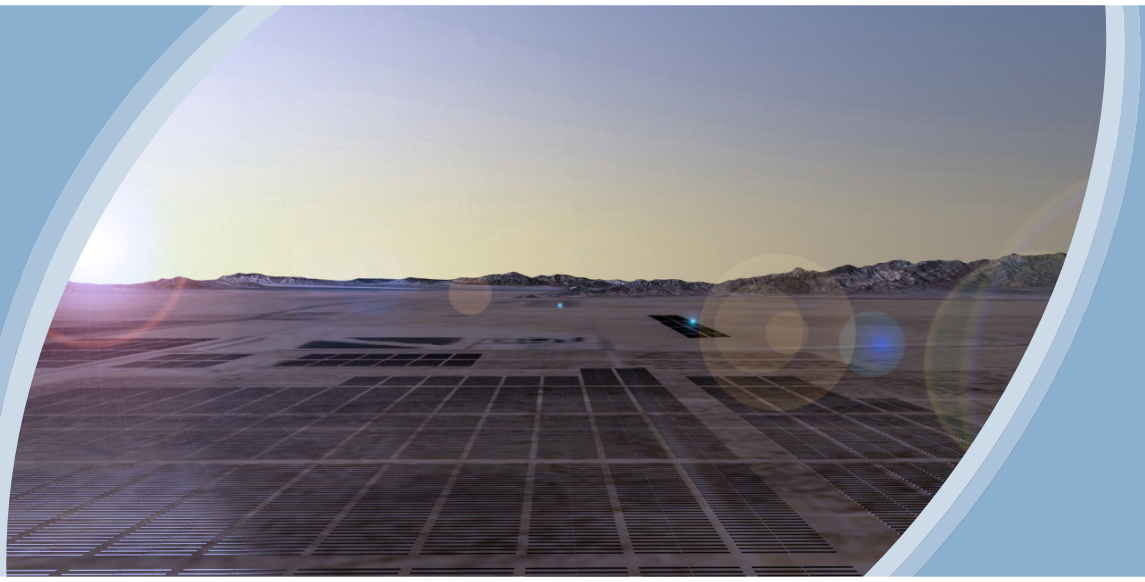
BLYTHE MESA SOLAR PROJECT



Draft Environmental Impact Report/Environmental Assessment

Volume II

EIR No. 529
EA No. 0021
SCH No. 2011111056

June 2014

CEQA/NEPA Lead Agencies:

RIVERSIDE COUNTY
PLANNING DEPARTMENT

U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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Draft
Environmental Impact Report/
Environmental Assessment

Blythe Mesa Solar Project

EIR No. 529
EA No. 0021
SCH No. 2011111056

Volume II
(Chapters 4, 5, 6, and 7)

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CHAPTER 4: ENVIRONMENTAL CONSEQUENCES

4.1 Impact Analysis

This chapter assesses the environmental consequences that would result from the development of the proposed Blythe Mesa Solar Project (BMSP or Project) and Alternatives described in Chapter 2 of this Draft Environmental Impact Report/Environmental Assessment (Draft EIR/EA). Analyses for each resource area considered potential direct, indirect and cumulative effects of the proposed Project. Any measures to avoid, minimize, and compensate adverse effects are also presented in this chapter.

This Draft EIR/EA is a joint federal/State document prepared to comply with the requirements of both the California Environmental Quality Act (CEQA) and the National Environmental Policy Act (NEPA).

CEQA requires an EIR to identify the significant environmental effects of a project. An EIR presents criteria that are used to determine whether or not an adverse impact is significant under CEQA. An EIR must also describe potentially feasible mitigation measures that could minimize each significant adverse impact. Potentially feasible mitigation measures that could minimize impacts determined significant under CEQA are specifically identified in this Draft EIR/EA as "mitigation measures." This Draft EIR/EA also states whether the impact deemed significant under CEQA would remain significant after implementation of the mitigation measure(s). A CEQA significance determination is provided at the end of each resource section.

Under NEPA, "[t]he EA must describe and provide the analysis of environmental effects of the proposed action and each alternative analyzed in detail (40 [Code of Federal Regulations] CFR Part 1508.9(b)). The EA must also identify and analyze mitigation measures, if any, which will be taken to avoid or reduce potentially significant effects (see Question 39, Council on Environmental Quality [CEQ], *Forty Most Asked Questions Concerning CEQ's NEPA Regulations*, March 23, 1981)" (BLM NEPA Handbook Section 8.3.6). The analyses contained in this Draft EIR/EA provide quantitative and qualitative measures with which to review the context and intensity of the effects. These two components assist the decision-makers in determining whether to prepare an environmental impact statement (EIS) or make a Finding of No Significant Impact (FONSI) in instances where an EIS is not normally required or categorically exempt (40 CFR Part 1501.4(a)-(c)).

The impact analysis for each of the resource areas is structured as outlined below.

Methodology for Analysis

The *Methodology for Analysis* sections describe the process of analyzing the effects of the proposed Project (solar facility site and generation interconnection [gen-tie] line corridor) and Alternatives. In assessing impacts, this Draft EIR/EA presumes that existing regulations and other public agency requirements, along with Best Management Practices (BMPs) that have been incorporated into the Project, will be implemented. Permanent impacts or permanent disturbance was assumed for the life of the Project, which is approximately 25 years or less. If the Project continues to operate at the end of the utility contract, the impacts described in this Draft EIR/EA as the impacts of operation and maintenance would continue indefinitely.

Application of CEQA Significance Thresholds

The *Application of CEQA Significance Thresholds* sections describe the criteria used to determine which impacts should be considered potentially significant. Significance thresholds are based on criteria identified in Appendix G of the CEQA Guidelines (California Code of Regulations [CCR], Title 14, Division 6, Chapter 3, Sections 1500-15387). Other federal, State, or local standards—in particular, the County of Riverside's CEQA significance thresholds—are also taken into account when defining significance thresholds.

NEPA Requirements

Pursuant to NEPA, the intent of the environmental impact analysis is to ensure that environmental information is available to public officials and the public before decisions are made and actions are taken (40 CFR Part 1500.1 [b]). In addition, the NEPA process is to be used to identify and assess reasonable alternatives to proposed actions that will avoid or minimize adverse effects of the action upon the quality of the human environment (40 CFR Part 1500.2 [e]). Environmental effects include direct, indirect, and cumulative impacts. Cumulative effects of Project implementation are discussed under each resource area.

The term *significant* as used in NEPA requires considerations of both context and intensity (40 CFR Part 1508.27). *Context* requires the BLM to analyze the significance of an action in several contexts such as society as a whole (human, national), the affected region, the affected interests, and the locality. Significance varies with the setting of the proposed action (40 CFR Part 1508.27 [a]). *Intensity* refers to the severity of effect. 40 CFR Part 1508.27(b) includes the following ten considerations for evaluating intensity:

- Impacts that may be both beneficial and adverse;
- The degree to which the proposed action affects public health or safety;
- Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas;
- The degree to which the effects on the quality of the human environment are highly uncertain or involve unique or unknown risks;
- The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration;
- Whether the action is related to other actions with individually insignificant but cumulatively significant impacts;
- The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific cultural, or historical resources;
- The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined critical under the Endangered Species Act of 1973;
- Whether the action threatens a violation of federal, state, or local law or requirements imposed for the protection of the environment.

To determine the severity of effect on a particular resource, the BLM must look at direct, indirect, and cumulative effects on that resource (BLM NEPA Handbook H-1790-1, Section 7.3).

An EA may be used to demonstrate that a proposed action would have effects that are significant but could be reduced or avoided through mitigation. The BLM may use a mitigated FONSI rather than an EIS if decision-makers are able to reasonably conclude, based on the EA analysis, that the mitigation measures would be effective in reducing effects to nonsignificance.

The BLM will make a determination about the significance of impacts for this Project and either initiate an EIS or issue a FONSI once the EA process is complete.

Applicable Best Management Practices

Chapter 2 of this Draft EIR/EA contains a complete list of applicable BMPs. For the purpose of this Draft EIR/EA, BMPs are: 1) requirements of existing policies, practices, and measures required by law, regulation, or local policy; and 2) ongoing, regularly occurring practices. In other words, the BMPs identified in this Draft EIR/EA are inherently part of the proposed Project and Alternatives. They are not additional mitigation measures proposed as a result of the significance findings from the CEQA environmental review process. An exhaustive list of BMPs is not provided in this Draft EIR/EA; only those

applicable BMPs referenced in this Draft EIR/EA analysis are identified in the text of each resource topic discussion.

Cumulative Impacts

The *Cumulative Impacts* sections describe effects of the Project and Alternatives that may be individually limited but cumulatively considerable when combined with other approved, proposed, or reasonably foreseeable future projects. Section 4.1.1 identifies projects that are evaluated as part of the cumulative impact analysis for many resources.

Section 15355 of the CEQA Guidelines defines cumulative impacts as:

> "two or more individual effects which, when considered together are considerable or which compound or increase other environmental effects. The individual effects may be changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."

A cumulative impact is defined under federal regulations (40 CFR Part 1508.7) as:

> "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taken place over a period of time."

The cumulative analysis for each resource presents the geographic scope, temporal scope, and direct and indirect impacts associated with each Alternative.

Mitigation Measures

The *Mitigation Measures* sections identify actions to eliminate or reduce potentially significant or adverse impacts of the proposed Project and Alternatives.

Residual Impacts After Mitigation

The *Residual Impacts After Mitigation* sections indicate, for purposes of both CEQA and NEPA, whether impacts would remain after application of the proposed mitigation measures. For CEQA, any impacts that cannot be eliminated or reduced to a level of less than significant are considered residual impacts of the proposed Project. For NEPA, any impacts that cannot be mitigated to below significant level would require the initiation of an EIS. The BLM will examine the effects and mitigation measures to determine if the impacts as a result of construction, operation, maintenance, and decommissioning of the proposed Project or Selected Alternative have been reduced to less than significant levels. If so, the BLM will issue a FONSI before issuing a ROW.

NEPA Conclusions

The *NEPA Conclusions* sections summarize the direct and indirect environmental effects of the Project and Alternatives, including contributions toward cumulative impacts, and discuss whether the context and intensity of the environmental effects warrant preparation of an EIS.

4.1.2 Cumulative Projects

This Draft EIR/EA analyzes the cumulative impact of elements of the construction, operation, maintenance, and decommissioning of the proposed Project and Alternatives. Cumulative effects are

those effects that would result from incremental impacts of the proposed Project and Alternatives when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions (40 CFR Part 1508.7). Additionally, this Draft EIR/EA determines if the proposed Project would cause a cumulatively considerable contribution to any such cumulatively significant impacts (CEQA Guidelines Sections 15130[a]–[b], 15355[b], 15064[h], 15065[c]; *Communities for a Better Environment v. California Resources Agency* [2002] 103 Cal.App.4th 98, 120).

CEQA Requirements for Cumulative Impact Analysis

CEQA requires that an EIR contain an assessment of the cumulative impacts that could be associated with the proposed Project. According to CEQA Guidelines Section 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (as defined by Section 15130). As defined in CEQA Guidelines Section 15355, a cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. A cumulative impact occurs from:

> *. . . the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.*

In addition, CEQA Guidelines Section 15130(b) identifies that the following three elements are necessary for an adequate cumulative analysis:

1) Either:

   - a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or
   - a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.

2) A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and
3) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

NEPA Requirements for Cumulative Impact Analysis

Cumulative effects analysis is also required under NEPA. The approach to the cumulative effects analysis follows the principles outlined in the CEQ's Considering Cumulative Impacts (1997), which are listed below.

1) Cumulative effects are caused by the aggregate of past, present, and reasonably foreseeable future actions.
2) Cumulative effects are the total effect, including both direct and indirect effects, on a given resource, ecosystem, and human community of all actions taken, no matter who (federal, non-federal, or private) has taken the action.

3) Cumulative effects need to be analyzed in terms of the specific resource, ecosystem, and human community being affected.
4) It is not practical to analyze the cumulative effects of an action on the universe; the list of environmental effects must focus on those that are truly meaningful.
5) Cumulative effects on a given resource, ecosystem, and human community are rarely aligned with political or administrative boundaries.
6) Cumulative effects may result from the accumulation of similar effects or the synergistic interaction of different effects.
7) Cumulative effects may last for many years beyond the life of the action that caused the effects.
8) Each affected resource, ecosystem, and human community must be analyzed in terms of its capacity to accommodate additional effects, based on its own time and space parameters.

Where a lead agency is examining a project with an incremental effect that is not cumulatively considerable, a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

The BLM NEPA Handbook outlines the following elements to be considered for each cumulative effect issue:

- Describe the existing condition. The existing condition is the combination of the natural condition and the effects of past actions. The natural condition is the naturally occurring resource condition without the effects of human actions. Detailed description of the natural condition may not be possible for some resources because of incomplete or unavailable information or may not be applicable for some resources. Described the effects of past actions, either individually or collectively, to understand how the existing condition has been created.
- Describe the effects of other present actions.
- Describe the effects of reasonably foreseeable actions.
- Describe the effects of the proposed action and each action alternative.
- Describe the interaction among the above effects.
- Describe the relationship of the cumulative effects to any thresholds.

Cumulative Impact Approach

This Draft EIR/EA evaluated cumulative impacts of the proposed Project and Alternatives for each resource area, using the following steps:

1) Define the geographic and temporal scope of cumulative impact analysis for each discipline, based on the potential area within which impacts of the proposed Project could combine with those of other projects.
2) Evaluate the effects of the proposed Project in combination with past and present (existing) projects in the study area.
3) Evaluate the effects of the proposed Project with foreseeable future projects that occur within the area of geographic effect defined for each discipline.

Geographic Scope and Timeframe of the Cumulative Effects Analysis

The area of cumulative effect varies by resource. For example, air quality impacts tend to disperse over a large area, while traffic impacts are typically more localized. For this reason, the geographic scope for this analysis must be identified for each resource area.

The analysis of cumulative effects considers a number of variables including geographic (spatial) limits, time (temporal) limits, and the characteristics of the resource being evaluated. The geographic scope of each analysis is based on the topography surrounding the Project area and the natural boundaries of the resource affected, rather than jurisdictional boundaries. The geographic scope of cumulative effects will

often extend beyond the scope of the direct effects of a proposed Project, but not beyond the scope of the direct and indirect effects of that proposed Project.

In addition, each project in a region will have its own implementation schedule, which may or may not coincide or overlap with the construction schedule for the proposed Project and Alternatives. This is a consideration for short-term impacts from the proposed Project and Alternatives. However, to be conservative, the cumulative analysis assumes that all projects in the cumulative scenario are built and operating during the operating lifetime of the proposed Project.

The geographic context for this cumulative analysis is bounded by the locations of the cumulative projects listed in Table 4.1-1. The list of projects was developed by accessing the U.S. Department of the Interior, Bureau of Land Management's (BLM's) project database (LR2000), the California Energy Commission's (CEC's) list of large solar energy projects, through agency consultation, and from review of available recent environmental documents. These projects have the potential to produce impacts similar to the Project's construction, operational, or decommissioning impacts, depending upon the type of impact and resource involved.

The BMSP includes a proposed double-circuit 230 kilovolt (kV) gen-tie line. If approved, the proposed Palo Verde Mesa Solar Project would utilize the BMSP's gen-tie line and only construct 5.6 miles of new single-circuit 230 kV gen-tie line. The cumulative scenario takes into account only 5.6 miles of new gen-tie line poles (from the Palo Verde Mesa Solar Project's substation to the BMSP's Interstate 10 Substation) and stringing of the remaining 8.9 miles of gen-tie line circuit onto the BMSP towers.

Project Effects in Combination with Past, Present and Foreseeable Future Projects

Each resource discipline evaluates the cumulative impacts of the proposed Project and Alternatives on top of the existing environmental setting (past and present [existing]) and future projects near the solar facility site and gen-tie line corridors. The future projects considered for this analysis are those projects that are not yet implemented but are currently under construction or whose future implementation can be realistically predicted. It should be noted that some of the projects listed may not be constructed for various reasons, such as permitting issues or lack of funding, or may not be constructed at the same time as the proposed Project.

The intensity, or severity, of the cumulative effects is determined by the magnitude, geographic extent, duration, and frequency of the effects. The magnitude of the effect reflects the relative size or amount of the effect; the geographic extent considers how widespread the effect may be; and the duration and frequency refer to whether the effect is a one-time event, intermittent, or chronic.

Reasonably foreseeable projects could contribute to the cumulative effects scenario for the proposed Project and Alternatives depending on the extent of each particular resource impact. Cumulative impacts may be intensified by foreseeable future projects that are in the direct vicinity of the proposed Project (solar facility site and gen-tie line) and Alternatives or by foreseeable future projects throughout the greater desert surrounding the proposed Project and Alternatives.

Table 4.1-1 Cumulative Projects List

PROJECT NAME/APPLICANT	SERIAL NUMBER	LOCATION	STATUS	YEARS OF CONSTRUCTION	NUMBER OF WORKERS	PROJECT DESCRIPTION
Solar Energy						
Blythe Airport Solar I Project • U.S. Solar • EA # 42340	N/A	6 miles east of Blythe. Northeast of Blythe Municipal Airport	Approved			100 megawatt (MW) photovoltaic (PV) power plant; 640 acres; construct in five 20 MW phases; includes a 3,200-foot-long 33 kV generation tie.
Blythe Solar Power Project/ • NextEra Energy Resources	CACA 48811	8 miles west of Blythe	CEC and BLM Approved 2010, Temporary Suspension Issued 8/23/11, Notice of Intent issued to amend the project footprint and technology 8/30/2013	N/A	N/A	485 MW PV solar plant; 4,138 acres of BLM-administered public land.
Palo Verde Mesa Solar Project	N/A	5 miles northwest of Blythe	Planned	Approximately 3 years	300–500 daily during construction 12 permanent, full-time jobs during operation	486 MW PV solar plant; includes a 14.7-mile-long gen-tie line to the Colorado River Substation; on 3,400 acres
Genesis Solar Energy Project/ • NextEra Energy Resources	CACA 48880	22 miles west of Blythe	Notice to Proceed signed February 2012; under construction	Approximately 39 months	1,085 during peak construction 65 permanent, full-time jobs during operation	250 MW (two adjacent, independent solar plants with a 125 MW capacity each) solar thermal electric generating facility, using solar parabolic trough technology; includes 6-mile natural gas pipeline and 5.5-mile transmission line interconnecting Blythe Energy Center to Julian Hinds Transmission Line; on 1,950 acres.
McCoy Solar Energy Project • McCoy Solar, LLC	CACA 48728	10 miles northwest of Blythe	BLM Approved EIS 3/13/13	N/A	750 during peak construction 20 permanent, full-time jobs during operation	Up to a 750 MW PV solar power plant using photovoltaic technology; 16-mile-long 230 kV generation-tie and switchyard that would connect to SCE's Colorado River Substation. .
Desert Quartzite/ • First Solar Development, Inc	CACA 49397	8 miles southwest of Blythe	Planned POD Submitted	N/A	N/A	600 MW, photovoltaic, 7,245 acres disturbed, no transmission line
Mc Coy Soleil Project (different from the McCoy Solar Project CACA 48728) • enXco, Inc	CACA 49490	11 miles southwest of Blythe	Planned			300 MW PV solar plant, 1,216 acres.
Blythe Solar Power Generation Station 1, LLC	N/A	6 miles north of Blythe	Approved. Estimated online date June 2013	N/A	N/A	4.76 MW solar PV facility; on 29.4 acres
Sonoran West SEGS	CACA 51967	12 miles west of Blythe	Case sent to California Desert District August 2011	N/A	N/A	540 MW solar PV facility; total of 12,269 acres.
Mule Mountain III	CACA 50390	15 miles southwest of Blythe	Case sent to California Desert District August 2011	N/A	N/A	150 MW solar facility to occupy a total of 8,160 acres.
Gypsum Solar Project	CACA 51950	6 miles north of Blythe	Case sent to California Desert District August 2011	N/A	N/A	100 MW solar photovoltaic facility to occupy a total of 2,840 acres.
Desert Sunlight Project	CACA 48649	6 miles north of Desert Center; 46 miles northwest of Blythe	Project approved in August 2011; under construction	N/A	N/A	550 MW, 4,144-acre solar photovoltaic project located on 7,724 acres. Adjacent to DPV transmission line.
Desert Harvest Solar Farm	CACA 49491	Riverside County, 6 miles north of Desert Center	Approved. A Record of Decision (ROD) was signed on March, 13, 2013.	N/A	250 during peak construction 16 permanent, full-time jobs during operation	150 MW PV solar plant, 1,208 acres.
Desert Center 50	N/A	Desert Center; 38 miles northwest of Blythe	Under review by County of Riverside	N/A	N/A	A planned 49.5 MW fixed flat-panel photovoltaic solar power plant, on 452 acres, on APNs 811-190-004, 811-231-001, 003, 004, and 008.
Sol Orchard	N/A	Desert Center; 43 miles northwest of Blythe	Approved by County of Riverside in 2010	N/A	N/A	1.5 MW fixed flat panel photovoltaic power plant, on 10 acres, north of I-10, east of SR177, and west of Desert Center Airport.
Palen Solar Energy Project • BrightSource Energy, Inc.	CACA 48810	North of I-10, 10 miles east of Desert Center; 33 miles northwest of Blythe	Approved by CEC in December 2010. Final EIS published in May 2011. Modified CEC license and BLM ROW targeted for October 2013.	Applicant estimates 34 months.	998 average construction workers 2,311 peak construction workers 100 full-time employees	On December 17, 2012, the owners of the project filed a petition with the California Energy Commission to modify the project to use solar thermal power towers.
Wildcat Quartzsite • Wildcat Quartzsite LLC/BrightSource	AZA 34554	La Paz County; along U.S. 395 south of Quartzsite	Pending	N/A	N/A	800 MW concentrating solar power plant on approximately 12,000 acres.

PROJECT NAME/APPLICANT	SERIAL NUMBER	LOCATION	STATUS	YEARS OF CONSTRUCTION	NUMBER OF WORKERS	PROJECT DESCRIPTION
Quartzsite Solar Energy Project • Solar Reserve	AZA 34666	10 miles north of Quartz, Az	Approved. A ROD was signed on May 30, 2013. The ROD approves the use of 1,675 acres of BLM-managed land for development of a solar energy project.	Estimated to begin construction in 2014 with an estimated 30 month construction	438 average construction workers and 47 full-time employees	100 MW concentrating solar power plant; less than 1.5 mile transmission line.
Wind Energy						
Eagle Mountain Wind	CACA 51664	Eagle Mountain; 51 miles northwest of Blythe	Testing	N/A	N/A	3,500-acre wind facility with met towers.
John Deere Renewables Type II	CACA 51062	Chuckwalla; 34 miles southwest of Blythe	Testing	N/A	N/A	5,763-acre wind facility.
Riverside Wind Energy Black Hills Type II	CACA 52811	Black Hills; 27 miles southwest of Blythe	Testing	N/A	N/A	11,537-acre wind facility.
Electrical Facilities						
Devers – Palo Verde 2 Transmission Line • CUPC A. 05-04-015	CACA 048771	Western Riverside County to Blythe, CA	Notice to Proceed signed September 2011;under construction	24–28 months	211 daily during construction	41.6-mile-long transmission line; second 500 kV transmission line between the Devers substation and SCE's Valley substation.
Desert Southwest Transmission Line	N/A	Palm Springs to Blythe	Approved June 2007	N/A	N/A	118-mile 500 kV transmission line from Blythe Energy Project substation to the existing Devers Substation. Located adjacent to SCE's existing 500 kV Devers–Palo Verde 1 transmission line.
SCE Red Bluff Substation	N/A	South of I-10 at Desert Center; 42 miles northwest of Blythe	Project approved in July, 2011; under construction	N/A	N/A	Proposed new 500/250 kV substation, two new parallel 500 kV transmission lines of about 2,500 to 3,500 feet each to loop the substation into the existing DPV 500 kV transmission line (DPV1), and two parallel 500 kV transmission lines of about 2,500 to 3,500 feet each to loop the new substation into the proposed Devers–Colorado River 500 kV transmission line (DPV2) into the new substation with another two parallel lines of about 2,500 to 3,500 feet each.
Colorado River Substation	N/A	13 miles southwest of Blythe	Approved July 2011; under construction	N/A	N/A	500/230 kV substation and would be constructed in an area approximately 1,000 feet by 1,900 feet.
Eagle Mountain Pumped Storage Hydroelectric Project	N/A	Eagle Mountain iron ore mine, north of Desert Center; 52 miles northwest of Blythe	Final EIS published Jan. 2012.	N/A	N/A	1,300 MW pumped storage project on 1,524 acres, designed to store off-peak energy to use during peak hours.
Blythe Energy Project II	N/A	Blythe, CA. Near Blythe Airport & I-10; 5 miles west of Blythe	Notice of decision regarding petition to extend the deadline for commencement of construction, 2011; Petition to Amend presented April 2012	N/A	N/A	520 MW combined-cycle power plant located entirely within the Blythe Energy Project area boundary. Blythe Energy Project II would interconnect with the Buck Substation constructed by the Western Area Power Administration (Western) as part of the Blythe Energy Project. Project is designed on 20 acres of a 76-acre site.
Other Construction						
Eagle Mountain Landfill Project	N/A	Eagle Mountain, North of Desert Center	Land exchange for the project was not properly approved. Kaiser's Mine and Reclamation is considering all available options	N/A	N/A	Class III nonhazardous municipal solid waste landfill that would accept up to 20,000 tons of non-hazardous waste per day for 50 years. Project also involves the renovation and repopulation of Eagle Mountain Townsite. Project on approximately 3,500 acres. The proposal includes a land exchange and application for rights-of-way with the BLM and a Specific Plan, General Plan Amendment, Change of Zone, Development Agreement, Revised Permit to Reclamation Plan, and Tentative Tract Map with the County.
Wiley's Well Communication Tower (Part of the Public Safety Enterprise Communication System)	N/A	18 miles west of Blythe	Final EIR published in August 2008	N/A	N/A	The Public Safety Enterprise Communication project is the expansion of Riverside County's fire and law enforcement agencies approximately 20 communication sites to provide voice and data transmission capabilities to personnel in the field.
Agate Senior Housing Development	N/A	Blythe, CA	Approved in 2006	N/A	N/A	This is an active Tax Credit Allocation Project. Active parcel Map extensions submitted since approval date. No construction is anticipated within the next fiscal year.
Residential developments[1]	N/A	Blythe, CA	Pending approval	N/A	N/A	Eight pending residential Tentative Tract Maps for 660 proposed new homes. Most of the maps were tentatively approved back in 2008 and 2009 and each has remained active by virtue of legislative extensions granted by the Governor.

PROJECT NAME/APPLICANT	SERIAL NUMBER	LOCATION	STATUS	YEARS OF CONSTRUCTION	NUMBER OF WORKERS	PROJECT DESCRIPTION
12 residential developments[1]	N/A	Blythe, CA	Approved or under construction	N/A	N/A	Nine residential development projects have been approved by the Blythe Planning Department including: Vista Palo Verde (83 Single Family Residential [SFR]), Van Weelden (184 SFR), Sonora South (43 SFR), Irvine Assets (107 SFR), Chanslor Village (79 SFR), St. Joseph's Investments (69 SFR), Edgewater Lane (SFR), the Chanslor Place Phase IV (57 SFR), Palo Verde Oasis Phase IV (29 SFR). Three residential development projects have been approved and are under construction including: the Chanslor Phase II & III (78 SFR), River Estate at Hidden Beaches, Mesa Bluffs Villas (26 Attached SFR), Ranchette Estates (20 SFR).
Hampton Inn and Suites • PP 2011-02	N/A	Blythe; I-10 and Intake Blvd.	Approved April 2012	N/A	N/A	Proposed 18,716-square foot, 81-room, three-story hotel and parking lot on an approximately 13-acre site (hotel would only cover 2.47 acres). Construction anticipated by third quarter 2012. Other site features include porte cochere, smoking shelter, and storage building.

[1]Project location information not available and not depicted on map in Figure 4.1-1.

BLM: U.S. Department of the Interior, Bureau of Land Management
CEC: California Energy Commission
DPV: Devers-Palo Verde
EIS: Environmental Impact Statement
I-10: Interstate 10
kV: kilovolt
MW: megawatt
POD: Plan of Development
PV: photovoltaic
ROW: right-of-way
SCE: Southern California Edison
SFR: single family residence
Western: Western Area Power Administration

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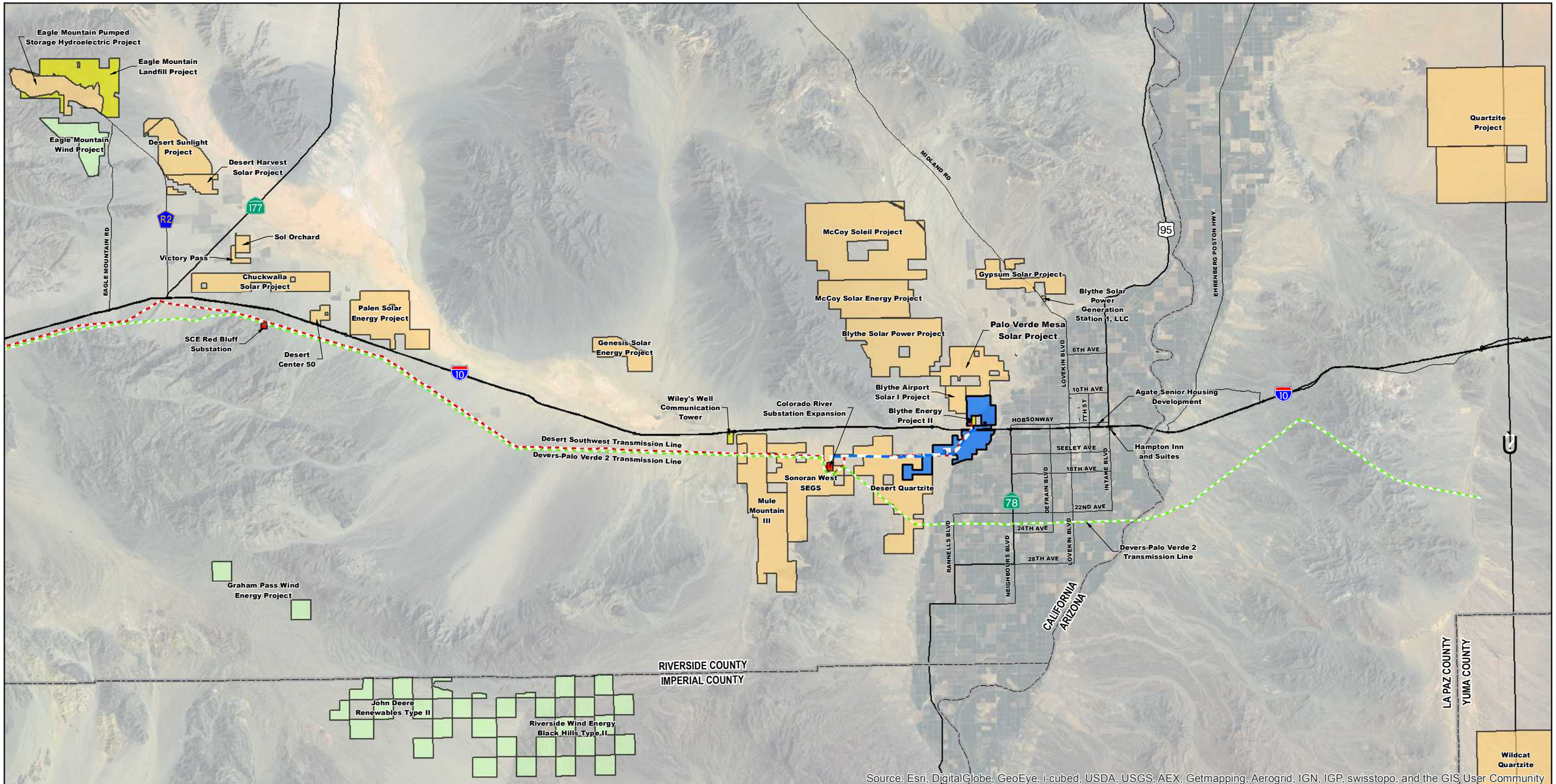

Legend

Proposed Project
- Blythe Mesa Solar Project Boundary
- Proposed 230 kV Transmission Line

Proposed Projects
- Solar Energy Project
- Wind Energy Project
- Other Construction

Proposed Electrical Facilities
- Proposed Desert Southwest 500 kV Line
- Proposed Devers-Palo Verde #2 500 kV Line
- Substation

N

0 5 10
Miles
1 in=5 miles

FIGURE 4.1-1
CUMULATIVE PROJECTS

BLYTHE MESA SOLAR PROJECT

POWER ENGINEERS
RENEWABLERESOURCESGROUP

Source: Bureau of Land Management, Renewable Energy ROW, v10. ArcGIS Online Imagery.

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4.2 Resource Topics Evaluated in Detail

4.2.1 Aesthetics, Visual Resources, and Reflection

This section describes the impact analysis relating to visual resources for the proposed Project and Alternatives. Visual resources are the elements of the landscape that contribute to the aesthetic and/or scenic character and quality of the environment. These elements are either natural or human-made. Impacts to visual resources are rated by the extent to which changes would contrast with the existing visual character and quality of the environment. This section documents the potential for the construction, operation, maintenance, and presence of the Project to result in significant effects to visual resources and sensitive viewpoints/key observation points, and potential glare impacts.

The solar facility would be on private land; therefore, it would not be within BLM-managed lands or established Visual Resource Management (VRM) Classes. The portion of the Project's gen-tie line that would traverse BLM lands would be in an area of Interim VRM Class III, which was designated to the area by the McCoy Solar Energy Project Final EIS. The gen-tie line would be within or adjacent to BLM Corridor K, which is also Federally Designated Corridor 30-52, and within the Riverside East Solar Energy Zone (SEZ).

Methodology for Analysis

This section provides a discussion of the methodology and criteria used to assess impacts to visual resources that could occur as a result of construction, operation, maintenance, and decommissioning of the Project. Project impacts were compared to existing circumstances in light of local policies for protection of visual resources, comparing the existing views from key observation points (KOPs) to views that would occur during construction, operation, maintenance, and decommissioning of the Project.

A visual contrast assessment rating system was used to identify levels of visual contrast between the Project and the existing landscape that would be associated with the Project as viewed from KOPs. This rating system has been applied to the assessment of potential impacts for the Project once constructed and in operation. The methods of the visual contrast assessment rating system were not applied to construction impacts, due to the relatively short duration of construction activities. However, a qualitative assessment of potential construction-related visual impacts was conducted. The rating of the visual contrast between the Project and the existing landscape was compared to the distance zone for the KOPs to determine impact levels.

Contrast levels and resulting visual impact levels were used to determine whether the visual effect of the Project would exceed significance thresholds and result in significant impacts. The matrix presented in Table 4.2.1-2 provided general guidance for determining the significance of visual impacts created by the Project. Areas determined to have high impacts were studied in more detail to confirm if there were conditions where significant impacts could occur.

Levels of contrast between the Project and the existing landscape were also compared to the Interim VRM Classification assigned to the visual resources study area by the Desert Southwest Transmission Line Final EIS/EIR to determine if management objectives would be achieved. Refer to Section 3.2.1, *Aesthetics, Visual Resources, and Reflection*, for a discussion of the BLM VRM System.

A Glare Study was also prepared that analyzed potential light and glare/reflection impacts that would result from the solar arrays (see Appendix K).

Key Observation Points

As explained in Section 3.2.1, three representative KOPs are sufficient to capture the various types of views of the Project that may be impacted during Project construction, operation, maintenance, and decommissioning. They were selected to evaluate and illustrate Project-related visual contrasts with the

existing landscape; the locations are listed below and illustrated in Figure 3.2.1-2, *KOP Locations and Camera Views* (see Chapter 3).

- **KOP 1:** View from West Riverside Drive (residences east of the Project on the mesa)
- **KOP 2:** View from Interstate 10 (I-10) (simulation captures the view to the east, where the highest level of impacts for viewers traveling along I-10 would occur)
- **KOP 3:** View south from Mesa Verde Park in the Nicholls Warm Springs/Mesa Verde Community

A simulation of the view of the Project from each KOP was developed. The simulations are used to depict the expected visual impacts associated with the Project during operation. Operation of the Project is depicted because it would present the longest-lasting, most prominent impacts. Digital imaging, geographic information system (GIS), computer-aided design (CAD), and global positioning system (GPS) software assisted in the development of the photo-simulations. The software used in the photo-simulations included:

- Autocad 2009: Used for modeling site and facilities.
- 3D Studio 2009: Used for lighting, materials, and rendering.
- Adobe Photoshop CS3: Used for photo manipulation and merging.
- Bentley Microstation v8.5: Used for modeling of site, facilities, transmission structures, photo-matching, material patterning, and rendering.
- Bentley Inroads v8.5: Used for digital terrain mapping and modeling.
- ArcView: Used for geographic information system Project data mapping.

The photographs taken from each KOP were matched with Project terrain models developed using Microstation. Computer models of the substation and existing transmission lines were introduced into the terrain model based on preliminary facility layouts developed in CAD and ArcView. The final image is a composite of the three-dimensional (3D) structure modeling and the original photograph. This process ensures that spatial relationships, perspective, proportions, and similar attributes are accurate and match existing landscape conditions.

The visual contrast between the Project and the existing landscape was overlaid with the distance zone mapping for the KOPs to assess visual impact levels (see Table 4.2.1-2). The visual contrast assessment process is described below.

Although all residences in the visual resources study are identified as high-sensitivity viewpoints, the residences on the Palo Verde Valley floor and outskirts of Blythe were not selected as KOPs because of the limited potential for views of the Project due to topographic screening and distance. However, because some residences may have background views of the Project area, they have been included in the Impact Analysis discussion. As described in Section 3.2.12, *Recreation*, there are a number of recreational areas within the Project vicinity; however, they are all located in the very distant background view and would be difficult to perceive and, therefore, were not selected as KOPs. For example, the closest recreational facility, Palo Verde Municipal Golf Course, is approximately three miles away from the solar facility.

Assessment of Visual Contrast

The visual contrast between the Project and the surrounding landscape was assessed to determine its effect on the existing scenery and on views from the identified sensitive viewpoints (residences and I-10). Visual contrast is determined by comparing features of the proposed Project with the major features in the existing landscape using the basic design elements of form, line, color, and texture. The landscape of the Project area and the immediately surrounding area are considered to be the existing landscape. Three elements are used to determine the overall level of contrast that the Project would create: landform, vegetation, and structures. Three levels (strong, moderate, and weak) are used to describe the levels of visual contrast between the Project and the surrounding landscape.

Landform Contrast

Landform Contrast is the contrast that ground-disturbing activities would create with the existing landscape. Soil exposure and grading, blading roads, and other activities that alter the ground or landform create changes in color, shape, and slope that contrast with the existing landscape. Even minimal grading on a flat site exposes soil, creating a color contrast and a weak level of contrast. Any change to the existing landscape results in at least a weak level of contrast.

Because the Project (solar array and gen-tie line) would be on generally flat terrain, only minimal grading would be required, resulting in minor alterations in the terrain and soil exposure where grading occurs. Because only minimal grading would be required, a weak level of landform contrast would occur during construction, operation, or decommissioning.

