality standards during operation, sensitive receptors, or odors. However, during construction, the Proposed Project would exceed thresholds for NO_x and PM_{10} , which would result in a significant and unavoidable impact related to air quality. The construction-related impacts would also be considered cumulatively considerable and would be unmitigable during the short-term construction period.

Under Alternative 4, the construction and operational emissions associated with the LanWest and LanEast components would not occur. Therefore, the elimination of the LanWest and LanEast components would reduce this alternative's contribution of NO_x and PM_{10} during construction since no construction would occur at the LanWest or LanEast sites. The reduced Tierra del Sol and Rugged solar farms would also result in slightly less construction activities and equipment operation, and therefore, less overall emissions associated with construction. However, because the Tierra del Sol and Rugged construction schedules would overlap, and daily combined construction emissions would continue to exceed the threshold during peak construction periods, this alternative would still result in a significant and unmitigable impact related to short-term construction emissions. In addition, the installation of an entirely underground Tierra del Sol gen-tie would require ground disturbance along an additional 3.5 miles of the gen-tie alignment, which would increase air quality impacts associated with grading and trenching. Therefore, this alternative would have similar impacts related to conformance with federal and state ambient air

quality standards during construction when compared to the Proposed Project, and would also result in a short-term significant and unmitigable impact.

Biological Resources

As described in Section 2.3, Biological Resources, the Proposed Project would result in potentially significant direct and indirect impacts to sensitive plant and wildlife species, sensitive vegetation communities, jurisdictional resources, and wildlife movement, and would conflict with the MBTA. However, with incorporation of mitigation measures, which include the preservation of habitat at the Soitec mitigation site, potentially significant impacts as a result of the Proposed Project would be reduced to less than significant.

Under Alternative 4, ground disturbance would be greatly reduced (by about 35% compared to the Proposed Project) because the LanEast and LanWest sites would not be developed as solar farms and fewer trackers would be installed on the Tierra del Sol and Rugged solar farms. All impacts to biological resources as a result of the proposed LanEast and LanWest components of the Proposed Project would be avoided under this alternative. However, undergrounding the Tierra del Sol gen-tie would involve additional ground disturbance due to excavation, and due to the linear nature of the gen-tie route, would not be able to avoid sensitive vegetation. Although potentially significant impacts would occur as a result of the Tierra del Sol and Rugged components (including undergrounding the Tierra del Sol gen-tie), these impacts would be reduced to less than significant through implementation of the proposed mitigation measures, and represent a substantial reduction in impacts to biological resources as compared to the Proposed Project.

Cultural Resources

As described in Section 2.4, Cultural Resources, the Proposed Project would result in potentially significant impacts to prehistoric and historical resources, archaeological resources, cultural resources as defined by the Resource Protection Ordinance, and human remains. The mitigation measures identified in Section 2.4 would reduce all potentially significant impacts associated with the Tierra del Sol and Rugged solar farm sites to below a level of significance, and are anticipated to reduce potential impacts on the LanEast and LanWest sites, although this cannot be confirmed until those sites are tested for significance.

Under Alternative 4, ground disturbance would be greatly reduced (by about 35% compared to the Proposed Project) because the LanEast and LanWest sites would not be developed. Under this alternative, all potential impacts to cultural resources as a result of the proposed LanEast and LanWest components of the Proposed Project would be avoided. Although potentially significant impacts would occur as a result of the Tierra del Sol and Rugged solar farms, these impacts would be reduced to less than significant through implementation of the proposed mitigation

measures. However, undergrounding the Tierra del Sol gen-tie would involve additional ground disturbance due to excavation in areas where cultural resources sites have not been tested for significance, and therefore, would increase potential impacts to cultural resources. Therefore, this alternative and the Proposed Project would have a similar potential for impacts.

Land Use and Planning

As described in Section 2.5, Land Use, construction and operation of the Proposed Project would not physically divide a community. The Proposed Project would be consistent with applicable County Board of Supervisors policies and County ordinances, and would not conflict with applicable goals and policies of the Mountain Empire Subregional Plan or the Boulevard Subregional Plan. The Tierra del Sol and Rugged solar farms would be consistent with the County General Plan; however, LanEast and LanWest would conflict with County General Plan policies COS-11.1 and COS-11.3. Therefore, the Proposed Project would result in a significant and unmitigated impact.

Under Alternative 4, potential construction impacts related to physically dividing a community would similarly be reduced to less than significant with incorporation of project design features, and operational impacts would also be less than significant. Alternative 4 would also similarly be consistent with applicable goals and policies; including County General Plan policies COS-11.1 and COS-11.3 since no LanEast or LanWest solar farms would be developed. Therefore, land use impacts would be substantially reduced under this alternative to less than significant.

Noise

As described in Section 2.6, Noise, the Proposed Project would result in potentially significant impacts related to operational and construction noise and vibration. However, incorporation of project design features and mitigation measures would reduce potential impacts to less than significant. Impacts associated with corona noise would be less than significant.

Alternative 4 would reduce construction and operational noise and vibration by reducing the number of trackers on the Tierra del Sol and Rugged sites and by eliminating the LanEast and LanWest solar farms entirely. This alternative would reduce noise generated by tracker array motors, reduce the duration of panel/array washing, and reduce the amount of grading for tracker foundations. Increased setbacks on the Tierra del Sol and Rugged sites could eliminate the need for some project design features along some boundary's (e.g., tracker washing). However, construction-related noise associated with excavation for the entirely underground Tierra del Sol gen-tie would potentially increase under this alternative. Similar to the Proposed Project, project design features and mitigation measures would be incorporated under this alternative that would reduce potential noise impacts to less than significant. Therefore, overall potential noise impacts under this alternative would be substantially reduced compared to the Proposed Project, but both would be less than significant with mitigation.

Other Resource Topics

Impacts associated with the No LanEast and LanWest and Underground Tierra del Sol Gen-Tie Alternative related to agriculture and forestry resources, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, paleontological resources, public services, traffic and transportation, and utilities would be the same as or less than those associated with the Proposed Project. Specifically, elimination of the LanEast and LanWest solar farms under this alternative would reduce impacts to hazards and hazardous materials by reducing the risk for wildlife. Also, impacts to hydrology and water quality and utilities related to water demand would be reduced since no landscape screening, and associated irrigation, would be required under this alternative.

4.3.4.3 Summary of the Reduced Tierra del Sol and Rugged Solar Farms, No LanEast and LanWest, and Underground Tierra del Sol Gen-Tie Alternative (Alternative 4)

The Reduced Tierra del Sol and Rugged Solar Farms, No LanEast and LanWest, and Underground Tierra del Sol Gen-Tie alternative (Alternative #4) would reduce impacts related to aesthetics, especially impacts associated with LanEast and LanWest being highly visible from I-8 and Old Highway 80 and aesthetic impacts associated with the overhead gen-tie. However, aesthetic impacts would not be reduced to a level below significance since the Tierra del Sol and Rugged solar farms would still result in significant unmitigable impacts related to visual character and quality. Short-term construction related air quality impacts would also remain significant and unmitigable under this alternative due to the construction overlap of Tierra del Sol and Rugged. Land use impacts would be reduced to less than significant. Potential impacts related to biological resources and noise are also anticipated to be substantially reduced by this alternative. This alternative would generally meet all project objectives, although not to the degree that the Proposed Project would. For example, Alternative #4 would result in approximately 25,736 fewer homes served as compared to the Proposed Project, and therefore, it would not achieve project objectives 1, 6, and 7 to the degree that the Proposed Project would.

4.3.5 Analysis of the Analysis of the Tailored Proposed Project and No LanEast and LanWest Alternative (Alternative 2A)

4.3.5.1 Tailored Proposed Project and No LanEast and LanWest Alternative Description and Setting

The Tailored Reduced Proposed Project and No LanEast and LanWest Alternative (Alternative 2A) would reduce the Tierra del Sol solar farm by approximately 99 trackers (4% from the original Tierra del Sol project), the Rugged solar farm by approximately 177 trackers (5% from

the original Rugged project), and would entirely remove the LanEast and LanWest solar farms, which is approximately 1,164 trackers. The total reduction of trackers equates to approximately 20% as compared to the Proposed Project. The Tierra del Sol gen-tie would remain unchanged from the Proposed Project under this alternative.

Tracker reductions at Tierra del Sol solar farm would increase project setbacks along the northern and eastern project boundary and enhance visual screening associated with implementation of Mitigation Measures **M-AE-PP-1**. In addition to the removal of 71 trackers associated with the installation of landscape screens (i.e., **M-AE-PP-1**); see Table 1-1 of the DPEIR, this alternative would remove an additional 99 trackers from the Tierra del Sol solar farm (see Figure 4-3, Tierra Del Sol Alternative 2A). Under Alternative 2A, project setbacks would be increased to retain an approximately 55-foot-wide swath of native chaparral vegetation along the northern project boundary south of Tierra Del Sol Road and an approximately 225-foot-wide swath of wide swath of native chaparral vegetation along the western project boundary east of Tierra Del Sol Road. More specifically, where the project boundary parallels paved segments of Tierra Del Sol Road, this alternative would remove of two rows of trackers along the northern project boundary and three rows of trackers along the western project boundary. Because of the reduced limits of grading due to maintaining existing in-place vegetation, tracker reductions proposed under Alternative 2A would reduce impacts to air quality, biological resources and aesthetic resources.

In addition to tracker reductions associated with implementation of Project Design Feature **PDF-AE-1**, **M-AE-PP-1**, and other project refinements (totaling 120 trackers; see Table 1-1 of the DPEIR), tracker reductions at the Rugged solar farm proposed under Alternative 2A would occur within the western subarea (APN 611-060-04-00) near the Tule Creek corridor (see Figure 4-4, Rugged Alternative 2A). Approximately 177 additional trackers would be removed from this area to enhance wildlife movement opportunities within the corridor and in response to wildlife movement comments received from the United States Fish and Wildlife Service. This alternative is added to the PEIR in response to comments and to tailor reductions to the Proposed Project to substantially lessen or avoid significant aesthetic, air quality, biological resources, and land use impacts, while more fully achieving the objectives of the Proposed Project.

4.3.5.2 Comparison of the Effects of the Tailored Proposed Project and No LanEast and LanWest Alternative Description and Setting

Aesthetics

As described in Section 2.1, Aesthetics, the Proposed Project would result in potentially significant impacts related to scenic vistas, visual character or quality, and glare. Vegetative screening would be implemented as mitigation to reduce the visibility of trackers from off-site

locations; however, impacts related to visual character and quality and glare would not be reduced to a level below significance; therefore, impacts as a result of the Proposed Project would remain significant and unavoidable.

The Proposed Project would result in less-than-significant impacts related to scenic vistas for the Tierra del Sol and Rugged solar farm sites. Under this Alternative 2A, impacts to scenic vistas would similarly be less than significant for these sites. In addition, since the LanEast and LanWest solar farms would not be constructed under this alternative, significant and unmitigable impacts related to scenic vistas would not occur.

The Tailored Proposed Project and No LanEast and No LanWest Alternative would avoid impacts to visual character and quality and glare from the LanEast and LanWest sites since they would not be constructed, and on the Tierra del Sol and Rugged sites trackers would be removed from areas of high visibility and would have greater setbacks from the property lines adjacent to public ROW. However, despite increased setbacks and larger areas of native vegetation, conversion of undeveloped land to solar farms at the Tierra del Sol and Rugged sites would still result in significant and unmitigable impacts related to visual character and quality. Additionally, the Tierra del Sol gen-tie line would be developed as proposed by the Proposed Project and would still result in significant and unmitigable aesthetic impacts related to visual character and quality.

Removal of trackers and increased setbacks along public ROWs may reduce the glare anticipated to be received at residences and roadways near the Tierra del Sol and Rugged solar farm sites under this alternative, but it is not known if this would reduce glare impacts to less than significant without mitigation. However, by removing the LanEast and LanWest solar farms, potentially significant glare impacts related to the proximity of these sites to I-8 and Old Highway 80 would be avoided. Therefore, under Alternative 2A, aesthetic impacts would be avoided for the LanEast and LanWest sites, but significant and unmitigable impacts would remain for the Tierra del Sol and Rugged solar farms.

Air Quality

As described in Section 2.2, Air Quality, the Proposed Project would not result in significant impacts related to conformance with the RAQS, conformance to federal and state ambient air quality standards during operation, sensitive receptors, or odors. However, during construction, the Proposed Project would exceed thresholds for NO_x, which would result in a significant and unavoidable impact related to air quality. The construction-related impacts would also be considered cumulatively considerable and would be unmitigable during the short-term construction period.

Under Alternative 2A, all construction and operational emissions associated with the LanWest and LanEast components would not occur. Therefore, the elimination of the LanWest and LanEast components would reduce this alternative's contribution of NO_x during construction since no construction would occur at the LanWest or LanEast sites. The reduced Tierra del Sol and Rugged solar farms would also result in slightly less construction activities and equipment than the Proposed Project and therefore, less overall emissions associated with construction. However, because the Tierra del Sol and Rugged construction schedules would overlap and combined daily construction emissions would continue to exceed the threshold during peak construction periods, this Alternative 2A would still result in a significant and unmitigable impact related to short-term construction emissions. Therefore, this alternative would have reduced impacts related to air quality related to conformance with federal and state ambient air quality standards during construction when compared to the Proposed Project, but not reduced to a less-than-significant level.

Biological Resources

As described in Section 2.3, Biological Resources, the Proposed Project would result in potentially significant direct and indirect impacts to sensitive plant and wildlife species, sensitive vegetation communities, jurisdictional resources, and wildlife movement, and conflicts with the MBTA. However, with incorporation of mitigation measures, which include the preservation of habitat at the Soitec mitigation site, potentially significant impacts as a result of the Proposed Project would be reduced to less than significant.

Under Alternative 2A, total ground disturbance would be reduced compared to the Proposed Project because the LanEast and LanWest sites would not be developed as solar farms, and fewer trackers would be developed on the Tierra del Sol and Rugged solar farms. All impacts to biological resources as a result of the proposed LanEast and LanWest components of the Proposed Project (including impacts to jurisdictional drainages/wetlands and sensitive vegetation, and wildlife movement) would be avoided under this alternative. Potentially significant impacts would continue to occur as a result of the reduced Tierra del Sol and Rugged solar farms, however, these impacts would be reduced to less than significant through implementation of the proposed mitigation measures. This Alternative 2A would reduce potentially significant impacts to wildlife movement for the Rugged solar farm by avoiding areas of concern raised by resource agencies in public comment. Therefore, impacts to biological resources under this Alternative 2A would be reduced to less than significant with the incorporation of mitigation measures, similar to the Proposed Project, although potential impacts would be less prior to the implementation of mitigation.

Impacts to special-status plant species, suitable habitat for listed, Group I and/or SSC Wildlife Species, and riparian habitat or sensitive natural communities associated with Alternative 2A at the Tierra del Sol and Rugged solar farms are discussed below.

Tierra del Sol

Special-Status Plant Species (County List A and B Species)

Similar to the Proposed Project, three County List A and two County List B plant species would be directly impacted by Alternative 2A at the Tierra del Sol project site: Tecate tarplant, Tecate cypress, and Jacumba milk-vetch (County List A) and desert beauty and sticky geraea (County List B). Table 4-1 summarizes the proposed direct impacts of Alternative 2A at the Tierra del Sol solar farm and gen-tie alignment to County List A and B Species.

County List A Species: Approximately 3,103 individuals of Tecate tarplant (100% of the on-site individuals), a County List A species with a California Rare Plant Rank (CRPR) 1B.2, would be directly impacted by Alternative 2A at the Tierra del Sol solar farm. No individuals of Tecate tarplant (0%) would be directly impacted by the gen-tie alignment. Approximately 189 individuals of Jacumba milk-vetch (60% of the on-site individuals), a County List A species with a CRPR 1B.2, would be directly impacted by Alternative 2A at the Tierra del Sol solar farm. An additional 27–150 individuals of Jacumba milk-vetch (11% of the on-site individuals) would be directly impacted by the gen-tie alignment. Additionally, within a landscaped area, 19 individuals of Tecate cypress, a County List A species with a CRPR 1B.2, would be directly impacted by Alternative 2A at the Tierra del Sol solar farm. Under Alternative 2A, impacts to Tecate cypress would be the same as under the Proposed Project. No individuals were detected on the gen-tie alignment site.

County List B Species: Approximately 934 individuals, the entire population of desert beauty, a County List B species with a CRPR 2.3, would be directly impacted by Alternative 2A at the Tierra del Sol solar farm. Approximately 84–600 individuals of desert beauty (13%–19% of the on-site individuals) would be directly impacted by the gen-tie alignment. Under Alternative 2A, impacts to desert beauty and sticky geraea would be the same as under the Proposed Project.

Similar to the Proposed Project, short-term and long-term direct impacts to County List A and B plant species would be potentially significant but would be reduce to less than significant through implementation of mitigation including biological monitoring during construction (M-BI-PP-2), implementation of standard BMPs included in the Project SWPPP (M-BI-PP-3), preparation of a biological monitoring report (M-BI-PP-4), and habitat preservation (M-BI-PP-1). In addition, Appendix 4.0-1, Alternative 2A – Evaluation of the

Biological Resources for the Soitec Mitigation Site, has been provided and details the mitigation requirements associated with development of Alternative 2A.

Special-Status Wildlife Species (County Group I or State SSC)

Long-term or permanent direct impacts to special-status wildlife species were quantified by comparing the Alternative 2A impact footprint at the Tierra del Sol solar farm site with suitable habitat for wildlife species. Impacts to suitable habitat for County Group I or State SSC species, as a result of implementation of the Tierra del Sol solar farm are shown in Table 4-2. Impacts resulting from implementation of the Tierra del Sol gen-tie alignment are not included in the Table 4-2 as direct impacts would be small in scope, occur along a linear alignment and are not anticipated to result in the direct loss of species.

Similar to the Proposed Project, short- and long-term direct impacts to special-status wildlife species and suitable nesting/foraging habitat are considered potentially significant but would be reduced to less than significant through implementation of mitigation including preconstruction surveys for nesting birds (and incorporation of setbacks if applicable) (M-BI-PP-10) and habitat preservation (M-BI-PP-1). Appendix 4.0-1 details the mitigation requirements associated with development of Alternative 2A.

Riparian Habitat and Sensitive Natural Communities

Short-term, construction-related, or temporary direct impacts to vegetation communities would primarily result from construction activities and would be the same as those discussed in Chapter 2.3, Biological Resources, for the Proposed Project (Tierra del Sol Solar Farm). Long-term or permanent direct impacts to vegetation communities were quantified by comparing the Alternative 2A - Tierra del Sol Solar Farm impact footprint with the boundaries of the vegetation communities mapped in the project area. Direct impacts to vegetation communities would occur as a result of clearing and grading activities. Table 4-3 shows the acreage of direct impacts to upland vegetation communities on the Tierra del Sol project site as a result of the limits of grading. Permanent direct impacts to disturbed habitat (20.3 acres) and urban/developed lands (0.2 acre) are less than significant. Permanent direct impacts to 393.4 acres of special-status upland vegetation communities would occur due to development of the Tierra del Sol project under Alternative 2A and would be considered a significant impact.