Vegetation Contrast

Vegetation Contrast is the contrast that vegetation clearing would create with the existing vegetation in the landscape (the Project area and the immediately surrounding area). Vegetation contrast considers just the change in vegetation and does not consider structures that are part of the Project. Removal of or damage to sparse vegetation or vegetation that is low-growing and/or has a high level of recoverability, such as agricultural land, disturbed bare ground, and grasslands, results in a weak level of contrast with the existing landscape. Removal of low woody vegetation (brush or bushes) results in a moderate level of contrast with the existing landscape. Removal of overstory vegetation (trees) results in a high level of contrast with the existing landscape.

The vegetation of the solar array area is generally composed of citrus orchards for the eastern half of the Project area south of I-10, creosote scrub for the areas along the northwestern boundary of the Project area south of I-10 and east of Mesa Drive, and agricultural fields (non-irrigated wheat, irrigated alfalfa, and fallow land) in the area north of I-10 and the area west of Mesa Drive. Strong vegetation contrast between the Project and the existing landscape would result from removal of the citrus orchard vegetation, moderate vegetation contrast would result from removal of the creosote scrub vegetation, and weak vegetation contrast would result from removal of or damage to the agricultural vegetation.

The gen-tie line would extend west from the proposed solar array to the Colorado substation through an area of creosote scrub, with a small area of desert wash. Clearing of vegetation within the right-of-way (ROW) from this area would result in a moderate level of vegetation contrast between the Project and the existing landscape.

Structure Contrast

Structure contrast is the contrast of the built or structural components of the Project with the existing landscape. A high level of contrast results from building a project where no similar structures of a similar scale to the project structures are nearby (or parallel to linear structures, such as transmission lines). A moderate level of contrast results from building structures near similar but smaller existing structures. A low level of contrast results from building structures near similar structures of a similar or larger scale.

The structures for the Project include the solar field components—the solar photovoltaic (PV) trackers, on-site substations, and buildings—and the components of the Project's 230 kV gen-tie line, including the poles, hardware, and conductors. The structures required for the solar array would result in a strong level of structure contrast because the Project area does not contain similar existing structures. Although there are existing electrical facilities in the visual resources study area, such as the existing Blythe Energy Center that is surrounded by the Project and a small existing PV solar facility (Blythe Solar Project, owned and operated by NRG) located 0.25 mile from the Project, both facilities are relatively small in comparison to the proposed Project and would not reduce the level of structure contrast that would result from the Project.

The gen-tie line would result in varying levels of structure contrast because some portions of it would parallel existing transmission lines. An existing 230 kV transmission line with steel monopole structures and two existing 69 kV transmission lines with wooden H-frame structures approximately 20 to 45 feet shorter than the proposed gen-tie structures would pass just to the west of the proposed substation and the starting point of the gen-tie line on the north side of I-10. The gen-tie line would parallel or be located near the 230 kV line and the two 69 kV lines for approximately 1.2 miles, from its origin at the proposed substation to where the existing 230 kV line and one of the 69 kV lines turn west, resulting in a weak level of structure contrast between this section of the gen-tie line and the existing landscape. The gen-tie line would then continue to parallel one 69 kV transmission line with wooden H-frame structures for approximately 0.5 mile, resulting in a moderate level of structure contrast between the gen-tie line and the existing landscape. The gen-tie line would then turn west, crossing the existing 230 kV transmission line and one existing 69 kV transmission line, resulting in a low level of structure contrast between the gen-tie line and the existing landscape in the crossing area. The gen-tie line would then continue to the west for approximately 6.5 miles to the Colorado River Substation. The structure contrast of the gen-tie line with the existing landscape in this area would be strong because it would not parallel any existing lines; it would then drop to a weak level of structure contrast where the gen-tie line would reach the substation and would cross an existing 230 kV line and an existing 500 kV line.

Overall Contrast

Table 4.2.1-1, *Overall Contrast Matrix*, was used to determine the overall contrast level (strong, moderate, or weak) between the Project and the existing landscape. The strong, moderate, or weak contrast levels for structure contrast (along the left side of the matrix), landform contrast (along the right side of the matrix), and vegetation contrast (along the top of the matrix) combine to create the overall contrast levels identified in the white boxes in the middle of the table. The Project would be in an area that has generally flat terrain and the Project would require only minimal grading; therefore, landform contrast would be weak throughout the Project. For example, Table 4.2.1-1 reveals that in areas where structure contrast is strong, vegetation contrast is strong, and landform contrast is weak, the overall contrast level is strong. The discussion below in the *Analysis of Direct and Indirect Impacts* section describes where the various combinations of structure, vegetation, and landform contrast and the resulting overall contrast levels would occur for the Project's proposed solar array and gen-tie line.

Table 4.2.1-1 Overall Contrast Matrix

		VEGETATION CONTRAST			LANDFORM CONTRAST
		Strong	**Moderate**	**Weak**	
Structure Contrast	**Strong**	Strong	Strong	Moderate	**Weak**
	Moderate	Moderate	Moderate	Moderate	**Weak**
	Weak	Moderate	Weak	Weak	**Weak**

Source: POWER 2013.

The matrix in Table 4.2.1-2, *High Sensitivity Viewer Impact Matrix*, was used to assess visual impact levels for the sensitive viewpoints (KOPs) in the visual resources study area by overlaying the overall visual contrast of the Project's proposed solar array gen-tie line, determined using the matrix in Table 4.2.1-1, with the distance zone mapping for the KOPs. The overall strong, moderate, or weak contrast levels that would result from the overall visual contrast of the Project with the existing landscape (at the top of the matrix) combine with the distance zone from which sensitive viewers would see the Project (along the left side of the matrix) to determine a high, moderate, or low level of impact for those sensitive viewers, as described in the discussion below.

Table 4.2.1-2 High Sensitivity Viewer Impact Matrix

		OVERALL VISUAL CONTRAST		
		Strong	**Moderate**	**Weak**
Distance/Visibility Threshold	*Immediate Foreground* 0-300 feet (Solar Facility) 0-500 feet (230 kV)	High	High	Moderate
	Foreground 300 feet to 1,500 feet (Solar Facility) 500 feet to 0.5 mile (230 kV)	High	Moderate	Moderate
	Middleground 1,500 feet to 0.5 mile (Solar Facility) 0.5 to 1.5 mile (230 kV)	Moderate	Moderate	Low
	Background Beyond 0.5 mile (Solar Facility) Beyond 1.5 mile (230 kV)	Low	Low	Low

Source: POWER 2013.

Solar Array

Strong structure contrast, weak landform contrast, and weak vegetation contrast would combine to create an overall moderate level of contrast between the Project and the existing landscape for the Project area north of I-10. The portion of the site north of I-10 would be viewed in the immediate foreground and foreground distance zones from residences east of the Project on the mesa (KOP 1) and from I-10, resulting in high (immediate foreground distance zone views) and moderate (foreground distance zone views) impacts to the residential viewers and travelers along I-10.

Strong and moderate vegetation contrast would occur (areas of citrus orchard and creosote scrub vegetation) in combination with the strong level of structure contrast between the solar array and the existing landscape and the weak level of landform contrast that would result from the minimal grading required for the solar array, to create an overall strong level of contrast between the Project and the existing landscape for the Project area south of I-10 and east of Mesa Drive. This area would be seen in the immediate foreground and foreground distance zones from I-10, resulting in high impacts to viewers along the highway. Eastbound and westbound travelers would have immediate foreground and foreground views of the Project where strong contrast levels and high impacts would occur for a total of approximately two miles along I-10, including the location of KOP 2. Eastbound travelers would have an additional approximately 0.8 mile of middleground distance zone views of this area of the Project area. Westbound travelers approaching from the east would not have middleground views of the Project area because travelers would need to reach the top of the mesa before the Project would be visible.

The south edge of the Nicholls Warm Springs/Mesa Verde Community, including Mesa Verde Park (KOP 3), would have views from the edge of the middleground distance zone of the areas of the Project area where creosote scrub vegetation is present and overall strong level of contrast between the Project and the existing landscape occurs (moderate vegetation contrast, strong structure contrast, and weak landform contrast), resulting in moderate impacts for these viewers.

Gen-tie Line

The combinations of structure, vegetation, and landform contrast and the resulting overall contrast level would vary along the length of the gen-tie line. Because some portions of the gen-tie line would parallel or cross existing transmission lines, varying levels of structure contract would occur; because the gen-tie line would traverse several existing vegetation types, varying levels of vegetation contrast would occur.

An overall weak level of contrast between the gen-tie line (and associated clearing and grading) and the existing landscape would occur at its origin on the north side of I-10 as a result of a weak level of structure contrast (gen-tie line would parallel existing 230 kV line and two existing 69 kV lines), weak landform contrast, and weak vegetation contrast (fallow agriculture area). This portion would be seen by

travelers along I-10 in the immediate foreground and foreground distance zones, resulting in moderate impacts to these viewers. Middleground views of this area would also occur for eastbound I-10 travelers, resulting in additional low impacts to these viewers.

An overall moderate level of contrast between the gen-tie line (and associated clearing and grading) and the existing landscape would occur from the south side of I-10 to where the gen-tie line would turn west and cross the existing 230 kV line and one existing 69 kV line. Overall moderate contrast would occur as a result of the combination of weak structure contrast (gen-tie line would parallel existing 230 kV line and two existing 69 kV lines), weak landform contrast, and strong vegetation contrast (citrus orchard vegetation); the combination of moderate structure contrast (gen-tie line would parallel one existing 69 kV line with wooden H-frame structures), weak landform contrast, and strong vegetation contrast (citrus orchard vegetation); and the combination of moderate structure contrast (gen-tie line would parallel one existing 69 kV line with wooden H-frame structures), weak landform contrast, and weak vegetation contrast (fallow agriculture area). The northern portion of this section adjacent to I-10 would be seen by eastbound and westbound travelers along I-10 in the foreground distance zone, resulting in moderate impacts to these viewers. The portion that would turn southwest, away from I-10, would be seen in the foreground distance zone by eastbound travelers (including the location of KOP 2) along approximately 0.5 mile of I-10, while westbound travelers would view the line in the foreground distance zone for approximately 0.4 mile of I-10, resulting in moderate impacts to these viewers, Additional middleground distance zone views from the eastbound portion of I-10 west of the Project area would occur, resulting in moderate impacts to viewers.

An overall weak level of contrast between the gen-tie line (and associated clearing and grading) and the existing landscape would occur where the proposed line would turn west and cross the existing 230 kV line and one existing 69 kV line as a result of the combination of weak structure contrast (gen-tie line crossing the two existing lines), weak landform contrast, and weak vegetation contrast (fallow agriculture). Travelers in both directions along I-10 would have middleground distance zone views of this area, resulting in low impacts to viewers.

An overall strong level of contrast between the gen-tie line (and associated clearing and grading) and the existing landscape would occur for 6.0 miles of the total 6.5 miles between where the proposed line would turn west and the Colorado River Substation as a result of strong structure contrast (no existing lines would be paralleled), weak landform contrast, and moderate vegetation contrast (creosote scrub and desert wash vegetation). An overall moderate level of contrast between the gen-tie line (and associated clearing and grading) and the existing landscape would occur for 0.5 mile between Mesa Drive and Eugene Drive as a result of strong structure contrast (no existing lines would be paralleled), weak landform contrast, and low vegetation contrast (non-irrigated wheat fields). Residential viewers in the Nicholls Warm Springs/Mesa Verde Community, including Mesa Verde Park (KOP 3), and travelers in both directions along I-10 would have middleground views of the gen-tie line, resulting in moderate impacts to viewers.

Light and Glare Study

PV panels are designed to absorb approximately 70 percent of solar energy and convert it directly to electricity. The glare and reflectance levels from a given PV system are decisively lower than the glare and reflectance generated by standard glass and other common reflective surfaces, such as glass and metal in rural environments and water (SunPower Corporation 2009). Potential for glare to affect the KOPs and more distant residences below the mesa was assessed using 3D terrain data and panel placement plans. The lowest angle (+7.59 degrees relative to the horizon, which would occur during the end and beginning of the day during backtracking cycles) of incidence of glare relative to the horizon was determined and compared with the viewing height and location of ground-based viewers.

A glare study was completed to determine if glare would be visible from the landing approach of the four utilized runways at the Blythe Municipal Airport and the proposed lengthened section of Runway 8.

Simulations were developed for each landing approach at the Blythe Airport to study glare from the single-axis solar trackers that are proposed for the Project. Visual analysts studied the 3D simulation under different lighting conditions and at different times of the year, including:

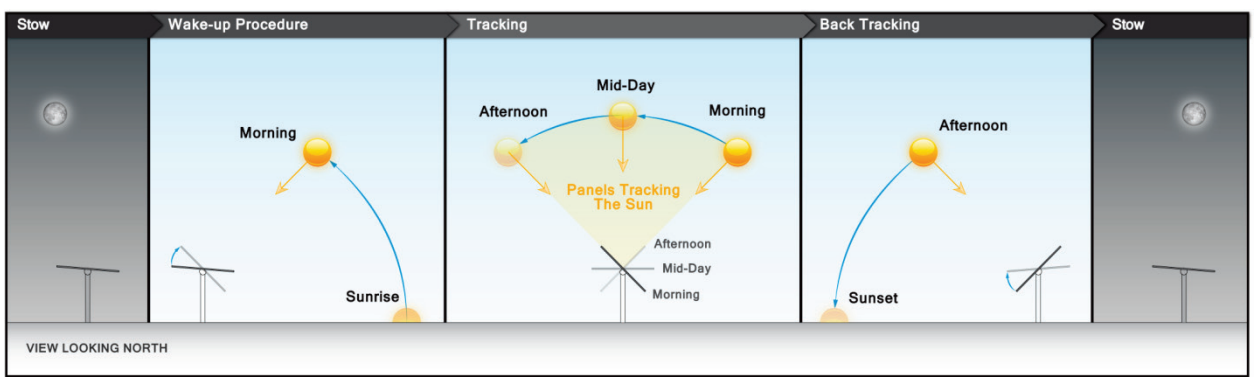
- Summer Solstice (June 21, 2011): Where the length of sunlight hours is at its peak and the sun has reached its northernmost extremes.
- Winter Solstice (December 22, 2011): Where the length of sunlight hours is at its lowest and the sun has reached its southernmost extremes.
- Fall Equinox (September 23, 2011): Where the day and night are equal in length.
- Spring Equinox (March 20, 2011): When the day and night are equal in length.

These simulations were used to evaluate and document when glare may be visible along the various landing approaches. The following processes were simulated and are illustrated in Figure 4.2.1-1:

- Tracking: Typical daytime operation when the solar array maintains a 90-degree relationship with the angle of the sun.
- Backtracking: Operation at the beginning and end of the day when the sun is low on the horizon. The solar arrays rotate away from 90 degrees relative to the sun to ensure shading of the adjacent array is not occurring.
- Stow: Operation during evening hours and high wind conditions. The solar arrays move into a position of 5 to 10 degrees off parallel to the ground surface.

The 3D simulations utilized 3D terrain models, runway GPS coordinates, 3D solar equipment, and a 3D sun system, as well as data on landing approach scenarios and expected cone of vision for pilots. This information was assembled in a 3D computer program to create an accurate virtual representation of the Project and surrounding area as they would be seen from aircraft on landing approach for the airport. Refer to the Glare Study in Appendix K for additional information on the study process.

FIGURE 4.2.1-1 SINGLE AXIS SOLAR TRACKER POSITIONING



Source: POWER 2013.

CEQA Significance Criteria

The significance criteria for aesthetics listed in the CEQA Environmental Checklist, Appendix G of the 2012 CEQA Guidelines, were used to assess the significance of visual impacts resulting from the Project. These thresholds indicate that a project could have potentially significant impacts if it would:

VIS-1) *Have a substantial adverse effect on a scenic vista.*

VIS-2) *Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.*

VIS-3) *Substantially degrade the existing visual character or quality of the site and its surroundings.*

VIS-4) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

The County of Riverside's Environmental Assessment Form includes additional significance criteria, which were used in the analysis. The additional criteria indicate that a project could have potentially significant impacts if it would:

VIS-5) Result in the creation of an aesthetically offensive site open to public view.

VIS-6) Interfere with nighttime use of the Mt. Palomar Observatory, as protected through Riverside County Ordinance No. 655.

VIS-7) Expose residential property to unacceptable light levels.

NEPA Requirements

The BLM requires that the VRM system be used for analyzing visual resources on BLM-administered lands. The VRM system evaluates both the existing physical environmental setting and the anticipated visual change introduced by the proposed Project. CEQA Guidelines were incorporated into the methodology to properly establish baseline environmental conditions and assess the significance of environmental impacts.

Applicable Best Management Practices

As part of the Project and Alternatives, the following applicable BMPs would minimize the environmental impacts to aesthetics, visual resources, and reflection. The full BMPs have been detailed below (see also Table 2-4 in Chapter 2) and are further referenced (by number) within the impact discussion.

NUMBER	BMP DESCRIPTION
BMP-3	**Fugitive Dust Abatement Plan.** As required by the Mojave Desert Air Quality Management District (MDAQMD) Rule 403, a Fugitive Dust Abatement Plan would be prepared to address fugitive dust emissions during Project construction, operation, maintenance, and decommissioning. The plan would include measures to minimize fugitive dust emissions from wrecking, excavation, grading, clearing of land, and solid waste disposal operations, and would take every reasonable precaution to prevent visible particulate matter from being deposited upon public roadways as a direct result of operations. During construction, all unpaved roads, disturbed areas (e.g., areas of scraping, excavation, backfilling, grading, and compacting), and loose materials generated during Project construction activities would be watered as frequently as necessary to minimize fugitive dust generation. However, the amount of water will be minimized each time to prevent temporarily ponding water that may occur as a result of the fugitive dust plan. In water-deprived locations, water spraying would be limited to active disturbance areas only, and non-water-based dust control measures would be implemented in areas with intermittent use or use that is not heavy, such as stockpiles or access roads. Alternatively, chemical dust suppressants or durable polymeric soil stabilizers could be used. The dust suppression measures would consider the sensitivity of wildlife to the windborne dispersal of fugitive dust containing dust suppressants and the potential impact on future reclamation.
BMP-6	**Lighting Plan.** A lighting plan would be prepared that documents how lighting will be designed and installed to minimize night-sky impacts during facility construction and operations. Lighting for facilities will not exceed the minimum number of lights and brightness required for safety and security and will not cause excessive reflected glare. Light fixtures will not spill light beyond the Project boundary. Where feasible, vehicle-mounted lights will be used for night maintenance activities. Wherever feasible, consistent with safety and security, lighting will be kept off when not in use. The lighting plan will include a process for promptly addressing complaints about lighting.
BMP-7	**Trash Abatement Plan**. A Trash Abatement Plan shall be developed that focuses on containing trash and food in closed and secure sealable containers, with lids that latch, and removing them periodically to reduce their attractiveness to opportunistic species, such as common ravens, coyotes, and feral dogs, that could serve as predators of native wildlife and special-status animals. The Plan would also establish a regular litter pick-up procedure within and around the perimeter of the Project area, and removal of construction-related trash containers from the Project area when construction is complete.

NUMBER	BMP DESCRIPTION
BMP-8	**Cleanup and Restoration.** Upon completion of construction activities, all unused materials and equipment shall be removed from the Project area. All construction equipment and refuse including, but not limited to, wrapping material, cables, cords, wire, boxes, rope, broken equipment parts, twine, strapping, buckets, and metal or plastic containers shall be removed from the site and disposed of properly after completion of construction. Any unused or leftover hazardous products shall be properly disposed of off-site.
BMP-10	**Integrated Weed Management Plan.** In compliance with the Federal Noxious Weed Act and the Plant Protection Act, a Project-specific integrated weed management plan for the control of noxious weeds and invasive plant species would be prepared. The plan would identify presence, location, and abundance of weed species in the Project area and surrounding area adjacent to the Project, as well as identify suppression and containment measures to prevent the spread of weed species and introduction of weed species. Prevention techniques would include: limiting disturbance areas during construction to the minimum required to perform work; limiting ingress and egress to defined routes; maintaining vehicle wash and inspection stations; and closely monitoring the types of materials brought on-site to minimize the potential for weed introduction. During operations, noxious and invasive weed management will be incorporated as a part of mandatory site training for groundskeepers and maintenance personnel. Training will include weed identification and the impacts on agriculture, wildlife, and fire frequencies. Training will also cover the importance of preventing the spread of noxious weeds and of controlling the proliferation of existing weeds.
BMP-11	**Project structures, gen-tie line, and building surfaces.** Project facilities would be sited to ensure that there is adequate space (i.e., setbacks of no less than 100 feet) between solar facilities and natural washes. These setbacks would preserve and maintain the natural washes' hydrological functions. The color and finish of Project structure and building surfaces that are visible to the public will be designed to ensure minimal visual intrusion, contrast, and glare. Grouped structures will be painted the same color to reduce visual complexity and color contrast. Solar panel backs will be color-treated to reduce visual contrast with the landscape setting. Materials, coatings, or paints having little or no reflectivity will be used wherever possible. The visual color contrast of graveled surfaces will be reduced with approved color treatment practices.
BMP-12	**Gen-tie lines.** Gen-tie line support structures and other facility structures shall be designed to discourage their use by raptors for perching or nesting (e.g., by use of anti-perching devices). This design would also reduce the potential for increased predation of special-status species, such as the desert tortoise. Mechanisms to visually warn birds (permanent markers or bird flight diverters) shall be placed on gen-tie lines at regular intervals to prevent birds from colliding with the lines (APLIC 2006 and USFWS 2010). To the extent practicable, the use of guy wires shall be avoided because they pose a collision hazard for birds and bats. Necessary guy wires shall be clearly marked with bird flight diverters to reduce the probability of collision. Shield wires shall be marked with devices that have been scientifically tested and found to significantly reduce the potential for bird collisions. Gen-tie lines shall utilize non-specular conductors and non-reflective coatings on insulators.
BMP-13	**Ground and surface disturbance.** Construction boundaries would be clearly delineated to minimize areas of ground and surface disturbance. Ground-disturbing activities shall be minimized, especially during the rainy season. To the maximum extent possible, construction-related activities (such as vehicle and foot traffic) would avoid areas with intact biological soil crusts. For cases in which impacts cannot be avoided, soil crusts would be salvaged and restored on the basis of recommendations by the County of Riverside and BLM once construction has been completed. Existing rocks, vegetation, and drainage patterns shall be preserved to the maximum extent possible. No paint or permanent discoloring agents shall be applied to rocks or vegetation (to indicate surveyor construction activity limits or for any other purpose). All stakes and flagging shall be removed from the construction area and disposed of in an approved facility. Where feasible, brush-beating, mowing, or use of protective surface matting rather than removing vegetation shall be employed. Clearing and disturbing of sensitive areas (e.g., steep slopes and natural drainages) and other areas shall be avoided outside the construction zone. Surface disturbance would be minimized by utilizing undulating surface disturbance edges; stripping, salvaging, and replacing topsoil; using contoured grading; controlling erosion; using dust suppression techniques; and restoring exposed soils to their original contour and vegetation.
BMP-14	**Travel and traffic.** Vehicular traffic on-site shall be confined to existing or designated travel routes and designated work areas. Access to the construction site and staging areas shall be limited to authorized vehicles and only through the designated roads. The extent of habitat disturbance during construction shall be reduced by keeping vehicles on access roads and minimizing foot and vehicle traffic through undisturbed areas. To the extent practical, travel shall be limited to stabilized roads. Road maintenance activities shall avoid blading existing forbs and grasses in ditches and adjacent to roads. Abandoned roads and roads no longer needed shall be subsoiled to increase infiltration and reduce soil compaction, then recontoured and revegetated.

NUMBER	BMP DESCRIPTION
	Construction traffic shall avoid unpaved surfaces to the extent practical (to reduce the risk of compaction) and reduce speed to lessen fugitive dust emissions. On unpaved or unstabilized surfaces within the construction site, speed limits (e.g., 20 miles per hour [mph]) shall be posted with visible signs and enforced to minimize airborne fugitive dust. Project vehicle speeds shall be limited in areas occupied by special-status animal species. Traffic shall stop to allow wildlife to cross roads. Shuttle vans or carpooling shall be used to reduce the amount of traffic on access roads. Workers shall be trained to comply with the speed limit, use good engineering practices, minimize the drop height of materials, and minimize the number and extent of disturbed areas. The Project developer shall enforce these requirements.
BMP-15	**New access roads and parking lots.** New access roads shall be designed and constructed to the appropriate road design standards, such as those described in BLM Manual 9113 or County standards, whichever is applicable. New access roads shall be designed to follow natural land contours in the Project area and avoid existing desert washes. The specifications and codes developed by the U.S. Department of Transportation (DOT) and County of Riverside Transportation Department are also to be taken into account. Primary access roads and parking lots shall be surfaced with aggregate that is hard enough that vehicles cannot crush it and thus cause dust or compacted soil conditions. Paving may also be used on access roads and parking lots. Alternatively, chemical dust suppressants or durable polymeric soil stabilizers would be used on these locations.

Alternative 1: Proposed Project

The solar facility and a portion of the gen-tie line would be located within the jurisdiction of the County of Riverside and City of Blythe; therefore, the Project would need to comply with the Riverside County General Plan (RCGP) (2003) the Palo Verde Valley Area Plan (PVVAP) (2008), and the City of Blythe General Plan 2025 (2007). The remaining portion of the gen-tie line would traverse lands managed by the BLM and would need to comply with the California Desert Conservation Area (CDCA) Plan. The nature and severity of the impacts are discussed below.

Analysis of Direct and Indirect Impacts

Construction

Solar Facility

The solar facility would be developed in six-month phases, with six blocks (100 acres for each block), occupying approximately 600 acres, constructed at a time. Construction of the Project would cause temporary visual impacts due to the presence of equipment, materials, and workers. These short-term impacts would occur throughout the solar facility at various times over the course of the construction period. Heavy equipment, cranes to install structures, temporary storage and office facilities, and temporary laydown/staging areas would all be visible from residences in the Nicholls Warm Springs subdivision, residences east of the Project on the mesa, and from I-10. Residences in the Colorado River Valley, east of the Project, would also potentially have views of construction activities and equipment.

Construction of the proposed Project would generally occur during daytime hours and could occur as late as 6:00 p.m.; in some instances, such as emergency work or weather conditions, construction may occur slightly before or after those times. No overnight construction would occur. In the event that work is performed between dusk and 6:00 p.m., the construction crew would use only the minimum illumination needed to perform the work safely. All lighting would be directed downward and shielded to focus illumination on the desired work areas only, and to prevent light spillage onto adjacent properties. Because lighting would be shielded and focused downward and lighting used to illuminate work areas would be turned off by 6:00 p.m., light or glare created by construction would be minimal.

Construction activities and equipment would result in adverse visual impacts for residences and viewers on I-10 during the three-year construction period. The vast majority of the area disturbed by construction would eventually be occupied by the PV solar array. Impacts to visual resources associated with construction would be temporary.

Project Gen-tie Line

Construction of the Project's gen-tie line would cause temporary visual impacts due to the presence of equipment, materials, and workers. Heavy equipment, cranes to install structures, temporary storage and office facilities, and temporary laydown/staging areas would all be visible from residences in the Nicholls Warm Springs subdivision, residences on the mesa east of the Project, and from I-10. In areas where the proposed gen-tie line would parallel existing transmission lines, existing access roads would be utilized to the maximum extent possible to minimize construction of new access roads.

Construction activities and equipment would result in adverse visual impacts for residences and viewers on I-10 during the three-year construction period. In areas where the gen-tie line would parallel existing transmission lines and access roads, the Project would utilize existing access roads. As part of the Project, BMPs would be implemented, which would minimize surface disturbance and allow native vegetation to remain in place. Therefore, construction of the gen-tie line would result in moderate visual contrast.

Operation and Maintenance

Solar Facility and Project Gen-tie Line

Based on the distance/visibility thresholds, it is assumed that the solar facility would be within the immediate foreground view at 0 to 300 feet, foreground view at 300 to 1,500 feet, middleground view within 1,500 feet to 0.5 mile, and background view beyond 0.5 mile. The proposed 230 kV gen-tie line would be within the immediate foreground view at 0 to 500 feet, foreground view within 500 feet to 0.5 mile, middleground view within 0.5 to 1.5 miles, and background view beyond 1.5 miles.

Each of the three representative KOPs includes: a photograph and description of the existing conditions; simulated proposed conditions that would result from the Project (solar facility and gen-tie line); and a brief description of the visual contrast of the Project with the existing landscape and resulting visual impacts. The photographs used for the simulations are of representative views from the sensitive viewpoints that illustrate the highest impacts that would occur for each sensitive viewpoint. Additional sensitive viewpoints where KOPs were not located and the results of the Glare Study for the Project are also described.

KOP 1: View from West Riverside Drive (Residences East of the Project on the Mesa)

Existing Conditions: Residences on the mesa east of the Project have a northwest view that encompasses agricultural fields that stretch over the broad, flat landscape of the mesa. The McCoy Mountains extend across the horizon, with the Big Maria Mountains visible at the northern edge of the view. An existing transmission line with single wood pole transmission structures crosses the view in the immediate foreground while additional, larger transmission lines are visible farther away. The Blythe Energy Center is a prominent feature on the southern edge of the view. Four residences are located in this area on the mesa east of the Project. As illustrated in Figure 4.2.1-2, this view is representative of views from the residences on the mesa and public views along Hobson Way and is a high-sensitivity viewpoint. The residences in this area would be the closest residences to the Project.

Proposed Conditions: After construction of the Project, the fence and solar array would be visible from this location where they would be built on agricultural land. One of the residences would have immediate foreground views and three residences would have foreground views of the fence and solar field. Because viewers would be at the same elevation as the solar array, they would primarily see the outer rows of PV trackers. The Project's 34.5 kV distribution line would be visible but would blend in with the larger existing transmission structures in the area. Views of the mesa beyond the solar facility and the McCoy Mountains would be similar to the existing conditions. Glint or glare would not occur during normal operation of the solar facility. Moderate visual contrast and moderate to high impacts to views of the class C (common) scenic quality agricultural landscape would occur for the residential viewers at this location.

In addition to the solar array, fence, and 34.5 kV distribution lines that would be visible from this location, the Project's proposed 230 kV gen-tie line would be visible in the middleground and background distance zones. It would be seen in the context of the existing transmission lines that are visible in the area. The contrast of the Project's proposed gen-tie line with the existing landscape would result in low to moderate visual contrast and low to moderate impacts for the residential viewers in this area.

KOP 2: View East from Interstate 10

Existing Conditions: The KOP is located along I-10, which is a high-sensitivity travel corridor that bisects the Project area and a Riverside County Eligible Scenic Corridor. The photograph is of the view toward the east and is representative of views that would occur for I-10 travelers in the area. As illustrated in Figure 4.2.1-3, the view encompasses fallow fields, the interstate, several transmission lines, and an agricultural citrus grove. The Sawtooth Mountains are visible on the horizon. Large native shrubs are scattered along the interstate and limit the view on the south side of the roadway.

Proposed Conditions: Both westbound and eastbound travelers would have views of the Project from I-10 in all distance zones, but eastbound travelers would view the Project for a longer distance and duration as they approach the Project area from the west, and their views of the Project would be more expansive. Westbound travelers would not view the Project until they travel up onto the mesa from the east, where they would have immediate foreground and foreground views as they travel through the middle of the Project, and they would then view the Project in the distance to the south of the roadway as they travel west. Because the views for eastbound travelers would be more expansive and longer in duration, the eastbound view was represented in the simulation.

A substation would be visible on the north side of I-10. PV trackers would be visible on both sides of the freeway, but would appear as a long narrow band in the landscape to viewers from this location. The KOP would have foreground views of the Project, which, combined with the moderate to strong visual contrast of the Project with the landscape, would result in high to moderate impacts to viewers. Glint or glare would not occur during normal operation of the solar facility. The greatest impacts would occur where viewers would have immediate foreground views of the Project in areas where the orchard would be cleared and high impacts to these views of the Class C (common) scenic quality agricultural landscape would occur.

In addition to the substation and PV trackers that would be visible from the KOP, the Project's 230 kV gen-tie line and the 34.5 kV distribution line would be visible crossing I-10. They would cross near where the existing transmission line crosses I-10 and would be viewed in conjunction with the existing transmission line. The 230 kV gen-tie line would parallel I-10 for a short distance that would be visible from the KOP. Viewers along I-10 would have immediate foreground and foreground views of the east end of the gen-tie line where weak overall contrast with the existing landscape would occur and foreground views of the gen-tie line where moderate overall contrast with the existing landscape would occur, resulting in moderate impacts to I-10 viewers. More distant middleground and background views of the gen-tie line from I-10 would result in low to moderate visual contrast.

KOP 3: View South from Mesa Verde Park in the Nicholls Warm Springs/Mesa Verde Community

Existing Conditions: This KOP is located at a playground on the south end of the community of Nicholls Warm Springs/Mesa Verde. The view is toward the south and encompasses the flat desert landscape of undeveloped, unvegetated areas and creosote bush scrub. An existing transmission line extends across the view. As illustrated in Figure 4.2.1-4, the KOP is representative of views from residences in the Nicholls Warm Springs/Mesa Verde community, which are high-sensitivity viewpoints.

View west from West Riverside Drive near residences on the mesa.

This location is representative of views from residences on the mesa and public views along Hobson way. The proposed fence, solar panels, and 34.5 kV transmission lines would be visible from this location.

DATE: **11/10/2011**

TIME: **11:40 AM**

CAMERA LENS LENGTH: **38 mm**

VIEW LOOKING: **West**

FIGURE 4.2.1-2
KOP 1 - VIEW WEST FROM WEST RIVERSIDE DRIVE

BLYTHE MESA SOLAR PROJECT

POWER ENGINEERS RENEWABLERESOURCESGROUP

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View East from I-10

The freeway crossings of the proposed 230 kV and 34.5 kV transmission lines, the substation north of the freeway, and solar panels on both sides of the freeway would be visible from this location.

DATE: 11/10/2011

TIME: 1:37 PM

CAMERA LENS LENGTH: 47 mm

VIEW LOOKING: East

FIGURE 4.2.1-3
KOP 2 - VIEW EAST
FROM I-10

BLYTHE MESA SOLAR PROJECT

POWER ENGINEERS RENEWABLERESOURCESGROUP

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View south from Mesa Verde Park (corner of Lime and Nichols) on the south edge of the Nicholl's Warm Springs/Mesa Verde residential area.

The proposed 230 kV transmission line in the distance would be visible from this location.

DATE: 11/10/2011

TIME: 9:56 AM

CAMERA LENS LENGTH: 35 mm

VIEW LOOKING: South

FIGURE 4.2.1-4
KOP 3 - VIEW SOUTH
FROM MESA VERDE PARK

BLYTHE MESA SOLAR PROJECT

POWER ENGINEERS RENEWABLERESOURCESGROUP

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Proposed Conditions: Residences in the Nicholls Warm Springs/Mesa Verde community, with views to the south and east from the subdivision, would have middleground views of the solar field where it would be built on previously undeveloped land. The solar facility would be visible as a band across the horizon and would be partially screened by scrub vegetation. These residences would also have background views of the portion of the solar collection field where orchard clearing would occur to accommodate the Project. Strong contrast levels and moderate impacts to views of the class C (common) scenic quality agricultural landscape would occur for the residential viewers at this location. Glint or glare would not occur during normal operation of the solar facility.

The proposed 230 kV gen-tie line would be visible from the KOP in the middleground distance zone with the 34.5 kV distribution line visible beyond it. Residences in the Nicholls Warm Springs/Mesa Verde community would have middleground views to the south and east of the 230 kV gen-tie line and background views of the 230 kV gen-tie line southwest of the subdivision. Strong visual contrast and moderate visual impacts would occur for residences with views of the 230 kV gen-tie line in the class C (common) scenic quality agricultural landscape.

Palo Verde Valley Residences

Although all residences in the visual resources study are identified as high-sensitivity viewpoints, the residences on the Palo Verde Valley floor and outskirts of Blythe were not selected as KOPs because of the limited potential for views of the Project due to topographic screening and distance. Some of these residences would potentially have background views of the Project. The majority of the solar field would not be visible; however, some residences may view the edge of the field as a long narrow band on the top of the mesa. The proposed gen-tie and distribution lines would not be visible to scattered residences east of the Project in the Colorado River floodplain below the mesa. Glint or glare would not occur during normal operation of the solar facility and the Project would not contribute to unacceptable light levels for any residential property.

Scenic Quality Impacts

The landscape of the Project area consists of flat, agricultural, or sparsely vegetated disturbed lands and does not contain any unique or distinctive landscape features. Although the Project would add substantial industrial elements (the solar field and the Project's gen-tie line) to the landscape, they would be located on flat, agricultural, or sparsely vegetated disturbed lands that do not contain any unique or distinctive landscape features. Industrial elements (existing transmission lines, the Blythe Energy Center, and the existing Blythe Solar Project [owned and operated by NRG], and Blythe Airport) are already present adjacent to the Project area and within the visual resources study area. Impact levels for the Class C, or common, scenic quality of the Project area would be low due to the existing industrial elements in the landscape and the relatively featureless nature of the Project area. The proposed solar facility site is also on the eastern edge of the Palo Verde Mesa, which then transitions to agricultural fields and urbanized land uses within the Palo Verde Valley floor to the east. The gen-tie line would be co-located with other existing and approved transmission lines and would be within and adjacent to federally designated utility corridors J and K and Section 368 Federal Energy Corridor 30-52, and within the Riverside East SEZ on public lands. The proposed Project is accordingly unlike the potential projects studied in the Solar Programmatic Environmental Impact Statement for the Western Solar Energy Plan (BLM and DOE 2012), which established the Riverside East SEZ, which are located to the west of the proposed Project and determined to comprise visually complex, man-made industrial landscapes that would contrast greatly with the surrounding generally natural-appearing lands.

Light and Glare

Project facility and security lighting would be designed to provide the minimum illumination needed to achieve safety and security objectives and would be directed downward and shielded to focus illumination on the desired areas only and avoid light trespass into adjacent areas. Project lighting would result in no substantial impacts related to light and glare in the area.

No lighting would be required for the Project's gen-tie lines. Non-specular conductors with non-reflective finishes would be utilized to minimize glint resulting from the sun reflecting off the gen-tie line's conductors and would be less visible from a distance than the shiny, reflective surface of typical electrical conductors.

Adverse glare impacts would not be experienced by residents, motorists, or recreational areas near the Project. Three-dimensional terrain data and panel placement plans for the Project show that the motorists along I-10, who would be the closest ground-based viewers, would be 210 feet away from the closest source of glare. The resulting glare would be approximately 28 feet above the ground surface at the closest viewpoint distance of 210 feet. This would result in no glare impacts to ground-based viewers and residences during normal operation of the Project. For example, the Blythe Municipal Golf Course, which is the closest recreational facility, is approximately three miles from the Project. At a distance of three miles, the resulting glare is anticipated to occur at approximately 2,000 feet above ground surface. The closest recreational area to the Project at a higher elevation is the Midland Long-Term Visitors Areas. It is approximately 6.8 miles away and is 200 feet higher in elevation than the Project. Therefore, no adverse impacts related to glare would result from the proposed Project.