Similar to the Proposed Project, short-term direct impacts to special-status upland vegetation communities under Alternative 2A are potentially significant but would be reduced to less than significant through implementation of mitigation including biological monitoring and a biological monitoring report, preparation and implementation of a SWPPP, and implementation of a Fugitive Dust Control Plan. Under Alternative 2A, permanent direct

impacts to special-status upland vegetation at the Tierra del Sol Solar Farm site are considered potentially significant and similar to the Proposed Project, would be reduced to a less than significant level through implementation of mitigation consisting of habitat preservation. Appendix 4.0-1 details the mitigation requirements associated with development of Alternative 2A.

Lastly, the area of open water on site is artificially created, functions similar to disturbed habitat and has negligible function and value as a wetland, and is not considered jurisdictional under local, state, or federal regulations. As such, impacts to open water occurring as a result of development of the Tierra del Sol Solar Farm under Alternative 2A are less than significant.

Rugged

Special-Status Plant Species (County List A and B Species)

Similar to the Proposed Project, two County List A and two County List B plant species would be directly impacted by Alternative 2A at the Rugged project site: Jacumba milkvetch and Tecate tarplant (County List A) and sticky geraea and Desert beauty (County List B). Table 4-4 summarizes the proposed direct impacts of Alternative 2A at the Tierra del Sol solar farm and gen-tie alignment to County List A and B Species.

County List A Species: Approximately 226–2,020 individuals of Jacumba milk-vetch (75% to 76% of the on-site individuals), a County List A species with a CRPR 1B.2, would be directly impacted by Alternative 2A at the Rugged solar farm. Approximately 20 individuals of Jacumba milk-vetch are located within the proposed Northern Off-Site Access road footprint, and 10 are located within the Western Off-site Access road footprint. Additionally, approximately 1 to 10 individuals of Tecate tarplant (less than 1% of the on-site individuals), a County List A species with a CRPR 1B.2, would be directly impacted by by Alternative 2A at the Rugged solar farm. Under Alternative 2A, impacts to Tecate tarplant would be the same as under the Proposed Project. This proposed impact would be not be considered significant because the loss of less than 1% of the total on-site population is negligible and would not have a substantial adverse effect on the local long-term survival of that plant or animal taxon on site or in the region. No County List A special-status plant species occur within the off-site access road.

County List B Species: Approximately 177 to 850 individuals of sticky geraea (*Geraea viscida*) (56% to 59% of the on-site individuals), a County List B species with a CRPR 2.3, would be directly impacted by the Rugged solar farm. Under Alternative 2A, impacts to sticky geraea would be the same as under the Proposed Project. Additionally, approximately 411 to 1,817 individuals of desert beauty (35% to 48% of the on-site individuals), a County List B species

with a CRPR 2.3, would be directly impacted by Alternative 2A at the Rugged solar farm. Approximately 6 sticky geraea are located within the Western Off-site Access road footprint.

Similar to the Proposed Project, short-term and long-term direct impacts to County List A and B plant species would be potentially significant but would be reduce to less than significant through implementation of mitigation including biological monitoring during construction (M-BI-PP-2), implementation of standard BMPs included in the Project SWPPP (M-BI-PP-3), preparation of a biological monitoring report (M-BI-PP-4), and habitat preservation (M-BI-PP-1). Appendix 4.0-1 details the mitigation requirements associated with development of Alternative 2A.

Special-Status Wildlife Species (County Group I or State SSC)

Long-term or permanent direct impacts to special-status wildlife species were quantified by comparing the Alternative 2A impact footprint at the Rugged solar farm site with suitable habitat for wildlife species. Impacts to suitable habitat for County Group I or State SSC species, as a result of implementation of Alternative 2A at the Rugged solar farm, are shown in Table 4-5.

Similar to the Proposed Project, short- and long-term direct impacts to special-status wildlife species and suitable nesting/foraging habitat are considered potentially significant but would be reduced to less than significant through implementation of mitigation including biological monitoring and preparation of a biological monitoring report, implementation of standard BMPs included in the Project SWPPP (M-BI-PP-3), monitoring of excavated areas and soil piles, preconstruction surveys for nesting birds (and incorporation of setbacks if applicable) (M-BI-PP-10) and habitat preservation (M-BI-PP-1). Appendix 4.0-1 details the mitigation requirements associated with development of Alternative 2A.

Special-Status Plant Species (County List C and D)

Table 4-6 summarizes the proposed direct impacts to County List C and D special-status plant species associated with development of Alternative 2A at the Rugged solar farm. Similar to the Proposed Project, there will be no direct impacts to County List C plant species resulting from implementation of Alternative 2A at the Rugged solar farm.

Two County List D plant species (desert larkspur and pride-of-California) would be directly impacted by Alternative 2A at the Rugged solar farm. More specifically, approximately 98 to 450 individuals of desert larkspur (14% to 16% of the on-site individuals), CRPR 4.3, would be directly impacted by Alternative 2A at the Rugged solar farm. Additionally, approximately 7 to 70 individuals of pride-of-California (100% of the on-site individuals), CRPR 4.3, would be directly impacted by Alternative 2A at the Rugged solar farm. Under Alternative 2A, impacts to pride-of-California at the Rugged site would be the same as the Proposed Project. The desert

monkeyflower and Engelmann oak located on site would be 100% avoided (see Table 4-6). Impacts to County List D species (desert larkspur and pride-of-California) would not be considered significant because the species is of limited distribution but not considered rare; potential impacts would be mitigated through the vegetation-based mitigation proposed for the Rugged solar farm.

Riparian Habitat and Sensitive Natural Communities

Short-term, construction-related, or temporary direct impacts to vegetation communities would primarily result from construction activities and would be the same as those discussed in Chapter 2.3, Biological Resources, for the Proposed Project (Rugged Solar Farm). Long-term or permanent direct impacts to vegetation communities were quantified by comparing the Alternative 2A – Rugged Solar Farm impact footprint with the boundaries of the vegetation communities mapped in the project area. Direct impacts to vegetation communities would occur as a result of clearing and grading activities. Tables 4-7 and 4-8 show the acreage of direct impacts to vegetation communities under Alternative 2A on the Rugged project site and the proposed off-site access roads. Permanent direct impacts to developed land and disturbed habitat are less than significant. Permanent on-site and off-site direct impacts to 394.9 acres of special-status upland vegetation communities would occur as a result of Alternative 2A at the Rugged solar farm and proposed off-site access roads. Permanent direct impacts to special-status upland vegetation communities on site and in the proposed off-site access roads would be considered a significant impact.

Similar to the Proposed Project, Rugged solar farm associated with Alternative 2A is designed to avoid oak woodland habitats. An oak root protection zone has been established around the extent of coast live oak woodland and mixed oak woodland habitats within the project area. The Rugged solar farm has been designed to avoid impacts to the oak root protection zone as well. There are minimal impacts to oak woodland, and riparian herb associated with the fuel modification zone and impacts to riparian scrub would occur due to grading and establishment of the fuel modification zone (see Table 4-7).

Similar to the Proposed Project, short-term direct impacts to sensitive natural communities under Alternative 2A are potentially significant but would be reduced to less than significant through implementation of mitigation including biological monitoring and a biological monitoring report, preparation and implementation of a SWPPP, and implementation of a Fugitive Dust Control Plan. Under Alternative 2A, permanent direct impacts to sensitive natural communities at the Rugged Solar Farm site are considered potentially significant and similar to the Proposed Project, would be reduced to a less than significant level through implementation of mitigation consisting of habitat preservation. Appendix 4.0-1 details the mitigation requirements associated with development of Alternative 2A.

Cultural Resources

As described in Section 2.4, Cultural Resources, the Proposed Project would result in potentially significant impacts to prehistoric and historical resources, archaeological resources, cultural resources as defined by the Resource Protection Ordinance, and human remains. The mitigation measures identified in Section 2.4 would reduce all potentially significant impacts associated with the Tierra del Sol and Rugged solar farm sites to below a level of significance, and are anticipated to reduce potential impacts on the LanEast and LanWest sites, although this cannot be confirmed until those sites are tested for significance.

Under Alternative 2A, total ground disturbance would be reduced compared to the Proposed Project because the LanEast and LanWest sites would not be developed and fewer trackers would be developed on the Tierra del Sol and Rugged solar farms. Because the LanEast and LanWest sites would not be developed under Alternative 2A, all potential impacts to cultural resources as a result of the proposed LanEast and LanWest components of the Proposed Project would be avoided; however, the same mitigation measures would be implemented for the Tierra del Sol and Rugged solar farms to reduce potentially significant impacts to cultural resources to less than significant.

Land Use and Planning

As described in Section 2.5, Land Use and Planning, impacts related to physically dividing a community would be less than significant. The Proposed Project would be consistent with applicable County Board of Supervisors policies and County Ordinances, and would not conflict with applicable goals and policies of the Mountain Empire Subregional Plan or the Boulevard Subregional Plan. The Tierra del Sol and Rugged solar farms would be consistent with the County General Plan; however, LanEast and LanWest would conflict with County General Plan policies COS-11.1 and COS-11.3. Therefore, the Proposed Project would result in a significant and unmitigated impact.

Under Alternative 2A, potential construction impacts related to physically dividing a community would similarly be reduced to less than significant with incorporation of project design features, and operational impacts would also be less than significant. This alternative would similarly be consistent with applicable goals and policies, including County General Plan policies COS-11.1 and COS-11.3, since the LanEast and LanWest solar farms would not be developed under this alternative. Therefore, land use impacts would be less than significant under this alternative, compared to the Proposed Project which has a significant and unmitigable impact.

Noise

As described in Section 2.6, Noise, the Proposed Project would result in potentially significant impacts related to operational and construction noise and vibration. However, incorporation of project design features and mitigation measures would reduce potential impacts to less than significant. Impacts associated with corona noise would be less than significant. Alternative 2A would marginally reduce construction and operational noise and vibration by reducing the number of trackers on the Tierra del Sol and Rugged sites and by eliminating noise-producing sources and activities at the LanEast and LanWest solar farms entirely. Alternative 2A would reduce noise generated by tracker array motors, reduce the duration of panel/array washing, and reduce the amount of grading for tracker foundations. Noise associated with the construction of the Tierra del Sol gen-tie would remain under this alternative. However, similar to the Proposed Project, project design features and mitigation measures would be incorporated under this alternative that would reduce potential noise impacts associated with the reduced Tierra del Sol and Rugged solar farms to less than significant, although the increased setbacks could eliminate the need for operational wash station setback distances along some project boundaries. Therefore, impacts under this alternative would be reduced compared to the Proposed Project, but still less than significant with the incorporation of Project Design Features and Mitigation Measures.

Other Resource Topics

Impacts associated with the Tailored Proposed Project and No LanEast and LanWest Alternative related to agriculture and forestry resources, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, paleontological resources, public services, traffic and transportation, and utilities would be the same as or less than those associated with the Proposed Project. Specifically, GHG emissions would be slightly reduced under this alternative due to a reduced overall construction effort from the installation of fewer trackers. Elimination of the LanEast and LanWest solar farms under this alternative would reduce impacts to hazards and hazardous materials by reducing ignition sources and the associated risk for wildfire. Also, overall impacts to hydrology and water quality and utilities related to water demand would be reduced since landscape screening and associated irrigation would not be required for the LanEast and LanWest sites under this alternative.

4.3.5.3 Summary of the Tailored Proposed Project and No LanEast and No LanWest Alternative (Alternative 2A)

This alternative would reduce impacts related to aesthetics, especially those associated with LanEast and LanWest being highly visible from I-8 and Old Highway 80, biological resources, land use, and air quality. However, aesthetic and air quality impacts from the reduced Tierra del

Sol and Rugged sites are not anticipated to be reduced to a level below significance, and therefore, significant and unmitigable impacts would still remain. Significant and unmitigable impacts to land use from the LanEast and LanWest sites would be avoided, thus reducing overall impacts related to land use to less than significant under this alternative. This alternative would generally meet all project objectives, although not to the degree that the Proposed Project would. For example, using the calculation formula described in Section 4.3.1.3, Alternative 2A would result in approximately 13,460 fewer homes served as compared to the Proposed Project, and therefore, it would not achieve project objectives 1, 6, and 7 to the degree that the Proposed Project would.

4.4 Alternative Locations

4.4.1 Analysis of Relocate Tierra del Sol to Los Robles Alternative (Alternative 5)

4.4.1.1 Relocate Tierra del Sol to Los Robles Alternative Description and Setting

The Relocate Tierra del Sol to Los Robles Alternative would eliminate the development of a solar farm on the Tierra del Sol site and would instead involve the development of a solar farm on the Los Robles site. This alternative would eliminate development of the Tierra del Sol gen-tie. The Los Robles site is located approximately 1 mile south of I-8 and approximately 0.5 miles southwest of the community of Boulevard; it is northeast of the Tierra del Sol site, and southwest of the LanEast and LanWest sites (see Figure 4-35, Los Robles Alternative Project Site). The Los Robles site consists of two subareas: a larger western portion (approximately 945 acres) located on the east side of Tierra del Sol Road, and an eastern portion (approximately 517 acres) located on the east side of Jewel Valley Road. Together these two subareas comprise approximately 1,460 acres. The two subareas are separated by a distance of approximately 0.25 mile.

The Los Robles site generally consists of flat to gently rolling terrain primarily covered by chaparral and non-native grassland. The site is designated Rural Lands and zoned S92, General Rural. The site has several wells located on the property which are currently producing and would likely have an on-site supply of local groundwater. Any use of this groundwater would require a groundwater investigation in compliance with County regulations to determine groundwater conditions and availability of this resource for the project.

There would be two primary access points to the Los Robles site: Tierra del Sol Road and Jewel Valley Road, both of which parallel the northwestern project boundary. The Los Robles site would be developed with the same number of trackers (2,657) as proposed on the Tierra del Sol site, and therefore, a similar amount of ground disturbance is anticipated as for the Tierra del Sol site (420 acres). The same CPV solar generation technology would be used on the Los Robles

site as the Tierra del Sol site and construction and operation of the trackers and associated facilities, including an on-site operations and maintenance (O&M) annex and collector substation, would be the same. The Los Robles site would include an underground gen-tie within 50- to 100-foot easements connecting the on-site private substation to SDG&E's Rebuilt Boulevard Substation, which is located approximately 0.5 mile northeast of the project boundary.

The overall size of this alternative site could allow for this portion of the project to be designed in a way that potentially avoids project edges adjacent to public ROWs, steep slopes, and environmentally sensitive areas such as Resource Protection Ordinance wetlands or oak root zones.

All other components of the Proposed Project would remain the same, including the Rugged, LanEast, and LanWest solar farms. Potential impacts related to the Rugged, LanEast, and LanWest solar farms would therefore be the same as the Proposed Project. The following comparison is focused on the impacts associated with the relocation of the Tierra del Sol solar farm to the Los Robles site, as well as the elimination of the Tierra del Sol gen-tie, compared to the Proposed Project.

4.4.1.2 Comparison of Alternative 5 to the Proposed Project

Aesthetics

As described in Section 2.1, Aesthetics, the Proposed Project would result in potentially significant impacts related to scenic vistas, visual character, or quality and glare. Vegetative screening would be implemented as mitigation to reduce the visibility of trackers from off-site locations; however, impacts would not be reduced to a level below significance. Therefore, impacts as a result of the Proposed Project would remain significant and unavoidable.

Under Alternative 5, all visual impacts associated with the Rugged, LanEast and LanWest solar farms would remain the same as for the Proposed Project, including significant and unmitigable impacts related to views of the LanEast and LanWest solar farms from I-8 and Old Highway 80. Elimination of the Tierra del Sol solar farm would eliminate all impacts to scenic vistas and visual character and quality, as well as impacts related to glare, on this site. However, under this alternative, a 2,657-tracker solar farm would be developed on the Los Robles site. For travelers on Tierra del Sol Road, relatively wide and continuous views of the project site in the foreground would be available; however, the trackers would not substantially obstruct or interrupt available views from this roadway. The Los Robles site is also located approximately 0.5 mile south of Old Highway 80 and 1 mile south of I-8. Intervening topography would conceal the solar farm from the view of motorists along much of these roadways; however, due to the presence of elevated terrain, trackers within the northern boundary of the Los Robles site may be visible in

background views from Old Highway 80 and I-8. More expansive views of the site may also be visible in the distance for motorists as they pass the Tecate Divide and begin the descent into the McCain Valley. Therefore, scenic vista impacts would be similar to impacts anticipated to occur as a result of the Proposed Project.

Because the Los Robles site is undeveloped and displays a primarily natural visual character complimented by sloping terrain, native shrubs, and rock outcrops, impacts to visual character and quality associated with the solar farm development would be similar to that of the Tierra Del Sol solar farm. Lastly, glare generated by trackers at the Los Robles site could potentially be received by residences in the northern Jewel Valley and Tierra del Sol area and by motorists on Tierra del Sol Road and Jewel Valley Road. Trackers may also be visible in the distance from I-8 and Old Highway 80, in which case glare may be received by motorists on these roadways. Therefore, glare impacts would be similar under this alternative compared to the Proposed Project.

This alternative would substantially reduce impacts to visual character and quality since the proposed overhead gen-tie line from the Tierra del Sol site to SDG&E's Rebuilt Boulevard Substation would be eliminated, and a shorter gen-tie would be constructed underground between the Los Robles site and SDG&E's Rebuilt Boulevard Substation. The distance of the underground gen-tie could be approximately 0.5 to 2 miles depending on the location and design of the 420-acre solar farm on the site. Placing the gen-tie line entirely underground would avoid the significant visual contrast and the skylining effect associated with operation of the Proposed Project overhead gen-tie line through the Jewel Valley and Boulevard areas. Therefore, under this alternative, significant and unmitigable impacts to visual character and quality associated with the Tierra del Sol gen-tie would be reduced to less than significant.

Overall, aesthetic impacts from this alternative would be similar to impacts associated with construction of the Proposed Project, and visual character and quality and glare impacts would remain significant and. However, significant and unmitigable impacts related to visual character or quality from the overhead portion of the Tierra del Sol gen-tie would be avoided, and therefore, aesthetic impacts would be slightly reduced under this alternative as compared to the Proposed Project.

Air Quality

As described in Section 2.2, Air Quality, the Proposed Project would not result in significant impacts related to conformance with the RAQS, conformance to federal and state ambient air quality standards during operation, sensitive receptors, or odors. However, during construction the Proposed Project would exceed thresholds for NO_x and PM_{10} , which would result in a significant and unavoidable impact related to air quality. The construction-related impacts would also be considered cumulatively considerable and would be unmitigable during the short-term construction period.

Under Alternative 5, a 2,657-tracker solar farm would be constructed on the Los Robles site instead of the Tierra del Sol site. It is anticipated that similar construction time and effort, as well as similar construction equipment, would be required for construction of the solar farm on the Los Robles site as on the Tierra del Sol site. Therefore, it is anticipated that, similar to Tierra del Sol, individual site construction, operation, and decommissioning impacts would be below the thresholds. In addition, under this alternative it is anticipated that construction of the Los Robles solar farm would occur after construction of the Rugged solar farm since a major use permit (MUP) would still have to be processed for the Los Robles solar farm. This would eliminate the overlap of construction emissions that is anticipated under the Proposed Project, and thus, eliminate the significant and unmitigable short-term construction impact. Additionally, under this alternative, the length of gen-tie required would be reduced by approximately two-thirds or more, thereby reducing emissions associated with construction of the gen-tie.

All other impacts related to the project's conformance with the regional air quality strategy, impacts to sensitive receptors, and odor impacts would be similar to the Proposed Project. Similar project design features and mitigation measures would also be incorporated. Under this alternative, combined ~~PM₁₀ and~~ NO_x emissions for the overlapping construction of the Tierra del Sol and Rugged solar farms would not occur, and therefore, short-term significant and unmitigable air quality impacts would be reduced to less than significant. Additionally, emissions related to construction of the gen-tie would be substantially reduced. Therefore, impacts related to air quality would be reduced under this alternative compared to the Proposed Project and would be less than significant with mitigation.

Biological Resources

As described in Section 2.3, Biological Resources, the Proposed Project would result in potentially significant direct and indirect impacts to sensitive plant and wildlife species, sensitive vegetation communities, jurisdictional resources, and wildlife movement, and would conflict with the MBTA. However, with incorporation of mitigation measures, which include the preservation of habitat at the Soitec mitigation site, potentially significant impacts as a result of the Proposed Project would be reduced to less than significant.

Under Alternative 5, biological impacts incurred from implementation of the Rugged, LanEast, and LanWest solar farms would be the same as for the Proposed Project. The amount of ground disturbance that would have occurred on the Tierra del Sol site would now occur at the Los Robles site under this alternative. Since the Los Robles site is located within the same general area as the Tierra del Sol site, vegetation communities on site are anticipated to be similar, and the site would support similar plant and wildlife species. The site is primarily covered by upland scrub and chaparral communities and has some stands of open coast live oak woodland. Due to the large size of this site, trackers could be grouped onto select portions of the site and

sufficient space would be available to design the solar farm to avoid sensitive biological resources, including Resource Protection Ordinance wetlands and oak root zone buffers. Mitigation included in the Proposed Project would also be applied to this site, including the preservation of habitat as mitigation for impacts to specific vegetation communities and plant species. Therefore, similar to the Proposed Project, this alternative would result in potential impacts to sensitive habitats, special-status species and jurisdictional resources that would be mitigated to less than significant. Impacts related to wildlife movement and conformance with regional plans would also be similar to the Proposed Project, and would result in less-than-significant impacts with incorporation of mitigation.

Because the overall length of the gen-tie would be reduced by approximately two-thirds, it is anticipated that impacts to biological resources from this feature of the project would also be reduced when compared to the Proposed Project.

Overall, this alternative would result in generally similar impacts related to biology as the Proposed Project; however, reduction in length of the Tierra del Sol gen-tie and greater flexibility in the design of the site may slightly reduce biological impacts. Nonetheless, both this alternative and the Proposed Project would reduce potential impacts to biological resources to less than significant with incorporation of mitigation.

Cultural Resources

As described in Section 2.4, Cultural Resources, the Proposed Project would result in potentially significant impacts to prehistoric and historical resources, archaeological resources, cultural resources as defined by the Resource Protection Ordinance, and human remains. The mitigation measures identified in Section 2.4 would reduce all potentially significant impacts associated with the Tierra del Sol and Rugged solar farms to below a level of significance, and are anticipated to reduce potential impacts on the LanEast and LanWest sites, although this cannot be confirmed until those sites are tested for significance.

Under this alternative, the Tierra del Sol solar farm would not be built, and instead, the 2,657 trackers would be constructed on approximately 420 acres of the 1,460-acre Los Robles site. Therefore, a similar amount of ground disturbance would occur under this alternative compared to the Proposed Project. The Los Robles site has not been surveyed, and it is not known if potential resources exist, and if they exist, it is not known if the resources are significant. As such, the potential for impacts to cultural resources may be greater under this alternative as compared to the Proposed Project. Until the Los Robles site is surveyed and tested (if required), it is not known if any potentially significant impacts could be mitigated to less than significant. However, the reduced length of the gen-tie under this alternative might reduce potential impacts related to the discovery of cultural resources during construction.

Additionally, due to the large size of this site, trackers could be grouped onto select portions of the site to design the solar farm to avoid sensitive cultural resources, if necessary. Therefore, impacts under this alternative are anticipated to be slightly reduced when compared to the Proposed Project.

Land Use and Planning

As described in Section 2.5, Land Use, construction and operation of the Proposed Project would not physically divide a community. The Proposed Project would be consistent with applicable County Board of Supervisors policies and County ordinances, and would not conflict with applicable goals and policies of the Mountain Empire Subregional Plan or the Boulevard Subregional Plan. The Tierra del Sol and Rugged solar farms would be consistent with the County General Plan; however, LanEast and LanWest would conflict with County General Plan policies COS-11.1 and COS-11.3. Therefore, the Proposed Project would result in a significant and unmitigated impact.

Under Alternative 5, potential construction impacts related to physically dividing a community would similarly be reduced to less than significant with incorporation of project design features, and operational impacts would also be less than significant. Similar to the Tierra del Sol solar farm, the Los Robles solar farm would also be consistent with applicable goals and policies; however, the LanEast and LanWest solar farms would still conflict with County General Plan policies COS-11.1 and COS-11.3. Therefore, land use impacts would remain significant and unmitigable under this alternative and would be similar to the Proposed Project.

Noise

As described in Section 2.6, Noise, the Proposed Project would result in potentially significant impacts related to operational and construction noise and vibration. However, incorporation of project design features and mitigation measures would reduce potential impacts to less than significant. Impacts associated with corona noise would be less than significant.

Under this alternative, similar project components would be developed on the Los Robles site as proposed on the Tierra del Sol site, and noise generated as a result of construction, operation, and maintenance activities would be similar as that anticipated for the Tierra del Sol solar farm. Similar project design features and mitigation measures would be incorporated for this alternative as for the Proposed Project. The size of the Los Robles site would enable large setbacks to be incorporated into the site design, which would further reduce noise levels at the property boundary and thus would reduce potential impacts to nearby sensitive receptors. Additionally, under this alternative, the length of gen-tie would be reduced by at least two-thirds and the line would be placed underground. Therefore, helicopter noise related to both construction and operation of the overhead gen-tie would be eliminated under this alternative.

Therefore, while impacts under this alternative would be reduced compared to the Proposed Project due to greater setbacks and the elimination of helicopter noise associated with the construction and maintenance of the overhead Tierra del Sol gen-tie, both Alternative 5 and the Proposed Project would result in less-than-significant noise impacts with mitigation incorporated.

Other Resource Topics

Impacts associated with the Relocate Tierra del Sol to Los Robles Alternative related to agriculture and forestry resources, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, paleontological resources, public services, traffic and transportation, and utilities would be the same as or less than those associated with the Proposed Project. Specifically, potential conflicts with agricultural zoning and agricultural preserves would be reduced under this alternative since no solar farm would be developed at Tierra del Sol where there is currently an agricultural preserve. GHG emissions would be reduced since less earthwork would be required with the shorter gen-tie line. And finally, impacts to hydrology and water quality and utilities related to water demand would be reduced since no landscape screening, and associated irrigation, would be required at the Los Robles solar farm since the size of the site would allow for greater natural setbacks.

4.4.1.3 Summary of Relocate Tierra del Sol to Los Robles Alternative

Alternative 5 would generally result in similar impacts to the environmental resource areas considered within this EIR compared to the Proposed Project. While significant and unmitigable aesthetic impacts associated with the Tierra del Sol gen-tie would be avoided, other significant and unmitigable impacts related to aesthetics would remain. Inclusion of the LanEast and LanWest solar farms in this alternative would also result in significant and unmitigable impacts related to land use, similar to the Proposed Project. However, under this alternative, short-term construction emissions would be reduced to less than significant since the construction schedules of the Los Robles solar farm would not overlap with the construction schedule of the Rugged solar farm. This alternative may also result in reduced biological and cultural impacts due to construction of a shorter gen-tie line and reduced noise impacts at adjacent property boundaries due to the larger area of the site that would allow for increased setbacks. This alternative would meet all project objectives to the same extent as the Proposed Project, and would achieve project objective 3 to a greater extent by locating the Tierra del Sol solar farm even closer to the Rebuilt Boulevard Substation. ~~The applicant has site control of the Los Robles site and implementation of a solar farm at this site would not require any components that would be infeasible to construct.~~

4.4.2 Analysis of Relocate LanEast and LanWest to Los Robles Alternative (Alternative 6)

4.4.2.1 Relocate LanEast and LanWest to Los Robles Alternative Description and Setting

The Relocate LanEast and LanWest to Los Robles Alternative would eliminate the development of solar farms on the LanEast and LanWest sites and would instead involve the development of a 1,164-tracker solar farm on the Los Robles site; the Los Robles site is described in more detail above in Section 4.4.1.1.

Since the Los Robles site would be developed with the same number of trackers (1,164) as proposed on the LanEast and LanWest sites, ground disturbance on the Los Robles site would total approximately 288 acres, the same as the ground disturbance associated with the LanEast and LanWest solar farms. The same CPV solar generation technology would be used on the Los Robles site, and construction and operation of the trackers and associated facilities, including an on-site O&M annex and collector substation, would be the same. The Los Robles solar farm would tie in to the Tierra del Sol gen-tie at the on-site substation and would be contained within the same underground 60-foot easement that would connect the on-site private substation to SDG&E's Rebuilt Boulevard Substation, which is located approximately 0.5 mile northeast of the project boundary. All other components of the Proposed Project would remain the same, including the Tierra del Sol and Rugged solar farms. Potential impacts related to the Rugged and Tierra del Sol solar farms would therefore be the same as the Proposed Project. The following comparison is focused on the impacts associated with the relocation of the LanEast and LanWest solar farms to the Los Robles site compared to the Proposed Project.

4.4.2.2 Comparison of the Effects of Alternative 6 to the Proposed Project

Aesthetics

As described in Section 2.1, Aesthetics, the Proposed Project would result in potentially significant impacts related to scenic vistas, visual character or quality and glare. Vegetative screening would be implemented as mitigation to reduce the visibility of trackers from off-site locations; however, impacts would not be reduced to a level below significance; therefore, impacts as a result of the Proposed Project would remain significant and unavoidable.

Under Alternative 6, all visual impacts associated with the Tierra del Sol and Rugged solar farms would remain the same as for the Proposed Project, including impacts associated with the Tierra del Sol gen-tie. The Los Robles site is also located approximately 0.5 mile south of Old Highway 80 and 1 mile south of I-8. Intervening topography would conceal the solar farm from the view of motorists along much of these roadways; however, due to the presence of elevated terrain,

trackers within the northern boundary of the Los Robles site may be visible in background views from Old Highway 80 and I-8. More expansive views of the site may also be visible in the distance for motorists as they pass the Tecate Divide and begin the descent into the McCain Valley. However, these views would be distant and intermittent and might, therefore, be less than significant, compared to scenic vista impacts of the LanEast and LanWest solar farms which would be significant and unmitigable. For travelers on Tierra del Sol Road, relatively wide and continuous views of the Los Robles site in the foreground would be available; however, this roadway is much less traveled than I-8, and the trackers would not substantially obstruct or interrupt available views from this roadway; therefore, impacts to scenic vistas from Tierra del Sol Road would also be less than significant.

Although fewer sensitive receptors would be afforded views of the Los Robles site compared to LanEast and LanWest, the site is undeveloped and displays a primarily natural visual character. Therefore, impacts to the existing visual character and quality of the site would only be slightly reduced, and similar to the Proposed Project, would be significant and unmitigable.

Glare generated by the development of a solar farm on the Los Robles site as proposed under this alternative would likely be received by residences in the northern Jewel Valley and Tierra del Sol areas and motorists on Tierra del Sol Road and Jewell Valley Road. Trackers may also be visible in the distance from I-8 and Old Highway 80, in which case glare may be received by motorists on these roadways. However, the distance between trackers and motorists would likely reduce glare intensity and the location could reduce the duration of glare exposure, compared with the LanEast and LanWest sites. Therefore, under Alternative 6, impacts related to scenic vistas and glare are anticipated to be reduced, mainly related to increased distance from I-8, and possibly reducing or eliminating time that motorists along I-8 might be exposed to glare. Therefore, impacts related to scenic vistas and glare under this alternative, as compared to the Proposed Project, might be reduced to less than significant, although impacts related to visual character and quality would still remain significant and unmitigable.

Air Quality

As described in Section 2.2, Air Quality, the Proposed Project would not result in significant impacts related to conformance with the RAQS, conformance to federal and state ambient air quality standards during operation, sensitive receptors, or odors. However, during construction the Proposed Project would exceed thresholds for NO_x and PM_{10} , which would result in a significant and unavoidable impact related to air quality. The construction-related impacts would also be considered cumulatively considerable and would be unmitigable during the short-term construction period.

Under Alternative 6, the LanEast and LanWest solar farms would not be constructed; instead, a 1,164 CPV tracker solar farm would be constructed on the Los Robles site. It is anticipated that similar construction time and effort, as well as similar construction equipment, would be required for construction of the solar farm on the Los Robles site as on the LanEast and LanWest sites, and less construction time, effort and equipment than would be required for construction of the Tierra del Sol or Rugged sites. Therefore, construction and operational emissions are similarly anticipated to be less than significant for the Los Robles solar farm; however, overlapping construction of the Tierra del Sol and Rugged solar farms would still result in a significant and unmitigable impact under this alternative.

All other impacts related to the project's conformance with the regional air quality strategy, impacts to sensitive receptors, and odor impacts would be similar to the Proposed Project. Similar project design features and mitigation measures would also be incorporated.

Biological Resources

As described in Section 2.3, Biological Resources, the Proposed Project would result in potentially significant direct and indirect impacts to sensitive plant and wildlife species, sensitive vegetation communities, jurisdictional resources, and wildlife movement, and would conflict with the MBTA. However, with incorporation of mitigation measures, which include the preservation of habitat at the Soitec mitigation site, potentially significant impacts as a result of the Proposed Project would be reduced to less than significant.

With Alternative 6, biological impacts incurred from implementation of the Rugged and Tierra del Sol solar farms would be the same as for the Proposed Project. Under this alternative, the LanEast and LanWest solar farms would not be built, and instead, 1,164 trackers would be constructed on approximately 288 acres of this 1,460 acre site. Therefore, a similar amount of ground disturbance would occur under this alternative compared to the Proposed Project. Since the Los Robles site is located within the same general area as the LanEast and LanWest sites, vegetation communities on site are anticipated to be similar and the site would support similar plant and wildlife species. The Los Robles site would incorporate mitigation similar to the Proposed Project, including the preservation of habitat as mitigation for impacts to specific vegetation communities and plant species. Therefore, similar to the Proposed Project, this alternative would result in potential impacts to sensitive habitats, special-status species and jurisdictional resources that would be mitigated to less than significant. However, because the Los Robles site is approximately 1,180 acres larger than the area of the LanEast and LanWest sites, the Los Robles site would offer greater flexibility for the solar farm to be designed to avoid sensitive biological resources, including Resource Protection Ordinance wetlands and oak root zone buffers, and therefore, might result in fewer impacts requiring mitigation. Impacts related to wildlife movement and

conformance with regional plans would also be similar to the Proposed Project, and would result in less-than-significant impacts with incorporation of mitigation.

The same gen-tie alignment as used for the Tierra del Sol project would be used to connect the Los Robles site to the SDG&E Rebuilt Boulevard Substation, and therefore, no additional impacts would result from the construction of a gen-tie.

As such, this alternative would result in generally similar impacts related to biology as the Proposed Project and potentially significant impacts to biological resources would be reduced to less than significant with incorporation of mitigation.

Cultural Resources

As described in Section 2.4, Cultural Resources, the Proposed Project would result in potentially significant impacts to prehistoric and historical resources, archaeological resources, cultural resources as defined by the Resource Protection Ordinance, and human remains. The mitigation measures identified in Section 2.4 would reduce all potentially significant impacts associated with the Tierra del Sol and Rugged solar farms to below a level of significance, and are anticipated to reduce potential impacts on the LanEast and LanWest sites, although this cannot be confirmed until those sites are tested for significance.

A similar amount of ground disturbance would occur on the Los Robles site as for the LanEast and LanWest sites, but because resources on the LanEast and LanWest sites have not been tested for significance, and because the Los Robles site has not been surveyed and any potentially significant resources tested, a definitive comparison cannot be made as to whether potential impacts to cultural resources would be reduced, remain similar, or increase under this alternative. However, it is expected that due to the large size of this site, trackers could be grouped onto select portions of the site and sufficient space would be available to design the solar farm to avoid sensitive cultural resources.

Land Use and Planning

As described in Section 2.5, Land Use, construction and operation of the Proposed Project would not physically divide a community. The Proposed Project would be consistent with applicable County Board of Supervisors policies and County ordinances, and would not conflict with applicable goals and policies of the Mountain Empire Subregional Plan or the Boulevard Subregional Plan. The Tierra del Sol and Rugged solar farms would be consistent with the County General Plan; however, LanEast and LanWest would conflict with County General Plan policies COS-11.1 and COS-11.3. Therefore, the Proposed Project would result in a significant and unmitigated impact.

Under Alternative 6, potential construction impacts related to physically dividing a community would similarly be reduced to less than significant with incorporation of project design features, and operational impacts would also be less than significant. Alternative 6 would also similarly be consistent with applicable goals and policies; including County General Plan policies COS-11.1 and COS-11.3, since relocating LanEast and LanWest to Los Robles would reduce conflicts related to visual impacts of locating the solar farms adjacent to I-8 and Old Highway 80. Therefore, land use impacts would be reduced to less than significant under this alternative.

Noise

As described in Section 2.6, the Proposed Project would result in potentially significant impacts related to operational and construction noise and vibration. However, incorporation of project design features and mitigation measures would reduce potential impacts to less than significant. Impacts associated with corona noise would be less than significant.

Under this alternative, similar project components would be developed on the Los Robles site as proposed on the LanEast and LanWest solar farm sites. Potentially significant but mitigable noise impacts were identified for these two sites related to operational and construction noise, including inverter operation, grading equipment, and vibratory pile driving. Potential noise impacts for the relocation of these two sites to the Los Robles site are also anticipated to be potentially significant, but mitigated to less than significant. The larger area of the Los Robles site would enable large setbacks to be incorporated into the site design which would further reduce noise levels at the property boundary and thus would reduce potential impacts to nearby sensitive receptors.