Some glare from the PV panels would occur for aircraft approaching Runway 35 and Runway 26. Most glare would be limited to early morning or late evening landings, located outside the pilots' area of intense focus view and more than 0.5 mile from the end of the runway. The glare would not be concentrated and would be similar to or lesser in intensity to that experienced by pilots making airport approaches or takeoffs over bodies of water.

The solar array would not create substantial glint or glare during normal operations that would be visible from sensitive viewpoints, which include residences with views of the Project, I-10, recreational facilities, and pilots entering and exiting the Blythe Airport.

Blythe Airport Glare Analysis

Review of the 3D geometric analysis determined glare would be limited to westerly views for aircraft approaching Runway 26 and northerly views for aircraft approaching Runway 35. For Runway 26, glare may be present mid-morning and just before sunset, year-round with varying lengths of duration. Duration of glare ranged from 0.5 hour to 4.5 hours, depending on angle of descent and angle of approach to the runway. The following is a detailed description of glare results for Runway 26.

Runway 26 (looking west): Pilots may experience brief periods of glare throughout the year. Glare may be experienced during the following periods:

- **Spring:** Glare may be experienced from 8:30 a.m. to 11:00 a.m. in the pilots' distorted view within 1.25 to 2.5 miles of the runway. Pilots may experience approximately 0.5 hour of glare at 6:30 p.m. in the focused view within 1.5 to 2.5 miles of the runway.
- **Summer:** Glare may be experienced from 7:00 a.m. to 10:00 a.m. in the pilots' distorted view within 1.25 to 2.0 miles of the runway. Pilots may experience approximately 0.5 hour of glare at 7:30 p.m. in the focused view within 1.5 to 2.0 miles of the runway.
- **Fall:** Glare may be experienced from 8:00 a.m. to 10:30 a.m. in the pilots' distorted view within 1.25 to 2.0 miles of the runway. Pilots may experience approximately 0.5 hour of glare from 6:00 p.m. to 6:30 p.m. in the distorted and focused views within 1.5 to 2.5 miles of the runway.
- **Spring:** Glare may be experienced at 9:30 a.m. in the pilots' distorted view within 1.25 to 2.5 miles of the runway. Pilots may experience approximately 0.5 hour of glare at 6:30 p.m. in the focused view within 1.5 to 2.5 miles of the runway.

Runway 26 approach with 25 degree offset (looking west by southwest): Pilots may experience brief periods of glare throughout the year. Glare may be experienced during the following periods:

- **Spring:** Glare may be experienced from 7:00 a.m. to 11:00 a.m. in the pilots' distorted view within 1.5 to 2.0 miles of the runway. Pilots may experience approximately 0.5 hour of glare at 6:30 p.m. in the focused view within 0.5 to 2.5 miles of the runway.
- **Summer:** Glare may be experienced from 7:00 a.m. to 10:00 a.m. in the pilots' distorted view within 0.5 to 2.0 miles of the runway. Pilots may experience approximately 0.5 hour of glare at 7:30 p.m. in the distorted view within 0.5 to 2.0 miles of the runway.
- **Fall:** Glare may be experienced from 8:00 a.m. to 11:30 a.m. in the pilots' distorted view within 1.25 to 2.0 miles of the runway. Pilots may experience approximately one hour of glare from 6:00 p.m. to 7:00 p.m. in the focused views within 0.5 to 2.5 miles of the runway.
- **Spring**: Glare may be experienced from 7:00 a.m. to 11:00 a.m. in the pilots' distorted view within 0.5 to 2.25 miles of the runway. Pilots may experience approximately 0.5 hour of glare from 4:00 p.m. to 5:00 p.m. within the focused view within 0.5 to 3.0 miles of the runway.

Glare for air traffic approaching Runway 35 would be limited to one hour or less at sunrise, and one hour or less at sunset during summer months only. Pilots approaching Runway 35 may experience glare during summer months in a northeasterly direction for one hour or less at sunrise (between the hours of 5:00 a.m. and 6:00 a.m.), and again in a northwesterly direction for one hour or less at sunset (between the hours of 7:00 p.m. and 8:00 p.m.). This glare is not concentrated and would be similar to or lesser in intensity to that experienced by pilots making airport approaches or takeoffs over bodies of water. Refer to the Glare Study in Appendix K for additional information on the study results.

Decommissioning

At the end of the Project's useful life (approximately 25 years), it would require decommissioning. The types of equipment used for decommissioning would be similar to that of construction; therefore, impacts from decommissioning of the Project and Alternatives would be similar to that of construction.

Removal of the Project's gen-tie and distribution lines would eliminate the less than significant visual impacts that would result from operation of the Project's lines.

Compatibility with Visual Policies

Local Visual Policies

The solar facility would be consistent with visual policies contained in the RCGP (2003) and the PVVAP (2008). The RCGP and the PVVAP both contain policies to protect the scenic quality of views from designated and eligible scenic highways. Motorists on I-10, which is eligible for designation as a Riverside County Scenic Highway, enjoy scenic desert views across the mesa to the mountains. However, the Project would be viewed from a section of the highway that has views of development on the eastern edge of the Palo Verde Mesa rather than open views of undeveloped desert. Motorists would view the Project in the context of its surrounding land uses, including the Blythe Energy Center, the Blythe Solar Project (owned by NRG), several electrical transmission lines, the Blythe Airport, and commercial businesses. The solar facility would not block views of the mountains for motorists, which would remain visible in the distance beyond the solar facility. Because of its location on the fringe of Blythe, the context of the adjacent land uses, and motorists' present views of development, the Project would be compatible with policies to protect scenic views from I-10.

California Desert Conservation Area Plan Compatibility

The solar facility would be on private land; therefore, it would not be within BLM-managed lands or established VRM Classes. The portion of the Project's gen-tie line that would traverse BLM lands would be in an area of Interim VRM Class III, which was designated to the area by the McCoy Solar Energy Project Final EIS. The Project would be compatible with VRM Class III, which allows for a moderate level of change to the characteristic landscape. The gen-tie line would be within or adjacent to BLM Corridor K,

which is also federally designated Energy Corridor 30-52, and within the Riverside East SEZ. Because of its location within or adjacent to the designated utility corridor, its location within the Riverside East SEZ, and its compatibility with the interim VRM Class III designation, the Project's gen-tie line would be compatible with the CDCA Plan.

Application of CEQA Significance Thresholds

Visual impact significance related to aesthetics was determined by the direct and indirect impacts associated with the construction, operation, maintenance, and decommissioning of the Project, and the application of CEQA and County of Riverside significance criteria. The matrix presented in Table 4.2.1-2 provided general guidance for determining the significance of visual impacts created by the Project. Areas determined to have high impacts were studied in more detail to confirm if there were conditions where significant CEQA-defined impacts could occur.

VIS-1) Would the Project have a substantial adverse effect on a scenic vista?

The Project would not be located in a designated scenic vista and neither the RCGP nor the PVVAP has designated the Project area as an important visual resource. No scenic vistas were identified in the visual resources study area. In regard to construction, operation, maintenance, and decommissioning of the solar facility and Project gen-tie and distribution lines, no impacts would occur.

VIS-2) Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

I-10 has been identified by the County of Riverside as eligible for designation as a scenic corridor; however, it is not a State- or County-designated scenic highway. Due to its status as a Riverside County eligible scenic highway, I-10 was included as KOP 2 in the visual resources inventory and impact assessment. The solar facility would be consistent with visual policies contained in the RCGP (2003), the PVVAP (2008), and the City of Blythe General Plan 2025 (2007). The RCGP and the PVVAP both contain policies to protect the scenic quality of views from designated and eligible scenic highways. The proposed 34.5 kV distribution lines would be placed above-ground along Hobson Way, which would be within view from a scenic highway. Therefore, the distribution lines would not be consistent with the Riverside County General Plan LU Policy 13.5 requiring placement of distribution lines underground; however, the 34.5 distribution lines would be parallel to existing distribution lines.

Motorists on I-10 heading east would enjoy scenic desert views across the mesa to the mountains. However, upon approach to the Project area, the motorist would view a section of the highway that has views of development on the east end of the Palo Verde Mesa and then approach agricultural lands and developed areas on the Palo Verde Valley floor rather than open views of undeveloped desert. Motorists would view the Project in the context of its surrounding land uses, including the Blythe Energy Center, the Blythe Solar Project (owned by NRG), several electrical transmission lines crossing the freeway, the Blythe Airport, and commercial businesses. The solar facility would not block views of the mountains for motorists, which would remain visible in the distance beyond the solar facility. Because of its location on the eastern edge of the Palo Verde Mesa, the context of the adjacent land uses, and motorists' present views of development, the Project would be compatible with policies to protect scenic views from I-10. There are no scenic resources such as significant trees, rocks, historic buildings, or prominent topographic features that would be degraded due to the Project. Therefore, no substantial adverse effects to scenic resources would occur and impacts during construction, operation, maintenance, and decommissioning would be less than significant.

VIS-3) Would the Project substantially degrade the existing visual character or quality of the site and its surroundings?

The Project would be in an area of desert scrub, fallow fields, agricultural fields (wheat and jojoba), citrus groves, and existing electrical facilities. The visual character and quality of the

Project area is Class C, or common to the area. No designated areas of natural beauty or scenic recreational areas are within the study area. The existing visual character of the landscape is already influenced by existing transmission lines, the Blythe Energy Center (which would be surrounded by the proposed solar facility), and the existing Blythe Solar Project (owned by NRG) to the west. Although the Project would change the existing visual character of the site from vacant land and agriculture to a solar energy facility, it would not alter the site in a manner that would substantially degrade its scenic value, which is considered low. The proposed solar facility is in a sparsely populated area with no unique or outstanding visual features.

Therefore, less than significant impacts would occur with regard to degrading the existing visual character or quality of the site as a result of the construction, operation, maintenance, and decommissioning of the Project.

VIS-4) Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The solar array would not create substantial glint or glare during normal operations that would be visible from the sensitive viewpoints, which include residences with views of the Project, I-10, recreational facilities, and pilots entering and exiting the Blythe Airport.

Adverse glare impacts would not be experienced by residents, motorists, or recreational areas near the Project. PV panels are designed to absorb approximately 70 percent of solar energy and convert it directly to electricity, resulting in reflectance levels much lower than that of other common reflective surfaces (SunPower Corporation 2009). The minimal amount of glare that may occur would be present mid-morning and just before sunset, year-round with varying lengths of duration. Motorists along I-10 would be the closest ground-based viewers (approximately 210 feet away). Three-dimensional terrain data and panel placement plans for the Project show that no glare impacts would occur to ground-based viewers and residences during normal operation of the Project. Recreational facilities close to the Project would also not experience glare impacts. Therefore, no adverse impacts related to glare would result from the proposed Project.

Some glare from the PV panels would occur for aircraft approaching Runway 35 and Runway 26. Most glare would be limited to early morning or late evening landings, located outside the pilots' area of intense focus view and more than 0.5 mile from the end of the runway. The glare would not be concentrated and would be similar to or lesser in intensity to that experienced by pilots making airport approaches or takeoffs over bodies of water.

Construction of the proposed Project would generally occur during daytime hours and the construction crew would use only the minimum illumination needed to perform the work safely. All lighting would be directed downward and shielded to focus illumination on the desired work areas only, and to prevent light spillage onto adjacent properties. Because lighting would be shielded and focused downward and lighting used to illuminate work areas would be turned off by 6:00 p.m., light or glare created by construction would be minimal.

The Project would not result in substantial impacts related to light and glare in the area. Glare would not be experienced by residents or motorists near the Project. Some glare from the PV panels would occur for aircraft, but the glare would be limited in area and duration and would not be concentrated. Anticipated glare would be similar to or lesser in intensity than that experienced by pilots making airport approaches or takeoffs over bodies of water. Project facility and security lighting would be limited. Therefore, impacts related to light and glare are anticipated to be less than significant.

VIS-5) Would the Project result in the creation of an aesthetically offensive site open to public view?

The public would primarily view the Project area from I-10 and would also have views from local public roads in the visual resources study area. As described in VIS-3 above, the Project would change the existing visual character of the site from vacant land and agriculture to a solar energy

facility area. However, the Project area is already influenced by nearby existing electrical facilities, which include the Blythe Energy Center, transmission and distribution lines, and an existing solar facility (Blythe Solar Project). Therefore, the Project would not alter the site in a manner that would create a substantially aesthetically offensive site open to public view, and impacts to public views would be less than significant.

VIS-6) Would the Project interfere with nighttime use of the Mt. Palomar Observatory, as protected through Riverside County Ordinance No. 655?

The proposed Project area is over 100 miles east of the Mt. Palomar Observatory, which far exceeds the distance to the Observatory's areas of sensitivity (Zone A at a 15-mile radius and Zone B at a 45-mile radius from the Observatory). As described in VIS-4, the Project is expected to use minimal nighttime lighting during construction and operation; however, such uses would be limited and, based on the Project area's distance to the Observatory, would result in no impacts to astronomical observation and research at the Mt. Palomar Observatory.

VIS-7) Would the Project expose residential property to unacceptable light levels?

As described in the response to VIS-4, construction and operation of the Project would utilize minimal lighting. Additionally, the proposed Project facilities would be close to existing sources of light, such as the Blythe Energy Center, Blythe Substation, the Blythe Solar Project (owned by NRG), and the Blythe Airport. Therefore, residential property would not be exposed to unacceptable light levels. Impacts would be less than significant.

Alternative 2: No Project Alternative

Under the No Project Alternative, neither the BLM nor the County of Riverside would approve the Project. Entitlements for use permits, either the ROW grant (federal) or the Conditional Use Permit (County), would not be issued. As a result, gen-tie facilities would not be constructed on BLM-managed lands and solar facilities would not be constructed on private lands. The public lands on the Project area would continue to be managed by BLM in accordance with existing land use designations in the CDCA Plan, whereas the private lands would continue to be managed for agricultural production.

The impacts of the proposed Project would not occur. The visual appearance of the area would not change noticeably from the existing conditions; therefore, the No Project Alternative would avoid the impacts to visual resources described in Alternative 1. However, the land on which the Project is proposed would become available for other uses. As noted above, future use of private lands would include continuation of agricultural use. The federal lands are within or adjacent to a designated utility corridor, and within the Riverside East SEZ, both of which include a number of existing and planned transmission facilities. It is anticipated that the use of this corridor would continue to support electrical transmission with or without the proposed Project.

Alternative 3: Northern 230 kV Gen-tie Line Location

Analysis of Direct and Indirect Impacts

Alternative 3 is similar to Alternative 1 (proposed Project), with the exception of the location of the Northern 230 kV gen-tie line, which would be approximately 700 feet north of Alternative 1's proposed 230 kV gen-tie line. The direct and indirect impacts associated with the construction, operation, maintenance, and decommissioning of the solar facility would be the same as Alternative 1. The proposed 230 kV alignment and Northern 230 kV Alternative would be within or adjacent to the same existing utility corridor and SEZ and would impact the same sensitive viewers. The Northern 230 kV alternative would be closer to I-10 and would be within the middleground distance zone for travelers along I-10, resulting in low impacts, which would be the same as for the proposed 230 kV alignment.

Application of CEQA Significance Thresholds

VIS-1) Would Alternative 3 have a substantial adverse effect on a scenic vista?

Alternative 3 would not have a substantial adverse effect on a scenic vista. Construction, operation, maintenance, and decommissioning of the solar facility and Project gen-tie and distribution lines would result in no impacts to scenic vistas.

VIS-2) Would Alternative 3 substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

As discussed for Alternative 1, although I-10 has been identified by the County of Riverside as eligible for designation as a scenic corridor, it is not a State- or County-designated scenic highway. Due to its status as a Riverside County eligible scenic highway, I-10 was included as a KOP in the visual resources inventory and impact assessment. The solar facility for Alternative 3 would be consistent with visual policies contained in the RCGP (2003), the PVVAP (2008), and the City of Blythe General Plan 2025 (2007). The RCGP and the PVVAP both contain policies to protect the scenic quality of views from designated and eligible scenic highways. Motorists on I-10 enjoy scenic desert views across the mesa to the mountains. However, Alternative 3 would be viewed from a section of the highway that has views of development on the eastern edge of the Palo Verde Mesa and agricultural lands and development upon approach to the Palo Verde Valley floor rather than open views of undeveloped desert. Motorists would view the Project in the context of its surrounding land uses, including the Blythe Energy Center, the Blythe Solar Project (owned by NRG), several electrical transmission lines, the Blythe Airport, and commercial businesses. The solar facility would not block views of the mountains for motorists, which would remain visible in the distance beyond the solar facility. Because of its location on the fringe of Blythe, the context of the adjacent land uses, and motorists' present views of development, Alternative 3 would be compatible with policies to protect scenic views from I-10.

The proposed 34.5 kV distribution lines would be placed above-ground along Hobson Way, which would be within view from a scenic highway. Therefore, the distribution lines would not be consistent with the Riverside County General Plan LU Policy 13.5 requiring placement of distribution lines underground; however, the 34.5 distribution lines would be parallel to existing distribution lines.

There are no scenic resources such as significant trees, rocks, historic buildings, or prominent topographic features that would be degraded due to Alternative 3. Therefore, no substantial adverse effects to scenic resources would occur and impacts during construction, operation, maintenance, and decommissioning would be less than significant.

VIS-3) Would Alternative 3 substantially degrade the existing visual character or quality of the site and its surroundings?

Although Alternative 3 would change the existing visual character of the site from vacant land and agriculture to a solar energy facility, it would not alter the site in a manner that would substantially degrade its scenic value. The existing visual character of the landscape is already influenced by existing transmission lines, the Blythe Energy Center (which would be surrounded by the proposed solar facility), and the existing Blythe Solar Project (owned by NRG) to the west; the scenic quality of the site is Class C, or common to the area. The solar facility would be in a sparsely populated area with no unique or outstanding visual features. Therefore, impacts to the existing visual character or quality of the site and its surroundings would be less than significant.

VIS-4) Would Alternative 3 create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

As described in the *Light and Glare* section above and similar to Alternative 1, Alternative 3 would result in no substantial impacts related to light and glare in the area, and therefore impacts would be less than significant during construction, operation, maintenance, and decommissioning. Glare would not be experienced by residents or motorists near Alternative 3. Some glare from the PV

panels would occur for aircraft, but the glare would be limited in area and duration, would not be concentrated, and would be similar to or lesser in intensity than that experienced by pilots making airport approaches or takeoffs over bodies of water. Project facility and security lighting would be limited. Impacts related to light and glare would be less than significant.

VIS-5) Would Alternative 3 result in the creation of an aesthetically offensive site open to public view?

The public would primarily view Alternative 3 from I-10 and would also have views from local public roads in the visual resources study area. As described for VIS-3 above, Alternative 3 would not alter the site in a manner that would create a substantially aesthetically offensive site open to public view. Therefore, impacts to public views would be less than significant.

VIS-6) Would Alternative 3 interfere with nighttime use of the Mt. Palomar Observatory, as protected through Riverside County Ordinance No. 655?

The Alternative 3 site is over 100 miles east of the Mt. Palomar Observatory, which far exceeds the distance to the Observatory's areas of sensitivity (Zone A at a 15-mile radius and Zone B at a 45-mile radius from the Observatory). As described in VIS-4, Alternative 3 is expected to use minimal nighttime lighting during construction and operation; however, such uses would be limited and, based on the Alternative 3 site's distance to the Observatory, would result in no impacts to astronomical observation and research at the Mt. Palomar Observatory.

VIS-7) Would Alternative 3 expose residential property to unacceptable light levels?

As described in the Alternative 1 response to VIS-4, construction and operation of Alternative 3 would utilize minimal lighting; therefore, residential property would not be exposed to unacceptable light levels. Impacts would be less than significant.

Alternative 4: Southern 230 kV Gen-tie Line Location

Analysis of Direct and Indirect Impacts

Alternative 4 is similar to Alternative 1 (proposed Project), with the exception of the location of the Southern 230 kV gen-tie line, which would be approximately 0.8 mile south of Alternative 1's proposed 230 kV gen-tie line. The impacts associated with the construction, operation, maintenance, and decommissioning of the solar facility would be the same as Alternative 1. The portion of the 230 kV gen-tie line that extends from the solar facility to the Colorado River Substation—approximately three miles of the Southern 230 kV Alternative—would not parallel existing transmission lines, and approximately 0.7 mile of the Southern 230 kV Alternative would parallel an existing 230 kV transmission line. This 3.7-mile portion would be within the background distance zone for I-10, resulting in low impacts.

Application of CEQA Significance Thresholds

VIS-1) Would Alternative 4 have a substantial adverse effect on a scenic vista?

Similar to Alternatives 1 and 3, Alternative 4 would result in no impact on scenic vistas.

VIS-2) Would Alternative 4 substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Similar to Alternatives 1 and 3, Alternative 4 would not substantially damage scenic resources. Impacts would be less than significant.

As discussed for Alternatives 1 and 3, although I-10 has been identified by the County of Riverside as eligible for designation as a scenic corridor, it is not a State- or County-designated scenic highway. Due to its status as a Riverside County eligible scenic highway, I-10 was included as a KOP in the visual resources inventory and impact assessment. Alternative 4 would be consistent with visual policies contained in the RCGP (2003), the PVVAP (2008), and the City

of Blythe General Plan 2025 (2007). The RCGP and the PVVAP both contain policies to protect the scenic quality of views from designated and eligible scenic highways. Motorists on I-10 enjoy scenic desert views across the mesa to the mountains. However, Alternative 4 would be viewed from a section of the highway that has views of development on the eastern edge of the Palo Verde Mesa and Palo Verde Valley floor rather than open views of undeveloped desert. Motorists would view Alternative 4 in the context of its surrounding land uses, including the Blythe Energy Center, the Blythe Solar Project (owned by NRG), several electrical transmission lines, the Blythe Airport, and commercial businesses. The solar facility would not block views of the mountains for motorists, which would remain visible in the distance beyond the solar facility. Because of its location on the fringe of Blythe, the context of the adjacent land uses, and motorists' present views of development, Alternative 4 would be compatible with policies to protect scenic views from I-10.

The proposed 34.5 kV distribution lines would be placed above-ground along Hobson Way, which would be within view from a scenic highway. Therefore, the distribution lines would not be consistent with the Riverside County General Plan LU Policy 13.5 requiring placement of distribution lines underground; however, the 34.5 distribution lines would be parallel to existing distribution lines.

There are no scenic resources such as significant trees, rocks, historic buildings, or prominent topographic features that would be degraded due to Alternative 4. Therefore, no substantial adverse effects to scenic resources would occur and impacts during construction, operation, maintenance, and decommissioning would be less than significant.

VIS-3) Would Alternative 4 substantially degrade the existing visual character or quality of the site and its surroundings?

Similar to Alternatives 1 and 3, Alternative 4 would not substantially degrade the existing visual character or quality of the site and its surroundings. Although three miles of the gen-tie line would be in an area that does not have existing transmission lines, there are no sensitive receptors in the area. Therefore, impacts would be less than significant.

VIS-4) Would Alternative 4 create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Alternative 4 would result in the same lighting and glare impacts as described in the *Light and Glare* section above for Alternatives 1 and 3, because the same solar facility site is common in all three action Alternatives; the gen-tie line would not introduce new sources of lighting or glare. Glare would not be experienced by residents or motorists near Alternative 4. Some glare from the PV panels would occur for aircraft, but the glare would be limited in area and duration, would not be concentrated, and would be similar to or lesser in intensity than that experienced by pilots making airport approaches or takeoffs over bodies of water. Project facility and security lighting would be limited. Therefore, impacts related to light and glare would be less than significant.

VIS-5) Would Alternative 4 result in the creation of an aesthetically offensive site open to public view?

The public would primarily view Alternative 4 from I-10 and would also have views from local public roads in the visual resources study area. The impacts from the solar facility for Alternatives 1, 3, and 4 would be the same; however, the location of the 230 kV gen-tie line that would extend outside of the solar facility would be different. Although Alternative 4's 230 kV gen-tie line would be farther south of I-10, approximately three miles of the gen-tie line would be in a new utility corridor, which would not parallel existing transmission lines and would require the construction of new access roads for the construction and operation of this portion of the gen-tie line. The gen-tie line would be within the background distance zone for I-10, resulting in less than significant impacts. Therefore, Alternative 4 would not alter the site in a manner that would substantially create an aesthetically offensive site open to public view, and impacts would be less than significant.

VIS-6) Would Alternative 4 interfere with nighttime use of the Mt. Palomar Observatory, as protected through Riverside County Ordinance No. 655?

Alternative 4 is expected to use minimal nighttime lighting during construction and operation. Also, the Alternative 4 site is over 100 miles east of the Mt. Palomar Observatory, which far exceeds the distance to the Observatory's areas of sensitivity. Based on the Alternative 4 site's distance to the Observatory, Alternative 4 would result in no impacts to astronomical observation and research at the Mt. Palomar Observatory.

VIS-7) Would Alternative 4 expose residential property to unacceptable light levels?

As described in the Alternative 1 response to VIS-4, construction and operation of the Project would utilize minimal lighting; therefore, residential property would not be exposed to unacceptable light levels. Impacts would be less than significant.

Alternative 5: Reduced Acreage Alternative

Similar to Alternative 1, Alternative 5 would include the construction, operation, maintenance, and decommissioning of a solar facility and associated infrastructure. The primary difference between Alternatives 1 and 5 is the absence of solar facility development north of I-10, which would reduce electrical output from a 485-megawatt (MW) down to a 315-MW alternating current solar PV facility. The Reduced Acreage Alternative would be on a reduced footprint of approximately 2,476 acres (from 3,660 acres for the proposed Project). Alternative 5 would include approximately 2,403 acres for the solar field. Similar to the proposed Project, 73 acres would be utilized for the 230 kV gen-tie line. In comparison to Alternative 1, Alternative 5 would eliminate one on-site substation and one O&M building and would have one access point (planned on Seeley Avenue). The Reduced Acreage Alternative would also no longer extend a 230 kV overhead gen-tie line from an on-site substation located north of I-10, as this Alternative would not be developed on land north of I-10. Instead, this Alternative would construct an approximately 7.8-mile-long, 230 kV overhead gen-tie line from the proposed on-site substation south of I-10 to the approved Colorado River Substation. Approximately three miles of the gen-tie line would be within the solar facility. The visual appearance of the area north of I-10 would not change noticeably from the existing conditions; therefore, Alternative 5 would avoid the impacts to visual resources described in Alternative 1 for the solar facility development in the area north of I-10. Alternative 5 would avoid impacts that would result from the construction, operation, maintenance, and decommissioning of a solar development north of I-10; however, the land on which Alternative 1 is proposed would continue with existing uses.

The Reduced Acreage Alternative solar facility and a portion of the gen-tie line would be within the jurisdiction of the County of Riverside but not within the city limits of Blythe. Alternative 5 would need to comply with the RCGP (2003) and the PVVAP (2008). The remaining portion of the gen-tie line would traverse lands managed by the BLM and would need to comply with the CDCA Plan. Alternative 5 would result in predominantly similar direct and indirect impacts as the proposed Project (as analyzed in the Alternative 1 impact analysis) outside of those identified and discussed in this section. The construction, operation, maintenance, and decommissioning of Alternative 5 would not exceed visual and aesthetic impacts identified under the Alternative 1 analysis. Therefore, the Alternative 1 analysis would be applicable to Alternative 5, outside of those differences identified in the discussion below.

Analysis of Direct and Indirect Impacts

Construction

Solar Facility

Similar direct and indirect impacts would occur during development of the solar facility under the Reduced Acreage Alternative in comparison to the proposed Project (refer to the Alternative 1 impact analysis). Heavy equipment, cranes to install structures, temporary storage and office facilities, and temporary laydown/staging areas would all be visible from residences in the Nicholls Warm Springs subdivision and

from I-10. As no solar facility development would take place north of I-10, residences east of the Project on the mesa would not experience views of a solar development immediately to the west as compared to the proposed Project. Residences in the Colorado River Valley, east of the Project site and north of I-10, would also have a reduced potential to view construction activities and equipment under this Alternative. Impacts to visual resources associated with construction would be temporary.

Project Gen-tie Line

Similar direct and indirect impacts would also occur during development of the gen-tie line under the Reduced Acreage Alternative in comparison to the proposed Project (refer to the Alternative 1 impact analysis). Heavy equipment, cranes to install structures, temporary storage and office facilities, and temporary laydown/staging areas would all be visible from residences in the Nicholls Warm Springs subdivision, residences on the mesa east of the Project, and from I-10. Construction activities and equipment would result in adverse visual impacts for residences and viewers on I-10 during the construction period. In addition, Project BMPs would minimize surface disturbance and allow native vegetation to remain in place. Therefore, construction of the gen-tie line would result in moderate visual contrast.

Operations and Maintenance

KOP 1: View from West Riverside Drive (Residences East of the Project on the Mesa)

Existing Conditions: Refer to the Alternative 1 impact analysis.

Proposed Conditions: As no development would occur north of I-10 under the Reduced Acreage Alternative, the fenced solar array would not be visible from this location. Views of the mesa and the McCoy Mountains would be similar to the existing conditions. Glint or glare would not occur.

KOP 2: View East from Interstate 10

Existing Conditions: Refer to the Alternative 1 impact analysis.

Proposed Conditions: As with the proposed Project, both westbound and eastbound travelers under Alternative 5 would have views of the Project from I-10 in all distance zones, but eastbound travelers would view the Project for a longer distance and duration as they approach the Project area from the west, and their views of the Project would be more expansive than views experienced by westbound travelers. Westbound travelers would not view the Project until they travel up onto the mesa from the east, where they would have immediate foreground and foreground views as they travel through the middle of the Project, and they would then view the Project in the distance to the south of the roadway as they travel west.

As development would no longer occur north of I-10, the substation in this area associated with the proposed Project would not be visible on the north side of I-10 under Alternative 5. PV trackers would be visible only on the south side of I-10, but would appear as a long narrow band in the landscape to viewers from this location. As with the proposed Project, the KOP under Alternative 5 would have foreground views of the Project, which, combined with the moderate to strong visual contrast of the Project with the landscape, would result in high to moderate impacts to viewers. Glint or glare would not occur during normal operation of the solar facility. The greatest impacts would occur where viewers would have immediate foreground views of the Project in areas where orchards would be cleared and high impacts to these views of the Class C (common) scenic quality agricultural landscape would occur.

Under Alternative 5, a 34.5 kV distribution line would not be visible crossing I-10, since solar facilities would not exist to the north. In addition, as the substation north of I-10 would also be eliminated, the 230 kV gen-tie line that would parallel I-10 for a short distance under the proposed Project would not be visible from the KOP under Alternative 5. As such, viewers along I-10 would no longer have immediate foreground views of the eastern end of the gen-tie line under Alternative 5. The Reduced Acreage

Alternative would result in more distant background views of the gen-tie line from I-10, yielding low to moderate visual contrast.

KOP 3: View South from Mesa Verde Park in the Nicholls Warm Springs/Mesa Verde Community

Existing Conditions: Refer to the Alternative 1 impact analysis.

Proposed Conditions: The views from KOP 3 under the Reduced Project Alternative would not differ from those of the proposed Project; as such, please refer to the Alternative 1 impact analysis.

Light and Glare

Under both the proposed Project and Alternative 5, some glare from the PV panels would occur for aircraft approaching Runway 35 and Runway 26. Most glare would be limited to early morning or late evening landings, located outside the pilots' area of intense focus view and more than 0.5 mile from the end of the runway. The glare would not be concentrated and would be similar to or lesser in intensity than that experienced by pilots making airport approaches or takeoffs over bodies of water.

Similar to Alternative 1, the Alternative 5 solar array would not create substantial glint or glare during normal operations that would be visible from sensitive viewpoints, which include residences with views of the Project, I-10, recreational facilities, and pilots entering and exiting the Blythe Airport.

Blythe Airport Glare Analysis

Under Alternative 5, review of the 3D geometric analysis determined that glare would be limited to those with westerly views (Runway 26) and northerly views (Runway 35). For Runway 26, glare may be visible just prior to sunset during winter months and last less than 10 minutes. Glare for air traffic approaching Runway 35 would be limited to one hour or less at sunrise, and one hour or less at sunset during summer months only. The following is a detailed description of glare results along each landing approach under Alternative 5 development:

- **Runway 35 (looking north):** Pilots may experience glare during summer months in a northeasterly direction between the hours of 5:00 a.m. and 6:00 a.m., and again in a northwesterly direction between the hours of 7:00 p.m. and 8:00 p.m. Glare would be limited to distorted views only, and would be visible from 1.0 to 2.5 miles away from the end of the runway.
- **Runway 17 (looking south):** No glare is anticipated.
- **Runway 8, existing conditions (looking east):** No glare is anticipated.
- **Runway 8, proposed lengthening (looking east):** No glare is anticipated.
- **Runway 26 (looking west):** Pilots may experience brief periods of glare during the winter months in a southwesterly direction during the last few minutes of daylight. Glare would be experienced in the focus view from 2.25 to 3.0 miles away from the end of the runway.
- **Runway 26 approach with 25 degree offset (looking west by southwest):** No glare is anticipated.

Decommissioning

At the end of this Alternative's useful life (approximately 25 years), decommissioning would be required. The types of equipment used for decommissioning would be similar to that of construction; therefore, impacts from decommissioning of Alternative 5 would be similar to that of construction.

Removal of this Alternative's gen-tie and distribution lines would eliminate the less than significant visual impacts that would result from operation of this alternative's lines.

Application of CEQA Significance Thresholds

VIS-1) Would Alternative 5 have a substantial adverse effect on a scenic vista?

Implementation of Alternative 5 would result in similar impacts as those discussed under VIS-1 for the proposed Project; as such, refer to the Alternative 1 analysis for further details.

VIS-2) Would Alternative 5 substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

Refer to the Alternative 1 impact analysis. Under Alternative 5, the solar facility would be consistent with visual policies contained in the RCGP (2003) and the PVVAP (2008). The 34.5 kV distribution lines would be placed above-ground, which may be visible from a scenic highway (I-10 freeway). Therefore, the distribution lines would not be consistent with the Riverside County General Plan LU Policy 13.5 requiring placement of distribution lines underground; however, the 34.5 distribution lines would be parallel to existing transmission and distribution lines.

Similar to the proposed Project, the Reduced Acreage Alternative would be viewed from a section of the highway that has views of development on the eastern edge of the Palo Verde Mesa rather than open views of undeveloped desert. Motorists would view Alternative 5 in the context of its surrounding land uses, including the Blythe Energy Center, the Blythe Solar Project (owned by NRG), the Blythe Airport, and commercial businesses. However, because Alternative 5 would not include development north of I-10, motorists would not experience views of several electrical transmission lines crossing the freeway that they would experience with the proposed Project. All remaining impacts would be similar to those of the proposed Project. Therefore, no substantial adverse effects to scenic resources would occur and impacts during construction, operation, maintenance, and decommissioning would be less than significant.

VIS-3) Would Alternative 5 substantially degrade the existing visual character or quality of the site and its surroundings?

Implementation of Alternative 5 would result in similar impacts as those discussed under VIS-3 for the proposed Project; as such, refer to the Alternative 1 analysis for further details.

VIS-4) Would Alternative 5 create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Refer to the VIS-4 Alternative 1 impact analysis. Development under the Reduced Acreage Alternative would not create substantial glint or glare during normal operations that would be visible from the sensitive viewpoints, which include residences with views of the Project, I-10, recreational facilities, and pilots entering and exiting the Blythe Airport. Adverse glare impacts would not be experienced by residents, motorists, or recreational areas near Alternative 5. Motorists along I-10 would be the closest ground-based viewers to the panels south of I-10. Three-dimensional terrain data and panel placement plans for the Project show that no glare impacts would occur to ground-based viewers and residences during normal operation of the Project. Removal of the solar facility north of I-10 would not alter this conclusion. Recreational facilities close to the Project would also not experience glare impacts. Therefore, no adverse impacts related to glare would result from Alternative 5.

Similar to the proposed Project, Alternative 5 would not result in substantial impacts related to light and glare in the area. Glare would not be experienced by residents or motorists near Alternative 5. Some glare from the PV panels would occur for aircraft, but the glare would be limited in area and duration and would not be concentrated. Anticipated glare would be similar to or lesser in intensity to that experienced by pilots making airport approaches or takeoffs over bodies of water. Project facility and security lighting would be limited. Therefore, impacts related to light and glare are anticipated to be less than significant.

VIS-5) Would Alternative 5 result in the creation of an aesthetically offensive site open to public view?

Refer to the Alternative 1 impact analysis. The public would primarily view the Alternative 5 site from I-10 and would also have views from local public roads in the visual resources study area. Alternative 5 would change the existing visual character of the site from vacant land and agriculture to a solar energy facility area south of I-10. However, the site is already influenced by nearby existing electrical facilities, which include the Blythe Energy Center, transmission and distribution lines, and an existing solar facility (Blythe Solar Project). Therefore, Alternative 5 would not alter the site in a manner that would create a substantially aesthetically offensive site open to public view, and impacts to public views would be less than significant.

VIS-6) Would Alternative 5 interfere with nighttime use of the Mt. Palomar Observatory, as protected through Riverside County Ordinance No. 655?

Implementation of Alternative 5 would result in similar impacts as those discussed under VIS-6 for the proposed Project; as such, refer to the Alternative 1 analysis for further details.

VIS-7) Would Alternative 5 expose residential property to unacceptable light levels?

Implementation of Alternative 5 would result in similar impacts as those discussed under VIS-7 for the proposed Project; as such, refer to the Alternative 1 analysis for further details.

Cumulative Impacts

Geographic Scope

The geographic scope of the visual resources cumulative effects analysis is the same as the visual resources study area and cumulative projects. The visual resource study area consists of a 1.5-mile area on each side (a three-mile-wide study corridor in total) of the centerline for the gen-tie line and a 1.0-mile area around the perimeter of the solar facility boundary. This area includes locations from which a viewer could see the Project along with views of other projects (where visual impacts could be additive). Additionally, cumulative impacts to views for travelers along the I-10 corridor where the Project could be viewed with other past, present, or reasonably foreseeable future actions (resulting in synergistic visual impacts) were considered. Cumulative projects that would be within the visual resources study area include Blythe Airport Solar I Project, Palo Verde Mesa Solar Project, Desert Quartzite Solar Project, Blythe Solar Power Generation Station 1, Sonoran West SEGS, Devers-Palo Verde 2 Transmission Line, Desert Southwest Transmission Line, Colorado River Substation, and Blythe Energy Project II. Residential developments may also be within the visual resources study area; however, mapping was not available. Cumulative projects that could be viewed by travelers along the I-10 corridor include the projects listed above as well as Mule Mountain III, Wiley's Well Communication Tower, Palen Solar Energy Project, Desert Center 50, SCE Red Bluff Substation, and Chuckwalla Solar Project.

Western Solar Energy Plan (BLM and DOE 2012), which established the Riverside East SEZ analyzed viewshed impacts of utility-scale solar energy projects (BLM and DOE 2012). The PEIS did not include the proposed Project among the projects it studied and, therefore, was not used as the analysis of cumulative impacts to which the Project would contribute. However, all projects studied in that PEIS that are within the visual study area for the Project, or that could be viewed with the Project by travelers along I-10 were included in the study of cumulative impacts to which the Project could contribute. These projects included the Palen Solar Energy Project, Devers-Palo Verde 2 Transmission Line, Blythe Energy Project Transmission Line Modifications, and McCoy Solar Energy Project. The PEIS was used as a source of information about the impacts of those other projects. It should be noted that not all of these projects are necessarily visible from the same locations.