Therefore, while impacts under this alternative might be slightly reduced compared to the Proposed Project due to greater setbacks, both Alternative 6 and the Proposed Project would result in less-than-significant noise impacts with mitigation incorporated.

Other Resource Topics

Impacts associated with the Relocate LanEast and LanWest to Los Robles Alternative related to agriculture and forestry resources, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, paleontological resources, public services, traffic and transportation, and utilities would be the same as or less than those associated with the Proposed Project.

4.4.2.3 Summary of Relocate LanEast and LanWest to Los Robles Alternative

Alternative 6 would generally result in similar overall impacts to the environmental resource areas considered within this Program EIR compared to the Proposed Project. Relocation of the

LanEast and LanWest solar farms to a location that is less visually prominent from I-8 and Old Highway 80 might reduce significant and unmitigable impacts associated with the Proposed Project to less than significant under this alternative. However, significant and unmitigable impacts related to visual character and quality and glare, as well as aesthetic impacts associated with the gen-tie, would remain. Elimination of the LanEast and LanWest solar farms under this alternative would also reduce significant and unmitigable impacts related to land use to less than significant. However, under this alternative, short-term construction emissions would remain significant and unmitigable since the construction schedules for Tierra del Sol and Rugged solar farms would continue to overlap. This alternative would result in similar biological and cultural impacts as the Proposed Project and slightly reduced noise impacts at adjacent property boundaries due to the larger area of the site that would allow for increased setbacks. This alternative would meet all project objectives. ~~The applicant has site control of the Los Robles site, and implementation of a solar farm at this site would not require any components that would be infeasible to construct.~~

4.4.3 Analysis of Relocate Tierra del Sol, LanEast, and LanWest to Los Robles Alternative (Alternative 7)

4.4.3.1 Relocate Tierra del Sol, LanEast, and LanWest to Los Robles Alternative Description and Setting

This alternative would replace the development of solar farms on the Tierra del Sol, LanEast, and LanWest sites, as well as the Tierra del Sol gen-tie, by instead developing a solar farm on the Los Robles site; the Los Robles site is described in more detail above in Section 4.4.1.1.

The Los Robles site would be developed with the same number of trackers (3,821) as proposed on the three sites, and therefore, the total number of trackers developed under this alternative would be the same as for the Proposed Project. Ground disturbance on the Los Robles site would total approximately 708 acres, the same as the ground disturbance associated with the Tierra del Sol, LanEast, and LanWest solar farms. The same CPV solar generation technology would be used and construction and operation of the trackers and associated facilities, including an on-site O&M annex and collector substation would be the same. The Los Robles site would include an approximately 0.5- to 2-mile underground gen-tie within a 60-foot easement connecting the on-site private substation to SDG&E's Rebuilt Boulevard Substation, which is located approximately 0.5 mile northeast of the project boundary.

The Rugged solar farm would remain the same as the Proposed Project. Potential impacts related to the Rugged solar farm would therefore be the same as the Proposed Project. The following comparison is focused on the impacts associated with the relocation of the Tierra del Sol,

LanEast, and LanWest solar farms to the Los Robles site, as well as the elimination of the Tierra del Sol gen-tie, compared to the Proposed Project.

4.4.3.2 Comparison of the Effects of Alternative 7 to the Proposed Project

Aesthetics

As described in Section 2.1, Aesthetics, the Proposed Project would result in potentially significant impacts related to scenic vistas, visual character or quality, and glare. Vegetative screening would be implemented as mitigation to reduce the visibility of trackers from off-site locations; however, impacts would not be reduced to a level below significance; therefore, impacts as a result of the Proposed Project would remain significant and unavoidable.

Under Alternative 7, all visual impacts associated with the Rugged solar farm would remain the same as for the Proposed Project. Significant and unmitigable impacts related to scenic vistas might be reduced to less than significant under this alternative since solar farms would not be constructed at the LanEast and LanWest site; however, this would not be determined until a site design is proposed and analyzed within a visual analysis report. The Los Robles site is also located approximately 0.5 mile south of Old Highway 80 and 1 mile south of I-8. Intervening topography would may conceal the solar farm from the view of motorists along much of these roadways; however, due to the presence of elevated terrain, trackers within the northern boundary of the Los Robles site may be visible in background views from Old Highway 80 and I-8. More expansive views of the site may also be visible in the distance for motorists as they pass the Tecate Divide and begin the descent into the McCain Valley. However, these views would be distant and intermittent and might, therefore, be less than significant, compared to the significant and unmitigable scenic vista impacts of the LanEast and LanWest solar farms. For travelers on Tierra del Sol Road, relatively wide and continuous views of the Los Robles site in the foreground would be available; however, this roadway is much less traveled than I-8 and the trackers would not substantially obstruct or interrupt available views from this roadway; therefore, impacts to scenic vistas from Tierra del Sol Road would also be less than significant.

Alternative 7 would eliminate all visual impacts at the Tierra del Sol, LanEast, and LanWest site; however, the installation of 3,821 trackers on an undeveloped, primarily natural site would significantly impact the existing character and quality of the site. Concentrating solar farm development on one site within the Jewel Valley area would reduce impacts to individual communities in the Boulevard area and would reduce the number of sensitive viewers exposed to views of solar farm development. Therefore, impacts would not be as widely dispersed in the Boulevard area as the Proposed Project, reducing impacts to visual character and quality.

However, construction of the Los Robles solar farm would still result in a significant and unmitigable impact to visual character and quality similar to the Proposed Project.

This alternative would eliminate the overhead portion of the proposed Tierra del Sol gen-tie and instead would install an approximately 0.5- to 2-mile underground gen-tie connecting the Los Robles site to SDG&E's Rebuilt Boulevard Substation. Placing the gen-tie line entirely underground would avoid the significant visual contrast and the skylining effect associated with the overhead gen-tie line. Therefore, under this alternative, significant and unmitigable impacts to visual character and quality associated with the Tierra del Sol gen-tie would be avoided.

Lastly, under this alternative, glare impacts to motorists on I-8 may be reduced even if trackers would be visible from I-8, as the intensity of glare received would be anticipated to be less intense due to the location of glare in the peripheral field of vision and due to increased distance from I-8 as compared to the LanEast and LanWest sites. The primary receptors of glare from this alternative would be residences in the Jewel Valley and Tierra del Sol areas and motorists on Tierra del Sol Road, Jewel Valley Road, and possibly short segments of Old Highway 80 and SR-94. Therefore, impacts related to glare would be reduced compared to the Proposed Project, but would remain potentially significant and unmitigated.

Overall impacts related to scenic vistas, visual character and quality, and glare would be slightly reduced under this alternative as compared to the Proposed Project but would still remain significant and unmitigable.

Air Quality

As described in Section 2.2, Air Quality, the Proposed Project would not result in significant impacts related to conformance with the RAQS, conformance to federal and state ambient air quality standards during operation, sensitive receptors, or odors. However, during construction, the Proposed Project would exceed thresholds for NO_x and PM_{10} , which would result in a significant and unavoidable impact to air quality. The construction-related impacts would also be considered cumulatively considerable and would be unmitigable during the short-term construction period.

Under Alternative 7, a 3,821 CPV tracker solar farm would be constructed on the Los Robles site in place of solar farm development on the Tierra del Sol, LanEast, and LanWest sites. It is anticipated that construction time and effort, as well as similar construction equipment, would be required for construction of the solar farm on the Los Robles site as for the Rugged site. Additionally, since the construction would not be spread across three different sites, some overlapping construction effort may be reduced. Therefore, short-term construction emissions are not anticipated to exceed thresholds. Additionally, under this alternative, combined PM_{10} and NO_x emissions for the overlapping construction of the Tierra del Sol and

Rugged solar farms would not occur, and therefore, short-term significant and unmitigable air quality impacts would be reduced to less than significant. It is anticipated that operation and decommissioning impacts would be below the thresholds.

Additionally, under this alternative, the 6 mile Tierra del Sol gen-tie would not be constructed. Instead, an underground gen-tie approximately 0.5 to 2 miles in length would be constructed from the Los Robles site to SDG&E's Rebuilt Boulevard Substation. Therefore, emissions associated with construction and operation of the Tierra del Sol gen-tie would be reduced.

All other impacts related to the project's conformance with the regional air quality strategy, impacts to sensitive receptors, and odor impacts would be similar to the Proposed Project. Similar project design features and mitigation measures would also be incorporated.

Biological Resources

As described in Section 2.3, Biological Resources, the Proposed Project would result in potentially significant direct and indirect impacts to sensitive plant and wildlife species, sensitive vegetation communities, jurisdictional resources, wildlife movement, and conflict with the MBTA. However, with incorporation of mitigation measures, which include the preservation of habitat at the Soitec mitigation site, potentially significant impacts as a result of the Proposed Project would be reduced to less than significant.

Under Alternative 7, biological impacts incurred from implementation of the Rugged solar farm would be the same as for the Proposed Project. Overall, a similar amount of ground disturbance would occur under this alternative compared to the Proposed Project. Development of the Los Robles site with solar farm facilities that would have been constructed at the other three sites under the Proposed Project would occupy approximately 708 acres of the 1,460-acre site. Because of the larger site area, the site layout could be designed to avoid sensitive biological resources, including Resource Protection Ordinance wetlands and oak root zone buffers. It is anticipated that mitigation similar to that included in the Proposed Project would be applied to mitigate for any potentially significant impacts at this site, including the preservation of habitat for impacts to specific vegetation communities and plant species. Therefore, similar to the Proposed Project, this alternative is anticipated to result in potential impacts to sensitive habitats, special-status species, and jurisdictional resources that would be mitigated to less than significant. Impacts related to wildlife movement and conformance with regional plans would also be similar to the Proposed Project, and would result in less-than-significant impacts with incorporation of mitigation.

Under this alternative, the 6-mile Tierra del Sol gen-tie would not be constructed, and instead an approximately 0.5-mile to 2-mile gen-tie would be constructed entirely underground to connect the Los Robles site to SDG&E's Rebuilt Boulevard Substation. Therefore, in

addition to reducing impacts to sensitive habitats and plant and wildlife species, the elimination of the overhead gen-tie would reduce potential impacts related to collisions or electrocutions when compared to the Proposed Project.

As such, this alternative would result in slightly reduced impacts related to biology as the Proposed Project from construction of a shorter gen-tie. Nonetheless, both this alternative and the Proposed Project would reduce potential impacts to biological resources to less than significant with incorporation of mitigation.

Cultural Resources

As described in Section 2.4, Cultural Resources, the Proposed Project would result in potentially significant impacts to prehistoric and historical resources, archaeological resources, cultural resources as defined by the Resource Protection Ordinance, and human remains. The mitigation measures identified in Section 2.4 would reduce all potentially significant impacts associated with the Tierra del Sol and Rugged solar farms to below a level of significance, and are anticipated to reduce potential impacts on the LanEast and LanWest sites, although this cannot be confirmed until those sites are tested for significance.

Under Alternative 7, cultural resource impacts incurred from implementation of the Rugged solar farm would be the same as for the Proposed Project. A similar amount of ground disturbance would occur on the Los Robles site as compared to the other three sites, but because resources on the LanEast and LanWest sites have not been tested for significance, and because the Los Robles site has not been surveyed and any potentially significant resources tested, a definitive comparison cannot be made as to whether potential impacts to cultural resources would be reduced, remain similar, or increase under this alternative. However, the reduced length of the gen-tie under this alternative would reduce potential impacts related to the discovery of cultural resources during construction. Additionally, due to the large size of this site, trackers could be grouped onto select portions of the site and sufficient space would be available to design the solar farm to avoid sensitive cultural resources. Therefore, impacts under this alternative are anticipated to be slightly reduced when compared to the Proposed Project.

Land Use and Planning

As described in Section 2.5, Land Use, construction and operation of the Proposed Project would not physically divide a community. The Proposed Project would be consistent with applicable County Board of Supervisors policies and County ordinances, and would not conflict with applicable goals and policies of the Mountain Empire Subregional Plan or the Boulevard Subregional Plan. The Tierra del Sol and Rugged solar farms would be consistent with the County General Plan; however, LanEast and LanWest would conflict with County General Plan policies COS-11.1 and COS-11.3. Therefore, the Proposed Project would result in a significant and unmitigated impact.

Under Alternative 7, potential construction impacts related to physically dividing a community would similarly be reduced to less than significant with incorporation of project design features, and operational impacts would also be less than significant. Alternative 7 would also similarly be consistent with applicable goals and policies; including County General Plan policies COS-11.1 and COS-11.3, since relocating LanEast and LanWest to Los Robles would reduce conflicts related to visual impacts from construction of a solar farm adjacent to I-8 and Old Highway 80. Therefore, land use impacts would be reduced to less than significant under this alternative.

Noise

As described in Section 2.6, Noise, the Proposed Project would result in potentially significant impacts related to operational and construction noise and vibration. However, incorporation of project design features and mitigation measures would reduce potential impacts to less than significant. Impacts associated with corona noise would be less than significant.

Under this alternative, noise generated as a result of construction, operation, and maintenance activities associated with the Rugged solar farm would be the same as under the Proposed Project. Similar project components would be developed on the Los Robles site as proposed on the other three solar farm sites, except for the overhead portion of the Tierra del Sol gen-tie. Potentially significant but mitigable noise impacts were identified for these three sites related to operational and construction noise, including inverter operation, grading equipment, vibratory pile driving, and helicopter noise. Noise impacts for the relocation of these three sites to the Los Robles site are also anticipated to be potentially significant but mitigated to less than significant, although helicopter noise would no longer be an issue since the gen-tie for the Los Robles solar farm would be placed underground. The larger area of the Los Robles site would also enable large setbacks to be incorporated into the site design which could further reduce noise levels at the property boundary and thus would reduce potential impacts to nearby sensitive receptors.

Therefore, while impacts under this alternative are expected to be reduced compared to the Proposed Project due to greater setbacks and the elimination of helicopter noise, both Alternative 7 and the Proposed Project would result in less-than-significant noise impacts with mitigation incorporated.

Other Resource Topics

Impacts associated with Alternative 7 related to agriculture and forestry resources, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, paleontological resources, public services, traffic and transportation, and utilities would be the same as or less than those associated with the Proposed Project. Specifically, potential conflicts with agricultural zoning and agricultural preserves would be reduced under this alternative since no solar farm would be developed at Tierra del Sol where there is currently an agricultural preserve.

GHG emissions would be reduced since less earthwork would be required with the shorter gen-tie line. Impacts to hydrology and water quality and utilities related to water demand would be reduced since no landscape screening, and associated irrigation, would be required at the Los Robles solar farm since the size of the site would allow for greater natural setbacks. And finally, some impacts, such as those related to public services, would likely be reduced by the consolidation of the three solar farms onto one site, which would reduce redundancy in operations and maintenance personnel, reduce edge effects and reduce the area needing to be covered by emergency and fire protection services.

4.4.3.3 Summary of Relocate Tierra del Sol, LanEast, and LanWest to Los Robles Alternative

Alternative 7 would generally result in similar overall impacts to the environmental resource areas considered within this EIR compared to the Proposed Project.

Under this alternative, short-term air quality impacts associated with construction emissions would be reduced to less than significant since the construction schedules of the Los Robles solar farm would not overlap with the construction schedule of the Rugged solar farm. Elimination of the LanEast and LanWest solar farms under this alternative would also reduce significant and unmitigable impacts related to land use to less than significant.

This alternative may result in reduced biological and cultural impacts due to construction of a shorter gen-tie line and greater flexibility in project design and reduced noise impacts at adjacent property boundaries due to the larger area of the site that would allow for increased setbacks. Reduced noise impacts would also be realized from the elimination of helicopter noise that would result from construction and maintenance activities of the overhead portion of the Tierra del Sol gen-tie. Overall, potential impacts associated with aesthetics under this alternative are expected to remain significant and unmitigable. This alternative would meet all project objectives to the same extent as the Proposed Project, and would achieve project objective 3 to a greater extent by locating the Tierra del Sol solar farm even closer to the Rebuilt Boulevard Substation. ~~The applicant has site control of the Los Robles site and implementation of a solar farm at this site would not require any components that would be infeasible to construct.~~

4.4.4 Analysis of Relocate Tierra del Sol, LanEast, and LanWest to Los Robles and Maximize Los Robles Alternative (Alternative 8)

4.4.4.1 Relocate Tierra del Sol, LanEast, and LanWest to Los Robles and Maximize Los Robles Description and Setting

The Relocate Tierra del Sol, LanEast, and LanWest to Los Robles and Maximize Los Robles Alternative (Maximize Los Robles Alternative) would eliminate the development of solar farms on the Tierra del Sol, LanEast, and LanWest sites, as well as the Tierra del Sol gen-tie, and would instead involve the development of a solar farm on the Los Robles site; the Los Robles site is described in more detail above in Section 4.4.1.1.

In addition to the relocation of all 3,821 trackers proposed on the Tierra del Sol, LanEast, and LanWest sites to the Los Robles site, this alternative would also include the development of 1,006 additional trackers on the Los Robles site for a total of 4,827 trackers on this site, which would generate approximately 112 MW of renewable solar energy. The total number of trackers for the entire project, including Rugged, would be increased to 8,415, which would generate a total of approximately 192 MW of renewable solar energy.

Ground disturbance on the Los Robles site would be greater than the total ground disturbance associated with the Tierra del Sol, LanEast and LanWest solar farms due to the development of the additional trackers to maximize solar power generation on the site. The Los Robles site is approximately 1,460 acres in total; however, under this alternative site disturbance would not exceed 1,000 acres. Sufficient acreage would remain to design the site to avoid visually prominent areas, steep slopes, and environmentally sensitive areas such as Resource Protection Ordinance wetlands or oak root zones.

The same CPV solar generation technology would be used on the Los Robles site as the Tierra del Sol, LanEast, and LanWest sites, and construction and operation of the trackers and associated facilities, including an on-site O&M annex and collector substation, would be the same. The Los Robles site would include an approximately 0.5-mile to 2-mile underground gen-tie within a 50 to 100 foot easement connecting the on-site private substation to SDG&E's Rebuilt Boulevard Substation, which is located approximately 0.5 mile northeast of the project boundary.

The Rugged solar farm would remain the same as the Proposed Project. Potential impacts related to the Rugged solar farm would therefore be the same as the Proposed Project. The following comparison is focused on the impacts associated with the relocation of the Tierra del Sol, LanEast, and LanWest solar farms to the Los Robles site, as well as the elimination

of the Tierra del Sol gen-tie and the increased number of trackers on the Los Robles site, compared to the Proposed Project.

4.4.4.2 Comparison of the Effects of Alternative 8 to the Proposed Project

Aesthetics

As described in Section 2.1, Aesthetics, the Proposed Project would result in potentially significant impacts related to scenic vistas, visual character or quality and glare. Vegetative screening would be implemented as mitigation to reduce the visibility of trackers from off-site locations; however, impacts would not be reduced to a level below significance. Therefore, impacts as a result of the Proposed Project would remain significant and unavoidable.

Under the Maximize Los Robles Alternative, all visual impacts associated with the Rugged solar farm would remain the same as for the Proposed Project. All visual impacts associated with the Tierra del Sol, LanEast, and LanWest solar farms and the Tierra del Sol gen-tie would not occur under this alternative; specifically, significant and unmitigable impacts related to scenic vistas would be reduced to less than significant under this alternative since solar farms would not be constructed at the LanEast and LanWest sites. The Maximize Los Robles Alternative would reduce impacts to scenic vistas since the Los Robles solar farm would be located further away from the view of passing motorists on Old Highway 80 and I-8 than the LanEast and LanWest solar farms would be and intervening topography would conceal Los Robles from the view of motorists along much of these roadways. Additionally, the size of the Los Robles site would enable larger setback in visually prominent areas. However, maximum buildout of the Los Robles site may result in trackers being located on elevated terrain in the northern portions of the Los Robles site, which could result in visibility from Old Highway 80 and I-8 despite the greater distance of the site from these roadways. More expansive views of the site may also be visible in the distance for motorists as they pass the Tecate Divide and begin the descent into the McCain Valley. However, these views would be distant and intermittent and would, therefore, be less than significant, compared to scenic vista impacts of the LanEast and LanWest solar farms which would be significant and unmitigable. For travelers on Tierra del Sol Road, relatively wide and continuous views of the Los Robles site in the foreground would be available; however, this roadway is much less traveled than I-8, and the trackers would not substantially obstruct or interrupt available views from this roadway. Although it cannot be confirmed at this time, it is likely that potentially significant and unmitigable impacts to scenic vistas associated with the Proposed Project would be reduced to less than significant under this alternative.

Locating multiple solar farms on one site within the Jewel Valley area would reduce impacts to individual communities in the Boulevard area and would reduce the number of sensitive

viewers exposed to views of solar farm development. However, the installation of approximately 4,800 trackers on an undeveloped, primarily natural site would significantly impact the existing character and quality of the site. Therefore, while impacts would not be as widely dispersed in the Boulevard area as the Proposed Project, effects to visual character and quality would be similar, and the solar farm would still result in a significant and unmitigable impact similar to the Proposed Project.

This alternative would substantially reduce impacts to visual character and quality by eliminating the proposed gen-tie line from the Tierra del Sol site to SDG&E's Rebuilt Boulevard Substation. An approximately 0.5- to 2-mile gen-tie would be constructed underground between the Los Robles site and SDG&E's Rebuilt Boulevard Substation. Placing the gen-tie line entirely underground would avoid the significant visual contrast and the skylining effect associated with operation of the Proposed Project overhead gen-tie line through the Jewel Valley and Boulevard areas. Therefore, under this alternative, significant and unmitigable impacts to visual character and quality associated with the Tierra del Sol gen-tie would be eliminated.

Lastly, under this alternative, glare impacts to motorists on I-8 may be reduced even if trackers would be visible from I-8, as the intensity of glare received would be anticipated to be less intense due to the location of glare in the peripheral field of vision and due to increased distance from I-8 as compared to the LanEast and LanWest sites. The primary receptors of glare from this alternative would be residences in the Jewel Valley and Tierra del Sol areas and motorists on Tierra del Sol Road, Jewel Valley Road, and possibly segments of Old Highway 80 and SR-94. Therefore, impacts related to glare would be reduced compared to the Proposed Project, but would remain significant and unmitigated.

Overall impacts related to scenic vistas, visual character and quality, and glare are expected to be slightly reduced under this alternative as compared to the Proposed Project but would still remain significant and unmitigable.

Air Quality

As described in Section 2.2, Air Quality, the Proposed Project would not result in significant impacts related to conformance with the RAQS, conformance to federal and state ambient air quality standards during operation, sensitive receptors, or odors. However, during construction, the Proposed Project would exceed thresholds for NO_x and PM_{10} , which would result in a significant and unavoidable impact to related to air quality. The construction-related impacts would also be considered cumulatively considerable and would be unmitigable during the short-term construction period.

Under Alternative 8, it is anticipated that similar methods as proposed for the Tierra del Sol, LanEast and LanWest solar farms would be used for construction and operation of the Los Robles solar farm. Additionally, some efficiency would be gained by consolidating development onto a single site. However, the construction of a greater number of trackers compared to the Proposed Project would require greater construction effort and a longer construction period, thereby increasing overall temporary construction related air emissions. However, due to additional permitting requirements, the Los Robles solar farm would be constructed after the Rugged solar farm, thereby eliminating the overlap in construction schedules and associated combined ~~PM₁₀~~ and NO_x emissions which exceed significance thresholds. Therefore, significant and unmitigable impacts associated with the construction of the Proposed Project would be reduced to less than significant under this alternative. Additionally, although Alternative 8 would result in a greater total number of trackers, it is still anticipated that operation and decommissioning impacts would be below the thresholds.

Under this alternative, the 6-mile Tierra del Sol gen-tie would not be constructed. Instead, an approximately 0.5- to 2-mile underground gen-tie would be constructed from the Los Robles site to SDG&E's Rebuilt Boulevard Substation. Therefore, emissions associated with construction and operation of the gen-tie would be greatly reduced.

All other impacts related to the project's conformance with the regional air quality strategy, impacts to sensitive receptors, and odor impacts would be similar to the Proposed Project. Similar project design features and mitigation measures would also be incorporated. Nonetheless, under this alternative, construction of Los Robles would not overlap with the Rugged solar farm, and therefore, combined ~~PM₁₀~~ and NO_x emissions would not occur, and short-term significant and unmitigable air quality impacts would be reduced to less than significant as compared to the Proposed Project.

Biological Resources

As described in Section 2.3, Biological Resources, the Proposed Project would result in potentially significant direct and indirect impacts to sensitive plant and wildlife species, sensitive vegetation communities, jurisdictional resources, wildlife movement, and conflict with the MBTA. However, with incorporation of mitigation measures, which include the preservation of habitat at the Soitec mitigation site, potentially significant impacts as a result of the Proposed Project would be reduced to less than significant.

Under Alternative 8, biological impacts incurred from implementation of the Rugged solar farm would be the same as for the Proposed Project. Additional ground disturbance would occur under this alternative compared to the Proposed Project as a result of constructing 4,827 trackers on the Los Robles site. The site layout would be designed to avoid sensitive Resource Protection

Ordinance areas; however, maximizing buildout on the site may result in impacts to Resource Protection Ordinance wetlands or oak root zones. It is anticipated that mitigation similar to that included in the Proposed Project would be applied to mitigate for any potentially significant impacts at this site, including the preservation of habitat for impacts to specific vegetation communities and plant species. Therefore, similar to the Proposed Project, this alternative is anticipated to result in potential impacts to sensitive habitats, special-status species, and jurisdictional resources that would be mitigated to less than significant. Impacts related to wildlife movement and conformance with regional plans would also be similar to the Proposed Project, and would result in less-than-significant impacts with incorporation of mitigation.

Under this alternative, the 6-mile Tierra del Sol gen-tie would not be constructed, and instead an approximately 0.5- to 2-mile gen-tie would be constructed entirely underground to connect the Los Robles site to SDG&E's Rebuilt Boulevard Substation. Therefore, in addition to reducing impacts to sensitive habitats and plant and wildlife species because the length of the gen-tie would be reduced by approximately two-thirds, the elimination of the overhead gen-tie would reduce potential impacts related to collisions or electrocutions when compared to the Proposed Project.

As such, this alternative would result in slightly greater impacts related to biology as compared to the Proposed Project; however, the reduced gen-tie length would reduce impacts. Therefore, Alternative 8 would result in similar impacts compared to the Proposed Project and would similarly reduce potential impacts to biological resources to less than significant with incorporation of mitigation.

Cultural Resources

As described in Section 2.4, Cultural Resources, the Proposed Project would result in potentially significant impacts to prehistoric and historical resources, archaeological resources, cultural resources as defined by the Resource Protection Ordinance, and human remains. The mitigation measures identified in Section 2.4 would reduce all potentially significant impacts associated with the Tierra del Sol and Rugged solar farms to below a level of significance, and are anticipated to reduce potential impacts on the LanEast and LanWest sites, although this cannot be confirmed until those sites are tested for significance.

Under Alternative 8, cultural resource impacts incurred from implementation of the Rugged solar farm would be the same as for the Proposed Project. A greater amount of ground disturbance would occur under this alternative as compared to the Proposed Project, but because resources on the LanEast and LanWest sites have not been tested for significance, and because the Los Robles site has not been surveyed and any potentially significant resources tested, a definitive comparison cannot be made as to whether potential impacts to cultural resources would be

reduced, remain similar, or increase under this alternative. However, construction of a shorter gen-tie line under this alternative would reduce potential impacts to cultural resources. However, the reduced length of the gen-tie under this alternative would reduce potential impacts related to the discovery of cultural resources during construction. Therefore, impacts under this alternative are anticipated to be slightly reduced when compared to the Proposed Project.

Land Use

As described in Section 2.5, Land Use, construction and operation of the Proposed Project would not physically divide a community. The Proposed Project would be consistent with applicable County Board of Supervisors policies and County Ordinances, and would not conflict with applicable goals and policies of the Mountain Empire Subregional Plan or the Boulevard Subregional Plan. The Tierra del Sol and Rugged solar farms would be consistent with the County General Plan; however, LanEast and LanWest would conflict with County General Plan policies COS-11.1 and COS-11.3. Therefore, the Proposed Project would result in a significant and unmitigated impact.

Under Alternative 8, potential construction impacts related to physically dividing a community would similarly be reduced to less than significant with incorporation of project design features, and operational impacts would also be less than significant. Alternative 8 would also similarly be consistent with applicable goals and policies; including County General Plan policies COS-11.1 and COS-11.3 since the LanEast and LanWest solar farms would not be constructed adjacent to I-8 and Old Highway 80. Therefore, land use impacts would be reduced to less than significant under this alternative, compared to significant and unmitigable impacts for the Proposed Project.

Noise

As described in Section 2.6, Noise, the Proposed Project would result in potentially significant impacts related to operational and construction noise and vibration. However, incorporation of project design features and mitigation measures would reduce potential impacts to less than significant. Impacts associated with corona noise would be less than significant.

Under this alternative, noise generated as a result of construction, operation, and maintenance activities associated with the Rugged solar farm would be the same as under the Proposed Project. Similar project components would be developed on the Los Robles site as proposed on the other three solar farm sites, except for the overhead portion of the Tierra del Sol gen-tie. Potentially significant but mitigable noise impacts were identified for these three sites related to operational and construction noise, including inverter operation, grading equipment, vibratory pile driving, and helicopter noise. Potential noise impacts for the relocation of these three sites to the Los Robles site are also anticipated to be potentially significant but mitigated to less than significant, although helicopter noise would no longer

be an issue since the gen-tie for Los Robles would be placed underground. The larger area of the Los Robles site would also enable large setbacks to be incorporated into the site design which could further reduce noise levels at the property boundary and thus would reduce potential impacts to nearby sensitive receptors, although the greater number of trackers to be developed under this alternative would reduce the potential for larger setbacks.

Therefore, while impacts under this alternative might be reduced compared to the Proposed Project due to greater setbacks and the elimination of helicopter noise, both Alternative 8 and the Proposed Project would result in less-than-significant noise impacts with mitigation incorporated.

Other Resource Topics

While the specific site configuration of the Maximize Los Robles Alternative is unknown at this time, impacts associated with Alternative 8 are generally anticipated to be similar to the Proposed Project. However, the greater number of trackers to be developed under this alternative would likely increase ground disturbance and construction and operational efforts, thereby increasing associated impacts such as those related to GHG emissions, traffic and transportation, and utilities and service systems (water demand). Potential conflicts with agricultural zoning and agricultural preserves would be reduced under this alternative since no solar farm would be developed at Tierra del Sol where there is currently an agricultural preserve. And finally, some impacts, such as those related to public services, would likely be reduced by the consolidation of the three solar farms onto one site, which would reduce redundancy in operations and maintenance personnel, reduce edge effects, and reduce the area needing to be covered by emergency and fire protection services.

4.4.4.3 Summary of Maximize Los Robles Alternative

The Maximize Los Robles Alternative would generally result in similar impacts to the environmental resource areas considered within this EIR compared to the Proposed Project. Although Alternative 8 would result in a slightly increased construction effort and increased ground disturbance from the installation of more trackers, thereby increasing overall emissions (related to both air quality and GHGs), biological and cultural resource impacts, traffic and water demand, this alternative would also reduce impacts associated with Proposed Project. Aesthetic impacts, and in particular impacts related to scenic vistas, as well as impacts related to land use conflicts, would be reduced by relocating the LanEast and LanWest solar farms to a location that is less visually prominent from I-8 and Old Highway 80. Short-term construction emissions would also be reduced to less than significant since the construction schedules of the Los Robles solar farm would not overlap with the construction schedule of the Rugged solar farm. And finally, impacts associated with construction and operation of the gen-tie would be greatly reduced since the Los Robles solar farm would be located closer to the Boulevard substation

(reducing the gen-tie length by approximately two-thirds or more). This alternative would meet all project objectives to the same extent as the Proposed Project with the exception of project objectives 3 and 7. This alternative would achieve project objective 3 to a greater extent by locating the Tierra del Sol solar farm even closer to the Rebuilt Boulevard Substation, and would exceed project objective 7 by developing more than 168.5 MW of renewable solar energy systems. ~~The applicant has site control of the Los Robles site, and implementation of a solar farm at this site would not require any components that would be infeasible to construct.~~

4.5 No Project Alternative

4.5.1 Analysis of the No Project Alternative (Alternative 9)

4.5.1.1 No Project Alternative Description and Setting

CEQA requires an evaluation of the No Project Alternative so that decision makers can compare the impacts of approving the Proposed Project with the impacts of not approving the Proposed Project. According to CEQA Guidelines, Section 15126.6(e) (14 CCR 15000 et seq.), the No Project Alternative must include the assumption that conditions at the time of the Notice of Preparation (NOP) (i.e., baseline environmental conditions) would not be changed since the Proposed Project would not be installed. The No Project Alternative must also describe the events or actions that would be reasonably expected to occur in the foreseeable future if the Proposed Project were not approved.

The No Project Alternative assumes that the Proposed Project, including the Tierra del Sol, Rugged, LanEast, and LanWest solar farms, and Tierra del Sol gen-tie components would not be developed and the existing conditions at these sites would remain. Because no solar farm development would occur on the Proposed Project sites, this alternative would not meet any of the Proposed Project objectives.

4.5.1.2 Comparison of the Effects of the No Project Alternative to the Proposed Project

Aesthetics

As described in Section 2.1, Aesthetics, the Proposed Project would result in potentially significant and unmitigated impacts related to scenic vistas, visual character or quality, and glare.

Under the No Project Alternative, the visual character of the Proposed Project sites would be unchanged. Therefore, no impacts to scenic vistas, scenic resources, visual character or quality, or lighting and glare, would occur under this alternative. When compared to the Proposed Project, the No Project Alternative would avoid all impacts to aesthetics.

Air Quality

As described in Section 2.2, Air Quality, the Proposed Project would not result in significant impacts related to conformance with the RAQS, conformance to federal and state ambient air quality standards during operation, sensitive receptors, or odors. However, during construction, the Proposed Project would exceed thresholds for NO_x and PM_{10} , which would result in a significant and unavoidable impact related to air quality. The construction-related impacts would also be considered cumulatively considerable and would be unmitigable during the short-term construction period.

Under the No Project Alternative the construction and operation of solar farms at the Tierra del Sol, Rugged, LanEast, and LanWest sites would not occur, and therefore, all emissions associated with the Proposed Project would be avoided. When compared to the Proposed Project, the No Project Alternative would avoid short-term air quality impacts related to construction activities from the Proposed Project.

Biological Resources

As described in Section 2.3, Biological Resources, the Proposed Project would result in potentially significant direct and indirect impacts to sensitive plant and wildlife species, sensitive vegetation communities, jurisdictional resources, wildlife movement, and conflict with the MBTA. However, with incorporation of mitigation measures, which include the preservation of habitat at the Soitec mitigation site, potentially significant impacts as a result of the Proposed Project would be reduced to less than significant.

Under the No Project Alternative, all impacts to biological resources would be avoided since the Proposed Project sites would not be developed, and there would be no ground disturbance or other activities that could potentially impact biological resources. Therefore, the No Project Alternative would avoid all impacts to biological resources associated with the Proposed Project.

Cultural Resources

As described in Section 2.4, Cultural Resources, the Proposed Project would result in potentially significant impacts to prehistoric and historical resources, archaeological resources, cultural resources as defined by the Resource Protection Ordinance, and human remains. The mitigation measures identified in Section 2.4 would reduce all potentially significant impacts associated with the Proposed Project to below a level of significance.

Under the No Project Alternative, all impacts to cultural resources would be avoided since the Proposed Project sites would not be developed and there would be no ground disturbance or other

activities that could potentially impact cultural resources. Therefore, the No Project Alternative would avoid all impacts to cultural resources associated with the Proposed Project.

Land Use and Planning

As described in Section 2.5, Land Use, construction and operation of the Proposed Project would not physically divide a community. The Proposed Project would be consistent with applicable County Board of Supervisors policies and County Ordinances, and would not conflict with applicable goals and policies of the Mountain Empire Subregional Plan or the Boulevard Subregional Plan. The Tierra del Sol and Rugged solar farms would be consistent with the County General Plan; however, LanEast and LanWest would conflict with County General Plan policies COS-11.1 and COS-11.3. Therefore, the Proposed Project would result in a significant and unmitigated impact.

Under the No Project Alternative, all impacts associated with land use would be avoided since the Proposed Project sites would not be developed and there would be no construction or other activities that could potentially conflict with existing land use regulations. Therefore, no impacts to land use would occur under the No Project Alternative.

Noise

As described in Section 2.6, Noise, the Proposed Project would result in potentially significant impacts related to operational and construction noise and vibration. However, incorporation of project design features and mitigation measures would reduce potential impacts to less than significant. Impacts associated with corona noise would be less than significant.

The No Project Alternative would result in no impacts related to noise since no development would occur on the Proposed Project sites. There would be no construction or operational noise generated at the sites under this alternative. As a result, the No Project Alternative would avoid all impacts related to noise associated with the Proposed Project.

Other Resource Topics

Impacts associated with the No Project Alternative related to agriculture and forestry resources, geology and soils, GHG emissions, hazards and hazardous materials, hydrology and water quality, paleontological resources, public services, traffic and transportation, and utilities would not occur under the No Project Alternative.

4.5.1.3 Summary of No Project Alternative

The No Project Alternative would result in reduced impacts to the environmental resource areas considered within this EIR compared to the Proposed Project. However, this alternative would not meet any of the project objectives.