Unlike the projects studied in the PEIS, the proposed Project would be on disturbed lands (agricultural fields) on the eastern edge of the Palo Verde Mesa and within or adjacent to the federally designated utility corridors (Corridors J and K, and Section 368 Federal Energy Corridor 30-52), and within the Riverside East SEZ. The solar facility would be surrounded by other industrial uses (Blythe Airport, the

Blythe Energy Center, and an existing PV project). The gen-tie line would be co-located with other existing and approved transmission lines. Therefore, the Project would not result in impacts to surrounding lands and therefore would not result in a cumulatively considerable impact.

Temporal Scope

The timeframe refers to the duration over which an impact would occur: short-term or long-term. Short-term impacts to visual resources would occur during the construction and decommissioning periods in association with the addition of construction equipment to the landscape. Long-term impacts to visual resources would occur as a result of any alterations to the viewshed that would occur as a result of the presence of the BMSP over its operational life (approximately 25 years).

Analysis of Direct and Indirect Impacts

Although the Solar PEIS cumulative scenario for visual resource impacts concluded that renewable energy projects within the Eastern Riverside SEZ would contrast greatly with the surrounding generally naturally appearing lands, the Project would not contribute considerably to adverse impacts to naturally appearing lands. The Project would be sited in an already-disturbed area and co-located with existing electrical facilities; the scenic value of the existing landscape is considered low. In any views that included the Project area as well as these projects on naturally appearing lands, the Project would appear small and at a distance, and would not command attention in light of the starker contrasts that would be created by the projects located on naturally appearing lands. The Project's contribution to cumulative impacts to views from residences and I-10, scenic resources, the visual character or quality of the site, and light and glare would be less than considerable.

Alternative 1: Proposed Project

Construction

If construction of all foreseeable projects within the visual resources study area were to occur at the same time as the BMSP, the area would be introduced to additional construction activities, equipment, and night lighting from these sites. These construction impacts would include presence of heavy equipment, dust, fencing, materials, and supplies in the local Project region (impacts VIS-3, VIS-4, VIS-5, VIS-6, and VIS-7). However, following construction, the equipment and associated supplies would be removed, and impacts would be temporary.

Multiple proposed projects would be viewed by travelers along the I-10 corridor at various distances. Those that would be within one mile of I-10 include the Chuckwalla Solar Project, Desert Center 50, Palen Solar Energy Project, Mule Mountain III, Sonoran West SEGS, and Desert Quartzite. In addition, electrical facilities associated with the solar projects listed above and the McCoy Solar Energy Project would be viewed by travelers on I-10. These projects in addition to the Project would alter the views from open desert landscape to visually complex, man-made industrial landscapes. However, the Project would be within a disturbed area within and adjacent to the City of Blythe and would be constructed at various times. Therefore, it would not contribute to cumulatively considerable impacts in context of the entire I-10 corridor. The Project would not contribute to adverse cumulative effects on any scenic vistas (VIS-1) or on scenic resources within a State scenic highway (VIS-2), would not contribute to cumulative creation of an aesthetically offensive site open to public view (VIS-5), and would not cumulatively contribute to interference with nighttime use of the Mt. Palomar Observatory (VIS-6). The impact on views from I-10, which has been identified by the County of Riverside as eligible for designation as a scenic corridor, and to the existing visual character or quality of the site and its surroundings (VIS-3) that would result from the incremental impact of the Project when added to other past, present, and reasonably foreseeable future projects would be less than significant. The Project would not contribute to adverse cumulative effects related to substantial light or glare that would adversely affect day or nighttime views in the area (VIS-4) or contribute to unacceptable light levels for residential property (VIS-7).

Operation and Maintenance

Multiple projects, including several utility-scale solar energy production facilities, are proposed within the visual study area of the BMSP. These have the potential to result in cumulative impacts to aesthetics when considered together with the proposed Project. After construction of the Project, the existing visual character of the area would be altered along with its surroundings as a result of agricultural lands being utilized for a solar energy facility. However, due to the flat topography of the sites and surrounding area and location of the Project area, which is predominantly removed from public views within an area surrounded by existing agricultural land, the Project would not be highly visible from surrounding public viewpoints. As previously described, multiple proposed projects would be viewed by travelers along the I-10 corridor at various distances. These projects in addition to the Project would alter the views from open desert landscape to visually complex, man-made industrial landscapes. However, as previously mentioned, the Project would be within an area with existing electrical facilities and within and adjacent to the City of Blythe; therefore, operation and maintenance would not contribute to cumulatively considerable impacts in context of the entire I-10 corridor. The BMSP would not be in a designated scenic vista, nor has the RCGP designated the Project area as an important visual resource. No historic structures or significant scenic resources exist within the visual resources study area (impacts VIS-1, VIS-2, and VIS-5). In addition, the BMSP proposes to construct a double-circuit 230 kV overhead gen-tie line to the approved Colorado River Substation. Only one circuit of the double-circuit tubular steel poles would be strung, leaving the other circuit vacant. This vacant circuit position could be utilized by other utility-scale solar energy production facilities under the cumulative scenario; as such, this would reduce cumulative impacts to the overall scheme of the valley by placing new infrastructure from other projects on existing poles within an established ROW corridor. Accordingly, no significant cumulative impact would result from the proposed Project's incremental contribution to impacts on a scenic vista or damage to scenic resources.

There would be no significant new light sources on the Project area at night that would contribute cumulatively to adversely affect nighttime views in the area. No nighttime activities are anticipated during operation of the Project; however, the solar facility would be secured 24 hours per day by on-site private security personnel and remote security services with motion-detection cameras (impact VIS-6). Glare impacts would be minimized by the inherent design qualities of the PV panels, which reduce reflectivity and the potential for visual discomfort or impairment. Additional PV panels in the area would not result in a greater intensity of glare due to the panel design and the law of reflectivity, which would not direct any reflected light along the ground surface (impacts VIS-4 and VIS-7). Accordingly, no significant cumulative impact would result from the cumulative scenario to which the Project's incremental contribution to impacts related to lighting or glare. As a result, impacts from operation of the proposed Project would have a less than significant cumulative impact on aesthetics. The proposed Project would be on disturbed lands (agricultural fields) and west of the City of Blythe's general population. The solar facility would be close to other industrial uses (Blythe Airport, the Blythe Energy Center, and an existing PV project) (impact VIS-3). Therefore, the Project would not contribute adverse cumulative impacts to the surrounding generally naturally appearing lands.

The discussion below addresses the cumulative impacts that would be associated with the three KOPs that were identified as representative views of the proposed Project.

KOP 1: View from West Riverside Drive (Residences East of the Project on the Mesa)

Residential viewers at this location would view the Project and resulting moderate to high visual contrast of the Project with the landscape in the immediate foreground and foreground distance zones. They would have background views of the Palo Verde Mesa Solar Project and Blythe Airport Solar I Project, which would also result in similar visual contrast levels and cumulative visual impacts to residences at this location. However, no designated areas of natural beauty or scenic recreational areas are located within the view of the KOP or the Project area. The existing visual character of the landscape is already influenced by existing transmission lines, the Blythe Energy Center (which would be surrounded by the proposed solar facility), and Blythe Airport. Although the Project would contribute cumulatively to the change in the existing visual character of the area from vacant land and agriculture to solar energy

facilities, it would not alter that cumulative impact considerably, especially considering the area's scenic value, which is considered low.

KOP 2: View West And East from Interstate 10

Multiple proposed projects would be viewed by travelers along the I-10 corridor at various distances. Those that would be within one mile of I-10 include the Chuckwalla Solar Project, Desert Center 50, Palen Solar Energy Project, Mule Mountain III, Sonoran West SEGS, and Desert Quartzite. In addition, electrical facilities associated with the solar projects listed above and the McCoy Solar Energy Project would be viewed by travelers on I-10.

The view from KOP 2 to the west would include Desert Quartzite, Sonoran West SEGS, and Mule Mountain III, as well as their associated transmission lines. These projects in addition to the Project would alter the views from open desert landscape to visually complex, man-made industrial landscapes. However, the Project would be within a disturbed area within the City of Blythe and on the eastern edge of the Palo Verde Mesa. It would not impact the landscape in the same way as other cumulatively significant developments and, therefore, would not significantly worsen cumulative impacts in context of the entire I-10 corridor.

The view from KOP 2 to the east from I-10 is more industrial in nature and includes existing transmission lines and the Blythe Energy Center. Nearby cumulative projects include Blythe Energy Project II and Blythe Airport Solar Project, which would not be visible in the simulation photograph, although they would be seen from other locations along I-10. The Project would contribute to cumulative impacts, but its contribution would not be considerable due to the character of the area, which is partially developed and located within and adjacent to the City of Blythe.

KOP 3: View South from Mesa Verde Park in the Nicholls Warm Springs/Mesa Verde Community

Residences in the Nicholls Warm Springs/Mesa Verde community would have views of the Project in addition to views of multiple proposed projects to the north, east, and south, including the Blythe Solar Power Project, Palo Verde Mesa Solar Project, Blythe Airport Solar I Project, Blythe Energy Project II, and Desert Quartzite, in addition to proposed electrical facilities. The proposed projects would all be relatively distant (greater than one mile) from the Nicholls Warm Springs/Mesa Verde community. The low to moderate visual contrast of the Project in addition to the contrast of the multiple proposed projects that would be visible would contribute to cumulative impacts but would not be significant.

Decommissioning

At the end of the proposed Project's useful life of approximately 25 years, it would be decommissioned and dismantled. The types of equipment used for decommissioning would be similar to that of construction; therefore, impacts from decommissioning of the Project would be similar to that of construction. Cumulative impacts associated with decommissioning of the proposed Project would include the removal of all Project components, including gen-tie line structures and wiring, as well as all towers, wiring, PV panels, and inverter structures.

After removal of Project components, the Project area would return to agricultural uses. Visual recovery from land disturbance of closure and decommissioning would likely occur within a few years to allow for re-growth of vegetation. Therefore, decommissioning would temporarily impact the proposed Project's contribution to local and regional cumulative impacts on visual resources. Temporary direct and indirect cumulative visual impacts would occur until re-growth of vegetation in the area is established. However, as discussed above, the Project area is void of highly scenic views or aesthetically unique or distinctive landscape, and impacts to aesthetics would be less than significant. No nighttime activities are anticipated during decommissioning of the Project (impacts VIS-1 through VIS-7). When considered in combination with the impacts of other projects in the cumulative scenario, the Project would not incrementally worsen cumulative conditions, and a contribution to aesthetics impacts during decommissioning would not be cumulatively considerable.

Alternative 2: No Project Alternative

Under the No Project Alternative, gen-tie facilities would not be constructed on BLM-managed lands and solar facilities would not be constructed on private lands. The public lands on the Project area would continue to be managed by BLM in accordance with existing land use designations in the CDCA Plan, whereas the private lands would continue to be managed for agricultural production. Alternative 2 would not contribute to cumulative visual impacts.

Alternative 3: Northern 230 kV Gen-tie Line Location

Alternative 3 is similar to Alternative 1 (proposed Project), with the exception of the location of the Northern 230 kV gen-tie line, which would be approximately 700 feet north of Alternative 1's proposed 230 kV gen-tie line. The cumulative impacts associated with the construction, operation, maintenance, and decommissioning of the solar facility would be the same as Alternative 1. Alternative 3 would not contribute to adverse cumulative effects on any scenic vistas (VIS-1) or on scenic resources within a State scenic highway (VIS-2), would not contribute to cumulative creation of an aesthetically offensive site open to public view (VIS-5), and would not cumulatively contribute to interference with nighttime use of the Mt. Palomar Observatory (VIS-6). Alternative 3 would contribute less than considerably to cumulative effects to views from I-10, which has been identified by the County of Riverside as eligible for designation as a scenic corridor; to cumulatively substantial degradation of the existing visual character or quality of the site and its surroundings (VIS-3); to cumulative effects related to substantial light or glare that would adversely affect day or nighttime views in the area (VIS-4); and to unacceptable light levels for residential property (VIS-7).

Alternative 4: Southern 230 kV Gen-tie Line Location

Alternative 4 is similar to Alternative 1 (proposed Project), with the exception of the location of the Southern 230 kV gen-tie line, which would be approximately 0.8 mile south of Alternative 1's proposed 230 kV gen-tie line. The cumulative impacts associated with the construction, operation, maintenance, and decommissioning of the solar facility would be the same as Alternative 1. Alternative 4 would not contribute to adverse cumulative effects on any scenic vistas (VIS-1) or on scenic resources within a State scenic highway (VIS-2), would not contribute to cumulative creation of an aesthetically offensive site open to public view (VIS-5), and would not cumulatively contribute to interference with nighttime use of the Mt. Palomar Observatory (VIS-6). Alternative 4 would contribute less than considerably to cumulative effects to views from I-10, which has been identified by the County of Riverside as eligible for designation as a scenic corridor; to cumulatively substantial degradation of the existing visual character or quality of the site and its surroundings (VIS-3); to cumulative effects related to substantial light or glare that would adversely affect day or nighttime views in the area (VIS-4); and to unacceptable light levels for residential property (VIS-7).

Alternative 5: Reduced Acreage Alternative

The contribution to cumulative impacts from development of Alternative 5 would be generally less than that of the proposed Project, due to the absence of solar facility development north of I-10.

Construction

When considering cumulative effects to views from I-10, Alternative 5 would result in fewer contributions to cumulative impacts during the construction period compared to the proposed Project, as no development activity would occur immediately north of I-10. As with the proposed Project, Alternative 5 would make a less than considerable contribution to cumulative effects related to the substantial degradation of the existing visual character or quality of the site and its surroundings (VIS-3); to substantial light or glare that would adversely affect day or nighttime views in the area (VIS-4); and to unacceptable light levels for residential property (VIS-7).

Operation and Maintenance

After construction of Alternative 5, the existing visual character of the area would be altered along with its surroundings as a result of agricultural lands being utilized for a solar energy facility south of I-10. However, due to the flat topography of the sites and surrounding area and location of the Alternative 5 site, which is predominantly removed from public views within an area surrounded by existing agricultural land, Alternative 5 would not be highly visible from surrounding public viewpoints. As previously described, multiple proposed projects would be viewed by travelers along the I-10 corridor at various distances. These projects in addition to Alternative 5 would alter the views from open desert landscape to visually complex, man-made industrial landscapes. However, Alternative 5 would be within an area with existing electrical facilities on the eastern edge of the Palo Verde Mesa; therefore, operation and maintenance would not make a considerable contribution to cumulative impacts in context of the entire I-10 corridor. The Alternative 5 solar facility would not be located in a designated scenic vista, nor has the RCGP designated the Alternative 5 site as an important visual resource. No historic structures or significant scenic resources exist within the visual resources study area (impacts VIS-1, VIS-2, and VIS-5). In addition, similar to the proposed Project, Alternative 5 proposes to construct a double-circuit 230 kV overhead gen-tie line to the approved Colorado River Substation. Only one circuit of the double-circuit tubular steel poles would be strung, leaving the other circuit vacant. This vacant circuit position could be utilized by other utility-scale solar energy production facilities under the cumulative scenario; as such, this would reduce cumulative impacts to the overall scheme of the valley by placing new infrastructure from other projects on existing poles within an established ROW corridor. Accordingly, Alternative 5 would not contribute to a significant cumulative impact on a scenic vista or damage to scenic resources.

There would be no significant new light sources on the Alternative 5 site at night that would considerably contribute to cumulative adverse effects to nighttime views in the area. No nighttime activities are anticipated during operation of Alternative 5; however, the solar facility would be secured 24 hours per day by on-site private security personnel and remote security services with motion-detection cameras (impact VIS-6). Glare impacts would be minimized by the inherent design qualities of the PV panels, which reduce reflectivity and the potential for visual discomfort or impairment. Additional PV panels in the area would not result in a greater intensity of glare due to the panel design and the law of reflectivity, which would not direct any reflected light along the ground surface (impacts VIS-4 and VIS-7). Accordingly, this Alternative's incremental impact would not constitute a cumulatively considerable contribution to cumulative lighting or glare impacts. As a result, impacts from operation of Alternative 5 would have a less than significant cumulative impact on aesthetics. Alternative 5 would be located on disturbed lands (agricultural fields); however, unlike the proposed Project, this alternative would not be in the City of Blythe. The solar facility would be close to other industrial uses (Blythe Airport, the Blythe Energy Center, and an existing PV project) (impact VIS-3). Therefore, Alternative 5 would not contribute considerably toward any adverse cumulative impacts to the surrounding, generally naturally appearing lands.

Mitigation Measures

With implementation of the above-listed BMPs as part of the Project, no mitigation measures are recommended.

Residual Impacts

With implementation of the above-listed BMPs as part of the Project, the Project would result in less than significant impacts to visual resources.

NEPA Conclusions

The Alternatives, including the Project, would have the impacts described above. The Alternatives would comply with federal plans and policies pertaining to aesthetic resources, including the visual policies of the CDCA Plan. With implementation of the BMPs, the effects of the Project to aesthetics would not be significant.

4.2.2 Agriculture

This section describes the impact analysis relating to agriculture for the proposed Project and Alternatives. The proposed Project area is not used for timber production, nor is it forested. Therefore, the following discussion presents the significance criteria relevant to agriculture on which impact determinations are based, and recommends measures to avoid or minimize adverse effects anticipated from Project construction, operation and maintenance, and decommissioning; and defines and lists the overall impacts identified for the Project and Alternatives.

Methodology for Analysis

Baseline conditions described in Chapter 3 have been evaluated with regard to their potential to be affected by Project construction, operation and maintenance, and decommissioning activities. As noted in Chapter 2, the Project proposes to rezone approximately 1,249 acres from W-2-5 (controlled development area) and N-A to A-1-10 (light Agricultural) to bring the agricultural zoning into consistency with most of the rest of the site. The Project would also establish a Williamson Act agricultural preserve on approximately 1,485 acres of land that are planted in orchards, dates, stone fruit or grapes; and to enter into Williamson Act contracts for this area of approximately 1485 acres. Because these actions would encourage continued agricultural uses of existing agricultural lands, they would not cause new significant impacts and therefore are not addressed in detail in this Draft EIR/EA. The potential impacts associated with the solar Project, including subsequent cancellation of the Williamson Act contract and agricultural preserve, are evaluated on a qualitative and quantitative basis through a comparison of the anticipated Project effects on agricultural activities. The evaluation of Project impacts is based on professional judgment, analysis of Riverside County's and the City of Blythe's agricultural resources polices, and the significance criteria established by Appendix G of the CEQA Guidelines.

Appendix G of the CEQA Guidelines identifies the California Land Evaluation and Site Assessment (LESA) Model as an optional methodology to assess impacts on agriculture and farmland. The LESA Model is an approach for rating the relative quality of land resources using specific measurable features. The LESA system is a point-based method composed of six different factors. The two Land Evaluation factors (Land Use Capability Classification and Store Index) are based on measures of soil resource quality. The four Site Assessment factors address a given project's size, water resource availability, surrounding agricultural lands, and surrounding protected resource lands. The factors are then weighted relative to one another so that 50 percent of the total LESA score is derived from the Land Evaluation factors and 50 percent from the Site Assessment factors. The weighted total results in a single numeric score, with a maximum attainable score of 100 points (California DOC 1997). This project score can be used as a basis for making a determination of the significance of a project's impacts on agriculture and farmland, based upon a range of established scoring thresholds. URS prepared the *Blythe Mesa Solar Project Land Evaluation and Site Assessment* in 2012 (refer to Appendix L of this Draft EIR/EA).

Table 4.2.2-1 California LESA Modeling Scoring Thresholds

TOTAL LESA SCORE	SCORING DECISION
0 to 39 Points	Not considered significant.
40 to 59 Points	Considered significant only if LESA subscores are each greater than or equal to 20 points.
60 to 79 Points	Considered significant unless either LESA subscore is less than 20 points.
80 to 100 Points	Considered significant.

Source: California DOC 1997.

CEQA Significance Criteria

The significance criteria for agriculture listed in the CEQA Environmental Checklist, Appendix G of the 2012 CEQA Guidelines, as modified by use of the optional LESA methodology, were used to assess the

significance of agricultural impacts resulting from the Project. These thresholds indicate that a project could have potentially significant impacts if it would:

AG-1) *Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use as measured by a LESA score exceeding the thresholds noted in Table 4.2.2-1 above.*

AG-2) *Conflict with existing zoning for agricultural use, or a Williamson Act contract.*

AG-3) *Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)).*

AG-4) *Result in the loss of forest land or conversion of forest land to non-forest use.*

AG-5) *Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or forestland to non-forest use.*

The following additional significance criteria from the County of Riverside CEQA Environmental Assessment Form are used in the analysis. A project could have potentially significant impacts if it would:

AG-6) *Conflict with land within a Riverside County Agricultural Preserve.*

AG-7) *Cause development of non-agricultural uses within 300 feet of agriculturally zoned property (Ordinance No. 625, "Right-to-Farm").*

NEPA Requirements

Agricultural resources are located on the private lands that are proposed for the solar facility development and a portion of the gen-tie line are located on private lands. A portion of the proposed Project and Alternatives' gen-tie line corridor would traverse BLM-managed lands, but would not traverse farmland other agricultural resource land, forest land, or timberland. The NEPA evaluation herein therefore includes an analysis of potential direct and indirect effects to agriculture and forestry resources from the potential approval of the BLM ROW on public lands. This evaluation is provided within the same context of the CEQA significance criteria described above.

Applicable Best Management Practices

As part of the Project and Alternatives, the following applicable BMP would minimize the environmental impacts to agricultural resources. The full BMP has been detailed below (see also Table 2-4 in Chapter 2) and is further referenced (by number) within the impact discussion.

NUMBER	BMP DESCRIPTION
BMP-10	**Integrated Weed Management Plan.** In compliance with the Federal Noxious Weed Act and the Plant Protection Act, a Project-specific integrated weed management plan for the control of noxious weeds and invasive plant species would be prepared. The plan would identify presence, location, and abundance of weed species in the Project area and surrounding area adjacent to the Project, as well as identify suppression and containment measures to prevent the spread of weed species and introduction of weed species. Prevention techniques would include: limiting disturbance areas during construction to the minimum required to perform work; limiting ingress and egress to defined routes; maintaining vehicle wash and inspection stations; and closely monitoring the types of materials brought on-site to minimize the potential for weed introduction. During operations, noxious and invasive weed management will be incorporated as a part of mandatory site training for groundskeepers and maintenance personnel. Training will include weed identification and the impacts on agriculture, wildlife, and fire frequencies. Training will also cover the importance of preventing the spread of noxious weeds and of controlling the proliferation of existing weeds.

Alternative 1: Proposed Project

Analysis of Direct and Indirect Impacts

Construction

Based on the California Department of Conservation's (DOC) Farmland Mapping and Monitoring Program (FMMP), the solar facility would convert approximately 1,707 acres of Farmland, which are categorized with the following designations, to non-agricultural use:

- 1,681 acres of Prime Farmland (1,518 acres within unincorporated Riverside County and 163 acres within the City of Blythe)
- 16 acres of Unique Farmland (unincorporated Riverside County)
- 10 acres of Farmland of Statewide Importance (unincorporated Riverside County)

The Project's conversion of Farmland to non-agricultural use would not result in conversion of other adjacent Farmland to non-agricultural use. The Project would not introduce a non-agricultural use that is sensitive to or incompatible with agricultural operations that would occur nearby. Vehicle emissions can impact the health and survival of crops; however, vehicle emissions from Project construction or decommissioning would be temporary and vehicle impacts from operation would be relatively minimal. The Project would reduce the current water demand; therefore, it would not adversely affect the adjacent farmers' share of the water supply. At the end of its operating life, infrastructure associated with the solar facility would be removed, which would allow the solar facility site to return to agricultural use. Therefore, the Project would only result in direct conversion of land within the solar facility boundary.

The nature and quality of this impact was assessed using the LESA methodology. As explained in more detail in Appendix L, the Project was assessed and rated in several categories. The LESA model employs two Land Evaluation factors that assess the quality of the soils at the site: the Land Capability Classification rating and the Storie Index Rating. It also assesses four Site Assessment categories: project size, water resources availability, surrounding agricultural land, and surrounding protected resources.

Extensive analysis of the soil types and amounts at the site resulted in an Land Capability Classification rating of 36.82 and a Storie Index rating of 66.62. The Project size category received a maximum rating of 100 points due to the extent and quality of the soils present. The limited availability of water resources for much of the Project area, as noted in Chapter 3, resulted in a score of 45.7 out of 100 possible points in the water resources availability category. Lands used for agricultural production within 0.25 mile of the Project area, which was determined to be the zone of influence for the Project, comprise less than 40 percent of the property within that zone of influence, resulting in a score of zero for the surrounding lands category. Protected resources within that zone consist of lands protected by Williamson Act contract, which also comprise less than 40 percent of that zone. Accordingly, the score for surrounding protected resources category is also zero.

These scores are then weighted pursuant to the California LESA Model, such that 50 percent of the total LESA score is derived from the land evaluation factors, and 50 percent from the site assessment factors. Table 4.2.2-2 presents a summary of the LESA analysis for the proposed Project.

Table 4.2.2-2 LESA Score Sheet Summary

	FACTOR RATING (0 – 100 Points)	FACTOR WEIGHTING (Total = 100 Points)	WEIGHTED FACTOR RATING
Land Evaluation			
1. Land Capability Classification (25%)	36.82	0.25	9.2
2. Storie Index Rating (25%)	66.62	0.25	16.7
		Land Evaluation Subscore	**25.9**

	FACTOR RATING (0 – 100 Points)	FACTOR WEIGHTING (Total = 100 Points)	WEIGHTED FACTOR RATING
Site Assessment			
1. Project Size Rating (15%)	100	0.15	15
2. Water Resource Availability Rating (15%)	45.7	0.15	6.9
3. Surrounding Agricultural Land Rating (15%)	0	0.15	0
4. Surrounding Protected Resource Lands Rating (5%)	0	0.05	0
		Site Assessment Subscore	**21.9**
		TOTAL	**47.8**

Source: URS 2012.

As noted above, a final LESA score between 40 to 59 points is considered significant if the LESA subscores are each greater than or equal to 20 points. The Project exceeds these scores, and would therefore create a significant impact in the amount of Land Evaluation rating points (5.9) and Site Assessment rating points (1.9), or 8.8 total rating points.

The removal of the solar facility site from agricultural use would not increase the total acreage of urban uses. This solar facility site could revert to agricultural use when the Project is decommissioned. Also, the State's and region's need for renewable energy sources under Assembly Bill (AB) 32 and other laws and regulations designed to address climate change would trigger conversion of other agricultural land to solar electricity generation, regardless of whether this Project is approved or not. The fact that the Project has secured a California Independent System Operator (CAISO) interconnection queue position sufficient for the size of the Project indicates that less capacity would be available to other proposed solar power plants, making conversion of other agricultural lands less likely.

The 230 kV gen-tie line alignment that would extend from the solar facility to SCE's Colorado River Substation would be on private and BLM public land characterized as undeveloped desert. The gen-tie line would not traverse designated Farmlands, lands under a Williamson Act contract, or lands that are part of a Riverside County agricultural preserve.

Operation and Maintenance

During the operation and maintenance phase of the proposed Project, the solar facility site would remain converted to a non-agricultural use. Indirect impacts could include nuisance conditions associated with pests and weeds that affect adjacent agricultural lands (described in Chapter 3). As part of the Project, implementation of a Project-specific Integrated Weed Management Plan (BMP-10) would minimize impacts from the spread of weeds and control proliferation of existing weeds.

Decommissioning

Decommissioning activities would involve the removal of solar panels, support piles, electrical components (drive controllers, inverters, transformers, and switchgear), and gen-tie and distribution lines. Refer to Chapter 2, Section 2.2.3, for a detailed discussion regarding decommissioning. The Project area would be re-conditioned to again be suitable for agricultural production.

Application of CEQA Significance Thresholds

Throughout California, various measures have been developed to protect farmland and support the economic viability of agriculture. Some of the techniques have resulted in programs that are enacted and administered at the State level, while others are used primarily by local governments. The California DOC encourages agricultural districts, agricultural protection zoning, conservation easements, differential assessment, purchase of agricultural conservation easements, right-to-farm laws, transfer of development rights, and the Farmland Protection Policy Act.

AG-1) Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use, as measured by a LESA score exceeding the thresholds noted in Table 4.2.2-1 above?

Implementation of the proposed Project would result in the construction of solar facilities, including solar arrays, electric substations, roads, and transmission lines. Solar panels and transmission lines would be raised off the ground, but foundations for the electrical equipment, roadways, temporary laydown and parking areas, and general grading would disturb the site. Accordingly, there would be a temporary loss of agricultural uses on the Project area. As previously noted, the LESA model may be used in lieu of the Farmland Mapping and Monitoring Program to determine whether impacts to agricultural resources would be significant. As shown in Table 4.2.2-2, the LESA score is 40 and 59, and both subscores are greater than 20. Accordingly, the Project is considered to have significant impact on agricultural resources.

The Applicant would continue agricultural operations in areas of the Project area that are proposed to be developed during later phases. This would slow the conversion of agricultural lands; however, the Project would ultimately construct solar arrays and ancillary facilities over the entire site. Therefore, even if agricultural operations continue in areas where construction of the solar facility has not begun, all existing agricultural operations would be utilized by the solar facility to generate electricity, which would result in a significant impact.

The Applicant does not propose to pave, remove, or significantly alter the agricultural soil that currently exists at the Project area. Rather, the solar panels would be built atop the relatively flat soil lots, leaving the farming soil relatively undisturbed and available for crop cultivation at the end of the Project's life, should the parcels revert to agricultural land. Implementation of Mitigation Measure Agriculture-1 would provide various options for the Applicant to reduce the severity of the impact of the temporary loss of Important Farmland, resulting in a less than significant impact. Project operation would not add to the impacts to agricultural resources.

Implementation of Mitigation Measure Agriculture-1 would reduce the significant impacts on the agricultural resources on the Project area to less than significant levels.

AG-2) Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?

The Project and a portion of the gen-tie line would be on private land zoned by Riverside County as Light Agriculture (A-1-10) and land zoned by the City of Blythe as Agriculture (A); the gen-tie line that would traverse BLM-managed land is not zoned for agricultural uses.

With implementation of the proposed Project, land zoned for agricultural uses would be converted to non-agricultural uses. However, the uses under the proposed Project are allowed as a conditional use in Agricultural zones and, with the issuance of a conditional use permit, the proposed uses would be consistent with zoning. Implementation of the proposed Project would conflict with an agricultural preserve and Williamson Act contracts, which are proposed as part of Cancellation of the contracts, which could occur in phases, as proposed as part of the Project. Depending upon then-existing circumstances, the land may also be removed from the agricultural preserve. Cancellation would be permitted if the Board finds that cancellation is in the public interest in that other public concerns substantially outweigh the objectives of the Williamson Act, and that there is no proximate noncontract land which is both available and suitable for the proposed solar use, or that development of the contracted land would provide more contiguous patterns of urban development than development of proximate noncontracted land. Cancellation on these grounds is warranted since the public need and benefits of solar energy, as described in Chapter 1's discussion of purpose and need and project objectives, outweighs the objectives of the Williamson Act. As noted in Chapter 2, there are no suitable alternative locations for the Project. Also, the location of the Project, partially within the City of Blythe, near the Blythe airport, and bisected by I-10, would provide for more contiguous patterns of urban development than would development on non-contracted lands, which are generally located further away from

existing development. Accordingly, cancellation would be fully consistent with the Williamson Act and therefore not interfere with the objectives of that Act. However, by necessitating cancellation of a contract and preserve, the Project would conflict with that contract and preserve and thus present a potentially significant impact. Implementation of Mitigation Measure Agriculture-1 would reduce these significant impacts to less than significant.

AG-3) Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

The Project would not be on land zoned specifically as either forest land or timberland. The Project would be primarily on land zoned for agricultural production and, with a use permit, solar power plants. Although timber production is an allowable activity within an agricultural zone, the Project would not be used for timber production, nor is the site forested. Furthermore, crops grown at the Project area are irrigated because of the arid climate. It is unlikely that the land could support 10 percent native tree cover under natural (i.e., non-irrigated) conditions. Therefore, the Project does not meet the definition of "forest land." The same land is not considered timberland because the land is not zoned Timberland Production Zone. No impact to forest land would occur.

AG-4) Would the Project result in the loss of forest land or conversion of forest land to non-forest use?

As described in AG-3, the land within the Project area does not meet the definition of forest land. Therefore, the Project would not convert any forest land to non-forest use, and no impact would occur.

AG-5) Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or forestland to non-forest use?

The Project would not involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use. The State's and region's need for renewable energy sources under AB 32 and other laws and regulations designed to address climate change would trigger conversion of other agricultural land to solar electricity generation, regardless of whether this Project is approved or not. The fact that the Project has secured a CAISO interconnection queue position sufficient for the size of the Project indicates that less capacity would be available to other proposed solar power plants, making conversion of other agricultural lands less likely. No impacts would occur.

AG-6) Would the Project conflict with land within a Riverside County Agricultural Preserve?

Implementation of the proposed Project would conflict with an agricultural preserve. See discussion of AG-2 above. Implementation of Mitigation Measure Agriculture-1 would reduce this significant impact to less than significant levels. For the reasons stated above, the Project is not likely to cause other lands in nearby agricultural preserves to convert to solar uses.

AG-7) Would the Project cause development of non-agricultural uses within 300 feet of agriculturally zoned property (Ordinance No. 625, "Right-to-Farm")?

See AG-2 above. The proposed renewable energy Project would be allowed as a conditional use on County lands zoned for agriculture, or would be permitted pursuant to a new zoning district. As explained above, the Project would not create use conflicts with agricultural use or otherwise interfere with use of agricultural-zoned property adjacent to the Project area. Accordingly, the impact would be less than significant.

Alternative 2: No Project Alternative

Under the No Project Alternative, neither the BLM nor the County of Riverside would approve the Project. Authorizations, either the ROW grant (federal) or the Conditional Use Permit (County), would not be issued. As a result, the proposed Project (solar facility and gen-tie) would not be constructed on private land and BLM-managed lands. The public lands in the Project area would continue to be managed by BLM in accordance with existing land use designations in the CDCA Plan, as amended, whereas the private lands would continue to be managed for agricultural production.

Alternative 2 would avoid impacts that would result from the construction, operation, maintenance, and decommissioning of the proposed Project (Alternative 1); however, the land on which the Project is proposed would become available for other uses. The federal lands are within or adjacent to a designated utility corridor, and within the Riverside East SEZ, both of which include a number of existing and approved transmission facilities. It is anticipated that the use of this corridor would continue to support electrical transmission with or without the proposed Project, which is consistent with BLM's land use plan. If the proposed Project were not approved, renewable projects would likely be developed on other sites in Riverside County, in other areas of California, or in adjacent states within the Desert Southwest.

Alternative 3: Northern Alternative 230 kV Gen-tie Line Location

Similar to Alternative 1, Alternative 3 would include the construction, operation, maintenance, and decommissioning of a solar facility and associated infrastructure, and associated interim agricultural-related actions. The primary difference between Alternatives 1 and 3 is the location of the proposed 230 kV gen-tie line that would extend outside of the solar facility field to the Colorado River Substation. This portion of Alternative 3 would be situated entirely on BLM public land. The same 230 kV gen-tie alignment within the solar facility field would be utilized for both Alternatives 1 and 3. The gen-tie line for Alternative 3 would not traverse Farmland and or land under a Williamson Act contract.

Application of CEQA Significance Thresholds

AG-1) Would Alternative 3 convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?

Alternative 3 would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use to the same extent as the proposed Project (refer also to AG-1 analysis under Alternative 1 above). Implementation of Mitigation Measure Agriculture-1 would reduce impacts to less than significant.

AG-2) Would Alternative 3 conflict with existing zoning for agricultural use, or a Williamson Act contract?

Alternative 3 would not conflict with existing zoning for agricultural use, but would conflice with a Williamson Act contract to the same extent as the proposed Project (refer also to AG-1 analysis under Alternative 1 above). Implementation of Mitigation Measure Agriculture-1 would reduce impacts to less than significant.

AG-3) Would Alternative 3 conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

The Project would not be on land zoned specifically as either forest land or timberland; as such, refer also to analysis AG-3 under Alternative 1 above. Alternative 3 would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. No impacts would occur.

AG-4) Would Alternative 3 result in the loss of forest land or conversion of forest land to non-forest use?

Land within the Project area does not meet the definition of forest land. Alternative 3 would not result in the loss of forest land or conversion of forest land to non-forest use. No impacts would occur.

AG-5) Would Alternative 3 involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or forestland to non-forest use?

Alternative 3 would not involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use. Refer also to AG-5 under Alternative 1 above. No impacts would occur.

AG-6) Would Alternative 3 conflict with land within a Riverside County Agricultural Preserve?

Alternative 3 would conflict with an agricultural preserve to the same extent as the proposed Project (refer also to AG-1 analysis under Alternative 1 above). Implementation of Mitigation Measure Agriculture-1 would reduce impacts to less than significant.

AG-7) Would Alternative 3 cause development of non-agricultural uses within 300 feet of agriculturally zoned property (Ordinance No. 625, "Right-to-Farm")?

See AG-2 above. The proposed 230 kV gen-tie line would be on federal land within or adjacent to a designated utility corridor, and within a SEZ. No impacts related to the County Right-to-Farm ordinance would occur. Similar to the proposed Project, the impact would be less than significant.

Alternative 4: Southern Alternative 230 kV Gen-tie Line Location

Also similar to Alternatives 1 and 3, Alternative 4 would include the construction, operation, maintenance, and decommissioning of a solar facility and associated infrastructure, and associated interim agricultural-related actions. The only difference between Alternatives 1, 3, and 4 is the location of the proposed 230 kV gen-tie line that would extend outside of the solar facility. Alternative 4 would be shifted approximately 0.8 mile to the south and exit the southwestern portion of the solar facility field and continue to the Colorado River Substation. Alternative 4 would traverse approximately 3.4 miles of BLM-managed land (undeveloped desert). The gen-tie line would not traverse Farmland or land under a Williamson Act Contract. Impacts associated with the solar facility would be the same for Alternatives 1, 3, and 4.

Application of CEQA Significance Thresholds

AG-1) Would Alternative 4 convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?

Within the solar facility, Alternative 4 would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use. Impacts would be significant to the same extent as the proposed Project. Implementation of Mitigation Measure Agriculture-1 would reduce impacts to less than significant.

AG-2) Would Alternative 4 conflict with existing zoning for agricultural use, or a Williamson Act contract?

Alternative 4 would not conflict with existing zoning for agricultural use, but would conflict with a Williamson Act contracto the same extent as the Project. Implementation of Mitigation Measure Agriculture-1 would reduce impacts to less than significant.

AG-3) Would Alternative 4 conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

Alternative 4 would not conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production. No impacts would occur.

AG-4) Would Alternative 4 result in the loss of forest land or conversion of forest land to non-forest use?

Alternative 4 would not result in the loss of forest land or conversion of forest land to non-forest use. No impacts would occur.

AG-5) Would Alternative 4 involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or forestland to non-forest use?

Alternative 4 would not involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use. No impacts would occur.

AG-6) Would Alternative 4 conflict with land within a Riverside County Agricultural Preserve?

Alternative 4 would conflict with a Riverside County-designated agricultural preserve to the same extent as the Project. Implementation of Mitigation Measure Agriculture-1 would reduce impacts to less than significant levels.

AG-7) Would Alternative 4 cause development of non-agricultural uses within 300 feet of agriculturally zoned property (Ordinance No. 625, "Right-to-Farm")?

See AG-2 above. The proposed 230 kV gen-tie line would be on federal land within or adjacent to a designated utility corridor, and within a SEZ. No impacts related to the County Right-to-Farm ordinance would occur. Similar to the proposed Project, the impact would be less than significant.

Alternative 5: Reduced Acreage Alternative

Similar to Alternative 1, Alternative 5 would include the construction, operation, maintenance, and decommissioning of a solar facility and associated infrastructure, and associated interim agricultural-related actions. The primary difference between Alternatives 1 and 5 is the absence of solar facility development north of I-10, which would reduce electrical output from a 485 MW down to a 315 MW alternating current solar PV facility. The Reduced Acreage Alternative would be on a reduced footprint of approximately 2,476 acres (from 3,660 acres for the proposed Project). Alternative 5 would include approximately 2,403 acres for the solar field. Similar to the proposed Project, 73 acres would be utilized for the 230 kV gen-tie line. In comparison to Alternative 1, Alternative 5 would eliminate one on-site substation and one O&M building and would have one access point (planned on Seeley Avenue). The Reduced Acreage Alternative would also no longer extend a 230 kV overhead gen-tie line from an on-site substation north of I-10, as this Alternative would not be developed on land north of I-10. Instead, this Alternative would construct an approximately 7.8-mile-long, 230 kV overhead gen-tie line from the proposed on-site substation south of I-10 to the approved Colorado River Substation. Approximately three miles of the gen-tie line would be within the solar facility. Alternative 5 would avoid impacts that would result from the construction, operation, maintenance, and decommissioning of a solar development north of I-10; however, the land on which Alternative 1 is proposed would continue with existing uses.

The Reduced Acreage Alternative solar facility and a portion of the gen-tie line would be within the jurisdiction of the County of Riverside but not within the City limits of Blythe. Alternative 5 would need to comply with the RCGP (2003) and the PVVAP (2008). The remaining portion of the gen-tie line would traverse lands managed by the BLM and would need to comply with the CDCA Plan. The construction, operation, maintenance, and decommissioning of Alternative 5 would not exceed the impacts to

agricultural resources identified under the Alternative 1 analysis. Therefore, the Alternative 1 analysis would be applicable to Alternative 5, outside of those differences identified in the discussion below.

Analysis of Direct and Indirect Impacts

Construction

Based on the California DOC's FMMP, development of Alternative 5 would convert approximately 1,305 acres (from 1,707 acres under the proposed Project) of Farmland, which are categorized with the following designations, to non-agricultural use for the life of Alternative 5:

- 1,279 (from 1,681 under the proposed Project) acres of Prime Farmland
- 16 acres of Unique Farmland (unincorporated Riverside County)
- 10 acres of Farmland of Statewide Importance (unincorporated Riverside County)

The conversion of Farmland to non-agricultural use as a result of Alternative 5 would not result in conversion of other adjacent Farmland to non-agricultural use. Alternative 5 development would not introduce a non-agricultural use that is sensitive to or incompatible with agricultural operations that would occur nearby. Vehicle emissions can impact the health and survival of crops; however, vehicle emissions from Alternative 5 construction or decommissioning would be temporary and vehicle impacts from operation would be relatively minimal. Alternative 5 would reduce the current water demand to a lesser degree than the proposed Project, but would still create a beneficial impact in terms of water use. Therefore, it would not adversely affect the adjacent farmers' share of the water supply. At the end of its operating life, infrastructure associated with the solar facility would be removed, which would allow the solar facility site to return to agricultural use. Alternative 5 would only result in direct conversion of land within the solar facility boundary south of I-10.

As detailed under the Alternative 1 analysis, a final LESA score between 40 to 59 points is considered significant if the LESA subscores are each greater than or equal to 20 points. The analysis under Alternative 1 determined that the proposed Project exceeds these scores, and would therefore create a significant impact in the amount of Land Evaluation rating points (5.9) and Site Assessment rating points (1.9), or 8.8 total rating points (Table 4.2.2-2, *LESA Score Sheet Summary*). Development under the reduced footprint would occur only south of I-10. Due to the extent and quality of the soils present south of I-10 and similarity in scoring for the remaining three Site Assessment factors, Alternative 5 would still create a significant impact to agricultural lands. Alternative 5's reduced footprint would not change the Site Assessment subscore factors related to the Project size, surrounding agricultural land, or surrounding protected resource. With the assumption that 428 acres of irrigated farmland would be excluded and approximately 1,224 acres of irrigated farmland would remain within the total 2,489 acre site, this would actually increase the proportion of the Alternative 5 site that is irrigated to 49.2 percent (1,224/2,489). As such, this would slightly increase the Site Assessment subscore by 0.4 value point and result in a total Site Assessment Subscore of 22.4 and total LESA score of 48.3.

Alternative 5 includes the same interim agricultural-related actions as the Project. Accordingly, it also proposes to rezone property to A-1-10, and establish an agricultural preserve and Williamson Act contract. In both Alternative 5 and Alternative 1, the preserve and contract would extend over only 1,485 acres of land in agricultural production. Cancellation of the contract and preserve is proposed in connection with construction of the solar facilities.

Operation and Maintenance

During the operation and maintenance phase of Alternative 5, the solar facility site would remain converted to a non-agricultural use in the area south of I-10. Indirect impacts could include nuisance conditions associated with pests and weeds that affect adjacent agricultural lands (described in Chapter 3). As part of the Project, implementation of a Project-specific Integrated Weed Management Plan (BMP-10) would minimize impacts from the spread of weeds and control proliferation of existing weeds.

Decommissioning

Decommissioning activities would involve the removal of solar panels, support piles, electrical components (drive controllers, inverters, transformers, and switchgear), and gen-tie and distribution lines for the developed area south of I-10. Refer to Chapter 2, Section 2.2.3, for a detailed discussion regarding decommissioning. As with the proposed Project, the Alternative 5 site would be re-conditioned to again be suitable for agricultural production.

Application of CEQA Significance Thresholds

AG-1) Would Alternative 5 convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?

The reduced footprint under Alternative 5 would occur only south of I-10. Due to the extent and quality of the soils present south of I-10 and similarity in scoring for the remaining three Site Assessment factors, Alternative 5 would still create a significant impact from conversion of Important Farmland to non-agricultural uses; however, approximately 400 fewer acres of Prime Farmland would be converted under Alternative 5 compared with the proposed Project. Accordingly, Alternative 5 is considered to have significant impact on agricultural resources. The AG-1 analysis for Alternative 1 would apply to Alternative 5. Implementation of Mitigation Measure Agriculture-1 would bring impacts to agricultural resources down to less than significant levels.

AG-2) Would Alternative 5 conflict with existing zoning for agricultural use, or a Williamson Act contract?

Implementation of Alternative 5 would result in similar impacts as those discussed under AG-2 for the proposed Project; as such, refer to the Alternative 1 analysis for further details.

AG-3) Would Alternative 5 conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?

Implementation of Alternative 5 would result in similar impacts as those discussed under AG-3 for the proposed Project; as such, refer to the Alternative 1 analysis for further details.

AG-4) Would Alternative 5 result in the loss of forest land or conversion of forest land to non-forest use?

As described in AG-3 under the Alternative 1 analysis, the land within the Alternative 5 site does not meet the definition of forest land. Therefore, Alternative 5 would not convert any forest land to non-forest use, and no impact would occur.

AG-5) Would Alternative 5 involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to nonagricultural use or forestland to non-forest use?

Implementation of Alternative 5 would result in similar impacts as those discussed under AG-5 for the proposed Project; as such, refer to the Alternative 1 analysis for further details.

AG-6) Would Alternative 5 conflict with land within a Riverside County Agricultural Preserve?

Implementation of Alternative 5 would result in similar impacts as those discussed under AG-6 for the proposed Project; as such, refer to the Alternative 1 analysis for further details.

AG-7) Would Alternative 5 cause development of non-agricultural uses within 300 feet of agriculturally zoned property (Ordinance No. 625, "Right-to-Farm")?

The proposed renewable energy Project would be allowed as a conditional use on County lands zoned for agriculture, or would be permitted pursuant to a new zoning district. As explained above, Alternative 5 would not create use conflicts with agricultural use or otherwise interfere with use of agricultural-zoned property adjacent to the Alternative 5 site. Accordingly, the impact would be less than significant.

Cumulative Impacts

Geographic Scope

Agricultural cumulative impacts include the proposed Project's impacts as well as those likely to occur as a result of other existing, proposed, and reasonably foreseeable projects. When analyzing cumulative impacts on agricultural resources, an assessment is made of the impacts on individual resources as well as the inventory of agricultural resources within the cumulative impact analysis area.

The geographic extent for the consideration of cumulative effects to agricultural resources includes projects within the Palo Verde Mesa and Palo Verde Valley and projects that would have a potential to combine with the BMSP and result in a cumulative effect, including the Palo Verde Mesa Solar Project and residential developments within the City of Blythe.

Temporal Scope

The temporal scope refers to the duration over which an impact would occur: short-term or long-term; for example, only during the months of construction, only during operation and maintenance, or during both phases. This limits the projects whose impacts are to be analyzed in the cumulative effects analysis to those that would cause impacts at the same time as the BMSP. Determining the temporal scope requires estimating the length of time the effects of the proposed action will last, either individually or in combination with other anticipated effects. The temporal scope of impacts to agricultural resources would be during the development of cumulative projects through the end of Project decommissioning, because any direct or indirect effects of the Project would only occur during the life-term of the projects.

Analysis of Direct and Indirect Impacts

Alternative 1: Proposed Project

Construction, Operation, Maintenance, and Decommissioning

Based on Sheet 3 of the Riverside County Important Farmland 2010 map, approximately 201,000 acres of Important Farmland (198,000 within Palo Verde Valley and 3,000 in Palo Verde Mesa) are located in eastern Riverside County. Continuing development within Riverside County has resulted in the conversion of land currently utilized for agricultural production to urban and other land uses. This agricultural conversion has been a continuing trend in the County, based on DOC farmland conversion reports (see Chapter 3, Table 3.2.2-1). Up until a few years ago, agricultural land conversion in the County was attributable to more traditional types of development, such as residential subdivisions. Impacts resulting from construction, operation, maintenance, and decommissioning of the Project could result in a cumulative effect to agriculture with other past, present, or reasonably foreseeable future actions.

The construction and operation of the proposed solar facility would result in the utilization of 1,707 acres of farmland on the Palo Verde Mesa for non-agricultural uses over the Project's life (approximately 25 years). Within the City of Blythe, the proposed Project would require conversion of Prime Farmland to non-agricultural use. The Project, in combination with other developments within the Palo Verde Mesa, Palo Verde Valley, the Palo Verde Mesa Solar Project, and within the City of Blythe, would directly

convert farmlands to a non-agricultural use (impact AG-1). With implementation of the proposed Project and those under the cumulative scenario, land zoned for agricultural uses would be converted to non-agricultural uses and the Project would entail cancellation of a Williamson Act contract. With the issuance of a conditional use permit, uses for the proposed Project along with cumulative scenario uses would be consistent with zoning, but would still conflict with a Williamson Act contract (impact AG-2). Crops grown at the Project area and within the region are irrigated because of the arid climate. It is unlikely that the land on the Project area or lands under the cumulative scenario could support 10 percent native tree cover under natural (i.e., non-irrigated) conditions. Therefore, conversion of forest land to non-forest use as a result of the proposed Project along with those under the cumulative scenario is less than significant (impact AG-4). It is too speculative to predict if implementation of the proposed Project, along with those under the cumulative scenario, would involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use; conflict with land within the Riverside County Agricultural Preserve; or cause development of non-agricultural uses within 300 feet of agriculturally zoned property (impacts AG-5, AG-6, and AG-7). These impacts are site-specific and need to be addressed on a project-specific basis. It should be noted, however, that the Project would include implementation of a Project-specific Integrated Weed Management Plan (BMP-10), which would minimize impacts from the spread of weeds and control proliferation of existing weeds.

At the end of the energy sales contract term, if the utility buyer is not available for extension or another energy buyer does not emerge, the solar arrays and gen-tie line would be decommissioned and dismantled. Following decommissioning and dismantling of the solar facility, the solar facility site would be made available for reversion to agricultural use.

Besides the beneficial aspects of the Project relative to renewable resource-based energy production, implementation of the Project would have favorable impacts on regional agriculture by:

- reducing on-site water consumption (a reduction in water demand on-site of approximately 4,622 acre-feet per year [POWER 2012]), thereby making more water available for other farmers; and
- preventing urban sprawl on the Project areas and minimizing the risk of future projects on the site inducing regional population growth.

The development of a PV solar power plant would, at a minimum, utilize agricultural land for non-agricultural uses during the life of plant operations. As such, the impacts on agricultural resources of this Project when viewed in connection with past, current, and probable future projects would contribute to cumulatively significant impacts; however, with implementation of Mitigation Measure Agriculture-1, the Project's contribution to significant cumulative impacts would be reduced to less than significant.

Alternative 2: No Project

The No Project Alternative would not contribute to any cumulative effects. The status quo would include continued use of a majority of the Project area for agricultural purposes. The public lands in the Project area would continue to be managed by BLM in accordance with existing land use designations in the CDCA Plan, whereas the private lands would continue to be managed for agricultural production. Alternative 2 would not contribute to cumulative impacts to agricultural resources.

Alternative 3: Northern 230 kV Gen-tie Location

Alternative 3 is similar to Alternative 1 (proposed Project), with the exception of the location of the Northern 230 kV gen-tie line, which would be approximately 700 feet north of Alternative 1's proposed 230 kV gen-tie line. The cumulative impacts to agricultural resources associated with the construction, operation, maintenance, and decommissioning of Alternative 3 would be the same as Alternative 1. Alternative 3 in combination with other cumulative projects would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use (impact AG-1). Alternative 3 would not contribute cumulatively to conflicts with existing zoning for agricultural use since

with the issuance of a conditional use permit, uses for Alternative 3 along with cumulative scenario uses would be consistent with zoning, but would involve cancellation of a Wiliamson Act contract and contribute to cumulative cancellations (impact AG-2). As previously described, Alternative 3 and those projects under the cumulative scenario would likely not promote the loss of forest land or conversion of forest land to non-forest use (impact AG-4) due to the arid nature of the region, which does not support such resources. Alternative 3 would not involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use (impact AG-5). Alternative 3 would conflict with a River County-designated agricultural preserve at the site of the solar facility, but there are no Riverside County-designated agricultural preserves within the Northern Alternative ROW (impact AG-6). The proposed 230 kV gen-tie line would be on federal land within or adjacent to a designated utility corridor, and within a SEZ. Alternative 3 would not contribute cumulatively to impacts on the County Right-to-Farm ordinance as a result of development (impact AG-7). However, it is too speculative to predict if implementation of Alternative 3, along with those under the cumulative scenario, would involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use; conflict with land within the Riverside County Agricultural Preserve; or cause development of non-agricultural uses within 300 feet of agriculturally zoned property (impacts AG-5, AG-6, and AG-7). These impacts are site-specific and need to be addressed on a project-specific basis. It should be noted, however, that Alternative 3 would include implementation of a Project-specific Integrated Weed Management Plan (BMP-10), which would minimize impacts from the spread of weeds and control proliferation of existing weeds.

The development of a PV solar power plant would, at a minimum, utilize agricultural land for non-agricultural uses during the life of plant operations. As such, the impacts on agricultural resources of this Alternative when viewed in connection with past, current, and probable future projects would contribute to cumulatively significant impacts; however, with implementation of Mitigation Measure Agriculture-1, Alternative 3's contribution to significant cumulative impacts would be reduced to a less than significant level.

Alternative 4: Southern 230 kV Gen-tie Location

Alternative 4 is similar to Alternative 1 (proposed Project), with the exception of the location of the Southern 230 kV gen-tie line, which would be approximately 0.8 mile south of Alternative 1's proposed 230 kV gen-tie line. The cumulative impacts associated with the construction, operation, maintenance, and decommissioning of the solar facility would be the same as Alternative 1. Within the solar facility, Alternative 4 would convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland) to non-agricultural use. This would occur with development of other projects under the cumulative scenario, as well (impact AG-1). Alternative 4 would not conflict with existing zoning for agricultural use, but would conflice with a Williamson Act contract, along with cumulative projects upon issuance of a conditional use permit (impact AG-2). Alternative 4 along with development of cumulative projects would not cause significant impacts that would conflict with existing zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production (impact AG-3). Development of Alternative 4, along with cumulative projects, would not result in the loss of forest land or conversion of forest land to non-forest use (impact AG-4). Alternative 4 would not involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use (impact AG-5). There are no Riverside County-designated agricultural preserves on or adjacent to the Southern Alternative easement, though a preserve would be established on the site of the solar facility (impact AG-6). The proposed Southern Alternative 230 kV gen-tie line would be primarily on federal land. The portions of the Project on private lands would not preclude agricultural use outside of the easement or any Right-to-Farm by adjacent landowners (impact AG-7). However, as with the previous alternatives, it is too speculative to predict if implementation of Alternative 4, along with those under the cumulative scenario, would involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use; conflict with land within the Riverside County Agricultural Preserve; or cause development of non-agricultural uses within 300 feet of agriculturally zoned property (impacts AG-5, AG-6, and AG-7). These impacts are site-specific and need to be addressed on a project-specific basis. As with Alternatives 1 and 3, development under this alternative cumulative scenario would also

include implementation of a project-specific Integrated Weed Management Plan (BMP-10), which would minimize impacts from the spread of weeds and control proliferation of existing weeds.

The development of a PV solar power plant would, at a minimum, utilize agricultural land for non-agricultural uses during the life of plant operations. As such, the impacts on agricultural resources of this Alternative when viewed in connection with past, current, and probable future projects would contribute to cumulatively significant impacts; however, with implementation of Mitigation Measure Agriculture-1, Alternative 4's contribution to significant cumulative impacts would be reduced to a less than significant level.

Alternative 5: Reduced Acreage Alternative

Alternative 5 is similar to Alternative 1; however, Alternative 5 would avoid impacts to agricultural lands north of I-10. As such, the contribution to cumulative impacts to agricultural resources from development of Alternative 5 would be generally less than those of the proposed Project, due to the absence of solar facility development north of I-10.

Construction, Operation, Maintenance, and Decommissioning

The construction and operation of Alternative 5 would result in the utilization of 1,305 acres of farmland on the Palo Verde Mesa for non-agricultural uses over the Project's life (approximately 25 years). No conversion of Prime Farmland to non-agricultural use would occur within the City of Blythe under Alternative 5. Alternative 5, in combination with other developments within the Palo Verde Mesa, Palo Verde Valley, and the City of Blythe, would directly convert farmlands to a non-agricultural use (impact AG-1). With implementation of Alternative 5 and those under the cumulative scenario, land zoned for agricultural uses would be converted to non-agricultural uses. However, with the issuance of a conditional use permit, uses for Alternative 5, along with cumulative scenario uses, would be consistent with zoning. Alternative 5 would conflict with a Williamson Act contract, and contribute to cumulative cancellations (impact AG-2). Crops grown at the Alternative 5 site and within the region are irrigated because of the arid climate. Alternative 5, along with cumulative projects, would not result in the loss of forest land or conversion of forest land to non-forest use (impact AG-4). Additionally, as less development would occur under Alternative 5, there would be a corresponding reduction in on-site water consumption as estimated under Alternative 1.

The impacts on agricultural resources of Alternative 5 when viewed in connection with past, current, and probable future projects would contribute to cumulatively significant impacts; however, with implementation of Mitigation Measure Agriculture-1, Alternative 5's contribution to significant cumulative impacts would be reduced to a less than significant level.

Mitigation Measures

Agriculture-1 Prior to issuance of a grading permit, the Applicant shall provide written evidence of completion of at least one of the following measures to mitigate the impact to agricultural resources caused by conversion of land subject to the grading permit to non-agricultural uses. Important farmlands include Prime Farmlands, Farmlands of Statewide Importance, and Unique Farmlands as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency that is in effect as of the date of approval of the Project.

1) Acquire and record agricultural conservation easement(s) meeting the following criteria:

    a. Two acres placed under conservation easement for each net acre of Important Farmland converted to non-agricultural uses during the life of the Project. A plot plan

shall be submitted substantiating the net acreage calculation, which shall be consistent with the definition of "Net Acreage" in County Policy B-29[1].

b. Land subject to the conservation easement shall be located in Riverside County and must be of the same or higher State of California Department of Conservation farmland classification (Prime Farmland or Farmland of Statewide Importance) as the land that has been converted to non-agricultural uses.

c. The conservation easement must be held by a third party having the capacity to hold such an easement and in an easement form acceptable to Riverside County.

d. The Applicant must provide to the easement holder an endowment sufficient to generate funds for ongoing monitoring and enforcement of the easement.

2) Purchase of credits from an established agricultural land mitigation bank in an amount sufficient to achieve a level of protection at least equivalent to Mitigation Measure Agriculture-1 above;

3) Contribution of agricultural land or equivalent funding to an organization that provides for the preservation of farmland in California in an amount sufficient to achieve a level of protection at least equivalent to Mitigation Measure Agriculture-1 above; or

4) Participation in any agricultural land mitigation program adopted by Riverside County that provides equal or more effective mitigation than the measures listed above.

Residual Impacts After Mitigation

The conversion of Farmland to non-agricultural use in the unincorporated area of Riverside County over the life of the Project, and the cancellation of a Williamson Act contract, would be offset by conservation on other off-site lands; purchase of credits from an established agricultural land mitigation bank; contribution of agricultural land or equivalent funding to an organization that provides for the preservation of farmland in California; or participation in any agricultural land mitigation program adopted by Riverside County that provides equal or more effective mitigation than the measures listed in Mitigation Measure Agriculture-1. Implementation of Mitigation Measure Agriculture-1 would result in a less than significant impact.

NEPA Conclusions

The direct and indirect environmental effects of the Project and the action Alternatives and their contributions toward cumulative impacts are detailed above. The Project would convert agricultural resources (Prime Farmland, Unique Farmland, or Farmland of Statewide Importance) to non-agricultural use, but would comply with all applicable federal laws and policies. The No Project Alternative would not have impacts, as the existing circumstances and operations would continue essentially unchanged. With mitigation measures, none of the Alternatives considered are expected to increase cumulatively significant impacts on agricultural resources.

[1] The County of Riverside's Board of Supervisor's Policy B-29 defines "Net Acreage" as all areas involved in the production of power including, but not limited to, the power block, solar collection equipment, areas contiguous to solar collection equipment, transformers, transmission lines and/or piping, transmission facilities (on and off-site), service roads regardless of surface type – including service roads between panels or collectors, structures, and fencing surrounding all such areas. Net acreage shall not include off-site access roads or areas specifically set aside either as environmentally sensitive or designated as open space, and shall not include the fencing of such set aside areas.

4.2.3 Air Quality

Assessment of potential air quality impacts is based on an evaluation of emissions associated with construction and operation of the Project (solar facility site and gen-tie line), and an assessment of whether the Project's emissions would exceed significance criteria, which are discussed below. Impacts are addressed on both a maximum daily emissions level and an annual emissions level. Short-term impacts that are above the daily emissions threshold would be determined to be significant, as would impacts that exceed the annual thresholds. Impacts are addressed on the basis of the air basin/district in which emissions would occur. In addition, air emissions that could have an adverse affect on sensitive receptors have been addressed. Standard practices to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) significant impacts accompany each impact discussion.

Methodology For Analysis

Potential effects on air quality may occur as a result of emissions of criteria pollutants from the construction, operation, maintenance, and decommissioning components of the proposed Project and Alternatives. To assess those effects, emissions of criteria pollutants were estimated based on the Project construction and operation assumptions (see Appendix B, *Air Quality and Global Climate Change Report*). Emissions of reactive organic gases (ROG), sulfur oxides (SO_x), and greenhouse gas (GHG) from heavy equipment used in construction of the Blythe Mesa Solar Project were estimated based on 2014 emission factors for the South Coast Air Basin (SCAB) from the California Air Resources Board's (CARB's) OFFROAD2007 Model (CARB 2007a), as published on the South Coast Air Quality Management District's (SCAQMD's) website. Emissions of nitrogen oxides (NO_x), carbon dioxide (CO), and particulate matter were calculated based on the assumption that the equipment used for construction would, at a minimum, meet U.S. Environmental Protection Agency (EPA) Tier 2 emission standards. Emission factors for 2014 represent the average fleet emissions throughout the SCAB and were considered representative of construction equipment that would be used during construction of the project. Emissions from worker travel and truck traffic were calculated using the CARB's EMFAC2007 Model[2] (CARB 2007b) for on-road vehicles. Emissions of fugitive dust were estimated based on SCAQMD and EPA emission factors. Unmitigated construction emissions may have the potential to result in a temporary significant impact on the air quality. Additionally, qualitative analyses were performed to determine the significance of potential hazardous air pollutant emissions and odors from the proposed Project and Alternatives.

CEQA Significance Criteria

The CEQA thresholds of significance for air quality are derived from Appendix G of the CEQA Guidelines and from the MDAQMD CEQA Guidelines (MDAQMD 2009). The thresholds from both sources have been combined into a single set of criteria to define that a project could have potentially significant impact if it would:

AIR-1) Conflict with or obstruct implementation of the applicable air quality attainment or maintenance plan.[3]

[2] A comparison of emission factors for the EMFAC 2007 and 2011 model, using 2014 emission factors, determined that emission factors for EMFAC2007 are lower for all pollutants except particulate matter (PM) for medium-duty vehicles and SOx for light-and medium-duty vehicles. The increase that would be calculated for these pollutants using EMFAC 2011 emission factors is negligible and does not affect the conclusions of the analysis.

[3] A project is deemed to not exceed this threshold, and hence not be significant, if it is consistent with the existing land use plan. Zoning changes, specific plans, general plan amendments, and similar land use plan changes that do not increase dwelling unit density, do not increase vehicle trips, and do not increase vehicle miles traveled are also deemed to not exceed this threshold.

AIR-2) Violate any air quality standard or contribute substantially to an existing or projected air quality violation when added to the local background. The MDAQMD significance thresholds for criteria pollutants are shown in Table 4.2.3-1.

AIR-3) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including release emissions which exceed quantitative thresholds for ozone precursors).

AIR-4) Expose sensitive receptors to substantial pollutant concentrations including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (HI) (non-cancerous) greater than or equal to 1. As defined in the MDAQMD's CEQA Guidelines, sensitive receptors include land uses associated with residences, schools, daycare centers, playgrounds, and medical facilities. The following project types proposed for sites within the specified distance to an existing or planned (zoned) sensitive receptor land use must be evaluated using CEQA Significance Criterion AIR-4:

- Any industrial project within 1,000 feet;
- A distribution center (40 or more trucks per day) within 1,000 feet;
- A major transportation project (50,000 or more vehicles per day) within 1,000 feet;
- A dry cleaner using perchloroethylene within 500 feet; or
- A gasoline dispensing facility within 300 feet.

AIR-5) Create objectionable odors affecting a substantial number of people.

The following additional significance criteria from the County of Riverside CEQA Environmental Assessment Form are used in the analysis. A project could have potentially significant impacts if it would:

AIR-6) Expose sensitive receptors that are located within one mile of the Project site to substantial point source emissions.

AIR-7) Involve the construction of a sensitive receptor located within one mile of an existing substantial point source emitter.[4]

Table 4.2.3-1. MDAQMD Emissions Thresholds

CRITERIA POLLUTANT	ANNUAL THRESHOLD (tons)	DAILY THRESHOLD (pounds)
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen (NO_x)	25	137
Volatile Organic Compounds (VOCs)	25	137
Oxides of Sulfur (SO_x)	25	137
Particulate Matter under 10 Microns (PM_{10})	15	82
Particulate Matter under 2.5 Microns ($PM_{2.5}$)	15	82
Hydrogen Sulfide (H_2S)	10	54
Lead (Pb)	0.6	3

Source: SRA 2013.

NEPA Requirements

The Federal Clean Air Act applies to all air emission sources and to all areas within the United States. The NEPA evaluation would include consideration of the National Ambient Air Quality Standards (NAAQS), as well as other requirements that have been adopted as part of the MDAQMD's federally approved plans and programs. The federal General Conformity Rule emission thresholds (also referred to

[4] Threshold AIR-7 addresses the impacts of the existing environment on the proposed Project. Threshold AIR-7 accordingly does not relate to a subject encompassed by CEQA. The Project's conformance to threshold AIR-7 is addressed in this EIR/EA as a land use planning issue.

as *de minimis* thresholds) are not applicable to the Project because the generation site and transmission line are not within a federal non-attainment area for any criteria pollutant.

For purposes of the NEPA evaluation, the federal action must demonstrate that it conforms to the most recently approved State Implementation Plan (SIP), including implementation of any applicable control measures adopted in the approved SIP to reduce air emissions.

For purposes of the NEPA evaluation, the federal action portion of the Project must demonstrate that it conforms to the most recently approved SIP. The General Conformity Rule also requires that the federal action implement applicable control measures as adopted in the approved SIP to reduce air emissions to the extent feasible. For federal actions that exceed the *de minimis* thresholds, the federal action may adopt mitigation measures that are designed to demonstrate that the action:

AIR-1) Will not cause or contribute to new violations of any NAAQS;
AIR-2) Will not interfere with provisions in the applicable SIP for maintenance of any NAAQS;
AIR-3) Will not increase the frequency or severity of existing violations of any standard; or
AIR-4) Will not delay the timely attainment of any standard.

In addition, the California Office of Planning and Research has adopted significance criteria for global climate change impacts. Although NEPA does not address global climate change specifically, the BLM has adopted guidance for addressing climate change in NEPA documents (BLM 2009). The analysis follows current BLM guidance.

Applicable Best Management Practices

As part of the Project and Alternatives, the following applicable BMPs would minimize the environmental impacts to air quality. The full BMPs have been detailed below (see also Table 2-4 in Chapter 2) and are further referenced (by number) within the impact discussion.

NUMBER	BMP DESCRIPTION
BMP-1	**Drainage, Erosion, and Sedimentation Control Plan**. As part of the County of Riverside's Conditional Use Permit (CUP) requirements, a Drainage, Erosion, and Sedimentation Control Plan would be developed for the Project. The plan would address the drainage, erosion, and sediment control requirements to support all activities associated with construction, operation, maintenance, and decommissioning of the Project. For example, any stockpiles created would be kept on-site, with an upslope barrier in place to divert runoff. Stockpiles would be sprayed with water, covered with tarpaulins, and/or treated with appropriate dust suppressants, especially in preparation for high wind or storm conditions. Certified weed-free straw bale barriers would be installed to control sediment in runoff water; straw bale barriers would be installed only where sediment-laden water can pond, thus allowing the sediment to settle out. Topsoil from the site would be stripped, stockpiled, and stabilized before excavating earth for facility construction. Topsoil would be segregated and spread on freshly disturbed areas to reduce color contrast and aid rapid revegetation.
BMP-3	**Fugitive Dust Abatement Plan.** As required by the MDAQMD 403, a Fugitive Dust Abatement Plan would be prepared to address fugitive dust emissions during Project construction, operation, maintenance, and decommissioning. The plan would include measures to minimize fugitive dust emissions from wrecking, excavation, grading, clearing of land, and solid waste disposal operations, and would take every reasonable precaution to prevent visible particulate matter from being deposited upon public roadways as a direct result of operations. During construction, all unpaved roads, disturbed areas (e.g., areas of scraping, excavation, backfilling, grading, and compacting), and loose materials generated during Project construction activities would be watered as frequently as necessary to minimize fugitive dust generation. However, the amount of water will be minimized each time to prevent temporarily ponding water that may occur as a result of the fugitive dust plan. In water-deprived locations, water spraying would be limited to active disturbance areas only, and non-water-based dust control measures would be implemented in areas with intermittent use or use that is not heavy, such as stockpiles or access roads. Alternatively, chemical dust suppressants or durable polymeric soil stabilizers could be used. The dust suppression measures would consider the sensitivity of wildlife to the windborne dispersal of fugitive dust containing dust suppressants and the potential impact on future reclamation.

NUMBER	BMP DESCRIPTION
BMP-13	**Ground and surface disturbance.** Construction boundaries would be clearly delineated to minimize areas of ground and surface disturbance. Ground-disturbing activities shall be minimized, especially during the rainy season. To the maximum extent possible, construction-related activities (such as vehicle and foot traffic) would avoid areas with intact biological soil crusts. For cases in which impacts cannot be avoided, soil crusts would be salvaged and restored on the basis of recommendations by the County of Riverside and BLM once construction has been completed. Existing rocks, vegetation, and drainage patterns shall be preserved to the maximum extent possible. No paint or permanent discoloring agents shall be applied to rocks or vegetation (to indicate surveyor construction activity limits or for any other purpose). All stakes and flagging shall be removed from the construction area and disposed of in an approved facility. Where feasible, brush-beating, mowing, or use of protective surface matting rather than removing vegetation shall be employed. Clearing and disturbing of sensitive areas (e.g., steep slopes and natural drainages) and other areas shall be avoided outside the construction zone. Surface disturbance would be minimized by utilizing undulating surface disturbance edges; stripping, salvaging, and replacing topsoil; using contoured grading; controlling erosion; using dust suppression techniques; and restoring exposed soils to their original contour and vegetation.
BMP-14	**Travel and traffic.** Vehicular traffic on-site shall be confined to existing or designated travel routes and designated work areas. Access to the construction site and staging areas shall be limited to authorized vehicles and only through the designated roads. The extent of habitat disturbance during construction shall be reduced by keeping vehicles on access roads and minimizing foot and vehicle traffic through undisturbed areas. To the extent practical, travel shall be limited to stabilized roads. Road maintenance activities shall avoid blading existing forbs and grasses in ditches and adjacent to roads. Abandoned roads and roads no longer needed shall be subsoiled to increase infiltration and reduce soil compaction, then recontoured and revegetated. Construction traffic shall avoid unpaved surfaces to the extent practical (to reduce the risk of compaction) and reduce speed to lessen fugitive dust emissions. On unpaved or unstabilized surfaces within the construction site, speed limits (e.g., 20 mph) shall be posted with visible signs and enforced to minimize airborne fugitive dust. Project vehicle speeds shall be limited in areas occupied by special-status animal species. Traffic shall stop to allow wildlife to cross roads. Shuttle vans or carpooling shall be used to reduce the amount of traffic on access roads. Workers shall be trained to comply with the speed limit, use good engineering practices, minimize the drop height of materials, and minimize the number and extent of disturbed areas. The Project developer shall enforce these requirements.
BMP-15	**New access roads and parking lots.** New access roads shall be designed and constructed to the appropriate road design standards, such as those described in BLM Manual 9113 or County standards, whichever is applicable. New access roads shall be designed to follow natural land contours in the Project area and avoid existing desert washes. The specifications and codes developed by the DOT and County of Riverside Transportation Department are also to be taken into account. Primary access roads and parking lots shall be surfaced with aggregate that is hard enough that vehicles cannot crush it and thus cause dust or compacted soil conditions. Paving may also be used on access roads and parking lots. Alternatively, chemical dust suppressants or durable polymeric soil stabilizers would be used on these locations.
BMP-16	**Diesel engines.** All diesel engines used in the facility would be fueled only with ultra-low sulfur diesel with a sulfur content of 15 parts per million (ppm) or less. The Project would require use of construction diesel engines with a rating of 50 horsepower (hp) or higher that meet, at a minimum, the Tier 2 California Emission Standards for Off-Road Compression Ignition Engines, as specified in the California Code of Regulations, Title 13, Section 2423(b)(1), unless such engines are not available. Equipment meeting Tier 3 standards shall be used as feasible. If a Tier 2 engine is not available for off-road equipment larger than 100 hp, an engine equipped with retrofit controls to reduce exhaust emissions of nitrogen oxides (NO_x) and diesel particulate matter to no more than Tier 2 levels, may be used; however document to the County shall be provided discussing attempts to utilize Tier 3 vehicles. Regulatory agencies may determine that use of such devices is not practical when: • There is no available retrofit control device verified by either the CARB or the EPA to control engines in question to Tier 2 equivalent emission levels and the retrofitted or Tier 1 engines use the highest level of available control technology. • The construction equipment is intended to be on-site for five days or less. • It can be demonstrated there is a good faith effort to comply with the recommendation and that compliance is not practical. The idling time of diesel equipment would be limited to no more than 10 minutes, unless idling must be maintained for proper operation (e.g., drilling, hoisting, and trenching).

NUMBER	BMP DESCRIPTION
BMP-17	**High wind conditions.** In compliance with MDAQMD Rule 403 criteria, all soil-disturbing activities and travel on unpaved roads must be suspended during periods of high winds, with the exception of those trips necessary to maintain the facility and prevent property damage. A 25 mph wind speed has been determined on the basis of soil properties identified during site characterization. Monitoring of the wind speed would be required at the site during construction, operation, maintenance, and decommissioning.

Alternative 1: Proposed Project

Analysis of Direct and Indirect Impacts

Construction Emissions

Criteria Pollutant Emissions. Construction of the proposed Project would result in emissions of the following criteria air pollutants: VOCs, ROG, NO_x, CO, PM_{10}, $PM_{2.5}$, and SO_x. Based on the *Air Quality and Global Climate Change Report* (Appendix B), the criteria pollutants hydrogen sulfide and lead would not be generated during construction, operations, or decommissioning and are not evaluated further.

The projections used in calculating construction emissions are as follows:

- Off road equipment (Heavy construction equipment) would be similar to that used in other PV solar projects for site preparation, installation of the solar array, construction of the gen-tie line, and construction of the substation and O&M buildings (refer to Appendix B, Air Quality and Global Climate Change Report, for a detailed list of construction equipment [Table 6]).
- It was projected that watering three times daily would control PM10 and PM2.5 emissions by 75 percent, as documented in the Midwest Research Institute's evaluation of fugitive dust control measures. In addition, through the implementation of Rule 403, fugitive dust control measures must be utilized to reduce emissions of particulate matter during construction.
- For the purpose of estimating maximum daily traffic, it was conservatively assumed that the maximum number of employees (500) could arrive in a single day, resulting in 400 round trips per day. It was also assumed that 20 truck trips could occur in a single day.
- Workers and trucks would travel, on average, 40 miles round trip per day.

Emissions of ROG and SO_x from heavy equipment used in construction of the Project were estimated based on emission factors for the SCAB from the CARB's OFFROAD2007 Model (CARB 2007a), as published on the SCAQMD's website. OFFROAD2007 emission factors are currently in use in most land use planning models, including the CalEEMod Model. Although OFFROAD 2011 is the most current model, CARB staff has indicated that the OFFROAD2007 emission factors overestimated load factors and therefore the emission estimates are conservative. Since the proposed Project and Alternatives did not exceed the emission thresholds using the OFFROAD 2007 model, the construction emissions were not recalculated using the OFFROAD 2011 Model. Emissions of NO_x, CO, and PM were calculated based on the assumption that the equipment used for construction would, at a minimum, meet EPA Tier 2 emission standards. Emission factors for 2014 represent the average fleet emissions throughout the SCAB and were considered representative of construction equipment that would be used during construction of the Project. Emissions from worker travel and truck traffic were calculated using the CARB's EMFAC2007 Model (CARB 2007a) for on-road vehicles. Emissions of fugitive dust were estimated based on SCAQMD and EPA emission factors.