4.6 Summary of Alternatives

A summary of impacts of the alternatives compared to the Proposed Project by resource topic is included in Table 4-19 and a summary of impacts of the alternatives compared to the Proposed Project by significance threshold is included in Table 4-210, pursuant to CEQA Guidelines Section 15126.6(D).

4.7 Environmentally Superior Alternative

CEQA Guidelines Section 15126.6(b), indicate that a list of reasonable alternatives must be developed and considered by the lead agency. Elimination of potential environmental impacts of the proposed project should be considered when developing potential alternatives. As evaluated in Chapter 2 of this EIR, the significant impacts of the Proposed Project are: Aesthetics, Air Quality, Biological Resources, Cultural Resources, Land Use, and Noise.

As shown in Table 4-19, the No Project Alternative would be environmentally superior to the proposed project, based on the minimization or avoidance of most of the proposed project's significant environmental impacts. However, the No Project Alternative does not meet most of the basic project objectives. Additionally, CEQA Guidelines, Section 15126.6(c) require that, if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives.

The Reduced Project Alternatives, including Alternatives 1 through 4, would generally reduce impacts related to aesthetics, air quality, biological resources, cultural resources, and noise by allowing for greater setbacks and reducing ground disturbance (see Table 4-210). Alternatives 2 and 4 would reduce significant and unmitigable impacts related to aesthetics (scenic vistas) and land use to less than significant. However, none of the Alternatives 1 through 4 would reduce impacts related to aesthetics or air quality to less than significant, and Alternatives 1 and 3 would also not reduce impacts related to land use to less than significant. Impacts related to biological resources, cultural resources, and noise would be reduced to less than significant with incorporation of mitigation, similar to the Proposed Project. In addition, Alternatives 3 and 4 would result in additional impacts related to air quality, biological resources, and cultural resources from undergrounding the gen-tie. Therefore, none of the Reduced Project Alternatives would entirely eliminate significant and unmitigable impacts.

Alternatives 5, 7, and 8 would reduce significant and unmitigable aesthetics impacts related to the overhead gen-tie to less than significant as well as reduce significant and unmitigable air quality impacts related to the overlap of the Tierra del Sol and Rugged solar farms construction schedules to less than significant (see Table 4-210). These alternatives would

also reduce biological and cultural resource impacts and noise impacts related to construction of the Tierra del Sol gen-tie. Alternatives 6 through 8 would reduce aesthetic and land use impacts by moving the LanEast and LanWest solar farms to a location further from I-8 and Old Highway 80, thereby reducing scenic vista and glare impacts. Therefore, Alternatives 7 and 8 are the only alternatives that reduce aesthetic (scenic vista impacts only), air quality, and land use impacts to less than significant. Aesthetic impacts related to visual character and quality and glare would remain significant and unmitigable, the same as for all other alternatives and the Proposed Project. Alternative 8 would result in increased impacts to biological and cultural resources associated with greater levels of ground disturbance; therefore, Alternative 7 is the only alternative that would reduce significant and unmitigable impacts to aesthetics (scenic vistas), air quality, and land use without also increasing impacts to other resource areas.

Therefore, the Relocate Tierra del Sol, LanEast and LanWest Alternative (Alternative 7) is the environmentally preferred alternative. This alternative may result in reduced biological and cultural impacts due to construction of a shorter gen-tie line and greater flexibility in project design and reduced noise impacts at adjacent property boundaries due to the larger area of the site that would allow for increased setbacks. Reduced noise impacts would also be realized from the elimination of helicopter noise that would result from construction and maintenance activities of the overhead portion of the Tierra del Sol gen-tie. Overall, potential impacts associated with aesthetics under this alternative are expected to remain significant and unmitigable; however, impacts associated with air quality and land use are anticipated to be reduced to less than significant. This alternative would meet all project objectives to the same extent as the Proposed Project, and would achieve project objective 3 to a greater extent by locating the Tierra del Sol solar farm even closer to the Rebuilt Boulevard Substation. ~~The applicant has site control of the Los Robles site and implementation of a solar farm at this site would not require any components that would be infeasible to construct.~~

Table 4-1
Summary of Direct Impacts to County List A and B Species
Alternative 2A - Tierra del Sol Solar Farm

County List	Species	CRPR	Solar Farm Site			Gen-Tie Alignment Site			Significance Prior to Mitigation
			Approximate Number of Individuals within Project Area ¹	Approximate Number of Individuals within On-Site Development Footprint	Estimated Percentage of Occurrences Impacted On Site	Approximate Number of Individuals within Gen-Tie Alignment	Approximate Number of Individuals within On-Site Development Footprint	Estimated Percentage of Occurrences Impacted On Site	
A	Tecate tarplant	1B.2	3,103	2,762	89%	637-1,775	None	0%	Significant
	Tecate cypress	1B.1	19	19	100%	Not detected	None	0%	Less than Significant
	Jacumba milk-vetch	1B.2	315	189	60%	250-1,520	27-150	11%	Significant
B	Desert beauty	2.3	934	934	100%	660-3,210	84-600	13-19%	Significant
	Sticky geraea	2.3	274	274	100%	50-240	11-50	21%	Significant

Table 4-2
Impacts to Suitable Habitat for Group I and/or SSC Wildlife Species –
Alternative 2A - Tierra del Sol Solar Farm

Species Name	Suitable Habitat	
	Existing Acreage	Impacts Acreage
<i>Amphibians and Reptiles</i>		
Belding's orange-throated whiptail	573	413
Blainville's horned lizard	626	415
Northern red-diamond rattlesnake	626	415
<i>Birds</i>		
Bell's sage sparrow	499	344
Cooper's hawk—foraging	512	336
Cooper's hawk—nesting	153	91
Prairie falcon—foraging	626	415
Golden eagle—foraging	122	63
Loggerhead shrike	607	413
Turkey vulture—foraging	609	409
<i>Mammals</i>		

Table 4-2
Impacts to Suitable Habitat for Group I and/or SSC Wildlife Species –
Alternative 2A - Tierra del Sol Solar Farm

<u>Species Name</u>	<u>Suitable Habitat</u>	
	<u>Existing Acreage</u>	<u>Impacts Acreage</u>
San Diego black-tailed jackrabbit	<u>573</u>	<u>393</u>
San Diego desert woodrat	<u>618</u>	<u>415</u>

Table 4-3
Vegetation Communities Impacts
Alternative 2A - Tierra del Sol Solar Farm

<u>Habitat Types/ Vegetation Communities</u>	<u>Existing Acreage of TDS and Gen- Tie (Ac.)¹</u>	<u>Development Footprint</u>			<u>Impact Neutral²</u>
		<u>Limits of Disturbance (Ac.)</u>	<u>Fuel Modification (Ac.)</u>	<u>Gen-Tie</u>	
<u>Upland Scrub and Chaparral</u>					
<u>Big Sagebrush Scrub*</u>	<u>17.2</u>	<u>15.8</u>	<u>0.4</u>	<u>0.0</u>	<u>0.9</u>
<u>Montane Buckwheat Scrub*</u>	<u>59.1</u>	<u>31.6</u>	<u>5.3</u>	<u>0.8</u>	<u>21.5</u>
<u>Montane Buckwheat Scrub (Disturbed)*</u>	<u>2.3</u>	<u>2.3</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
<u>Montane Buckwheat Scrub/Red Shank Chaparral*</u>	<u>2.0</u>	<u>2.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
<u>Granitic Chamise Chaparral*</u>	<u>178.2</u>	<u>154.8</u>	<u>21.7</u>	<u>0.0</u>	<u>1.7</u>
<u>Granitic Chamise Chaparral/Montane Buckwheat Scrub*</u>	<u>2.2</u>	<u>2.2</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
<u>Granitic Northern Mixed Chaparral*</u>	<u>181.3</u>	<u>49.7</u>	<u>11.3</u>	<u>7.1</u>	<u>113.3</u>
<u>Granitic Northern Mixed Chaparral/Montane Buckwheat Scrub*</u>	<u>13.3</u>	<u>13.3</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
<u>Red Shank Chaparral*</u>	<u>107.7</u>	<u>65.4</u>	<u>2.9</u>	<u>1.4</u>	<u>38.0</u>
<u>Scrub Oak Chaparral*</u>	<u>9.7</u>	<u>2.5</u>	<u>2.3</u>	<u>0.6</u>	<u>4.3</u>
<u>Subtotal</u>	<u>573.1</u>	<u>339.5</u>	<u>44.00</u>	<u>9.9</u>	<u>179.7</u>
<u>Upland Woodland and Savannah</u>					
<u>Coast Live Oak Woodland*</u>	<u>7.5</u>	<u>0.9</u>	<u>0.0</u>	<u>0.3</u>	<u>6.3</u>
<u>Coast Live Oak Woodland (Disturbed)*</u>	<u>3.8</u>	<u>0.0</u>	<u>0.0</u>	<u>0.3</u>	<u>3.5</u>
<u>Subtotal</u>	<u>11.3</u>	<u>0.9</u>	<u>0.0</u>	<u>0.6</u>	<u>9.8</u>
<u>Riparian Scrub</u>					
<u>Wet Montane Meadow*</u>	<u>0.1</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.1</u>
<u>Southern Willow Scrub*</u>	<u>0.5</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.5</u>
<u>Subtotal</u>	<u>0.6</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>	<u>0.6</u>

Table 4-3
Vegetation Communities Impacts
Alternative 2A - Tierra del Sol Solar Farm

<u>Habitat Types/ Vegetation Communities</u>	<u>Existing Acreage of TDS and Gen- Tie (Ac.)¹</u>	<u>Development Footprint</u>			<u>Impact Neutral²</u>
		<u>Limits of Disturbance (Ac.)</u>	<u>Fuel Modification (Ac.)</u>	<u>Gen-Tie</u>	
<i>Non-Native Communities and Land Covers</i>					
<u>Disturbed habitat</u>	<u>33.6</u>	<u>12.5</u>	<u>7.5</u>	<u>0.3</u>	<u>13.3</u>
<u>Open Water</u>	<u>0.1</u>	<u>0.1</u>	<u>0.0</u>	<u>0.0</u>	<u>0.0</u>
<u>Urban/Developed</u>	<u>4.8</u>	<u>0.0</u>	<u>0.0</u>	<u>0.2</u>	<u>4.6</u>
<u>Non-Native Grassland</u>	<u>7.7</u>	<u>0.0</u>	<u>0.0</u>	<u>0.3</u>	<u>7.4</u>
<i>Subtotal</i>	<u>46.2</u>	<u>12.5</u>	<u>7.5</u>	<u>0.8</u>	<u>25.3</u>
<u>Oak Root Zone³</u>	<u>1.41</u>	<u>0.53</u>	<u>0.88</u>	<u>--</u>	<u>0.0</u>
Total	<u>631.2</u>	<u>353.0</u>	<u>51.5</u>	<u>11.3</u>	<u>215.4</u>

¹ Totals may not add due to rounding.

² Following the County Guidelines (County of San Diego 2010), areas that are not being directly impacted but cannot be counted toward mitigation will be considered "impact neutral"; these areas include Resource Protection Ordinance (RPO) wetlands and wetland buffers, and isolated pockets of open space. At this time, all areas that are not impacted by the limits of grading-disturbance, including or-access roads, are considered impact neutral.

³ Oak root zone is overlaid on the biological resources and is not counted toward the overall acreage.

* Vegetation community is considered special-status by the County and requires mitigation.

Table 4-4
Summary of Direct Impacts to County List A and B Species
Alternative 2A - Rugged Solar Farm

<u>County List</u>	<u>Species</u>	<u>CRPR</u>	<u>Approximate Number of Individuals within Project Area¹</u>	<u>Approximate Number of Individuals within Impact Footprint</u>	<u>Estimated Percentage of Occurrences Impacted On Site</u>	<u>Significance Prior to Mitigation</u>
<i>Rugged (On-Site)</i>						
<u>A</u>	<u>Jacumba milkvetch</u>	<u>1B.2</u>	<u>302 to 2,660</u>	<u>226 to 2,020</u>	<u>75 to 76%</u>	<u>Significant</u>
	<u>Tecate tarplant</u>	<u>1B.2</u>	<u>23,690 to 31,766</u>	<u>1 to 10</u>	<u>Less than 1%</u>	<u>Less than Significant</u>
<u>B</u>	<u>Sticky geraea</u>	<u>2.3</u>	<u>301 to 1,520</u>	<u>177 to 850</u>	<u>59% to 56%</u>	<u>Significant</u>
	<u>Desert beauty</u>	<u>2.3</u>	<u>1,775 to 7,310</u>	<u>956 to 4,770</u>	<u>54% to 65%</u>	<u>Significant</u>
<i>Off-Site Access Roads</i>						
<u>A</u>	<u>Jacumba milkvetch</u>	<u>1B.2</u>	<u>12 to 30</u>	<u>12 to 30</u>	<u>100%</u>	<u>Significant</u>
<u>B</u>	<u>Sticky geraea</u>	<u>2.3</u>	<u>6</u>	<u>6</u>	<u>100%</u>	<u>Significant</u>

Table 4-5
Impacts to Suitable Habitat for Listed, Group I and/or SSC Wildlife Species
Alternative 2A - Rugged Solar Farm

<u>Species Name</u>	<u>Suitable Habitat</u>	
	<u>Existing Acreage</u>	<u>Impacts Acreage*</u>
<i>Amphibians and Reptiles</i>		
<u>Belding's orange-throated whiptail</u>	<u>741</u>	<u>496</u>
<u>Blainville's horned lizard</u>	<u>741</u>	<u>496</u>
<u>Coast patch-nosed snake</u>	<u>741</u>	<u>496</u>
<u>Coronado skink</u>	<u>766</u>	<u>500</u>
<u>Northern red-diamond rattlesnake</u>	<u>741</u>	<u>496</u>
<u>Two-striped garter snake</u>	<u>25</u>	<u>4</u>
<u>Western spadefoot</u>	<u>400</u>	<u>262</u>
<i>Birds</i>		
<u>Bell's sage sparrow</u>	<u>515</u>	<u>341</u>
<u>Cooper's hawk—foraging</u>	<u>252</u>	<u>151</u>
<u>Cooper's hawk—nesting</u>	<u>78</u>	<u>61</u>
<u>Golden eagle—foraging</u>	<u>490</u>	<u>309</u>
<u>Loggerhead shrike</u>	<u>577</u>	<u>399</u>
<u>Northern harrier—foraging</u>	<u>398</u>	<u>260</u>
<u>Prairie falcon—foraging</u>	<u>769</u>	<u>500</u>
<u>Red-shouldered hawk—foraging</u>	<u>252</u>	<u>151</u>
<u>Red-shouldered hawk—nesting</u>	<u>78</u>	<u>61</u>
<u>Southern California rufous-crowned sparrow</u>	<u>557</u>	<u>376</u>
<u>Tricolored blackbird—foraging</u>	<u>192</u>	<u>120</u>
<u>Turkey vulture—foraging</u>	<u>766</u>	<u>500</u>
<i>Mammals</i>		
<u>Dulzura California pocket mouse</u>	<u>634</u>	<u>431</u>
<u>Northwestern San Diego pocket mouse</u>	<u>736</u>	<u>496</u>
<u>San Diego desert woodrat</u>	<u>568</u>	<u>376</u>
<u>Mexican long-tongued bat—foraging</u>	<u>767</u>	<u>500</u>
<u>Townsend's big-eared bat—foraging</u>	<u>767</u>	<u>500</u>
<u>Spotted bat—foraging</u>	<u>767</u>	<u>500</u>
<u>Western mastiff bat—foraging</u>	<u>767</u>	<u>500</u>
<u>Western red bat—foraging</u>	<u>767</u>	<u>500</u>
<u>California leaf-nosed bat—foraging</u>	<u>767</u>	<u>500</u>
<u>Big free-tailed bat—foraging</u>	<u>767</u>	<u>500</u>

Table 4-6
Summary of Direct Impacts to County List C and D Plant Species
Alternative 2A - Rugged Solar Farm

<u>County List</u>	<u>Species</u>	<u>CRPR</u>	<u>Approximate Number of Individuals within Project Area¹</u>	<u>Approximate Number of Individuals within On-Site Impact Footprint</u>	<u>Estimated Percentage of Occurrences Impacted On Site</u>	<u>Level of Significance</u>
<u>C</u>	<u>Payson's jewelflower</u>	<u>4.2</u>	<u>1 to 10</u>	<u>=</u>	<u>0%</u>	<u>Less than Significant</u>
<u>D</u>	<u>Desert larkspur</u>	<u>4.3</u>	<u>707 to 2,820</u>	<u>98 to 450</u>	<u>14% to 16%</u>	<u>Less than Significant</u>
	<u>Pride-of-California</u>	<u>4.3</u>	<u>7 to 70</u>	<u>7 to 70</u>	<u>100%</u>	<u>Less than Significant</u>
	<u>Desert monkeyflower</u>	<u>4.3</u>	<u>1 to 10</u>	<u>=</u>	<u>0%</u>	<u>Less than Significant</u>
	<u>Engelmann oak</u>	<u>4.2</u>	<u>1 to 10</u>	<u>=</u>	<u>0%</u>	<u>Less than Significant</u>

Table 4-7
Vegetation Communities Impacts
Alternative 2A - Rugged Solar Farm

<u>Habitat Types/Vegetation Communities</u>	<u>Existing Acreage (Ac.)¹</u>	<u>Impacts – Limits of Disturbance (Ac.)</u>	<u>Fuel Modification Zone (Ac.)</u>	<u>Impact Neutral (Ac.)</u>
<i>Upland Scrub and Chaparral</i>				
<u>Big Sagebrush Scrub*</u>	<u>82.5</u>	<u>56.4</u>	<u>5.6</u>	<u>20.5</u>
<u>Big Sagebrush Scrub (Disturbed)*</u>	<u>14.8</u>	<u>2.4</u>	<u>0.5</u>	<u>11.9</u>
<u>Granitic Chamise Chaparral*</u>	<u>117.8</u>	<u>79.3</u>	<u>10.3</u>	<u>28.3</u>
<u>Granitic Northern Mixed Chaparral*</u>	<u>11.3</u>	<u>=</u>	<u>=</u>	<u>11.3</u>
<u>Montane Buckwheat Scrub*</u>	<u>83.0</u>	<u>57.8</u>	<u>7.7</u>	<u>17.5</u>
<u>Montane Buckwheat (Disturbed) Scrub*</u>	<u>9.7</u>	<u>5.6</u>	<u>1.7</u>	<u>2.4</u>
<u>Red Shank Chaparral*</u>	<u>42.3</u>	<u>32.7</u>	<u>2.9</u>	<u>6.7</u>
<u>Scrub Oak Chaparral*</u>	<u>66.6</u>	<u>54.7</u>	<u>5.4</u>	<u>6.6</u>
<u>Scrub Oak Chaparral (Disturbed)*</u>	<u>0.5</u>	<u>0.5</u>	<u>=</u>	<u>0</u>
<u>Semi-Desert Chaparral*</u>	<u>112.6</u>	<u>43.6</u>	<u>7.1</u>	<u>61.9</u>
<u>Semi-Desert Chaparral – Rock*</u>	<u>12.4</u>	<u>0.1</u>	<u>0.6</u>	<u>11.7</u>
<u>Semi-Desert Chaparral (Disturbed)*</u>	<u>1.8</u>	<u>0.3</u>	<u><0.01</u>	<u>1.6</u>