Emissions were estimated based on the construction schedule and equipment requirements for the Project provided by the Project team. As part of the Project, BMP-1 (Drainage, Erosion, and Sediment Control Plan), BMP-3 (Fugitive Dust Abatement Program), BMP-13 (Ground and Surface Disturbance), BMP-14 (Travel and Traffic), and BMP-17 (High Wind Conditions) would be implemented, which would minimize the air pollutant emissions during construction of the proposed gen-tie line and solar array

facility. Table 4.2.3-2 presents a summary of estimated construction emissions for the proposed Project, based on the above assumptions used to calculate construction emissions.

Table 4.2.3-2 Estimated Construction Emissions for Alternative 1

EMISSION SOURCE	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Maximum Daily Construction Emissions, lbs/day						
Off-road Equipment	35.35	99.36	63.31	12.81	4.61	4.10
On-road Vehicles	19.10	33.84	207.51	0.02	4.04	4.00
Fugitive Dust	---	---	---	---	41.82	8.78
TOTAL	**54.45**	**133.20**	**270.82**	**12.83**	**50.47**	**16.88**
CEQA Thresholds	137	137	548	137	82	82
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
Annual Construction Emissions, tons/year						
Off-road Equipment	1.71	13.90	8.61	0.39	0.62	0.55
On-road Vehicles	2.41	4.54	25.97	0.00	0.52	0.51
Fugitive Dust	---	---	---	---	5.02	0.96
TOTAL	**4.12**	**18.44**	**34.58**	**0.39**	**6.16**	**2.02**
CEQA Thresholds	25	25	100	25	15	15

Source: SRA 2013.

As shown in Table 4.2.3-2, emissions from construction of the Project would be below the general conformity thresholds and MDAQMD thresholds for all criteria. Alternative 1 would not create substantial emissions and would not conflict with or obstruct implementation of the air basin's air quality management plan.

Toxic Air Contaminant (TAC) Emissions. Construction activities would result in emissions of diesel particulate matter from heavy construction equipment used on-site and truck traffic to and from the site, as well as minor amounts of TAC emissions from motor vehicles (such as benzene, 1,3-butadiene, toluene, and xylenes) (Appendix B, *Air Quality and Global Climate Change Report*). Health effects attributable to exposure to diesel particulate matter are long-term effects based on chronic (i.e., long-term) exposure to emissions. Health effects are generally evaluated based on a lifetime (70 years) of exposure.

As discussed in Appendix B, the risk-driving TAC associated with construction activities at the Project area is diesel particulate emitted from equipment and vehicles operating on-site. Sources of diesel particulate matter at the site would include haul truck activities, heavy construction equipment, and contractor vehicles. Construction emissions were modeled using the SCREEN3 model to evaluate whether diesel particulate matter would result in a significant health risk to sensitive receptors in the Project area. A screening health risk analysis was conducted to evaluate the potential for the Project to expose sensitive receptors to substantial TAC concentrations. Based on the results of the screening health risk assessment, the maximum predicted cancer risk would be 0.549 in a million, which is below the significance threshold of 10 in a million. The chronic non-cancer hazard index would be 0.00769, which is below the significance threshold of 1.0. This estimate assumes implementation of BMP-16 (Diesel Engines) incorporating the use of ultra-low sulfur fuel in conjunction with Tier 2 and Tier 3 diesel equipment to reduce TACs emitted during construction of the proposed gen-tie line and solar array facility. Based on the screening analysis, construction activities would not result in a significant impact to sensitive receptors.

Consistency with Ambient Air Quality Plans. The MDAQMD's most recently adopted air quality management plan is its 2004 Ozone Attainment Plan (MDAQMD 2004). The MDAQMD has adopted the control measures recommended in the plan in its Rules and Regulations. The MDAQMD has also adopted fugitive dust control requirements in its Rule 403. Most importantly, the MDAQMD's significance thresholds establish the amount of emissions that can occur without affecting the ability of the air basin to comply with its air quality management plan and bring emissions into compliance with ambient standards.

Because the Project would comply with the MDAQMD's Rules and Regulations, including those adopted from the SIP, and because the criteria pollutants would not be substantial in relation to the pollutant thresholds, Project construction would not conflict with the applicable air quality plan.

Operational Emissions

Criteria Pollutant Emissions. Operations and maintenance include general operational activities in support of the site, as well as periodic washing of the solar panels. After the construction phase, the O&M buildings would serve the Project's approximately 12 permanent full-time employees, which would include one plant manager, five engineers/technicians, and six security staff. Project facilities would be monitored during operating (daylight) hours, even though the Project facilities would be capable of automatic start up, shutdown, self-diagnosis, and fault detection. The panels may be cleaned up to two times per year, if necessary to optimize output. O&M vehicles would include trucks (pickup and flatbed), forklifts, and loaders for routine and unscheduled maintenance and water trucks for solar panel washing. Large heavy-haul transport equipment may be brought to the solar facility infrequently for equipment repair or replacement. Fugitive dust would be generated from vehicles and equipment on unpaved surfaces. Standard practices would be implemented during operations to reduce potential air pollution impacts, including BMP-3 (Fugitive Dust Abatement Program), BMP-14 (Travel and Traffic), and BMP-17 (High Wind Conditions).

As shown in Table 4.2.3-3, operational emissions would be below the maximum daily and annual MDAQMD thresholds and would be below general conformity thresholds.

Table 4.2.3-3 Estimated Operational Emissions for the Project

EMISSION SOURCE	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Total Operational Emissions, lbs/day						
Off-road Equipment	10.99	37.59	19.95	1.32	1.15	1.02
On-road Vehicles	3.25	9.48	36.90	0.00	0.38	0.38
Fugitive Dust	---	---	---	---	6.87	0.69
TOTAL	**14.24**	**47.07**	**56.84**	**1.32**	**8.40**	**2.09**
CEQA Thresholds	137	137	548	137	82	82
Above Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*
Total Operational Emissions, tons/year						
Off-road Equipment	0.97	2.83	1.50	0.12	0.09	0.08
On-road Vehicles	0.06	0.09	0.72	0.00	0.01	0.01
Fugitive Dust	---	---	---	---	0.20	0.03
TOTAL	**1.03**	**2.92**	**2.22**	**0.12**	**0.30**	**0.12**
CEQA Thresholds	25	25	100	25	15	15

Source: SRA 2013.

Toxic Air Contaminant Emissions. Operations would result in minor emissions of diesel particulate matter from intermittent truck traffic to and from the site, as well as minor amounts of TAC emissions from motor vehicles (such as benzene, 1,3-butadiene, toluene, and xylenes). Based on the relatively low levels of criteria pollutants that would be emitted during operations and corresponding very low exposure to TACs, and considering implementation of standard practices, including BMP-16 (Diesel Engines) relative to use of ultra-low sulfur fuel in conjunction with Tier 2 and Tier 3 diesel equipment, no adverse health effects would occur. Operational emissions of TACs would be negligible, and operational emissions of diesel particulate from off-road equipment and on-road vehicles would be less than one percent of the annual significance threshold. Emissions of TACs in areas where fossil fuel-fired power generation would be replaced by power generated from the Project could decrease, but it is not likely that this decrease would occur in the immediate Project area.

Consistency with Ambient Air Quality Plans. As previously described, the MDAQMD's most recently adopted air quality management plan is its 2004 Ozone Attainment Plan (MDAQMD 2004). The MDAQMD has adopted the control measures recommended in the plan in its Rules and Regulations. The MDAQMD has also adopted fugitive dust control requirements in its Rule 403. Most importantly, the

MDAQMD's significance thresholds establish the amount of emissions that can occur without affecting the ability of the air basin to comply with its air quality management plan and bring emissions into compliance with ambient standards. Because the Project would comply with the MDAQMD's Rules and Regulations, including those adopted from the SIP, and because the criteria pollutants would not be substantial in relation the pollutant thresholds, Project operations would not conflict with the applicable air quality plan.

Decommissioning Emissions

Criteria Pollutant Emissions. The emissions associated with decommissioning of the solar array would be generated from disassembly and removal of solar panels, foundations, and other structures such as the substations, support buildings, piles, inverters and pads, and perimeter fencing. After removal of all equipment and buildings, the site would be returned to a condition similar to fallow agriculture. The equipment used for decommissioning would be similar to that used for construction, and standard practices would be implemented during decommissioning including BMP-1 (Drainage, Erosion, and Sediment Control Plan), BMP-3 (Fugitive Dust Abatement Program), BMP-14 (Travel and Traffic), and BMP-17 (High Wind Conditions). Land alteration would be minimal and no grading and clearing would be required. Since decommissioning would not involve grading or clearing activities and equipment used in the future is likely to be much more efficient than that currently used, the level of decommissioning emissions would be substantially less than emissions created during construction.

Toxic Air Contaminant Emissions. Similar to criteria pollutant emissions, hazardous air pollutant emissions during decommissioning would be less than those generated during construction due to advanced equipment engine technology and cleaner fuel.

Consistency with Ambient Air Quality Plans. Decommissioning activities would be conducted pursuant to adopted MDAQMD emission control measures in effect at the time of the activity. Because the Project would comply with the MDAQMD's Rules and Regulations, including those included in a SIP if applicable, the decommissioning would not conflict with the applicable air quality plan.

Application of CEQA Significance Thresholds

Construction, Operation, Maintenance, and Decommissioning

AIR-1) Would the Project conflict with or obstruct implementation of the applicable air quality attainment or maintenance plan?

The emissions from the proposed Project would not conflict with or obstruct implementation of the applicable air quality plan since the Project would comply with the MDAQMD Rules and Regulations, including those adopted from the SIP and those required under MDAQMD Rule 403 relative to fugitive dust. As such, the Project would implement MDAQMD Rule 403 (Fugitive Dust Control Measures) to minimize impacts from dust as a result of Project construction and operation. Measures would include: applying dust suppression in sufficient quantity and frequency to maintain a stabilized surface; applying chemical stabilizers within five working days of grading completion; and during construction, applying water to at least 70 percent of all inactive disturbed areas on a daily basis when there is evidence of wind-driven fugitive dust. The Project also would employ the following measures to reduce fugitive dust-generating activities, as feasible:

a) Require the application of non-toxic soil stabilizers according to manufacturers' specifications to all inactive construction areas (previously graded areas inactive for ten days or more);
b) On-site roadways used for fire access, site security, regular site maintenance, public parking, and employee parking will be graveled or otherwise stabilized;
c) Install wheel washers where vehicles enter and exit the construction site onto paved roads or wash off trucks and any equipment leaving the site;
d) Require all trucks hauling dirt, sand, soil, or other loose materials to be covered;
e) Suspend all excavating and grading operations when wind gusts (as instantaneous gusts) exceed 25 miles per hour [mph];

f) Appoint a construction relations officer to act as a community liaison concerning on-site construction activity including resolution of issues related to PM10 generation; and
g) When sweeping streets to remove visible soil materials, use street sweepers or roadway washing trucks.

The proposed Project would be operated in compliance with all applicable MDAQMD Rules and Regulations as well as the air quality plan and would incorporate air quality BMPs listed in this section. While Project operations have limited potential for dust generation, dust control will be an operational priority for the Project as well, because dust reduces the efficiency of solar panels. Decommissioning emissions would be similar to construction emissions. Thus, impacts would not conflict with or obstruct implementation of applicable air quality plans during construction, operation, maintenance, and decommissioning and therefore would be less than significant.

AIR-2) Would the Project violate any air quality standard or contribute substantially to an existing or projected air quality violation when added to the local background?

The proposed Project would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. Emissions from construction of Project components would be below the impact significance thresholds for the maximum daily construction for all the criteria pollutants. In addition, the annual emissions would also be below the impact thresholds for all the criteria pollutants. The proposed Project would not result in significant TACs from diesel exhaust or other TACs that may be produced during construction due to the short-term nature of the construction period and the BMPs that would be implemented with the Project.

Operations and maintenance activities, consisting of routine maintenance, panel washing, and security provided by 12 full-time staff, would generate minor levels of criteria pollutants that would be well below significance thresholds on a daily and annual basis. After the construction phase, the O&M building would serve the Project's approximately 12 permanent full-time employees. The panels may be cleaned up to two times per year, if necessary to optimize output. O&M vehicles would include trucks (pickup and flatbed), forklifts, and loaders for routine and unscheduled maintenance and water trucks for solar panel washing. Large heavy-haul transport equipment may be brought to the Project area infrequently for equipment repair or replacement. Fugitive dust would be generated from vehicles and equipment on unpaved surfaces.

Decommissioning emissions would be similar to construction emissions. The emissions associated with decommissioning of the solar array would be generated from disassembly and removal of solar panels, foundations, and other structures such as the substations, support buildings, piles, inverters and pads, and perimeter fencing. After removal of all equipment and buildings, the site would be returned to a condition similar to fallow agriculture. The equipment used for decommissioning would be similar to that used for construction. Land alteration would be minimal and no grading and clearing would be required. Since decommissioning would not involve grading or clearing activities and equipment used in the future is likely to be much more efficient than that currently used, the level of decommissioning emissions would be substantially less than emissions created during construction. Decommissioning activities would be conducted pursuant to adopted MDAQMD emission control measures in effect at the time of the activity.

Thus, impacts would not violate air quality standards or contribute substantially to an existing or projected air quality violation during construction, operation, maintenance, and decommissioning and therefore would be less than significant.

AIR-3) Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including release emissions which exceed quantitative thresholds for ozone precursors)?

The proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant in the MDAQMD, which is non-attainment for California Ambient Air Quality Standards (CAAQS) for ozone (O_3) and PM_{10}. During construction, the Project's estimated ROG emissions

are less than one percent of the total MDAQMD emissions budget; NO_x emissions are less than one percent of the total emissions budget; and PM_{10} emissions are less than one percent of the total emissions budget. The Project's emissions of non-attainment pollutants would fall below the thresholds the MDAQMD has established to ensure its ability to bring the air basin into compliance, based upon the MDAQMD's projections of combined emissions from all sources. Less than significant emissions would occur during operations, and the Project would also provide renewable energy, which would reduce statewide emissions associated with power generation compared to fossil fuel power generation. The proposed Project would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment. Decommissioning emissions would be less than construction emissions. Thus, impacts would not result in a cumulative net increase of any criteria pollutant in the MDAQMD during construction, operation, maintenance, and decommissioning and therefore would be less than significant.

AIR-4) Would the Project expose sensitive receptors to substantial pollutant concentrations including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (H1) (non-cancerous) greater than or equal to 1? As defined in the MDAQMD's CEQA Guidelines, sensitive receptors include land uses associated with residences, schools, daycare centers, playgrounds, and medical facilities. The following project types proposed for sites within the specified distance to an existing or planned (zoned) sensitive receptor land use must be evaluated using CEQA Significance Criterion AIR-4:

- **Any industrial project within 1,000 feet;**
- **A distribution center (40 or more trucks per day) within 1,000 feet;**
- **A major transportation project (50,000 or more vehicles per day) within 1,000 feet;**
- **A dry cleaner using perchloroethylene within 500 feet; or**
- **A gasoline dispensing facility within 300 feet?**

The proposed Project would not expose sensitive receptors to substantial pollutant concentrations, including TACs. Health effects are generally evaluated based on a lifetime (70 years) of exposure. The proposed Project would not result in significant TACs from diesel exhaust or other TACs that may be produced during construction due to the short-term nature (three years) of the construction period, which is only 4.3 percent of the exposure period for which lifetime exposure is calculated. Diesel particulate emissions from off-road equipment, which would be operating at the site rather than on roads, would result in emissions that are less than 10 percent of the significance threshold on an annual basis. During operations, the emissions of both criteria and toxic pollutants would be relatively small. The decommissioning of the Project would not expose sensitive receptors to substantial pollutant concentrations given the distance of sensitive receptors from the site, the intermittent nature of construction activities, and the implementation of BMP-16 related to diesel engines. Thus, impacts during construction, operation, maintenance, and decommissioning would not expose sensitive receptors to substantial pollutant concentrations and therefore would be less than significant.

AIR-5) Would the Project create objectionable odors affecting a substantial number of people?

The proposed Project would not create objectionable odors affecting a substantial number of people. The exhaust from construction equipment and use of building materials such as asphalt paving, adhesives and binders, and protective coatings may create mild odors in areas on and adjacent to the Project area (within 1,000 feet). Construction odors would be temporary and not overly offensive. Due to the sparse population adjacent to the site, these mild odors would not affect a substantial number of people. In regard to Project operation, equipment and other Project activities would not include significant odor-producing sources. Few odor sources would be activated during decommissioning. Thus, impacts would not create objectionable odors affecting a substantial number of people during construction, operation, maintenance, and decommissioning and therefore would be less than significant.

AIR-6) Would the Project expose sensitive receptors that are located within one mile of the Project site to substantial point source emissions?

The proposed Project would not expose sensitive receptors that are within one mile of the Project area to substantial point source emissions. The impact would be less than significant.

AIR-7) Would the Project involve the construction of a sensitive receptor located within one mile of an existing substantial point source emitter?

The proposed Project does not involve the establishment of a use that would be classified as a sensitive receptor. There would be no impact.

Alternative 2: No Project Alternative

Under the No Project Alternative, neither the BLM nor the County of Riverside would approve the Project. Authorizations, either the ROW grant (federal) or the Conditional Use Permit (County), would not be issued. As a result, no gen-tie facilities would be constructed on BLM-managed lands and no solar facilities would be on private lands. The public lands in the Project area would continue to be managed by BLM in accordance with existing land use designations in the CDCA Plan, whereas the private lands would continue to be managed for agricultural production. The results of the No Project Alternative would be the following:

The impacts of the proposed Project would not occur. However, the land on which the Project is proposed would become available for other uses. As noted above, future use of private lands would include continuation of agricultural use (refer to Table 3.2.3-2 for the summary of air quality monitoring data applicable to the Project area for years 2006 to 2010). The federal lands are within or adjacent to a designated utility corridor, and within a SEZ, both of which that includes a number of existing and planned transmission facilities. It is anticipated that the use of this corridor and SEZ would continue to support electrical transmission with or without the proposed Project. That use is consistent with BLM's land use plan. The benefits of the proposed Project in reducing fossil fuel use and GHG emissions from gas-fired generation would not occur. Both State and federal law support the increased use of renewable power generation. However, if the proposed Project were not approved, renewable projects would likely be developed on other sites in Riverside County, in other areas of California, or in adjacent states within the Desert Southwest. This pressure to develop renewable energy would remain as long as state and federal laws and regulations provide mandates for integration of renewable energy as a large percentage of distributed power.

Application of CEQA Significance Thresholds

Under this Alternative, the air quality of the site is not expected to change noticeably from existing conditions and, as such, this No Project Alternative would not result in the air quality impacts or benefits described for Alternative 1. However, in the absence of this Project, other renewable energy projects may be constructed to meet State mandates at other locations, and those projects would likely have similar (or greater) impacts as the proposed Project in those locations. The No Project Alternative would have no CEQA impacts, as current circumstances would be projected to continue.

Alternative 3: Northern Alternative 230 kV Gen-tie Line Location

Analysis of Direct and Indirect Impacts

Construction

Criteria Pollutants. Relative to the maximum daily emissions (pounds per day), Alternative 3 would have impacts that are the same as Alternative 1. The minor increase in length of the gen-tie line under Alternative 3 would not cause an increase in construction activity from a maximum day scenario; therefore, Alternative 3 would not have a substantial air quality impact or exceed air quality emissions thresholds on a daily basis. On an annual basis, the additional construction required for the longer 230 kV

gen-tie line (8.8 miles versus 8.4 miles) would have slightly greater air emissions than Alternative 1. This would result in a small increase in construction-related criteria pollutant emissions, as shown in Table 4.2.3-4. As with Alternative 1, standard practices would be implemented to minimize impacts, including BMP-1 (Drainage, Erosion, and Sediment Control Plan), BMP-3 (Fugitive Dust Abatement Program), BMP-13 (Ground and Surface Disturbance), BMP-14 (Travel and Traffic), and BMP-17 (High Wind Conditions). Accordingly, Alternative 3 would not have a substantial air quality impact or exceed air quality emissions thresholds on an annual basis.

Table 4.2.3-4 Estimated Annual Construction Emissions for Alternative 3

EMISSION SOURCE	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Annual Construction Emissions, tons/year						
Solar Facility and Gen-tie Line						
Off-road Equipment	1.71	13.97	8.65	0.39	0.62	0.55
On-road Vehicles	2.41	4.55	25.97	0.00	0.52	0.51
Fugitive Dust	---	---	---	---	5.02	0.96
TOTAL	**4.12**	**18.52**	**34.62**	**0.39**	**6.17**	**2.03**
CEQA Thresholds	25	25	100	25	15	15

Source: SRA 2013.

Toxic Air Contaminant Emissions. The impacts of Alternative 3 relative to TACs would be similar to Alternative 1. The longer reach of 230 kV gen-tie line would slightly increase emissions, including emissions of diesel particulates, on an annual basis during the three-year construction period. Because the effects would be of short-term duration, result in very low exposure to TACs, and considering implementation of standard practices including BMP-16 (Diesel Engines) relative to use of ultra-low sulfur fuel in conjunction with Tier 2 and Tier 3 diesel equipment, no adverse health effects would occur. Motor vehicle emissions would not be concentrated in any one area but would be dispersed along travel routes and would not pose a significant health risk to receptors.

Consistency with Ambient Air Quality Plans. The Project would comply with the MDAQMD's Rules and Regulations, including those adopted from the SIP, and because the criteria pollutants would not be substantial in relation the pollutant thresholds, Project construction would not conflict with the applicable air quality plan.

Operations

There would be no appreciable differences between operations of Alternative 3 and Alternative 1 (see the Alternative 1 impact analysis). Alternative 3 operations would consist of inspection and maintenance activities, including washing of the solar panels, repairs, and security. Standard practices would be implemented with Alternative 3 including BMP-3 (Fugitive Dust Abatement Program), BMP-15 (New Access Roads and Parking Lots), and BMP-17 (High Wind Conditions). All operational emissions would be below the maximum daily and annual emissions thresholds put forth by the MDAQMD.

Decommissioning

Decommissioning emissions associated with Alternative 3 would be similar to Alternative 1 (see the Alternative 1 impact analysis). Standard practices would be implemented during decommissioning including BMP-1 (Drainage, Erosion, and Sediment Control Plan), BMP-3 (Fugitive Dust Abatement Program), BMP-14 (Travel and Traffic), and BMP-17 (High Wind Conditions). Since decommissioning would not involve grading or clearing activities and equipment used in the future is likely to be much more efficient than that currently used, the level of decommissioning emissions would be substantially less than emissions created during construction for both criteria and hazardous pollutants. Consequently, the decommissioning emissions would be below the maximum daily and annual emissions thresholds put forth by the MDAQMD.

Application of CEQA Significance Thresholds

Construction, Operation, maintenance, and decommissioning

With respect to Alternative 3, the CEQA significance determinations applicable to construction, operation, maintenance, and decommissioning are similar to that of Alternative 1 (proposed Project) and summarized below:

AIR-1) Would Alternative 3 conflict with or obstruct implementation of the applicable air quality attainment or maintenance plan?

Alternative 3 would not conflict with or obstruct implementation of the applicable air quality plan since it would comply with the MDAQMD Rules and Regulations, including those adopted from the SIP and those required under MDAQMD Rules, including Rule 403 relative to fugitive dust, and would implement BMPs. The impacts would be less than significant.

AIR-2) Would Alternative 3 violate any air quality standard or contribute substantially to an existing or projected air quality violation when added to the local background?

Alternative 3 would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. The impacts would be less than significant.

AIR-3) Would Alternative 3 result in a cumulatively considerable net increase of any criteria pollutant for which the Alternative 3 region is non-attainment under an applicable federal or state ambient air quality standard (including release emissions which exceed quantitative thresholds for ozone precursors)?

Alternative 3 would not result in a cumulatively considerable net increase of any criteria pollutant in the MDAQMD, which is non-attainment for CAAQS for O_3 and PM_{10}. Alternative 3's emissions of non-attainment pollutants would fall below the thresholds the MDAQMD has established to ensure its ability to bring the air basin into compliance, based upon the MDAQMD's projections of combined emissions from all sources. The impacts would be less than significant.

AIR-4) Would Alternative 3 expose sensitive receptors to substantial pollutant concentrations including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (H1) (non-cancerous) greater than or equal to 1? As defined in the MDAQMD's CEQA Guidelines, sensitive receptors include land uses associated with residences, schools, daycare centers, playgrounds, and medical facilities. The following project types proposed for sites within the specified distance to an existing or planned (zoned) sensitive receptor land use must be evaluated using CEQA Significance Criterion AIR-4:

- **Any industrial project within 1,000 feet;**
- **A distribution center (40 or more trucks per day) within 1,000 feet;**
- **A major transportation project (50,000 or more vehicles per day) within 1,000 feet;**
- **A dry cleaner using perchloroethylene within 500 feet; or**
- **A gasoline dispensing facility within 300 feet.**

Alternative 3 would not expose sensitive receptors to substantial pollutant concentrations, including TACs. The impacts would be less than significant.

AIR-5) Would Alternative 3 create objectionable odors affecting a substantial number of people?

Alternative 3 would not create objectionable odors affecting a substantial number of people. The potential for odors from Project construction is less than significant.

AIR-6) Would Alternative 3 expose sensitive receptors that are located within one mile of the Alternative 3 site to substantial point source emissions?

See AIR-4 above. Alternative 3 would not expose sensitive receptors that are within one mile of the Project area to substantial point source emissions. The impact would be less than significant.

AIR-7) Would Alternative 3 involve the construction of a sensitive receptor located within one mile of an existing substantial point source emitter?

Alternative 3 would not involve the establishment of a use that would be classified as a sensitive receptor. There would be no impact.

Alternative 4: Southern Alternative 230 kV Gen-tie Line Location

Analysis Direct and Indirect Impacts

Construction

Criteria Pollutants. With respect to maximum daily emissions, Alternative 4 would have impacts that are the same as Alternative 1 (see the Alternative 1 impact analysis). The minor increase in length of the gen-tie line construction activity under Alternative 4 would not cause an increase in construction activity from a maximum construction day scenario. Alternative 4 would not have a substantial air quality impact or exceed air quality emissions thresholds on a daily basis. On an annual basis, the additional construction required for the longer 230 kV gen-tie line (9.5 miles versus 8.4 miles) would have slightly greater air emissions than Alternative 1. This would result in a small increase in construction-related criteria pollutant emissions on an annual basis compared to Alternative 1. Alternative 4 annual construction emissions are shown in Table 4.2.3-5. As with Alternative 1, standard practices would be implemented to minimize impacts, including BMP-1 (Drainage, Erosion, and Sediment Control Plan), BMP-3 (Fugitive Dust Abatement Program), BMP-13 (Ground and Surface Disturbance), BMP-14 (Travel and Traffic), and BMP-17 (High Wind Conditions). The small increase in annual emissions compared to Alternative 1 would not have a substantial air quality impact or exceed air quality emissions thresholds.

Table 4.2.3-5 Estimated Annual Construction Emissions for Alternative 4

EMISSION SOURCE	ROG	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
Annual Construction Emissions, tons/year						
Solar Facility and Gen-tie Line						
Off-road Equipment	1.71	14.08	8.72	0.39	0.63	0.56
On-road Vehicles	2.41	4.57	25.97	0.00	0.52	0.52
Fugitive Sources					5.01	0.96
TOTAL	**4.12**	**18.65**	**34.70**	**0.39**	**6.16**	**2.03**
CEQA Thresholds	25	25	100	25	15	15

Source: SRA 2013.

Toxic Air Contaminant Emissions. The impacts of Alternative 4 relative to TACs would be similar to Alternative 1. The longer reach of the Alternative 4 230 kV gen-tie line would slightly increase, including emissions of diesel particulates, compared to Alternative 1, including annual emissions of diesel particulates during the three-year construction period. Because the effects would be of short-term duration, result in very low exposure to TACs, and considering implementation of standard practices including BMP-16 (Diesel Engines) incorporating use of ultra-low sulfur fuel in conjunction with Tier 2 and Tier 3 diesel equipment, no adverse health effects would occur. Motor vehicle emissions would not be concentrated in any one area but would be dispersed along travel routes and would not pose a significant health risk to receptors.

Consistency with Ambient Air Quality Plans. The Project would comply with the MDAQMD's Rules and Regulations, including those adopted from the SIP, and because the criteria pollutants would not be substantial in relation to pollutant thresholds, Project construction would not conflict with the applicable air quality plan.

Operation

There would be no appreciable differences between operations of Alternative 4 and Alternative 1. Alternative 4 operations would consist of inspection and maintenance activities, including washing of the solar panels, repairs, and security. Standard practices would be implemented with Alternative 4 including BMP-3 (Fugitive Dust Abatement Program), BMP-15 (New Access Roads and Parking Lots), and BMP-17 (High Wind Conditions). All operational emissions would be below the maximum daily and annual emissions thresholds put forth by the MDAQMD.

Decommissioning

Decommissioning emissions associated with Alternative 4 would be less than Alternative 1. Standard practices would be implemented during decommissioning including BMP-1 (Drainage, Erosion, and Sediment Control Plan), BMP-3 (Fugitive Dust Abatement Program), BMP-14 (Travel and Traffic), and BMP-17 (High Wind Conditions). Since decommissioning would not involve grading or clearing activities and equipment used in the future is likely to be much more efficient than that currently used, the level of decommissioning emissions would be substantially less than emissions created during construction for both criteria and hazardous pollutants. Consequently, the Alternative 4 decommissioning emissions would be below the maximum daily and annual emissions thresholds put forth by the MDAQMD.

Application of CEQA Significance Thresholds

Construction, Operation, Maintenance, and Decommissioning

With respect to Alternative 4, the CEQA significance determinations applicable to construction, operation, maintenance, and decommissioning are similar to that of Alternative 1 (proposed Project) and summarized below:

AIR-1) Would Alternative 4 conflict with or obstruct implementation of the applicable air quality attainment or management plan?

Alternative 4 would not conflict with or obstruct implementation of the applicable air quality plan since it would comply with the MDAQMD Rules and Regulations, including those adopted from the SIP and those required under MDAQMD Rules, including Rule 403 relative to fugitive dust, and would implement BMPs. The impacts would be less than significant.

AIR-2) Would Alternative 4 violate any air quality standard or contribute substantially to an existing or projected air quality violation when added to the local background?

Alternative 4 would not violate any air quality standard or contribute substantially to an existing or projected air quality violation. The impacts would be less than significant.

AIR-3) Would Alternative 4 result in a cumulatively considerable net increase of any criteria pollutant for which the Alternative 3 region is non-attainment under an applicable federal or state ambient air quality standard (including release emissions which exceed quantitative thresholds for ozone precursors)?

Alternative 4 would not result in a cumulatively considerable net increase of any criteria pollutant in the MDAQMD, which is non-attainment for CAAQS for O_3 and PM_{10}. Alternative 4's emissions of non-attainment pollutants would fall below the thresholds the MDAQMD has established to ensure its ability to bring the air basin into compliance, based upon the MDAQMD's projections of combined emissions from all sources. The impacts would be less than significant.

AIR-4) Would Alternative 4 expose sensitive receptors to substantial pollutant concentrations including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (H1) (non-cancerous) greater than or equal to 1? As defined in the MDAQMD's CEQA Guidelines, sensitive receptors include land uses associated with residences, schools, daycare centers, playgrounds, and medical facilities. The following

project types proposed for sites within the specified distance to an existing or planned (zoned) sensitive receptor land use must be evaluated using CEQA Significance Criterion AIR-4:

- **Any industrial project within 1,000 feet;**
- **A distribution center (40 or more trucks per day) within 1,000 feet;**
- **A major transportation project (50,000 or more vehicles per day) within 1,000 feet;**
- **A dry cleaner using perchloroethylene within 500 feet; or**
- **A gasoline dispensing facility within 300 feet?**

Alternative 4 would not expose sensitive receptors to substantial pollutant concentrations, including TACs. The impacts would be less than significant.

AIR-5) Would Alternative 4 create objectionable odors affecting a substantial number of people?

Alternative 4 would not create objectionable odors affecting a substantial number of people. The potential for odors from Project construction is less than significant.

AIR-6) Would Alternative 4 expose sensitive receptors that are located within one mile of the Alternative 3 site to substantial point source emissions?

See AIR-4 above. Alternative 4 would not expose sensitive receptors that are within one mile of the Project area to substantial point source emissions. The impact would be less than significant.

AIR-7) Would Alternative 4 involve the construction of a sensitive receptor located within one mile of an existing substantial point source emitter?

Alternative 4 would not involve the establishment of a use that would be classified as a sensitive receptor. There would be no impact.

Alternative 5: Reduced Acreage Alternative

Similar to Alternative 1, Alternative 5 would include the construction, operation, maintenance, and decommissioning of a solar facility and associated infrastructure. The primary difference between Alternatives 1 and 5 is the absence of solar facility development north of I-10, which would reduce electrical output from a 485-MW down to a 315-MW alternating current solar PV facility. The Reduced Acreage Alternative would be on a reduced footprint of approximately 2,476 acres (from 3,660 acres for the proposed Project). Alternative 5 would include approximately 2,403 acres for the solar field. Similar to the proposed Project, 73 acres would be utilized for the 230 kV gen-tie line. In comparison to Alternative 1, Alternative 5 would eliminate one on-site substation and one O&M building and would have one access point (planned on Seeley Avenue). The Reduced Acreage Alternative would also no longer extend a 230 kV overhead gen-tie line from an on-site substation north of I-10, as this Alternative would not be developed on land north of I-10. Instead, this Alternative would construct an approximately 7.8-mile-long, 230 kV overhead gen-tie line from the proposed on-site substation south of I-10 to the approved Colorado River Substation. Approximately three miles of the gen-tie line would be within the solar facility.

The construction and decommissioning of Alternative 5 would not exceed the air quality impacts identified under the Alternative 1 analysis. Therefore, the Alternative 1 analysis would be applicable to Alternative 5 in these phases. Alternative 5 would avoid impacts that would result from the construction, operation, maintenance, and decommissioning of a solar development north of I-10; however, the land on which Alternative 1 is proposed would continue with existing uses.

Analysis of Direct and Indirect Impacts

Construction Emissions

Construction of the Reduced Acreage Alternative is anticipated to be similar to the proposed Project; however, under this Alternative, a reduced number of workers would be required. The solar field would be developed in six-month phases, with six blocks constructed at a time (each block 100 acres, for a total of 600 acres at a time). Approximately 400 (500 under proposed Project) daily workers would be present on-site during peak construction. Worker construction traffic would consist of approximately 400 daily vehicle roundtrips (200 employees [300 under the proposed Project] would travel alone, and approximately 130 employees [200 under the proposed Project] would carpool). Anticipated average daily material deliveries would consist of about 20 truck deliveries per day for 24 months. It can be assumed that maximum daily emissions under Alternative 5 would be similar to those detailed under the Alternative 1 analysis, as the amount of daily site disturbance and equipment would be virtually the same for the Reduced Acreage Alternative. The key difference between Alternative 5 and the proposed Project from an air quality perspective is that the amount of workers during the construction period would be greater under the proposed Project. The analysis under Alternative 1 would apply to Alternative 5.

Operational Emissions

Operation and maintenance include general operational activities in support of the site, as well as periodic washing of the solar panels. After the construction phase, the O&M building would serve Alternative 5's approximately seven permanent full-time employees. This slight reduction in full-time employees and a smaller-scaled solar facility would result in a reduced amount of operational emissions from Alternative 5 operation. Alternative 5 would still operate below the maximum daily and annual MDAQMD thresholds and would be below general conformity thresholds. Because Alternative 5 would comply with the MDAQMD's Rules and Regulations, including those adopted from the SIP, and because the criteria pollutants would not be substantial in relation the pollutant thresholds, Alternative 5 operations would not conflict with the applicable air quality plan.

Decommissioning Emissions

The analysis for Alternative 1 would apply to Alternative 5.

Application of CEQA Significance Thresholds

Construction, Operation, Maintenance, and Decommissioning

AIR-1) Would Alternative 5 conflict with or obstruct implementation of the applicable air quality attainment or maintenance plan?

Alternative 5 development would result in slightly less construction, operations, and decommissioning emissions than those estimated under Alternative 1. The emissions would not exceed maximum daily and annual MDAQMD thresholds and would be below general conformity thresholds. As such, Alternative 5 would be operated in compliance with all applicable MDAQMD Rules and Regulations as well as the air quality plan and would incorporate air quality BMPs listed in the Alternative 1 analysis section.

AIR-2) Would Alternative 5 violate any air quality standard or contribute substantially to an existing or projected air quality violation when added to the local background?

Alternative 5 development would not violate any air quality standard or contribute substantially to an existing or projected air quality violation, similar to Alternative 1. Under Alternative 5, operation and maintenance activities, consisting of routine maintenance, panel washing, and security provided by seven full-time staff, would generate minor levels of criteria pollutants that would be well below significance thresholds on a daily and annual basis for the solar facility itself.

Emissions would not exceed MDAQMD thresholds and would be below general conformity thresholds; as such, the AIR-2 conclusions under Alternative 1 would apply to Alternative 5.

AIR-3) Would Alternative 5 result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including release emissions which exceed quantitative thresholds for ozone precursors)?

Alternative 5 would involve a reduced footprint, a reduced amount of total construction, and a small reduction in full-time employees during operation in comparison to Alternative 1. As explained above, emissions under Alternative 5 would not exceed maximum daily and annual MDAQMD thresholds and would be below general conformity thresholds. Therefore, the AIR-3 analysis under Alternative 1 would apply to Alternative 5. Alternative 5 would not result in a cumulatively considerable net increase of any criteria pollutant for which the region is in non-attainment. Decommissioning emissions would be less than construction emissions. Thus, impacts would not result in a considerable contribution to any cumulative net increase of any criteria pollutant in the MDAQMD during construction, operation, maintenance, and decommissioning, and therefore would be less than significant.

AIR-4) Would Alternative 5 expose sensitive receptors to substantial pollutant concentrations including those resulting in a cancer risk greater than or equal to 10 in a million and/or a Hazard Index (H1) (non-cancerous) greater than or equal to 1? As defined in the MDAQMD's CEQA Guidelines, sensitive receptors include land uses associated with residences, schools, daycare centers, playgrounds, and medical facilities. The following project types proposed for sites within the specified distance to an existing or planned (zoned) sensitive receptor land use must be evaluated using CEQA Significance Criterion AIR-4:

- **Any industrial project within 1,000 feet;**
- **A distribution center (40 or more trucks per day) within 1,000 feet;**
- **A major transportation project (50,000 or more vehicles per day) within 1,000 feet;**
- **A dry cleaner using perchloroethylene within 500 feet; or**
- **A gasoline dispensing facility within 300 feet?**

Under Alternative 5, a reduction in solar development, construction, and full-time employees would result in fewer air quality impacts in comparison to Alternative 1. The conclusions detailed within the Alternative 1 AIR-4 analysis would apply; therefore, impacts during construction, operation, maintenance, and decommissioning would not expose sensitive receptors to substantial pollutant concentrations, and would be less than significant.

AIR-5) Would Alternative 5 create objectionable odors affecting a substantial number of people?

Under Alternative 5, a reduction in solar development, construction, and full-time employees would result in fewer air quality impacts in comparison to Alternative 1. The impacts detailed within the Alternative 1 AIR-5 analysis would not be exceeded by Alternative 5; therefore, impacts would not create objectionable odors affecting a substantial number of people during construction, operation, maintenance, and decommissioning, and would be less than significant.

AIR-6) Would Alternative 5 expose sensitive receptors that are located within one mile of the Project site to substantial point source emissions?

The AIR-6 analysis for Alternative 1 would apply to Alternative 5.

AIR-7) Would Alternative 5 involve the construction of a sensitive receptor located within one mile of an existing substantial point source emitter?

The AIR-7 analysis for Alternative 1 would apply to Alternative 5.

Cumulative Impacts

The contribution of the Project and each Alternative to the cumulative increase in pollutants for which the Project area is listed as non-attainment for the federal or State ambient air quality standards is addressed above, in connection with threshold AIR-3. This section discusses whether the Project or any of the action Alternatives would contribute to other cumulative impacts.

Geographic Scope

In analyzing cumulative impacts from a proposed project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the project's location is listed as non-attainment for the federal or State ambient air quality standards. In the event direct or indirect impacts from a project are less than significant, a project may still have a cumulatively considerable impact on air quality if the emissions from the project, in combination with the emissions from other proposed or reasonably foreseeable future projects, are cumulatively considerable and/or the project's contribution accounts for more than an insignificant proportion of the cumulative total emissions.

The geographic scope for potential cumulative impacts to regional air quality is the Mojave Desert Air Basin (MDAB), within which the Project area is located. The MDAB forms a logical boundary for considering cumulative impacts to air quality given that it is a basin defined largely by geographical barriers, separated from the neighboring San Joaquin and South Coast Air Basins by mountain ranges. The MDAB is considered an unclassified/attainment area for all of the NAAQS. The MDAB is a moderate non-attainment area for the CAAQS for O_3 and a non-attainment area for the CAAQS for PM_{10}. The area is considered unclassified/attainment for all CAAQS for the other criteria pollutants. While the region is in non-attainment for the CAAQS for O_3 and PM_{10}, not all projects would automatically result in a significant cumulative impact to air quality.

The geographic scope for potential cumulative impacts on local air quality and sensitive receptors would include the area within approximately one mile of the Project area boundary. The Project would be constructed in a rural area of Riverside County near and partially within the City of Blythe, where the closest sensitive receptor (i.e., a residence) is 260 feet from the Project area boundary. In addition, there are 369 residences within one mile of the Project area boundary. No schools, hospitals, or long-term care facilities are within one mile of the Project boundary.

Temporal Scope

The temporal scope refers to the duration over which an impact would occur: short-term or long-term; for example, only during the months of construction, only during operation and maintenance, or during both phases. This limits the projects whose impacts are to be analyzed in the cumulative effects analysis to those that would cause impacts at the same time as the BMSP. The temporal scope of cumulative impacts to air quality relative to the BMSP would occur primarily during the development of cumulative projects during the construction phase, because short-term impacts to air quality would occur during this time period in association with the addition of construction equipment to the landscape. Based on the nature of the Project as a PV solar energy generation site, no substantial long-term impacts to air quality from operation of the BMSP would result because limited vehicle trips for operations, maintenance, and inspection would result and would be substantially less and minor compared to the construction impacts.

Analysis of Direct and Indirect Impacts

Alternative 1: Proposed Project

Construction

Project-related construction activities for Alternative 1 would result in short-term emissions of criteria pollutants that would fall below the thresholds the MDAQMD has established to ensure its ability to bring the air basin into compliance, based upon the MDAQMD's projections of combined emissions from all

sources. None of the short-term emissions would exceed the federal, State, or MDAQMD emissions thresholds assuming implementation of BMPs. Similar to the BMSP, most of the cumulative projects are anticipated to emit air pollutants generated during construction activities. Each air district in a non-attainment area is responsible for developing emissions inventory data as part of the planning process to develop its attainment plan. The emissions budget for the MDAQMD includes emissions associated with construction activity, including construction equipment, fugitive dust, and vehicles. The MDAQMD construction emissions budget for off-road construction equipment and vehicles includes 1.63 tons per day of ROG, 4.67 tons per day of NO_x and 0.28 ton per day of PM_{10}. The MDAQMD fugitive dust emissions budget attributable to construction activities also includes 8.77 tons per day of PM_{10}. During construction, the Project's estimated ROG emissions are less than 1.7 percent of the total emissions budget, NO_x emissions are less than 1.7 percent of the total emissions budget, and PM_{10} emissions are less than one percent of the total emissions budget (Table 4.2.3-6). Therefore, the Project's contribution to overall cumulative construction emissions (AIR-1, AIR-2, and AIR-3), including all activities within the MDAB as identified in the emissions budget, is small and not cumulatively considerable.

Table 4.2.3-6 Construction Emissions for Off-road Construction Equipment and Vehicles

EMISSION SOURCE	ROG	NOx	PM_{10}
Total Construction Emissions ton/day			
Off-road Construction Equipment and Vehicles	1.63	4.67	0.28
Total Fugitive Dust Emissions ton/day			
Construction Activity Dust	_	_	8.77
Total	**1.63**	**4.67**	**9.05**

Source: SRA 2013.

BLM's Solar PEIS identifies the energy development projects occurring largely on federal lands in the East Riverside SEZ. The BMSP is within the SEZ, but near its eastern boundary. Neither the BMSP nor Palo Verde Mesa Solar Project (to the north of the BMSP) were listed as potential projects in the SEZ analysis, presumably because the solar generation portions of these projects are not proposed on federal lands. The air quality impact of a solar energy development scenario for the Riverside East SEZ identified theoretical continuous development of 9,000 acres of renewable energy development in the central portion of the SEZ. Based on modeling in the BLM Solar DEIS, 24-hr PM_{10} concentrations of about 10 micrograms per cubic meter would occur at residences around the eastern portion of the SEZ near Blythe (and near BMSP). This concentration added to background levels of the past few years would not be enough to exceed the federal PM_{10} standard, but would exceed the State 24-hour standard. While the analysis is very conservative and may overestimate the concentrations, the Solar PEIS acknowledges that the emissions from cumulative projects (solar and others), combined with natural sources such as dust storms, would temporarily degrade particulate air quality in the SEZ. Aggressive dust control is recommended with implementation of solar projects (proposed Project BMP measures are tailored from the Solar PEIS).

For Alternative 1, screening analysis showed that exposure to diesel exhaust emissions during construction would be below threshold levels for the closest residential uses adjacent to the Project area (based on SCREEN3 model outputs). Other cumulative projects that could be constructed within one mile (impact AIR-6) of some of these receptors within the same timeframe as the proposed Project include the Blythe Airport Solar 1 Project and the Blythe Energy II Project. Neither project provided a construction diesel particulate screening analysis and both are relatively small in development area compared to other projects on the cumulative list. Therefore, it is likely that these projects cumulatively would not expose any sensitive receptors to substantial TAC concentrations (impacts AIR-4, AIR-6, and AIR-7). Therefore, the impact of the Project would not be cumulatively considerable.

Construction of the Project would not cause a substantial impact related to the generation of odors from diesel equipment emissions because construction activities would be intermittent and spatially dispersed, and associated odors would dissipate quickly from the source. Projects in the cumulative scenario are not expected to cause diesel-related odors (impact AIR-5) that would intermingle with those of the Project.

Operation and Maintenance

Project-related operation emissions for Alternative 1 are associated with minor employment and maintenance activities. Though impacts of ozone precursors and PM_{10} would occur during operations, the levels are well below impact thresholds and are a very small percentage of the overall emissions budget for the air basin (impacts AIR-1 and AIR 2). The BMSP's emissions would therefore not be cumulatively considerable (impacts AIR-3). Because the Project would also provide renewable energy, the Project would reduce emissions of both criteria pollutants and GHG, thus lessening the amount of pollution emitted overall (impacts AIR-4, AIR-5, and AIR-6).

Decommissioning

It is anticipated that potential impacts from decommissioning activities would generally be similar to the type of impacts created from construction of the BMSP, such as fugitive dust from earthmoving activities and vehicle travel on dirt roads, and criteria air pollutant emissions from construction equipment and vehicle engine exhaust. As these activities would likely be subject to the same air quality regulatory requirements as the construction activities, these impacts would be at most equal to, and most likely substantially less than, impacts from construction of the BMSP (as discussed in impact AIR-1). They would also not exceed emission impact thresholds in place today. Therefore, it is assumed that the Project's contribution to cumulative total emissions from decommissioning would be less than significant.

Alternative 2: No Project

The No Project Alternative would not contribute to any cumulative effects. The status quo would include continued use of a majority of the Project area for agricultural purposes. The public lands in the Project area would continue to be managed by BLM in accordance with existing land use designations in the CDCA Plan, whereas the private lands would continue to be managed for agricultural production. Alternative 2 would not contribute to cumulative air quality impacts.

Alternative 3: Northern 230 kV Gen-tie Location

Alternative 3 is similar to Alternative 1 (proposed Project), with the exception of the location of the Northern 230 kV gen-tie line, which would be approximately 700 feet north of Alternative 1's proposed 230 kV gen-tie line. The cumulative air quality impacts associated with the construction, operation, maintenance, and decommissioning of Alternative 3 would be the same as Alternative 1. Alternative 3 would not conflict with or obstruct implementation of the applicable air quality plan (impact AIR-1) since the Project would comply with the MDAQMD Rules and Regulations; renewable projects would implement BMPs contained in the Solar PEIS as well as appropriate measures from the SIP. Construction emissions for Alternative 3 are a minor part of the total emissions budget for the MDAB (impacts AIR-2 and AIR-3) and would not be cumulatively considerable. However, the Solar PEIS identifies the potential for a cumulative development scenario to degrade PM10 air quality, which, together with background levels (impact AIR-3), could exceed the State PM10 standard (to the extent that the conservative assumptions in the PEIS are realized). Considering TAC emissions, principally diesel exhaust, projects would not cumulatively expose any sensitive receptors to substantial TAC concentrations (impacts AIR-4, AIR-6, and AIR-7), and would not cause substantial diesel-related odors (impact AIR-5) that would intermingle with those of the Project.

Alternative 4: Southern 230 kV Gen-tie Location

Alternative 4 is similar to Alternative 1 (proposed Project), with the exception of the location of the Southern 230 kV gen-tie line, which would be approximately 0.8 mile south of Alternative 1's proposed 230 kV gen-tie line. The cumulative impacts associated with the construction, operation, maintenance, and decommissioning of the solar facility would be the same as Alternative 1. Alternative 4 would not conflict with or obstruct implementation of the applicable air quality plan (impact AIR-1) since the Project would comply with the MDAQMD Rules and Regulations; renewable projects would implement BMPs contained in the Solar PEIS as well as appropriate measures from the SIP. Construction emissions for Alternative 4 are a minor part of the total emissions budget for the MDAB (impacts AIR-2 and AIR-3) and

would not be cumulatively considerable. However, the Solar PEIS identifies the potential for a cumulative development scenario to degrade PM_{10} air quality, which, together with background levels (impact AIR-3), could exceed the State PM_{10} standard (to the extent that the conservative assumptions in the PEIS are realized). Considering TAC emissions, principally diesel exhaust, projects would not cumulatively expose any sensitive receptors to substantial TAC concentrations (impacts AIR-4, AIR-6, and AIR-7), and would not cause substantial diesel-related odors (impact AIR-5) that would intermingle with those of the Project.

Alternative 5: Reduced Acreage Alternative

Construction

Similar to Alternative 1, Alternative 5-related construction activities would result in short-term emissions of criteria pollutants that would fall below the thresholds the MDAQMD has established to ensure its ability to bring the air basin into compliance, based upon the MDAQMD's projections of combined emissions from all sources. None of the short-term emissions would exceed the federal, State, or MDAQMD emissions thresholds assuming implementation of BMPs. Most of the cumulative projects are anticipated to emit air pollutants generated during construction activities. Each air district in a non-attainment area is responsible for developing emissions inventory data as part of the planning process to develop its attainment plan. The emissions budget for the MDAQMD includes emissions associated with construction activity, including construction equipment, fugitive dust, and vehicles. During construction, Alternative 5's estimated ROG, NO_x and PM_{10} emissions would be similar to Alternative 1 (Table 4.2.3-7). Therefore, the Reduced Acreage Alternative's contribution to overall cumulative construction emissions (impacts AIR-1, AIR-2, and AIR-3), including all activities within the MDAB as identified in the emissions budget, would be small and would not significantly change any cumulatively considerable impacts.

The screening analysis for Alternative 1 showed that exposure to diesel exhaust emissions during construction would be below threshold levels for the closest residential uses adjacent to the Alternative 1 Project area (based on SCREEN3 model outputs). As Alternative 5 would result in fewer emissions in relation to Alternative 1, this determination would also apply to Alternative 5. Other cumulative projects that could be constructed within one mile of some of these receptors within the same timeframe as Alternative 5 include the Blythe Airport Solar 1 Project and the Blythe Energy II Project. Neither project provided a construction diesel particulate screening analysis and both are relatively small in development area compared to other projects on the cumulative list. Therefore, it is likely that these projects cumulatively would not expose any sensitive receptors to substantial TAC concentrations (impacts AIR-4, AIR-6, and AIR-7). Therefore, the impact of Alternative 5 would not be cumulatively considerable.

Construction of Alternative 5 would not cause a substantial impact related to the generation of odors from diesel equipment emissions because construction activities would be intermittent and spatially dispersed, and associated odors would dissipate quickly from the source. Projects in the cumulative scenario are not expected to cause diesel-related odors (impact AIR-5) that would intermingle with those of the Reduced Acreage Alternative.

Operation and Maintenance

The Alternative 1 analysis would apply to Alternative 5. Alternative 5's emissions would not be cumulatively considerable (impact AIR-3).

Decommissioning

The Alternative 1 analysis would apply to Alternative 5. Alternative 5's contribution to the cumulative total emissions from decommissioning would be less than significant.

Mitigation Measures

The proposed Project would implement applicable rules and regulations of the MDAQMD, including the fugitive dust control measures as required under MDAQMD Rule 403. The Project would implement the BMPs discussed above. No mitigation measures for construction or operations impacts are required.

Residual Impacts

The proposed Project would not generate emissions of criteria pollutants that could have a substantial adverse impact; therefore, it would not exceed air pollutant thresholds.

NEPA Conclusions

The direct and indirect environmental effects of the Project and the action Alternatives and their contributions toward cumulative impacts are detailed above. With implementation of the BMPs, the emissions for the action alternatives would not cause any exceedances of federal air quality standards, violate applicable air quality laws and regulations as promulgated by the MDAQMD, and, for the reasons explained above, would not violate or hinder compliance with federal air quality laws and regulations. The No Project Alternative would not have impacts, as the existing circumstances and operations would continue essentially unchanged.

4.2.4 Biological Resources

This section describes the impact analysis relating to biological resources for the proposed Project and Alternatives.

Methodology for Analysis

An impact assessment was conducted to define the various levels of potential impacts likely to occur for each Project component. The impact assessment combines several facets that collectively define the value of natural biotic communities and subjects those facets to various impact features to predict impact magnitude. Impacts to wildlife would result from actions that alter wildlife habitats. Three areas are the focus of this analysis: habitat change, habitat fragmentation, and disturbance. Alteration may occur through direct habitat loss via surface disturbance or indirectly through the reduction in habitat quality such as increased noise levels or the presence of anthropogenic structures. Both the direct and indirect impacts of gen-tie line development are associated with ground disturbances caused by construction of road networks for access, installation of towers, conductors, substations, and other associated infrastructure, and ongoing maintenance. All the biological data collected within the study area were mapped and an impact assessment and mitigation planning procedure was developed. For detailed information regarding the findings of biological surveys and impact assessments, refer to the *Blythe Mesa Solar Project Biological Resources Technical Report,* prepared by POWER Engineers, Inc. (POWER) 2013 (provided in Appendix C1 of this Draft EIR/EA), the *Blythe Mesa Solar Project 230 kV Transmission Line Alternative Habitat Assessment Report,* prepared by POWER Engineers, Inc. (2012a) (provided in Appendix C2 of this Draft EIR/EA), the Western Burrowing Owl Survey Report prepared by POWER Engineers, Inc. (2014c) (provided in Appendices C3 of this Draft EIR/EA), and the *Review of Federal Waters* prepared by POWER Engineers, Inc. (2013) (provided in Appendices C5 of this Draft EIR/EA).

CEQA Significance Criteria

For the purpose of this analysis, the following applicable thresholds of significance have been used to determine whether implementing the Project would result in a significant impact pursuant to CEQA. These thresholds of significance are based on Appendix G of the CEQA Guidelines and the County of Riverside CEQA Environmental Assessment Form. A biological resources impact is considered significant if implementation of the proposed Project would do any of the following:

BIO-1) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or the U.S. Fish and Wildlife Service (USFWS).

BIO-2) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS.

BIO-3) Have a substantial adverse effect on federal protected wetlands as defined by Section 404 of the Clean Water Act (CWA) (including, but not limited to, marshes, vernal pools, and coastal areas) or any State-protected jurisdictional areas not subject to regulation under Section 404 of the CWA through direct removal, filling, hydrological interruption, or other means.

BIO-4) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

BIO-5) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

BIO-6) Conflict with the provisions of an adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or State habitat conservation plan.

BIO-7) Substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or

substantially reduce the number or restrict the range of an endangered, rare, or threatened species.

NEPA Requirements

Pursuant to NEPA, the intent of the environmental impact analysis is to provide a scientific and analytic basis for comparing the Alternatives. The analysis below identifies adverse environmental effects that cannot be avoided should the Project be implemented, and presents mitigation measures to minimize adverse environmental impacts (40 CFR Part 1502.16). This analysis is based on information from the biological surveys conducted for the proposed Project as well as information gathered during the literature and database search (see Chapter 3, Section 3.2.4, for details). Environmental effects include direct, indirect, and cumulative impacts.

As described in Chapter 2 of this Draft EIR/EA, the Project components would be the same for each action Alternative: a solar array field utilizing single-axis solar PV trackers and a 230 kV gen-tie line. The analysis of direct and indirect impacts covers construction, O&M, and decommissioning of the proposed Project. Chapter 2 lists BMPs that would be incorporated into Project construction plans that would directly and indirectly benefit biological resources and reduce impacts. In addition to Project BMPs, specific mitigation measures are proposed to reduce impacts to biological resources.

Biological resources were reviewed for the entire Project area and surrounding areas. Species or species habitat that were within a 500-foot corridor (250 feet on either side of the gen-tie centerline) were analyzed in detail for direct and indirect impacts to the species or habitat along the corridor. In addition, species such as the burrowing owl and its habitat within 500 feet of the Project solar array facilities were analyzed to review potential indirect or direct impacts that could occur from construction and operation and maintenance vehicles or equipment accessing the Project area. Species that were reviewed and considered to be absent or unlikely to occur are not likely to be impacted by the Project or its Alternatives and therefore are not addressed at length in this chapter. These species are identified and discussed in the biological resources technical Report (Appendix C1 and C2).

Applicable Best Management Practices

As part of the Project and Alternatives, the following applicable BMPs would minimize the environmental impacts to biological resources. The full BMPs have been detailed below (see also Table 2-4 in Chapter 2) and are further referenced (by number) within the impact discussion.

NUMBER	BMP DESCRIPTION
BMP-1	**Drainage, Erosion, and Sedimentation Control Plan**. As part of the County of Riverside's CUP requirements, a Drainage, Erosion, and Sedimentation Control Plan would be developed for the Project. The plan would address the drainage, erosion, and sediment control requirements to support all activities associated with construction, operation, maintenance, and decommissioning of the Project. For example, any stockpiles created would be kept on-site, with an upslope barrier in place to divert runoff. Stockpiles would be sprayed with water, covered with tarpaulins, and/or treated with appropriate dust suppressants, especially in preparation for high wind or storm conditions. Certified weed-free straw bale barriers would be installed to control sediment in runoff water; straw bale barriers would be installed only where sediment-laden water can pond, thus allowing the sediment to settle out. Topsoil from the site would be stripped, stockpiled, and stabilized before excavating earth for facility construction. Topsoil would be segregated and spread on freshly disturbed areas to reduce color contrast and aid rapid revegetation.
BMP-2	**Stormwater Pollution Prevention Plan.** In compliance with requirements of the National Pollutant Discharge Elimination System (NPDES) permit, a Stormwater Pollution Prevention Plan (SWPPP) would be developed and prepared for the Project to ensure that protection of water quality and soil resources is consistent with County and State regulations. The plan would identify site surface water runoff patterns and include measures that prevent excessive and unnatural soil deposition and erosion throughout and downslope of the Project area and Project-related construction areas, and would also include measures for non-stormwater discharge and waste management. The SWPPP would cover all activities associated with the construction of the Project, including clearing, grading, and other ground disturbance such as stockpiling or excavation erosion control. The plan would

NUMBER	BMP DESCRIPTION
	prevent off-site migration of contaminated stormwater, changes in pre-Project storm hydrographs, or increased soil erosion.
BMP-3	**Fugitive Dust Abatement Plan.** As required by the MDAQMD 403, a Fugitive Dust Abatement Plan would be prepared to address fugitive dust emissions during Project construction, operation, maintenance, and decommissioning. The plan would include measures to minimize fugitive dust emissions from wrecking, excavation, grading, clearing of land, and solid waste disposal operations, and would take every reasonable precaution to prevent visible particulate matter from being deposited upon public roadways as a direct result of operations. During construction, all unpaved roads, disturbed areas (e.g., areas of scraping, excavation, backfilling, grading, and compacting), and loose materials generated during Project construction activities would be watered as frequently as necessary to minimize fugitive dust generation. However, the amount of water will be minimized each time to prevent temporarily ponding water that may occur as a result of the fugitive dust plan In water-deprived locations, water spraying would be limited to active disturbance areas only, and non-water-based dust control measures would be implemented in areas with intermittent use or use that is not heavy, such as stockpiles or access roads. Alternatively, chemical dust suppressants or durable polymeric soil stabilizers could be used. The dust suppression measures would consider the sensitivity of wildlife to the windborne dispersal of fugitive dust containing dust suppressants and the potential impact on future reclamation.
BMP-7	**Trash Abatement Plan**. A Trash Abatement Plan shall be developed that focuses on containing trash and food in closed and secure sealable containers, with lids that latch, and removing them periodically to reduce their attractiveness to opportunistic species, such as common ravens, coyotes, and feral dogs, that could serve as predators of native wildlife and special-status animals. The Plan would also establish a regular litter pick-up procedure within and around the perimeter of the Project area, and removal of construction-related trash containers from the Project area when construction is complete.
BMP-8	**Cleanup and Restoration.** Upon completion of construction activities, all unused materials and equipment shall be removed from the Project area. All construction equipment and refuse including, but not limited to, wrapping material, cables, cords, wire, boxes, rope, broken equipment parts, twine, strapping, buckets, and metal or plastic containers shall be removed from the site and disposed of properly after completion of construction. Any unused or leftover hazardous products shall be properly disposed of off-site.
BMP-9	**Hazardous materials.** As required by the Clean Air Act, Section 401 of the Clean Water Act, the Toxic Substance Control Act, and the Hazardous Materials Transportation Act, all vehicles and equipment must be in proper working condition to ensure that there is no potential for fugitive emissions or accidental release of motor oil, fuel, antifreeze, hydraulic fluid, grease, or other hazardous materials. Equipment must be checked for leaks prior to operation and repaired as necessary. Refueling of equipment must take place on existing paved roads, where possible, and not within or adjacent to drainages. Hazardous spills must be cleaned up immediately. Contaminated soil would be disposed of at an approved offsite landfill, and spills reported to the permitting agencies. Service/maintenance vehicles should carry appropriate equipment and materials to isolate and remediate leaks or spills, and an on-site spill containment kit for fueling, maintenance, and construction will be available. Cleaning of construction vehicles at commercial car washes should be considered rather than washing vehicles on the Project area so that dirt, grease, and detergents are treated effectively at existing facilities designed to handle those types of wastes.
BMP-10	**Integrated Weed Management Plan.** In compliance with the Federal Noxious Weed Act and the Plant Protection Act, a Project-specific integrated weed management plan for the control of noxious weeds and invasive plant species would be prepared. The plan would identify presence, location, and abundance of weed species in the Project area and surrounding area adjacent to the Project, as well as identify suppression and containment measures to prevent the spread of weed species and introduction of weed species. Prevention techniques would include: limiting disturbance areas during construction to the minimum required to perform work; limiting ingress and egress to defined routes; maintaining vehicle wash and inspection stations; and closely monitoring the types of materials brought on-site to minimize the potential for weed introduction. During operations, noxious and invasive weed management will be incorporated as a part of mandatory site training for groundskeepers and maintenance personnel. Training will include weed identification and the impacts on agriculture, wildlife, and fire frequencies. Training will also cover the importance of preventing the spread of noxious weeds and of controlling the proliferation of existing weeds.

NUMBER	BMP DESCRIPTION
BMP-12	**Gen-tie lines.** Gen-tie line support structures and other facility structures shall be designed to discourage their use by raptors for perching or nesting (e.g., by use of anti-perching devices). This design would also reduce the potential for increased predation of special-status species, such as the desert tortoise. Mechanisms to visually warn birds (permanent markers or bird flight diverters) shall be placed on gen-tie lines at regular intervals to prevent birds from colliding with the lines (APLIC 2006 and USFWS 2010). To the extent practicable, the use of guy wires shall be avoided because they pose a collision hazard for birds and bats. Necessary guy wires shall be clearly marked with bird flight diverters to reduce the probability of collision. Shield wires shall be marked with devices that have been scientifically tested and found to significantly reduce the potential for bird collisions. Gen-tie lines shall utilize non-specular conductors and non-reflective coatings on insulators.
BMP-13	**Ground and surface disturbance.** Construction boundaries would be clearly delineated to minimize areas of ground and surface disturbance. Ground-disturbing activities shall be minimized, especially during the rainy season. To the maximum extent possible, construction-related activities (such as vehicle and foot traffic) would avoid areas with intact biological soil crusts. For cases in which impacts cannot be avoided, soil crusts would be salvaged and restored on the basis of recommendations by the County of Riverside and BLM once construction has been completed. Existing rocks, vegetation, and drainage patterns shall be preserved to the maximum extent possible. No paint or permanent discoloring agents shall be applied to rocks or vegetation (to indicate surveyor construction activity limits or for any other purpose). All stakes and flagging shall be removed from the construction area and disposed of in an approved facility. Where feasible, brush-beating, mowing, or use of protective surface matting rather than removing vegetation shall be employed. Clearing and disturbing of sensitive areas (e.g., steep slopes and natural drainages) and other areas shall be avoided outside the construction zone. Surface disturbance would be minimized by utilizing undulating surface disturbance edges; stripping, salvaging, and replacing topsoil; using contoured grading; controlling erosion; using dust suppression techniques; and restoring exposed soils to their original contour and vegetation.
BMP-14	**Travel and traffic.** Vehicular traffic on-site shall be confined to existing or designated travel routes and designated work areas. Access to the construction site and staging areas shall be limited to authorized vehicles and only through the designated roads. The extent of habitat disturbance during construction shall be reduced by keeping vehicles on access roads and minimizing foot and vehicle traffic through undisturbed areas. To the extent practical, travel shall be limited to stabilized roads. Road maintenance activities shall avoid blading existing forbs and grasses in ditches and adjacent to roads. Abandoned roads and roads no longer needed shall be subsoiled to increase infiltration and reduce soil compaction, then recontoured and revegetated. Construction traffic shall avoid unpaved surfaces to the extent practical (to reduce the risk of compaction) and reduce speed to lessen fugitive dust emissions. On unpaved or unstabilized surfaces within the construction site, speed limits (e.g., 20 mph) shall be posted with visible signs and enforced to minimize airborne fugitive dust. Project vehicle speeds shall be limited in areas occupied by special-status animal species. Traffic shall stop to allow wildlife to cross roads. Shuttle vans or carpooling shall be used to reduce the amount of traffic on access roads. Workers shall be trained to comply with the speed limit, use good engineering practices, minimize the drop height of materials, and minimize the number and extent of disturbed areas. The Project developer shall enforce these requirements.
BMP-15	**New access roads and parking lots.** New access roads shall be designed and constructed to the appropriate road design standards, such as those described in BLM Manual 9113 or County standards, whichever is applicable. New access roads shall be designed to follow natural land contours in the Project area and avoid existing desert washes. The specifications and codes developed by the U.S. Department of Transportation (DOT) and County of Riverside Transportation Department are also to be taken into account. Primary access roads and parking lots shall be surfaced with aggregate that is hard enough that vehicles cannot crush it and thus cause dust or compacted soil conditions. Paving may also be used on access roads and parking lots. Alternatively, chemical dust suppressants or durable polymeric soil stabilizers would be used on these locations.

NUMBER	BMP DESCRIPTION
BMP-19	**Plants and wildlife.** In compliance with the California Department of Fish and Wildlife Codes, while on the Project property, workers or visitors would be prohibited from: feeding wildlife; moving live, injured, or dead wildlife off roads, ROWs, or the Project area; bringing domestic pets to the Project area; collecting native plants; and harassing wildlife. Areas where wildlife could hide or be trapped (e.g., open trenches, sheds, pits, uncovered basins, and laydown areas) would be covered. If the trenches or excavations cannot be covered, a ramp that will sufficiently allow wildlife to escape shall be placed into the trench or excavated area, or exclusion fencing (i.e., silt fencing) shall be installed around the trench or excavation to prevent entrapment of wildlife. Open trenched, or other excavations that could entrap wildlife, shall be inspected by the qualified biologists daily and immediately before backfilling. For example, an uncovered pipe that has been placed in a trench should be capped at the end of each workday to prevent animals from entering the pipe. If a special-status species is discovered inside a component, that component must not be moved, and the qualified biologist shall determine the appropriate course of action. As open trenches could impede the seasonal movements of large game animals and alter their distribution, they would be backfilled as quickly as possible. Open trenches could also entrap smaller animals; therefore, escape ramps would be installed along open trench segments at distances identified in the applicable land use plan or by the best available information and science. If traffic is being unreasonably delayed by wildlife in roads, personnel would contact the Project biologist, who will take any necessary action. Any vehicle-wildlife collisions would be immediately reported to the Project biologist. Observations of potential wildlife problems, including wildlife mortality, would be immediately reported to the BLM or other appropriate agency authorized officer.

Biological Resource Mitigation Implementation and Monitoring Plan

A Biological Resources Mitigation Implementation and Monitoring Plan (BRMIMP) will be developed to summarize the various mitigation, monitoring and compliance measures listed below. The purpose of the BRMIMP is to consolidate all the biological mitigation measures and monitoring requirements into one document to ensure that the Project is completed in a manner that minimizes impacts to biological resources by appropriate compliance with terms and conditions from the various permits and approvals. The BRMIMP will be developed at least 60-days prior to project-related ground disturbance activities.

Alternative 1: Proposed Project

Analysis of Direct and Indirect Impacts

Construction

Vegetation Communities

The majority of vegetation communities within the proposed solar facility site are non-sensitive and include approximately 3,045 acres of agricultural lands and approximately 250 acres of disturbed fallow fields (refer to Chapter 3, Table 3.2.4-1). The native vegetation communities within the solar array site include approximately 42 acres of creosote bush scrub approximately 220 acres of disturbed creosote bush scrub that is recovering from past agricultural use through natural recruitment and drip-irrigated jojoba with patches of disturbed creosote scrub. Finally, 18 acres of bajada community are also within the solar array Project boundary, but are not planned for installation of solar arrays due to the topography and would not be directly impacted.

Permanent direct impacts to the agricultural land and creosote bush scrub would occur as a result of Alternative 1 construction activities. Since most of the solar facility site has nearly level to gently sloping topography, no mass grading would be required for the installation of the solar facility site. Some of the parcels where facilities and arrays would be located would require light grubbing for leveling and trenching. Of the 42 acres of creosote bush scrub and 220 acres of disturbed creosote bush scrub, approximately 26 acres and approximately 61 acres respectively would be directly disturbed with the installation of the solar facility site. Of the 3,294 acres of land designated for agricultural use, approximately 2,123 acres would be directly impacted by the installation of the solar facility site. Direct

impacts would include grading of solar array access roads, light grubbing for leveling, and installation of the solar facility, which would result in excavation to a depth of about three feet for the foundation and piers to hold up the panels that would be driven directly into the ground. However, between the piers and under the panels, the vegetation communities would remain and not be directly impacted by the installation of the solar array facilities. All the agricultural land within the solar array Project boundary would cease operation. In addition, BMP-1 (Drainage, Erosion and Sedimentation Control Plan), BMP-3 (Fugitive Dust Abatement Plan), BMP-9 (Hazardous materials), BMP-10 (Integrated Weed Management Plan), BMP-13 (Ground and surface disturbance), BMP-14 (Travel and traffic), BMP-15 (New access roads and parking lots), and BMP-19 (Plants and wildlife) would be implemented as part of the Project to avoid native plant communities to the maximum extent possible and, when feasible, include flagging resources for avoidance during construction.

Approximately 22.9 acres of Desert Riparian Woodland Wash is within the proposed Project gen-tie line 500-foot corridor. The desert riparian woodland wash is considered potential jurisdictional State waters, and is therefore considered a sensitive vegetation community. Ground-disturbing activities associated with the gen-tie line construction would include clearing and grading for tower pad preparation, tower removal sites, and pulling and tensioning sites; and construction, grading, and widening of new spur roads and existing access roads. However, the desert riparian woodland wash community would be spanned by the gen-tie line and is not expected to be directly affected by the construction of the Project. The average tower-to-tower span is 200 feet, which would allow this community to be avoided; refer to Chapter 2 for additional details on the tower spans. In addition to spanning this community, no access or spur roads would be placed within this community and therefore no direct impact would result. Approximately 279 acres of creosote bush scrub also occurs within the gen-tie line 500-foot corridor. Direct impacts would occur to this community; however, this gen-tie line currently parallels existing transmission line corridors including access roads for the utilities and off-road vehicle use.

Potential temporary and indirect impacts to the vegetation communities surrounding the solar array facility would occur as a result of Project construction. Indirect impacts to vegetation communities could include alterations in existing topography and hydrology regimes, the accumulation of fugitive dust, disruptions to native seed banks from ground disturbance, and the colonization of non-native, invasive plant species. BMP-3 (Fugitive Dust Abatement Plan), BMP-10 (Integrated Weed Management Plan), BMP-13 (Ground and surface disturbance), BMP-19 (Plants and wildlife) and Biology-9 (Provide restoration/compensation for affected jurisdictional areas) would be implemented as part of the Project, which would avoid impacts to native plant communities from fugitive dust, disruptions of native seed banks, and colonization of non-native invasive plant species.

Non-native, invasive plant species are opportunistic and could occupy disturbed soils within the solar array site and gen-tie line corridor. Once invasive species are introduced as an indirect impact of construction, these species often out-compete natives for resources, resulting in a reduction in growth, future dispersal, and recruitment of native species. This eventually leads to degradation of the vegetation community. This could have an adverse impact on the desert riparian woodland wash and unvegetated ephemeral dry wash; however, as part of the Project, BMP-10 requires that the Applicant implement Project-specific integrated weed management to control noxious weeds and invasive plant species. Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance), Biology-3 (Protect Plants) and Biology-9 (Provide restoration/compensation for affected jurisdictional areas) would reduce the potential direct and indirect impacts to vegetation communities during construction of the proposed gen-tie line and solar array facility.

Special-Status Plants

No federal- or State-listed plants were detected within the Alternative 1 solar array site and gen-tie line corridor.

The proposed Project would result in direct impacts to non-listed special-status plant species. Impacts to plants can include crushing of adult plants, bulbs, or seeds. Based on spring 2011 surveys and database search, Harwood's woollystar (*Eriastrum sparsiflorum* ssp. *harwoodii*) and Harwood's milk-vetch (*Astragalus insularis* var. *harwoodii*) are present within the Alternative 1 gen-tie line portion of the

proposed Project (POWER 2012a and CDFW 2013). Direct impacts to these species could include crushing or removal by vehicles, or construction activities. Direct habitat loss could occur as a result of the construction of new gen-tie structures or the construction of new access roads along the ROW. Implementation of the following BMPs would ensure that direct loss of habitat as a result of construction would be less than significant: BMP-13 (Ground and surface disturbance), BMP-14 (Travel and traffic), BMP-15 (New access roads and parking lots), and BMP-19 (Plants and wildlife).

There is the potential for both temporary and permanent indirect impacts to non-listed special-status plant species occurring in the area surrounding the disturbance area as a result of Project-related construction activities. During construction, potential temporary, indirect impacts to non-listed special-status plant species would arise from unmitigated runoff and sedimentation, erosion, fugitive dust, and unauthorized access outside of the disturbance area by construction workers. Runoff, sedimentation, and erosion can adversely impact plant populations by damaging individuals or by altering site conditions sufficiently to favor other species (native and non-natives) that would competitively displace the special-status species. Construction-generated fugitive dust can adversely affect plants by reducing the rates of metabolic processes, such as photosynthesis and respiration, and may affect their nutritional qualities for wildlife.

The introduction and establishment of exotic species within, or adjacent to, special-status plant populations can adversely affect native species by in addition to causing dispersal and recruitment of non-natives. Non-native invasive plant species are opportunistic and often occupy disturbed soils such as those created in transmission line corridors and areas of exposed bare ground resulting from ground disturbing activities. In addition, where non-native plants replace native plants, they may have negative effects on herbivorous wildlife in the area. The following BMPs would ensure that impacts related to non-native plants and fugitive dust to special-status plants would be less than significant: BMP-3 (Fugitive Dust Abatement Plan), BMP-10 (Integrated Weed Management Plan), and BMP-19 (Plants and wildlife).

Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-3 (Protect Plants) would reduce the potential direct and indirect impacts to special-status plant species during construction of the proposed gen-tie line and solar array facility.

Wildlife Species

No federal- or State-listed species were detected during the survey work conducted in 2011 for Alternative 1.

The Project could result in impacts to non-listed special-status wildlife species. Riparian woodlands and arid dry washes provide important habitat for local and migratory wildlife that are considered sensitive resources and are of concern to federal and State agencies. Several species utilize the riparian communities during breeding season and are dependent on the riparian communities, such as breeding birds and species that utilize this area as either their winter and/or spring range. A total of 22.9 acres of desert riparian woodland occurs within the proposed gen-tie line. Riparian and desert wash habitats provide the majority of foraging habitat for wildlife in the Project area. However, the riparian woodland would be spanned and avoided during construction of the gen-tie line. In addition, within the solar array Project boundary, no solar arrays would be placed in desert washes and direct impacts are not anticipated. Construction activities could result in harassment of sensitive species or displacement of wildlife species that are avoiding the construction activities, including noise.

In areas such as the creosote bush scrub communities, access to the construction sites or installation of the solar arrays and transmission towers may result in mortality primarily to burrow-dwelling animals, and species with slower or constrained mobility (e.g., snakes and lizards,). More mobile species, like birds and larger mammals, are likely to relocate and utilize an adjacent habitat area if it is present during the solar array installation and the clearing and grading phase associated with tower construction. The less mobile and smaller wildlife species could be potentially impacted by construction equipment, whereas other wildlife, such as birds and large mammals like the American badger, may be temporarily displaced from the immediate construction areas.