Table 4-7
Vegetation Communities Impacts
Alternative 2A - Rugged Solar Farm

<u>Habitat Types/Vegetation Communities</u>	<u>Existing Acreage (Ac.)¹</u>	<u>Impacts – Limits of Disturbance (Ac.)</u>	<u>Fuel Modification Zone (Ac.)</u>	<u>Impact Neutral (Ac.)</u>
<i>Subtotal</i>	<u>555.3</u>	<u>333.3</u>	<u>60.7</u>	<u>180.3</u>
<i>Upland Woodland and Savannah</i>				
Coast Live Oak Woodland*	<u>7.2</u>	<u>=</u>	<u>0.03</u>	<u>7.1</u>
Mixed Oak Woodland*	<u>3.3</u>	<u>=</u>	<u>0.03</u>	<u>3.3</u>
<i>Subtotal</i>	<u>10.5</u>	<u>=</u>	<u>0.06</u>	<u>10.4</u>
<i>Riparian Herb</i>				
Alkali Meadow*	<u>14.5</u>	<u>=</u>	<u>0.1</u>	<u>14.4</u>
Alkali Meadow (Disturbed)*	<u>4.6</u>	<u>0.1</u>	<u>0.2</u>	<u>4.4</u>
<i>Subtotal</i>	<u>19.1</u>	<u>0.1</u>	<u>0.3</u>	<u>18.8</u>
<i>Riparian Scrub</i>				
Mulefat Scrub (Disturbed)*	<u>1.2</u>	<u>=</u>	<u>=</u>	<u>1.2</u>
Tamarisk Scrub*	<u>4.8</u>	<u>2.8</u>	<u>0.8</u>	<u>1.2</u>
<i>Subtotal</i>	<u>6.0</u>	<u>2.8</u>	<u>0.8</u>	<u>2.4</u>
<i>Unvegetated Waters</i>				
Open Water*	<u>0.2</u>	<u>=</u>	<u>=</u>	<u>0.2</u>
Non-Vegetated Channel*	<u>1.0</u>	<u>=</u>	<u>=</u>	<u>1.0</u>
<i>Subtotal</i>	<u>1.2</u>	<u>=</u>	<u>=</u>	<u>1.2</u>
<i>Non-Native Communities and Land Covers</i>				
Disturbed Habitat	<u>64.2</u>	<u>49.7</u>	<u>4.2</u>	<u>10.2</u>
Non-Native Grassland*	<u>106.9</u>	<u>51.6</u>	<u>13.3</u>	<u>42.4</u>
Urban/Developed	<u>0.4</u>	<u>0.1</u>	<u>0.2</u>	<u>0.7</u>
<i>Subtotal</i>	<u>171.5</u>	<u>101.4</u>	<u>17.7</u>	<u>53.4</u>
Oak Root Zone ³	<u>35.1</u>	<u>0.1</u>	<u>4.4</u>	<u>30.6</u>
<u>Total</u>	<u>763.5</u>	<u>437.5</u>	<u>60.7</u>	<u>266.4</u>

Table 4-8
Proposed Off-Site Access Roads¹ Impacts
Alternative 2A - Rugged Solar Farm

<u>Habitat Types/Vegetation Communities</u>	<u>Northern Off-Site Access Road Limits of Disturbance²</u>	<u>Western Off-Site Access Road Limits of Disturbance³</u>
<i>Upland Scrub and Chaparral</i>		
Big Sagebrush Scrub	<u>0.02</u>	<u>0.03</u>
Montane Buckwheat Scrub *	<u>0.1</u>	<u>0.1</u>
Granitic Chamise Chaparral*	<u>=</u>	<u>0.5</u>

Table 4-8
Proposed Off-Site Access Roads¹ Impacts
Alternative 2A - Rugged Solar Farm

<u>Habitat Types/Vegetation Communities</u>	<u>Northern Off-Site Access Road Limits of Disturbance²</u>	<u>Western Off-Site Access Road Limits of Disturbance³</u>
Granitic Northern Mixed Chaparral*	=	0.2
Red Shank Chaparral	=	=
<i>Subtotal</i>	<i>0.1</i>	<i>0.8</i>
<i>Riparian Scrub</i>		
Southern Willow Scrub (Disturbed)*	0.1	=
<i>Subtotal</i>	<i>0.1</i>	=
<i>Non-Native Communities and Land Covers</i>		
Disturbed Habitat	0.1	0.5
Non-native Grassland*	0.4	=
Urban/Developed	1.1	=
<i>Subtotal</i>	<i>1.5</i>	=
Total	1.7	1.3

¹ The off-site road impacts are located outside of the project area.

² The Northern Off-Site Access Road impacts includes a 20-foot buffer on each side of the access road for the Fuel Modification Zone.

³ The Western Off-Site Access Road impacts include a 20-foot buffer on each side of the access road for the Fuel Modification Zone; however, the fuel modification zone does not extend onto private property, and therefore, was reduced in some areas. All off-site impacts would remain within the boundaries of APN 611-091-09-00.

* Considered special-status by the County (2010).

Table 4-19
Summary of Analysis for Alternatives to the Proposed Project

Issue Areas	Proposed Project	Alternatives to the Proposed Project									
		1	2	3	4	2A	5	6	7	8	9
		Reduced Proposed Project	No LanEast and LanWest	Reduced TDS and Underground Gen-Tie	No LanEast and LanWest and Underground Gen-Tie	Tailored Proposed Project and No LanEast and LanWest	Relocate TDS to Los Robles	Relocate LanEast and LanWest to Los Robles	Relocate TDS, LanEast and LanWest to Los Robles	Maximize Los Robles	No Project
2.1 Aesthetics	SU	▼	▼	▼	▼	▼	—	▼	▼	▼	▼
2.2 Air Quality	SU	▼	▼	—	—	▼	▼	—	▼	▲	▼
2.3 Biological Resources	LTS	▼	▼	▲	—	▼	—	—	▼	▲	▼
2.4 Cultural Resources	LTS	▼	▼	—	—	▼	▼	—	▼	▲	▼
2.5 Land Use	NSSU	—	▼	—	▼	▼	—	▼	▼	▼	▼
2.6 Noise	LTS	▼	▼	—	—	▼	▼	▼	▼	▲	▼
3.1.1 Agriculture and Forestry Resources	NS	—	—	—	—	—	▼	—	▼	▼	—
3.1.2 Geology, Soils, and Seismicity	NS	—	—	—	—	—	—	—	—	—	—
3.1.3 Greenhouse Gas Emissions	LTS	▼	▼	—	—	▼	▼	—	▼	▲	▲
3.1.4 Hazards and Hazardous Materials	NS	—	▼	—	▼	▼	—	—	▼	—	▼
3.1.5 Hydrology and Water Quality	NS	▼	▼	▼	▼	▼	▼	—	▼	—	▼
3.1.6 Paleontological Resources	LTS	—	—	—	—	—	—	—	—	—	—
3.1.7 Public Services	NS	—	—	—	—	—	—	—	—	—	▼
3.1.8 Transportation and Traffic	NS	—	—	—	—	—	—	—	—	—	—
3.1.9 Utilities	NS	▼	▼	▼	▼	▼	▼	—	▼	—	▼
3.2.1 Parks and Recreation	LTS	—	—	—	—	—	—	—	—	—	—
3.2.2 Mineral Resources	LTS	—	—	—	—	—	—	—	—	—	—
3.2.3 Population and Housing	LTS	—	—	—	—	—	—	—	—	—	▼

▲ Alternative is likely to result in greater impacts to issue when compared to Proposed Project.
 — Alternative is likely to result in similar impacts to issue when compared to Proposed Project.
 ▼ Alternative is likely to result in reduced impacts to issue when compared to Proposed Project.
 NS Not a potentially significant impact
 LTS Less than Significant with mitigation measures
 SU Potentially significant and unavoidable impact

Table 4-210
Analysis for Alternatives to the Proposed Project

Issue Areas	Significant Impacts of the Proposed Project					Alternatives to the Proposed Project									
	Tierra del Sol	Rugged	LanEast	LanWest	Proposed Project	Reduced Proposed Project	No LanEast and LanWest	Reduced TDS and Underground Gen-tie	No LanEast and LanWest and Underground Gen-tie	Tailored Proposed Project and No LanEast and LanWest	Relocate TDS to Los Robles	Relocate LanEast and LanWest to Los Robles	Relocate TDS, LanEast and LanWest to Los Robles	Maximize Los Robles	No Project
<i>2.1 Aesthetics</i>															
Scenic Vistas	NS	NS	SU	SU	SU	▼	▼	—	▼	▼	—	▼	▼	▼	▼
Visual Character or Quality	SU	SU	SU	SU	SU	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼
Light and Glare	NSSU	LTSSU	SU	SU	SU	▼	▼	—	▼	▼	—	▼	▼	▼	▼
<i>2.2 Air Quality</i>															
Conformance to the RAQS and SIP	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
Conformance to Federal and State Air Quality Standards	NS	NS	LTS	LTS	SU	▼	▼	—	—	▼	▼	—	▼	▲	▼
Sensitive Receptors	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	▼
Odors	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
<i>2.3 Biological Resources</i>															
Candidate, Sensitive, or Special-Status Species	LTS	LTS	LTS	LTS	LTS	▼	▼	▲	—	▼	—	—	▼	▲	▼
Riparian Habitat or Sensitive Natural Community	LTS	LTS	LTS	LTS	LTS	▼	▼	▲	—	▼	—	—	▼	▲	▼
Federally Protected Wetlands	NS	LTS	LTS	LTS	LTS	▼	▼	▲	▲	▼	—	—	—	▲	▼
Wildlife Movement	LTS	LTS	LTS	LTS	LTS	▼	▼	—	—	▼	—	—	—	—	▼
Local Policies, Ordinances, Adopted Plans	LTS	LTS	LTS	LTS	LTS	—	—	—	—	==	—	—	—	—	—

Table 4-210
Analysis for Alternatives to the Proposed Project

Issue Areas	Significant Impacts of the Proposed Project					Alternatives to the Proposed Project									
	Tierra del Sol	Rugged	LanEast	LanWest	Proposed Project	Reduced Proposed Project	No LanEast and LanWest	Reduced TDS and Underground Gen-tie	No LanEast and LanWest and Underground Gen-tie	Tailored Proposed Project and No LanEast and LanWest	Relocate TDS to Los Robles	Relocate LanEast and LanWest to Los Robles	Relocate TDS, LanEast and LanWest to Los Robles	Maximize Los Robles	No Project
<i>2.4 Cultural Resources</i>															
Historical Resources	LTS	LTS	LTS	LTS	LTS	▼	▼	—	—	▼	▼	—	▼	▲	▼
Archaeological Resources	LTS	LTS	LTS	LTS	LTS	▼	▼	—	—	▼	▼	—	▼	▲	▼
Human Remains	LTS	LTS	LTS	LTS	LTS	▼	▼	—	—	▼	▼	—	▼	▲	▼
Paleontological Resources	LTS	LTS	LTS	LTS	LTS	▼	▼	—	—	▼	▼	—	▼	▲	▼
<i>2.5 Land Use</i>															
Physically Divide a Community	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
Conflict with Plans, Policies, and Regulations	NS	NS	NSSU	NSSU	NSSU	—	▼	—	▼	▼	—	▼	▼	▼	▼
<i>2.6 Noise</i>															
Operational Noise	LTS	LTS	LTS	LTS	LTS	▼	▼	—	—	▼	▼	▼	▼	▲	▼
Construction Noise	LTS	LTS	LTS	LTS	LTS	▼	▼	—	—	▼	▼	▼	▼	▲	▼
Vibration	LTS	NS	LTS	LTS	LTS	▼	▼	—	—	▼	▼	▼	▼	—	▼
Corona Noise	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
<i>3.1.1 Agriculture and Forestry Resources</i>															
On-Site Agricultural Resources	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
Indirect Impacts to Agricultural Resources	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
Conflicts with Agricultural Zoning and Williamson Act Contracts	NS	NS	NS	NS	NS	—	—	—	—	==	▼	—	▼	▼	▼

Table 4-210
Analysis for Alternatives to the Proposed Project

Issue Areas	Significant Impacts of the Proposed Project					Alternatives to the Proposed Project									
	Tierra del Sol	Rugged	LanEast	LanWest	Proposed Project	Reduced Proposed Project	No LanEast and LanWest	Reduced TDS and Underground Gen-tie	No LanEast and LanWest and Underground Gen-tie	Tailored Proposed Project and No LanEast and LanWest	Relocate TDS to Los Robles	Relocate LanEast and LanWest to Los Robles	Relocate TDS, LanEast and LanWest to Los Robles	Maximize Los Robles	No Project
<i>3.1.2 Geology, Soils, and Seismicity</i>															
Fault Rupture	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
Ground Shaking	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
Liquefaction	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
Landslides	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
Expansive Soils	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
Adequate Soils for Septic Systems or other On-Site Wastewater Systems	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
<i>3.1.3 Greenhouse Gas Emissions</i>															
Generation of greenhouse gas emissions	NS	NS	LTS	LTS	LTS	▼	▼	—	—	▼	▼	—	▼	▲	▲
Conflict with Plan, Policy, or Regulation	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
<i>3.1.4 Hazards and Hazardous Materials</i>															
Hazardous Materials	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
Airport Hazards	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
Wildfire Hazards	NS	NS	NS	NS	NS	—	▼	—	▼	▼	—	—	▼	—	▼
Hazards Associated with Interference of Emergency Responses	NS	NS	NS	NS	NS	—	▼	—	▼	▼	—	—	▼	▼	▼
<i>3.1.5 Hydrology and Water Quality</i>															
Hydrology and Drainage Patterns	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
Flood Hazards	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—

Table 4-210
Analysis for Alternatives to the Proposed Project

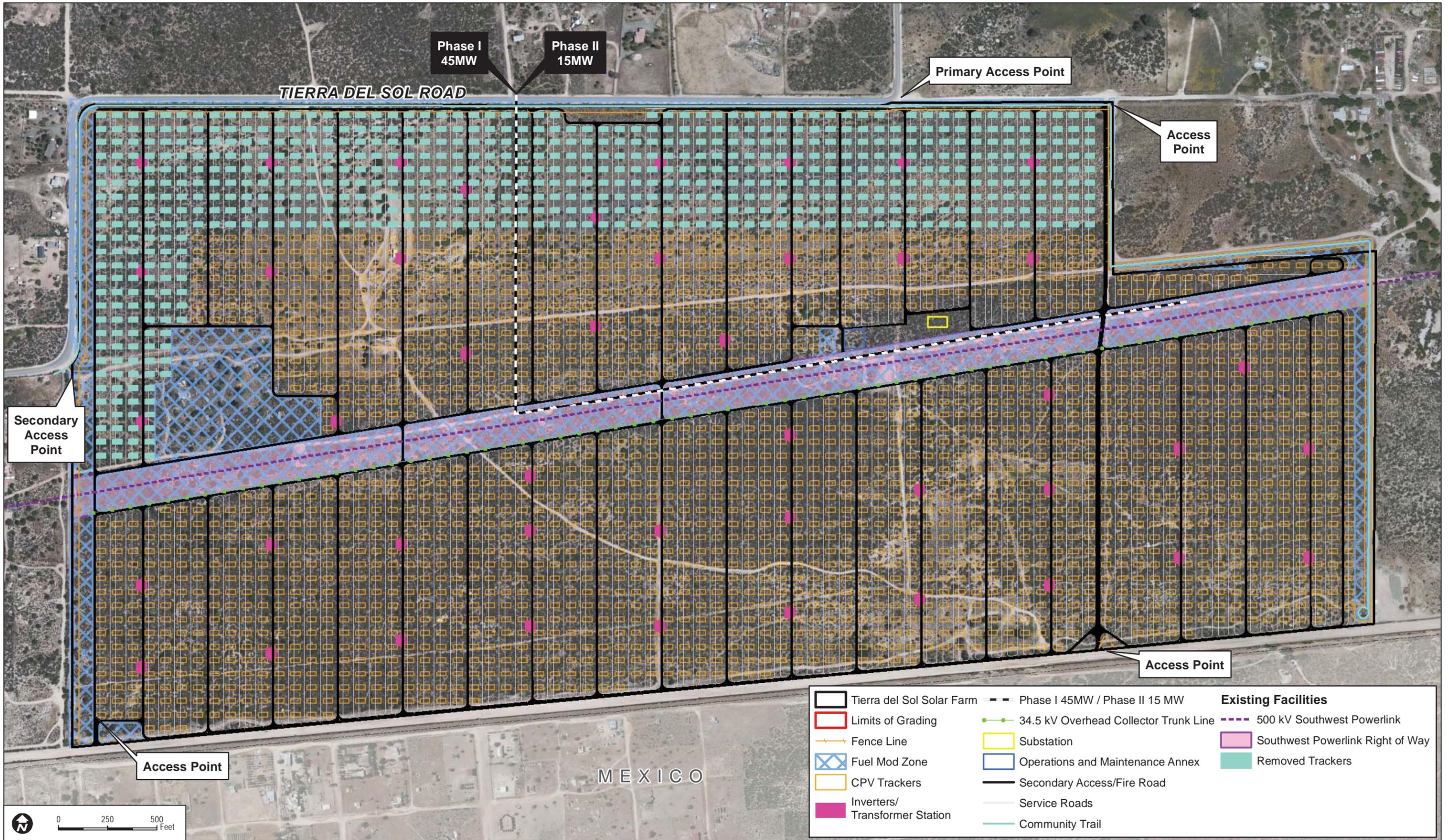
Issue Areas	Significant Impacts of the Proposed Project					Alternatives to the Proposed Project									
	Tierra del Sol	Rugged	LanEast	LanWest	Proposed Project	Reduced Proposed Project	No LanEast and LanWest	Reduced TDS and Underground Gen-tie	No LanEast and LanWest and Underground Gen-tie	Tailored Proposed Project and No LanEast and LanWest	Relocate TDS to Los Robles	Relocate LanEast and LanWest to Los Robles	Relocate TDS, LanEast and LanWest to Los Robles	Maximize Los Robles	No Project
Surface Water and Groundwater Quality	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
Groundwater Resources	NS	NS	NS	NS	NS	▼	▼	▼	▼	▼	▼	—	▼	—	—
<i>3.1.6 Paleontological Resources</i>															
Impact Paleontological Resources	LTS	LTS	LTS	LTS	LTS	—	—	—	—	==	—	—	—	—	—
<i>3.1.7 Public Services</i>															
Fire Protection	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	▼	—	▼
Police Protection	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
Schools	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
Other Public Services	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
<i>3.1.8 Transportation and Traffic</i>															
Conflict with Transportation Plans, Ordinances, or Policies	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
Conflict with a Congestion Management Plan	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
Air Traffic Patterns	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
Road Safety Hazards	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
Emergency Access	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
Alternative Transportation	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
<i>3.1.9 Utilities</i>															
Water	NS	NS	NS	NS	NS	▼	▼	▼	▼	▼	▼	—	▼	—	▼

Table 4-210
Analysis for Alternatives to the Proposed Project

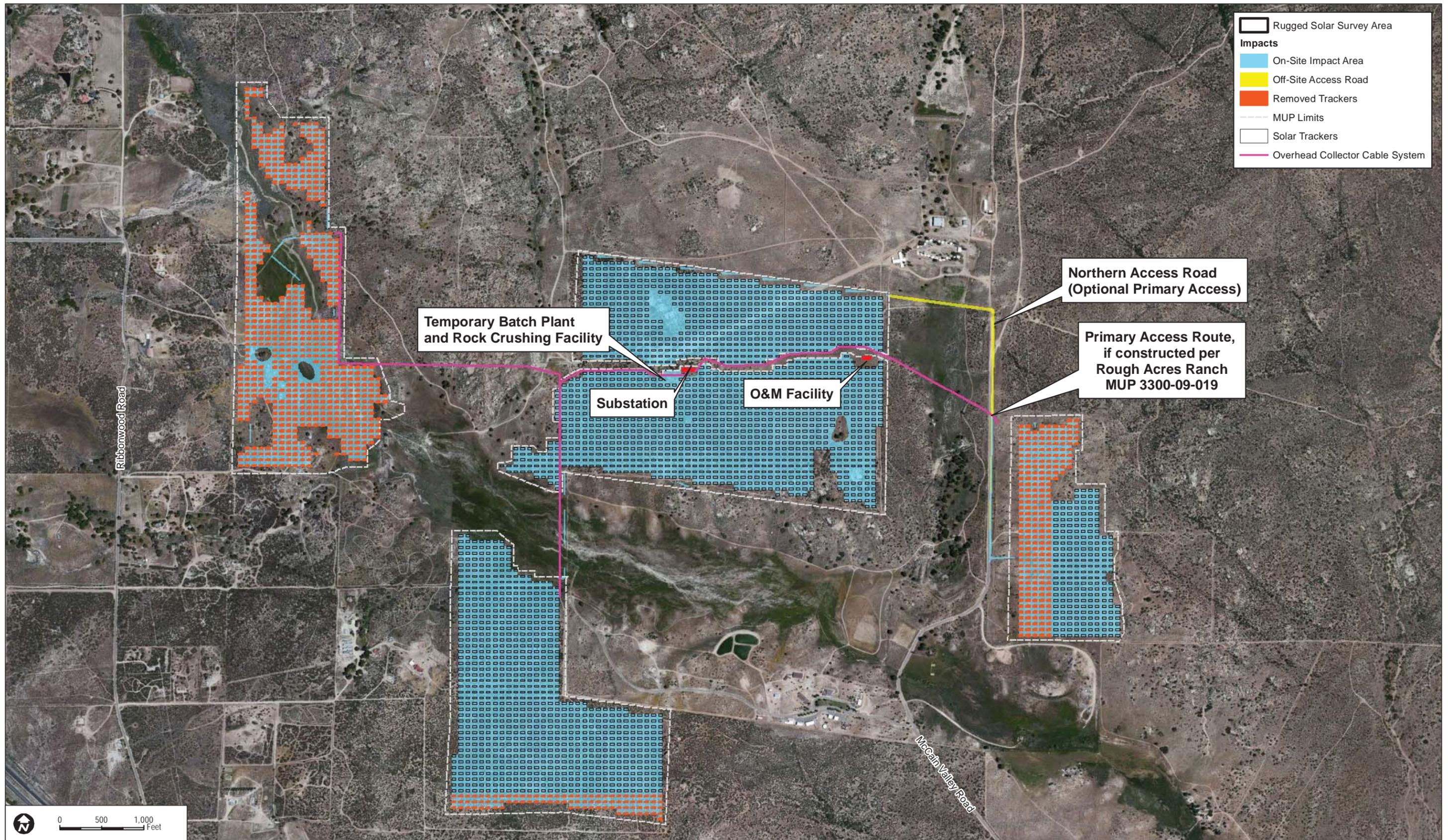
Issue Areas	Significant Impacts of the Proposed Project					Alternatives to the Proposed Project									
	Tierra del Sol	Rugged	LanEast	LanWest	Proposed Project	Reduced Proposed Project	No LanEast and LanWest	Reduced TDS and Underground Gen-tie	No LanEast and LanWest and Underground Gen-tie	Tailored Proposed Project and No LanEast and LanWest	Relocate TDS to Los Robles	Relocate LanEast and LanWest to Los Robles	Relocate TDS, LanEast and LanWest to Los Robles	Maximize Los Robles	No Project
Wastewater Treatment	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
Solid Waste	NS	NS	NS	NS	NS	—	—	—	—	==	—	—	—	—	—
<i>3.2.1 Parks and Recreation</i>															
Require Additional Park Facilities	LTS	LTS	LTS	LTS	LTS	—	—	—	—	==	—	—	—	—	—
<i>3.2.2 Mineral Resources</i>															
MRZ-2 or MRZ-3 Land	LTS	LTS	LTS	LTS	LTS	—	—	—	—	==	—	—	—	—	—
Loss of Mineral Resource & Minable Land	LTS	LTS	LTS	LTS	LTS	—	—	—	—	==	—	—	—	—	—
Loss of Locally Important Resource	LTS	LTS	LTS	LTS	LTS	—	—	—	—	==	—	—	—	—	—
<i>3.2.3 Population and Housing</i>															
Increase Population	LTS	LTS	LTS	LTS	LTS	—	—	—	—	==	—	—	—	—	▼
Displace Existing Housing	LTS	LTS	LTS	LTS	LTS	—	—	—	—	==	—	—	—	—	—
Displace People	LTS	LTS	LTS	LTS	LTS	—	—	—	—	==	—	—	—	—	—

▲ Alternative is likely to result in greater impacts to issue when compared to Proposed Project.
 — Alternative is likely to result in similar impacts to issue when compared to Proposed Project.
 ▼ Alternative is likely to result in reduced impacts to issue when compared to Proposed Project.
 NS Not a potentially significant impact
 LTS Less than Significant with mitigation measures
 SU Potentially significant and unavoidable impact

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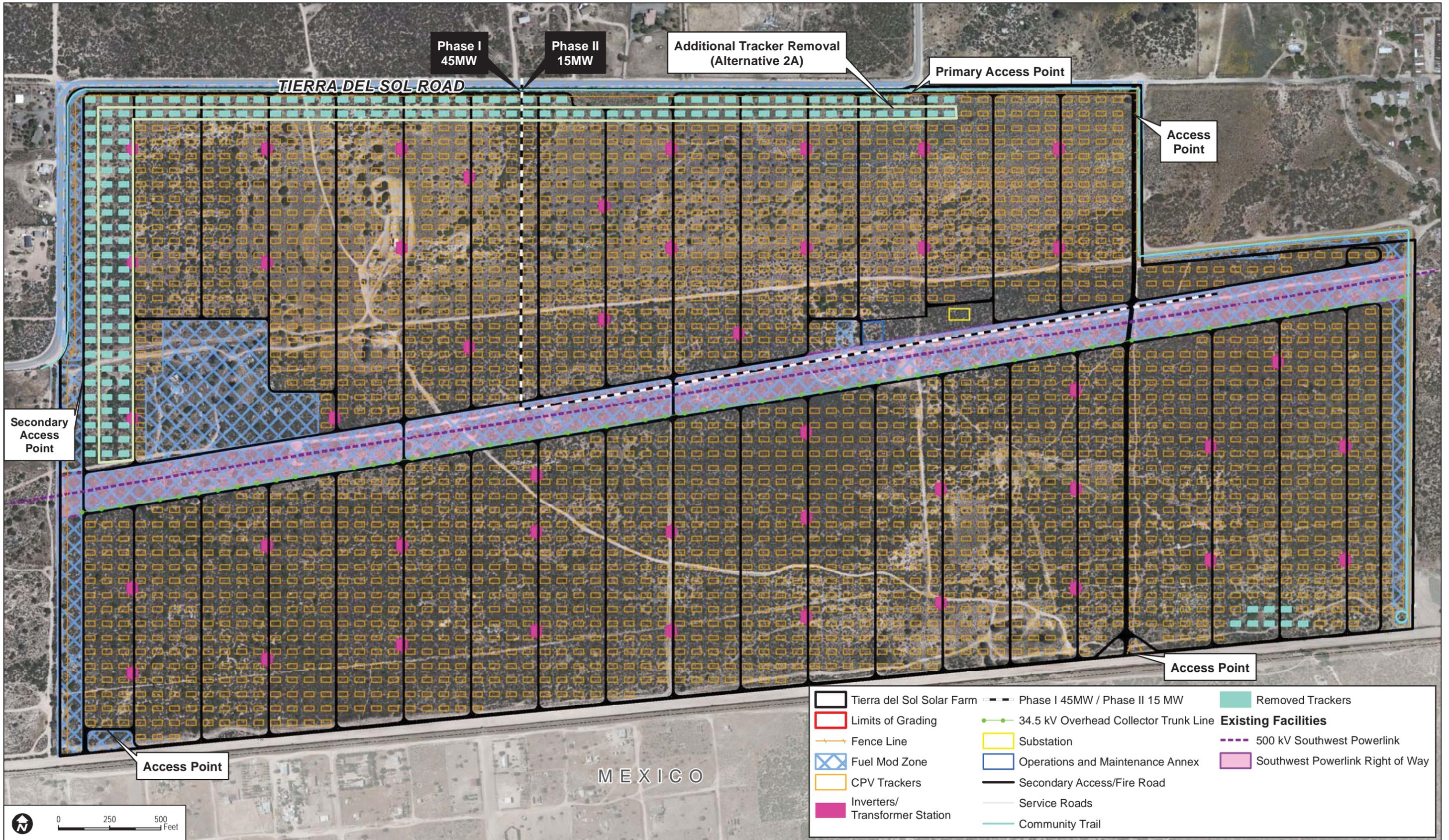
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DUDEK SOURCE: AECOM 2012; Soitec 2012; SanGIS 2012; Bing Maps

FIGURE 4-2
Rugged Solar Reduced Project Alternative

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- | | | |
|-------------------------------|---------------------------------------|----------------------------------|
| Tierra del Sol Solar Farm | Phase I 45MW / Phase II 15 MW | Removed Trackers |
| Limits of Grading | 34.5 kV Overhead Collector Trunk Line | Existing Facilities |
| Fence Line | Substation | 500 kV Southwest Powerlink |
| Fuel Mod Zone | Operations and Maintenance Annex | Southwest Powerlink Right of Way |
| CPV Trackers | Secondary Access/Fire Road | |
| Inverters/Transformer Station | Service Roads | |
| | Community Trail | |

FIGURE 4-3
 Tierra Del Sol Alternative 2A

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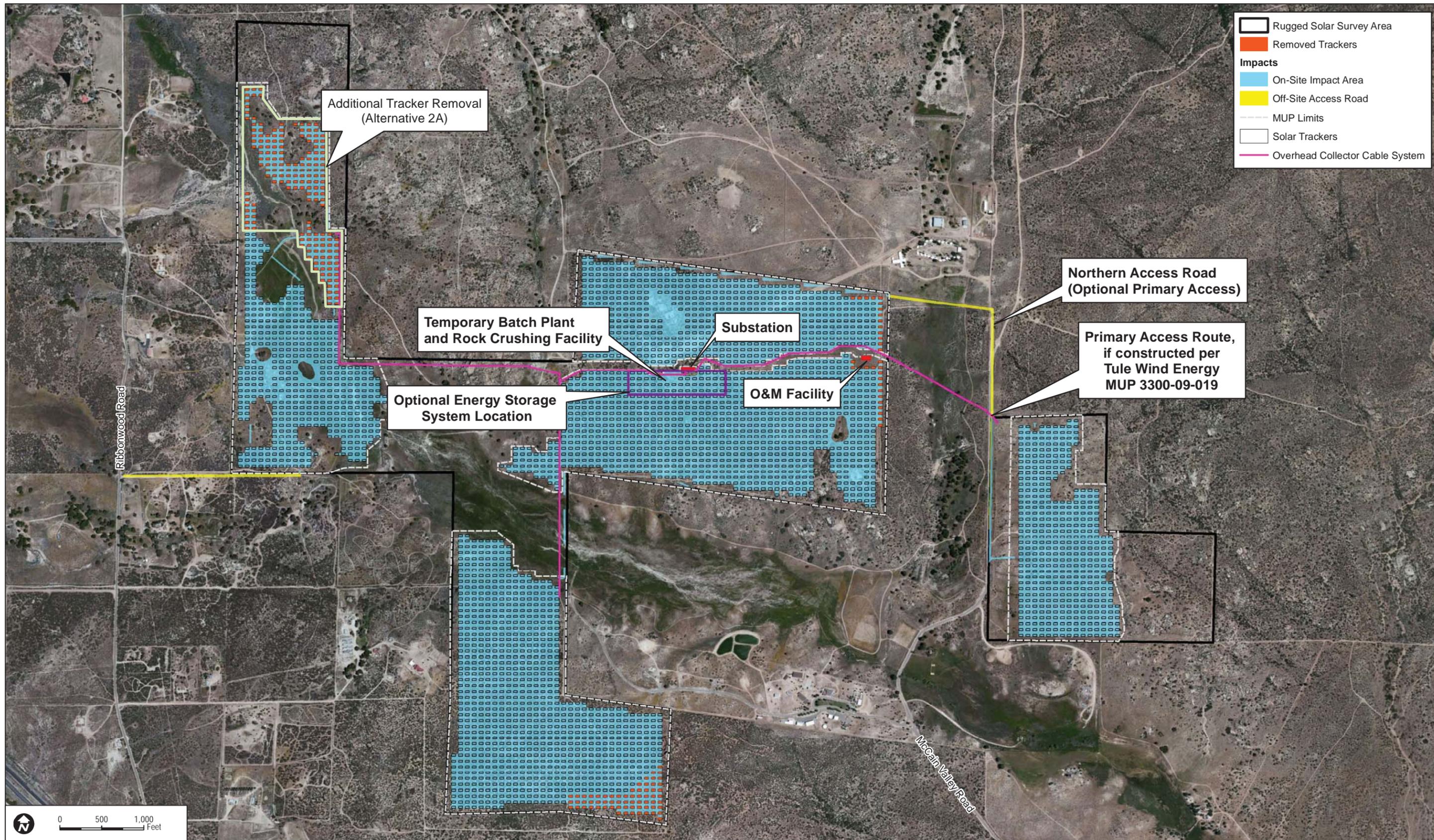


FIGURE 4-4
Rugged Solar Alternative 2A

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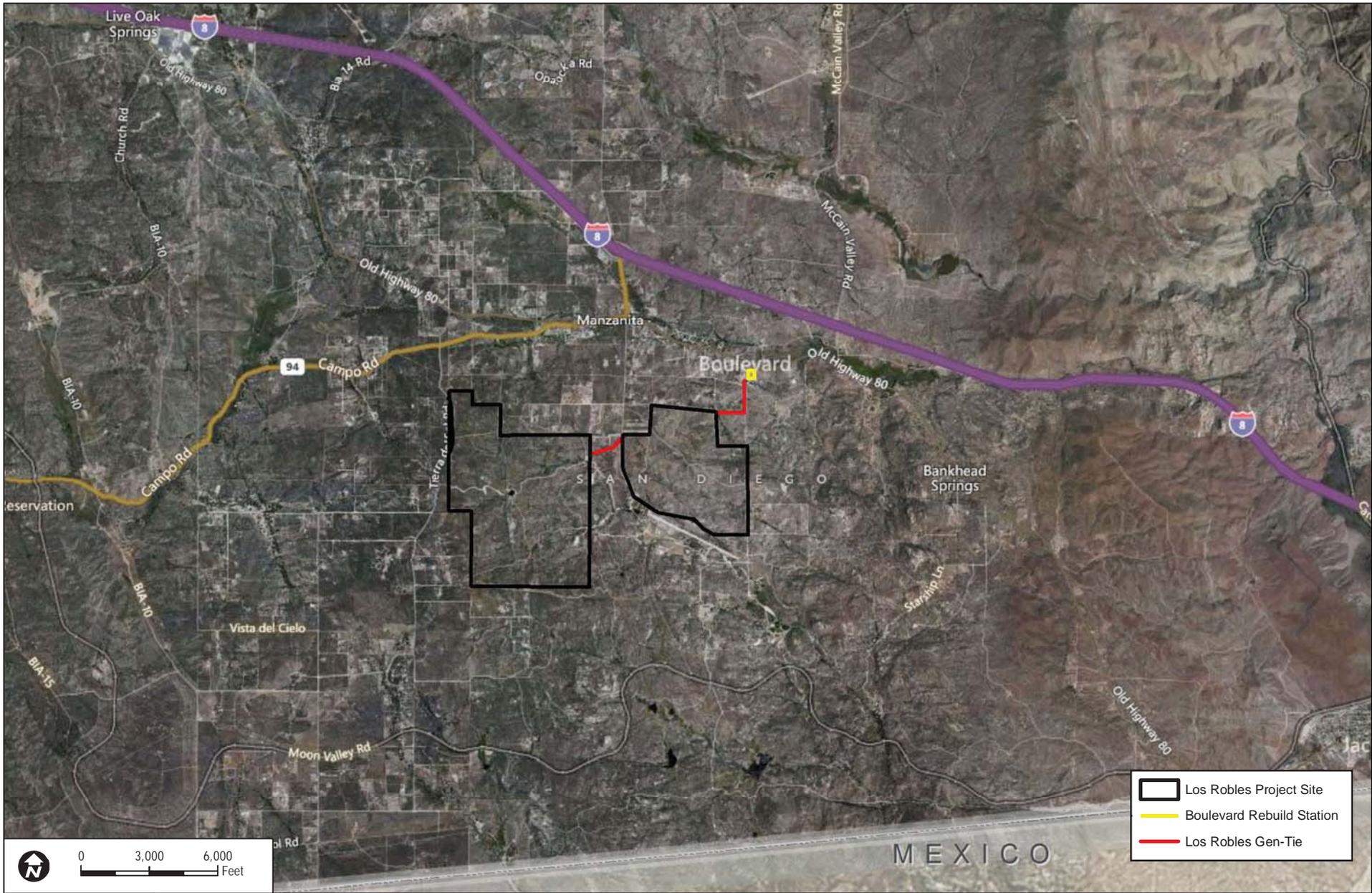


FIGURE 4-5
Los Robles Alternative Project Site

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