The Project could potentially result in permanent and temporary indirect impacts to special-status wildlife species. Permanent, indirect impacts to special-status wildlife species resulting from the proposed Project would include: 1) habitat fragmentation, where removal of habitat elements results in isolated patches of formerly connected habitat; 2) edge effects, where Project facilities would lead to increased noise, lighting, exotic plant and opportunistic species invasion, (e.g., common ravens, coyotes, and feral dogs), dust/air pollution, predators, parasites, pesticides, fuel modification, and other factors; and 3) alteration of hydrology, runoff, and sedimentation, which may cause differential senescence and death of plant species used by special-status wildlife species. Because the following BMPs are included as part of the Project, potential impacts to wildlife species and their foraging lands from dust/air pollution, alteration of hydrology, sedimentation, increased noise, fragmentation, and direct impacts from construction would be less than significant: BMP-1 (Drainage, Erosion and Sedimentation Control Plan), BMP-3 (Fugitive Dust Abatement Plan), BMP-10 (Integrated Weed Management Plan), BMP-13 (Ground and surface disturbance), BMP-14 (Travel and traffic) and BMP-19 (Plants and Wildlife).

Mitigation Measure Biology-1 (Monitor Construction Site for Biological Compliance) would reduce the potential direct and indirect impacts to wildlife species during construction of the proposed gen-tie line and solar array facility.

The potential for Project direct and indirect impacts specific to special-status wildlife species is discussed in the following sections.

Mojave Fringe-toed Lizard

Suitable Mojave fringe-toed lizard habitat is located throughout the solar array site, and the potential for occurrence there is high (refer to Table 3.2.4-3 in Chapter 3). The species was found throughout the gen-tie line portion of the Project (refer to Figure 3.2.4-4 in Chapter 3). In addition to habitat loss, construction of the proposed gen-tie line may result in temporary displacement of individuals out of the construction area, crushing by equipment or crew, or increased susceptibility to predation during construction. Because eggs are laid in the sand, construction may destroy eggs that are within the Project area during the breeding season. The implementation of BMP-19 would reduce potential impacts from construction activities.

Long-term predation vulnerability may occur due to vegetation loss, which decreases dispersal and refuge opportunities from predators. In addition, increased perching opportunities resulting from construction of the proposed gen-tie line also increases this species' predation vulnerability. Compaction of sandy areas due to construction and vehicular traffic may degrade habitat suitability for this fossorial species. Because this species is mostly herbivorous as an adult, proliferation of non-native plant species that out-compete native plants could have negative impacts on the Mojave fringe-toed lizard.

In addition, Mitigation Measure Biology-1 (Monitor Construction Site for Biological Compliance) and Mitigation Measure Biology-8 (Protect Mojave fringed-toed lizard) would be implemented to reduce the potential direct and indirect impacts to the Mojave fringed-toed lizard during construction of the proposed gen-tie line and solar array facility.

Desert Tortoise

The desert tortoise has a moderate potential to occur on Alternative 1 based on the suitability of the habitat in the gen-tie line corridor and tortoise sign surrounding the Colorado River Substation (AECOM 2010; CH2M Hill 2010). No tortoise or tortoise sign was observed within the proposed gen-tie line corridor. Construction activities that result in direct mortality or the degradation of habitat utilized by this species, if present, would be considered take of a federal- and State-listed species as described above and would constitute an impact that would be authorized only through the context of a Biological Opinion issued by the USFWS. However, in a memorandum dated November 14, 2012, the USFWS stated that the proposed Project (Alternative 1) is "not likely to incidentally take or otherwise adversely affect desert tortoise" (FWS-ERIV-12B0299-12I0497, see Appendix M of this Draft EIR/EA). This is based not only on existing data for the area (habitat and species records), but also on the assumption that the Applicant will comply with a number of avoidance measures that are included in the USFWS memo. Most impacts to

tortoises can likely be avoided by the installation of tortoise exclusion fencing that is required by the USFWS memo.

In addition to the avoidance measures that were included in the USFWS memo, several of the Project's mitigation measures would further reduce the potential to adversely affect desert tortoise. As part of Alternative 1, BMP-14 (Travel and traffic) would ensure that impacts from vehicles would be minimized, as the potential for collisions between vehicles and desert tortoises would be minimized by requiring vehicles to maintain speed limits not exceeding 20 mph on off-highway access roads and by minimizing travel off established access roadways. Tortoises that are observed on or near access roads will be allowed to move out of the way on their own, and at no point will tortoises be handled without confirmation from USFWS. During construction, increased predation could occur from ravens and coyotes, which are attracted to human activity to scavenge for food. As part of Alternative 1, BMP-7 (Trash Abatement Plan) and the "Refuse Disposal" measure from the USFWS memo would ensure minimization of opportunistic species, such as common ravens, coyotes, and feral dogs that could serve as predators of native wildlife and special-status animals from entering the study area.

Permanent habitat loss would occur as a result of the construction of new gen-tie structures and new access roads, resulting in decreased forage and vegetative cover for tortoises in the area. Since vegetation re-growth is a slow process in this arid climate, creosote bushes large enough to provide good cover would take a decade to revegetate the area. Because tortoises may use desert washes as habitat, excessive disturbance to these areas as a result of construction would degrade and possibly reduce habitat further. However, as part of Alternative 1, BMP-15 (new access roads and parking lots) would ensure that potential impacts from new access roads would be minimized. Mitigation Measure Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-2 (Protect Desert Tortoise) would further reduce the potential direct and indirect impacts to desert tortoise during construction of Alternative 1. However, additional mitigation may be required during consultation with both the CDFW and USFWS.

Golden Eagle

Based on the terrain, vegetation, and habitat characteristics within Alternative 1 and available data on known locations, golden eagles are not expected to be nesting within the study area. According to surveys conducted for the McCoy Solar Energy Project (TetraTech 2011), four golden eagle nests were detected in 2010 and 15 were detected in 2011 in the McCoy, Little Maria, and Big Maria Mountains. Of those nests, only one was determined to be active, in 2010, and was not determined to be active with golden eagles during the 2011 surveys. Several nests in 2011 were observed to be occupied by other species. Of all golden eagle nests detected in 2010 and 2011 during the McCoy Solar Energy Project surveys, the closest nest was approximately 4.5 miles north of the proposed gen-tie line or approximately five miles north of the Colorado River Substation. However, there is no nesting habitat for this species within the study area. Therefore, construction activity is not expected to affect golden eagle nesting. However, the study area presents marginal foraging habitat, and golden eagles may forage in areas that could be impacted by construction. Project construction would eliminate potential foraging habitat where the solar facility is proposed, and a small linear amount of foraging habitat would be eliminated by the ROW of the proposed gen-tie line. Foraging habitat is presumably not available within the orchards that are located in the solar facility, as this species prefers to forage in wide open areas with minimal vertical obstructions. Project construction activity may disrupt foraging activities by discouraging eagles from being in the area.

The Project may lead to the degradation of suitable foraging habitat adjacent to the areas that would be cleared. This could occur through the spread of non-native weed species as Project vehicles drive through areas or as seeds are dispersed by wind. Over time, this may result in increasing amounts of non-native weed infestations in areas that may otherwise not be infested, leading to a degradation of the habitat and its suitability for supporting native wildlife that would serve as golden eagle prey. See above discussion under *Vegetation Communities* for a list of BMPs that would be implemented to reduce impacts to golden eagle foraging lands.

Golden eagles would also have the potential to collide with or be electrocuted by the gen-tie line during its construction and operation. Mitigation measures Biology-1 (Monitor Construction Site for Biological

Compliance) and Biology-7 (Protect Breeding Birds) would be implemented to reduce impacts to the golden eagle. As part of Biology-7 a Bird and Bat Conservation Strategy (BBCS) would be developed to help reduce potential impacts during construction and operation and maintenance of the gen-tie line and solar array facility. See discussion below under *O&M Activities* for a detailed discussion of impacts associated with O&M.

Western Burrowing Owl

Based on spring 2011 protocol survey data (POWER 2011), construction activities, including the installation of the solar facility, would permanently impact western burrowing owl (BUOW) by removing habitat for at least six to eight burrowing owls that were detected within the solar array area. No BUOW breeding was documented during 2011 surveys; however, most of the proposed solar facility site contains suitable BUOW habitat. Six suitable burrows or burrow complexes were observed on the Project area and an additional three within the buffer zone on the northern portion of the site (POWER 2012c). If owls breed in the solar facility site, it is possible that nests or eggs may be lost as a result of construction activities near their burrows. Direct impacts to BUOW would also result from an increase in vehicle traffic while the Project is under construction and, consequently, an increase in vehicular strikes of BUOWs. Project noise, vibration, or visual disturbance may also affect burrowing owls. However, all of these impacts would only occur during the construction phase, not on a long-term basis. As part of the Project, BMP-14 (Travel and traffic) and BMP-19 (Plants and Wildlife) would ensure that potential impacts from construction activities would be minimized.

Other general impacts of Project construction on project-area wildlife including BUOW are discussed above (see *Wildlife Species*). Additionally, the Project may result in increased common raven and raptor predation on BUOW as associated with the addition of new elevated perching sites, including the gen-tie structures, perimeter fencing, and gen-tie lines. Other native or introduced animals that may be drawn to human activity and subsequently prey upon burrowing owls include coyotes, cats, or dogs (Bates 2006). As part of the Project, BMP-7 (Trash Abatement Plan) would minimize opportunistic species, such as common ravens, coyotes, and feral dogs that could serve as predators of native wildlife and special-status animals from entering the study area. Additionally, temporarily ponded water from construction (e.g., dust suppression during construction) might attract common ravens. These impacts would potentially impact BUOW and off-site BUOW breeding habitat or burrows and adjacent foraging habitat. BMP-3 (Fugitive Dust Abatement Plan) would limit the temporarily ponded water that would occur as a result of the fugitive dust plan in areas that support the BUOW.

Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-4 (Protect Burrowing Owls) would also reduce the potential direct and indirect impacts to the BUOW during construction of the proposed gen-tie line and solar array facility.

Le Conte's Thrasher

Suitable Le Conte's thrasher habitat is present throughout the proposed Alternative 1 gen-tie line corridor and would be directly impacted by construction activities, such as installation of the gen-tie towers, spur road, and access roads. Two individuals of this species were found in the proposed gen-tie line corridor. The presence of construction vehicles, equipment, or personnel may affect individual birds in the area. Disruption of breeding or destruction of an active nest during construction would be considered a direct impact. Individuals of this species may also be at risk of collision with the new gen-tie line if they fly high enough to come into contact with the conductors. This could result in injuries or mortalities.

Other impacts of Project construction on Le Conte's thrasher are discussed above (see discussion under *Wildlife Species*). These indirect impacts would potentially impact off-site Le Conte's thrasher breeding habitat and adjacent foraging habitat.

Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-7 (Protect breeding birds) and a BBCS (see details above) would be implemented to help reduce potential impacts during construction and operation and maintenance of the gen-tie line and solar array facility.

Loggerhead Shrike

Suitable loggerhead shrike nesting and foraging habitat present throughout Alternative 1 would be directly impacted by construction in the disturbance area. The species was found in both the proposed gen-tie line at low densities, predominantly in the creosote bush scrub, and in transitional areas comprising both creosote bush scrub and desert riparian woodland wash. Individuals of this species may also be at risk of collision with the new gen-tie line if they fly high enough to come into contact with the conductors. This could result in injuries or mortalities.

Other impacts of Project construction on loggerhead shrike are discussed above (see discussion under *Wildlife Species*). These indirect impacts would potentially impact off-site loggerhead shrike breeding habitat and adjacent foraging habitat.

Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-7 (Protect breeding birds) and a BBCS (see details above) would be implemented to help reduce potential impacts during construction and operation and maintenance of the gen-tie line and solar array facility.

American Badger

Permanent impacts would occur to American badger habitat as a result of construction of Alternative 1. Potential American badger den activity was detected predominantly on the western portion of the proposed solar array area; however, a single potential den was identified on the eastern side of the solar array site and the entire proposed gen-tie line corridor has suitable foraging and dispersal habitat for this species. Project activities may result in individuals being crushed or trapped within burrows. BMP-19 (Plants and Wildlife) would be implemented to protect species from construction activities such as being trapped within burrows. BMP-14 (Travel and traffic) would be implemented to protect species from being crushed by construction equipment by keeping vehicles on access roads and minimizing foot and vehicle traffic through undisturbed areas.

Other impacts of Project construction on American badger are discussed above (see discussion under *Wildlife Species*). These indirect impacts would potentially impact off-site American badger breeding habitat or burrows and adjacent foraging habitat.

Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-5 (Protect American badgers) would also reduce the potential direct and indirect impacts to the American badger during construction of Alternative 1.

Desert Kit Fox

No desert kit foxes were detected during the survey effort. However, potential desert kit fox burrows and complexes are distributed throughout the solar array site and within the gen-tie line corridors. Project activities may result in individuals being crushed or trapped within burrows, or may result in an exacerbation of the region's recent kit fox distemper issues, first observed at the Genesis Solar Energy Project in October 2011 and most often spread by contact with other infected animals. Refer to the discussion under the *American Badger* sub-section for BMPs that would minimize construction activity impacts to the desert kit fox.

Other impacts of Project construction on desert kit fox are discussed above (see discussion under *Wildlife Species*). These indirect impacts would potentially impact off-site desert kit fox breeding habitat or burrows and adjacent foraging habitat.

Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-6 (Protect desert kit fox) would reduce the potential direct and indirect impacts to the desert kit fox during construction of Alternative 1.

Migratory Birds

The Project (Alternative 1) would potentially result in construction-related impacts to bird populations on the solar facility site in the form of reduction in foraging lands. The majority of the existing land use on the solar facility site consists of active agriculture, disturbed creosote scrub, and fallow fields. Activities associated with the agricultural land limit birds from actively using the land for purposes other than foraging. Since most of the solar facility site has nearly level to gently sloping topography, no mass grading would be required for the installation of the solar facility site. Some of the parcels where facilities and arrays would be located would require light grubbing for leveling and trenching. There is the potential for species to utilize the solar facility site or transmission line corridor for nesting, and these species may be directly impacted during construction activities. The removal of vegetation associated with limited grading or light grubbing may result in direct impact to nests, eggs, nestlings, and recently fledged young that cannot safely avoid equipment. Other impacts on bird populations using the site would be the same as those identified above for listed and non-listed special-status species.

Indirect impacts to migratory birds include the potential of PV panels to give off a reflection during the daytime that can resemble water when viewed from the sky and cause birds to be attracted to the solar facility site (Riverside County Planning Department, personal communication 2014). The photopollution that disrupts the natural pattern of light and dark experienced by organisms in ecosystems is not a new phenomenon and has been studied and referred to as “polarized light pollution” (PLP) (Longcore and Rich 2004, Horvath et. al 2009). The phenomenon of PLP is global and has increased rapidly over the past several decades, following the rapid spread of urban development, road systems, and agriculture. PLP includes direct glare, chronically increased illumination, and temporary, unexpected fluctuations of light emitted from structures (e.g., buildings, towers, bridges) and vehicles (Horvath et. al 2009). Estimates of avian mortality due to other PLP causes such as collision with windows, motor vehicals, power lines, communication towers and wind generation facilities run in the millions annually (APLIC 2006), far greater than the collision data associated with PLP and solar panels.

The issue of PLP causing avian deaths has been identified on several solar developments within Riverside County. In most cases, the cause of death was either clearly unrelated to a collision with panels/mirrors (e.g., confirmed impact with a vehicle or tangled in construction water pond netting) or uncertain (e.g., found deceased with no clear evidence of a collision) (Riverside County 2013).

Based on personal communication with Riverside County, the major concern with PLP is waterfowl use of solar sites and the potential of being attracted to reflected light that mimics water (Riverside County 2014). The Desert Sunlight Project, located 46 miles northwest of Blythe, California and approximately 41 miles northwest of the proposed Project, recorded a total of 19 waterfowl mortalities. Only one was confirmed as caused by collision with a solar panel. Three waterfowl drowned or were reported caught in pond netting, there was one reported case of illness as a cause of death, two waterfowl deaths were caused by predation, and there were 11 unknown causes of mortality (Ironwood Consulting, Inc., 2012). A total of 14 waterfowl species were reported among the 93 avian fatalities reported at Genesis Solar Energy Project (AECOM 2013), which is located 22 miles west of Blythe, California and approximately 17 miles west of the proposed Project. Five deaths occurred within the evaporation ponds or within the pond netting; two waterfowl deaths were reported in or near an electrical building; two were reported near the construction laydown area and only five were located in or near the solar trough mirrors (AECOM 2013).No fatalities of any bird species, including waterfowl, were reported as a result of collision with the solar trough mirrors. The Ivanpah Solar Electric Generating System, located 40 miles southwest of Las Vegas, reported two waterfowl collision with heliostats (CEC 2014). Heliostats - mirrors used in concentrating solar energy - have been found to cause fatalities through collisions and burns (M.D McCrary et al. 1986). Heliostats are structurally similar to PV solar panels and birds can of course strike any fixed object. However, PV solar panels appear dark black rather than reflective, as they are designed to absorb rather than reflect sunlight. The other waterfowl mortalities reported at Ivanpah Solar Electric Generating System are a result of the solar flux or power block and building (CEC 2014).

Of the total avian and bat mortalities reported for each of the three projects listed above from 2012-2014 the Desert Sunlight Project reported the least amount of mortality by 27 percent difference than when compared to Genesis Solar Energy Project and by 47 percent difference less than when compared to

Ivanpah Solar Electric Generating System (CEC 2014). The Desert Sunlight Project consists of the same technology and use of the PV solar arrays as the BMSP. One major difference between BMSP and Desert Sunlight Project is the use of evaporation ponds by Desert Sunlight Project. Based on the M.D. McCrary et al. 1986 study of the habitats surveyed within a solar facility, the evaporation ponds were the areas of the sites most heavily used by birds. Seventy percent of all species were recorded at least once at the ponds, and 45% were recorded only at the ponds; the majority of daily counts recorded mostly waterbirds (M.D. McCrary et al. 1986). An important distinguishing factor for the BMSP is there will be no evaporation ponds and therefore the Project eliminates this potential attractant of waterfowl to the Project.

Several solar projects within Riverside County are located within undisturbed habitat, which would be expected to host a greater number of avian species than BMSP. For instance, the natural (non-ruderal, non-agriculture) vegetation communities within BMSP constitute approximately 581.8 acres, or 14.9% of the total Project area. In comparison, the amount of natural vegetation within the Blythe Solar Power Project study area is 7,601.93 acres (99.8% of total) (AECOM 2009), within the McCoy Solar Energy Project is 4,506.9 acres (99.2% of total) (Riverside County 2013), and within the Genesis Solar Energy Project's solar power plant site and linear facilities is 1,852 acres (100% of total) (BLM and CEC 2010). Per the USFWS recommendations in the Avian and Bat Protection Plan guidance for solar energy projects, solar facility projects should be located in disturbed and degraded areas to the maximum extent practicable to avoid take of migratory birds and bats and/or loss, destruction or degradation of habitat (USFWS 2010). The BMSP has a long history of human use and disturbance with dominant land uses consisting of agricultural fields and citrus orchards. The surrounding area consists of residences, Blythe Municipal Airport, Blythe Energy Center, electrical transmission lines, an interstate highway, and commercial businesses. Within this matrix of human development and disturbance some patches of open desert habitat remain in the form of creosote bush scrub and desert riparian wash. However, the solar facility associated with this Project would be situated within agricultural land or otherwise disturbed land (primarily former agriculture and military training).The BMSP site does not include water features and relatively few areas of the existing BMSP site provide habitat for avian species. As a result, fewer birds would be expected to use the BMSP site in the future than would occur if the site were natural, undisturbed land prior to development as a solar facility.

Despite no scientific evidence of fatality risk to birds associated with PV solar arrays (RSPB 2011), potential PLP impacts will be mitigated and include Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-7 (Protect breeding birds) and as a part of Biology-7 a BBCS, would be implemented to help reduce potential impacts during construction, operation and maintenance of the gen-tie line and solar array facility. The BMSP BBCS includes baseline surveys, a three-year mortality and injury monitoring program, adaptive management, and care and transport for injured birds and bats. As a living document the BMSP BBCS will implement an adaptive management process in which impact minimization and mitigation measures are continuously reevaluated in order to improve them.

Other indirect impacts on migratory birds would include increased common raven and raptor predation associated with the addition of new elevated perching sites—including the structures, the gen-tie lines, perimeter fencing, and support structures—and ponded water, which are likely to attract common ravens, as discussed previously. As part of the Project, BMP-3 (Fugitive Dust Abatement Plan) would limit the temporarily ponded water that would occur as a result of the fugitive dust plan. Temporary impacts would be likely to arise from construction-generated fugitive dust accumulation on surrounding vegetation; construction-related erosion, runoff, and sedimentation into plant communities could result in destruction and/or avoidance of migratory bird habitat. See discussion above under *Vegetation Communities* for a list of BMPs that would reduce impacts to migratory birds' foraging lands. Additionally, construction-related noise would be likely to cause migratory bird nest abandonment in areas adjacent to construction in the disturbance area. Impacts from these construction-related activities would be temporary, as these impacts would end with cessation of Project construction.

Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-7 (Protect breeding birds) and, as a part of Biology-7, a BBCS would be implemented to help reduce potential impacts during construction and operation and maintenance of the gen-tie line and solar array facility.

Wildlife Movement

The proposed Project area is not within documented important migration routes for any terrestrial wildlife California. Potential habitat is not documented within the study area for burros. South of the Project area BLM has documented a BLM Herd Area where species are known to roam. The Herd Area is approximately three miles south of the study area. Nelson's bighorn sheep is known within the region. While the species is generally associated with mountainous areas, desert floor areas are important for dispersal and seasonal movement. However, no records were found within the study area. The NECO Plan addresses conservation of the bighorn sheep through the designation of Bighorn Sheep wildlife habitat management areas (WHMAs). The two closest WHMAs, McCoy Mountains and Mule Mountains, are currently listed as unoccupied range (BLM 2002). In addition, the survey work conducted in 2011 and 2012 did not detect the species or sign that it utilizes this area.

The existing agricultural land use at the solar array site and human activities associated with the transmission corridor already hinder the wildlife movement across the study area. Wildlife species may experience a temporary impact during the construction phase and increased human use; however, species that may potentially move through the site are acclimated to the existing human use on the Project area. An equestrian-type fence would be placed around the solar facility site and, based on this design, would not create a barrier or prevent movement across the site by most terrestrial wildlife species.

Construction of the Project would, however, have permanent indirect effects on wildlife movement. Wildlife movement would be altered due to edge effects associated with development. Individually, species respond behaviorally to the edge itself (the "ecotonal effect") or to the indirect habitat changes associated with edges (the "matrix effect"). Behavioral avoidance of man-made structures and associated edges can decrease wildlife movement and deter connectivity. However, the Project inspector shall conduct monitoring for any area subject to disturbance from construction activities that may impact biological resources including wildlife movement areas. The Project inspector's duties include minimizing impacts to special-status species, native vegetation, wildlife habitat, and unique resources. Where appropriate, the inspector will flag the boundaries of biologically sensitive areas, including wildlife movement areas, and monitor any construction activities in these areas to ensure that ground disturbance activities and impacts occur within designated limits.

Mitigation Measure Biology-1 would reduce the potential direct and indirect impacts to wildlife movement during construction of Alternative 1.

Operation and Maintenance

Vegetation Communities

After the installation of the solar facilities, the site would no longer be irrigated. The contractor would control noxious weeds and invasive plants from entering the solar facility site and allow the native vegetation to reestablish itself over time. Vegetation would not be greatly affected by occasional trampling by maintenance vehicles; however, the resulting ground disturbance and physical plant damage would provide an opportunity for weed invasion. Adherence to the proposed weed management plan would reduce the likelihood of weed establishment as a result of maintenance activities. Proposed practices to reduce potential vegetation loss and noxious weed invasion would include seeding disturbed areas with appropriate local native weed-free seed mixes, using weed-free borrow materials, and inventorying and treating noxious weeds according to the developed noxious weed control plan. Therefore, operation of the Project would not result in temporary or permanent direct impacts to either sensitive or non-sensitive vegetation communities beyond those described for construction of the Project.

Operation of the Project may result in permanent indirect impacts to non-sensitive and sensitive vegetation communities in the areas that surround the disturbance area. Permanent, indirect impacts to sensitive vegetation communities such as desert riparian woodland wash may include edge effects and increased exposure to exotic plants. Non-native invasive plant species are opportunistic and often occupy disturbed soils, such as those within transmission line corridors and areas of exposed bare ground. Wildfires caused by downed transmission lines are rare but may occur. Non-native invasive species often

frequent areas adjacent to and within burn areas following a wildfire. Once introduced, these non-native plant species often out-compete natives for resources, resulting in a reduction in growth and causing future dispersal and recruitment of native species and the eventual degradation of the vegetation community. See discussion above (*Construction: Vegetation Communities*) for a list of BMPs that would reduce impacts to vegetation communities during the operation and maintenance activities.

Special-Status Plants

Operation and maintenance of the Project would not result in temporary or permanent, direct impacts to non-listed, special-status plant species within the study area.

Operation and maintenance of the Project may result in permanent impacts to non-listed, special-status plant species that are outside the disturbance area. Non-native invasive plant species are opportunistic and often occupy disturbed soils, such as those within transmission line corridors and areas of exposed bare ground. Non-native invasive plant species often out-compete natives for resources, resulting in a reduction in growth and impedes dispersal and recruitment of native species. See discussion above under *Construction: Special-Status Plant Species* for a list of Project BMPs that would minimize impacts to vegetation communities during the operation and maintenance activities.

Wildlife Species

Impacts to wildlife species could occur from mortality of individuals by crushing or vehicle collisions during operation and maintenance activities of the proposed Project. Birds may also collide with the conductors of the new gen-tie line and be injured or killed. There is a pre-existing transmission line corridor that runs parallel and immediately south of where the Project gen-tie line is proposed. The proposed gen-tie line would present a new disturbance to bird species, both vertically with structures and horizontally with conductors; however, since this proposed line would parallel an existing transmission line corridor, birds are potentially habituated to the current conditions. Many birds, especially raptors, would use the gen-tie poles and towers as perches. This can conserve energy by lowering the amount of time dedicated to flying as the birds search for prey below (APLIC 2006). However, being perched on a gen-tie structure would also make a bird vulnerable to electrocution. Impacts would be minimal with the implementation of the Avian Power Line Interaction Committee (APLIC 2006) measures during the design of the proposed gen-tie line. Due to the existing towers and available perching opportunities to the raptors the addition of another line will add a cumulative impact to the prey but not be detrimental to the prey species. Also note that with the implementation of the APLIC measures and design perching opportunities will be reduced.

Operation and maintenance of the Project may also result in permanent impacts to special-status wildlife species. This includes edge effects, where Project facilities would lead to increased lighting, increase in non-native invasive plant and opportunistic species such as common ravens, coyotes, and feral dogs, which could serve as predators of native wildlife and special-status animals. Operation of Project facilities would not lead to increased noise greater than 60 dBA outside the operation area. Nighttime lighting could disrupt species movement and/or cause increased predation rates. Wildfires caused by downed transmission lines are rare but may occur and damage adjacent habitat. Human presence and activity, including generation of food waste, could attract predatory species, such as ravens or coyotes that may prey upon common or special-status wildlife species in the study area or vicinity. See discussion above under *Construction Impacts: Wildlife Species* for a list of Project BMPs that would minimize impacts to vegetation communities during the operation and maintenance activities.

Wildlife Movement

Operation of the Project would not result in any direct or indirect impacts to wildlife movement in addition to those already described above under construction impacts.

Decommissioning

Decommissioning activities associated with the proposed Project would result in temporary and permanent losses of wildlife species habitats in the disturbance area, and effects on habitats and species

in other areas. These activities would include such tasks as vegetation removal, grading, and surface disturbance to remove the solar array components, such as the PV panels and the tracker structures and mechanical assemblies. Surface disturbance may also occur to remove roads and the O&M buildings and to restore vegetation. It is expected that the impacts during decommissioning would be similar to those of construction of the proposed Project. See discussion above (*Proposed Project Construction Impacts*) for a list of Project BMPs and Mitigation Measures that would minimize impacts to vegetation communities during the decommissioning activities.

Application of CEQA Significance Thresholds

For the purposes of CEQA compliance, the significance of each identified impact of the proposed Project has been determined. The CEQA Lead Agency is responsible for determining whether an impact is significant and is required to adopt feasible mitigation measures to minimize or avoid each significant impact.

BIO-1) Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game (CDFW) or the U.S. Fish and Wildlife Service (USFWS)?

Potential construction- and operation-related direct and indirect impacts to non-listed special-status species occurring within the study area could occur as a result of construction activities. Construction of the solar facility, gen-tie lines, new substations, access roads, and O&M buildings would require ground-disturbing activities, including clearing and grading for structure installation work areas, and access construction.

Special-status plants: Harwood's eriastrum (CNPS List 1B.2) is present within the gen-tie line portion of the proposed Project. Potential construction- and operation-related direct and indirect impacts to special-status plants would be less than significant. The same BMPs would be applied during decommissioning activities.

Special-status wildlife: Direct impacts to non-listed wildlife species could occur from mortality of individuals by crushing or vehicle collisions during operation and maintenance activities of the Project, nighttime lighting, wildfires, and human presence and activity. Potential construction- and operation-related direct and indirect impacts to special-status wildlife would be potentially significant. Mitigation measures Biology-1 through Biology-7 would be implemented to further reduce impacts. Post-mitigation, impacts would be less than significant. All mitigation measures that are required during construction of the proposed Project to avoid or minimize impacts to biological resources would also be required during decommissioning activities.

Migratory Birds: The PV solar arrays for the BMSP will be developed within an existing disturbed area with little avian habitat (due to previous long-term land disturbance). The implications of this are that the Blythe Mesa site provides little habitat for bird species, and the general site selection on previously disturbed ground, proximate to freeways, airport and natural gas power plant, reduces potential impacts or risk due to collision based on the habituation of avian species to this disturbed area.

Forecasting the importance of PLP to the survival of populations and the integrity and function of ecosystems remains largely speculative (Horvath et. al 2009). The data linking avian deaths to collisions with PV panels is very limited. In addition, there are several other factors, such as total population size, natural mortality levels, site selection, and other human related influences, for which insufficient data exists. This makes it even more difficult to accurately predict the significance of collision mortality. The setting of the BMSP is such that birds, especially waterfowl will not be attracted to it. The site does not include evaporation ponds or other water features. In addition, relatively few areas of the existing BMSP site provide habitat for avian species; as a result, fewer birds would be expected to use the BMSP site in the future than would occur if the site were natural, undisturbed land prior to development as a solar facility. Based upon the bird

surveys conducted on the site, the scientific literature regarding PLP, and the factors that distinguish the BMSP from other sites of solar facilities, the BMSP will not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the CDFW or the USFWS. In addition, Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-7 (Protect breeding birds) and, as a part of Biology-7, a BBCS would be implemented to help reduce any potential impacts during construction and operation and maintenance of the gen-tie line and solar array facility to less than significant.

BIO-2) Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS?

The desert riparian woodland wash and unvegetated ephemeral dry wash are considered sensitive vegetation communities. Potential temporary and permanent, indirect impacts to the sensitive vegetation communities surrounding the disturbance area would occur as a result of Project construction. Construction of the solar facility, gen-tie lines, access roads, and O&M buildings would require ground-disturbing activities. However, the desert riparian woodland wash is along an existing transmission line corridor and would be spanned to avoid direct impacts to this community. The potential spread of exotic species into the surrounding vegetation communities would be considered a permanent, indirect impact. Operation of the Project may result in indirect impacts, such as erosion, and stormwater contaminant runoff may degrade adjacent sensitive vegetation communities. Mitigation measures Biology-1 and Biology-9 would be implemented to further reduce impacts. Post-mitigation potential construction- and operation-related direct and indirect impacts to desert riparian woodland wash and unvegetated ephemeral dry wash would be less than significant. The same BMPs would be applied during decommissioning activities

BIO-3) Would the Project have a substantial adverse effect on federal protected wetlands as defined by Section 404 of the Clean Water Act (CWA) (including, but not limited to, marshes, vernal pools, and coastal areas) or any State-protected jurisdictional areas not subject to regulation under Section 404 of the CWA through direct removal, filling, hydrological interruption, or other means?

There is an ephemeral stream within the Project area. The ephemeral stream crosses first the gen-tie line corridor and again southeast across the solar facility site. The ephemeral stream in the Project area consist of swales and erosional features including gullies and potential small washes characterized by low-volume, infrequent, or short-duration flow. There is an agricultural irrigation ditch running close to the eastern edge of the proposed solar array, but it does not cross the Project area and is approximately 75 to 90 feet below the edge of the Project area. There are several palustrine open-water wetlands (POWs), likely stock ponds, in a block in an area that is surrounded by the Project east of the Blythe Airport and north of I-10, but there are no POWs within the Project's boundary.

The U.S. Army Corps of Engineers (USACE) will be consulted with in the preparation of the 404 permit. In addition, any potential impacts to hydrology would be minimized through implementation of the BMPs, as part of the Project. Any necessary grading would follow existing contours as feasible to minimize alteration of existing drainage patterns (BMP-11). Erosion and sedimentation would be minimized through implementation of the Project Drainage, Erosion, and Sedimentation Control Plan (BMP-1), as well as the required Project SWPPP (BMP-2). In addition, Biology-9 (Provide restoration/compensation for affected jurisdictional areas) would be implemented. Post-mitigation potential construction- and operation-related direct and indirect impacts to the ephemeral dry wash would be less than significant. The same BMPs discussed mentioned above would be applied during decommissioning activities.

BIO-4) Would the Project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Wildlife: Although impacts on wildlife movement are anticipated, these impacts would generally be less than significant for most species. The solar facility would not be within documented important migration routes for any terrestrial wildlife species, and most of the animals expected to move across the Project are considered common in California. Regional habitat connectivity would be reduced by implementation of the proposed Project. However, much of the land surrounding the site is expected to remain as natural desert plant communities for the foreseeable future, which would allow regional movement by common terrestrial wildlife species to continue outside and through the perimeter of the site without significant impediment once construction is completed.

Operation of the Project would not result in any direct impacts to wildlife movement in addition to those already described for construction. Project BMPs would minimize potential direct impacts to wildlife movement but impacts would remain potentially significant. Mitigation measures Biology-4, Biology-5, Biology-6, and Biology-7 would further reduce remaining potential impacts to a less than significant level. Post-mitigation, impacts would be less than significant.

Migratory Birds: To the east of the Project area, approximately 8.5 miles, is the Lower Colorado River Valley. The Lower Colorado River Valley is in the Pacific Flyway, one of the four major migration flyways in North America, and is a globally important bird area (IBA) (Audubon 2011). Prior to construction and based on migratory bird data collected from adjacent projects and data collected during the habitat assessment (POWER 2011), it was determined that the agricultural land within the Project site may be used as foraging habitat by birds that are using the Colorado River. However, approximately 90,000 acres of irrigated agricultural land is within the Palo Verde Valley which is adjacent to the Colorado River and east of the Project site. Due to the existing suitable forage land east of the Project site and the distance from the Colorado River, it is assumed that migratory birds would only incidentally use the Project site for forage land and that these lands are of lesser value and importance for migratory bird foraging compared to lands closer to the River.

Wetlands, lakes, and streams are all documented potential “hot spots” for avian risk due to collision with facilities because water is often used by birds to forage or congregate (APLIC 2006). Based on the M.D. McCrary et al. 1986 findings it would suggest that the evaporation ponds act as “hot spots” for avian risk due to collision with the solar panels and associated features because the evaporation ponds attract birds. Therefore, aquatic areas are a determining factor in the risk to avian species. As discussed above, the BMSP Project area is located in agricultural lands without any nearby aquatic features and no evaporation ponds are proposed. In addition, the Project’s solar generation facility and gen-tie line would not be located between waterfowl use areas. Potential impacts will be mitigated and include Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-7 (Protect breeding birds) and, as a part of Biology-7, a BBCS would be implemented to help reduce potential impacts during construction and operation and maintenance of the gen-tie line and solar array facility to less than significant.

BIO-5) Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The proposed Project would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Regional resource planning documents prepared by federal, State, and local agencies were reviewed, including the CDCA Plan, the RCGP, and USFWS Recovery Plans. These documents were reviewed to confirm that the proposed Project would not conflict with and would have no impact on any local policies or ordinances protecting biological resources.

BIO-6) Would the Project conflict with the provisions of an adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or State habitat conservation plan?

The proposed Project would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan. This is because no conservation plans (local, regional, or State) encompass the study area. The proposed Project would have no impact on adopted habitat conservation plans, natural community conservation plans, or other approved local, regional, or State habitat conservation plans.

BIO-7) Would the Project substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or substantially reduce the number or restrict the range of an endangered, rare, or threatened species?

The proposed Project would not substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or substantially reduce the number or restrict the range of an endangered, rare, or threatened species. Based on survey work that was conducted in 2011 and 2012, database search, and consultation with the regulatory agencies, no endangered, rare, or threatened species would be impacted or threatened by this Project. The proposed Project area is currently used for agriculture and the proposed gen-tie line would parallel transmission line corridors and access roads. The existing disturbance already limits biological resources in the area and the proposed Project is not expected to restrict or harm wildlife species.

The majority of the existing land use on the solar facility site is non-sensitive and includes approximately 3,045 acres of agricultural lands and approximately 250 acres of disturbed fallow fields. Of the 3,294 acres of land designated for agricultural use, approximately 2,123 acres of agricultural lands would be directly impacted by the installation of the solar facility site. However, all the agricultural land within the solar array Project boundary would cease operation.

Based on a review of available information, studies conducted for nearby projects, reconnaissance surveys and protocol surveys conducted as part of impacts assessment for the BMSP, no federally-listed or state listed bird species were detected at the Project site or are expected to find habitat at the Project site. Three non-listed special-status avian species or their sign were detected on site. These were the western burrowing owl, Le Conte's thrasher, and loggerhead shrike; however suitable habitat for these species occurred within the gen-tie line corridor or outside the 2,123 acres of agricultural lands proposed for the solar array site. Detections of all wildlife species are discussed in detail in the Biological Technical Report (POWER 2011).

Habitat destruction is thought to cause greater reductions in bird and other wildlife populations than any other factor, and is still the most serious long-term threat (APLIC 2006). The current agricultural lands do not provide nesting habitat and activities associated with the agricultural land limit birds from actively using the land for purposes other than foraging. The species using the BMSP are self sustaining and will not be exposed to significant risk. Therefore the construction of the solar array site would not substantially reduce the habitat for birds or migratory birds that would cause the population to drop below self-sustaining levels, threaten to eliminate the avian community or substantially reduce the number or restrict the range of endangered, rare, or threatened species. Potential impacts will be mitigated and include Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-7 (Protect breeding birds) and, as a part of Biology-7, a BBCS would be implemented to help reduce potential impacts during construction and operation and maintenance of the gen-tie line and solar array facility to less than significant.

Alternative 2: No Project Alternative

According to biological surveys performed at the solar facility, numerous sensitive plant and animal species have the potential to be located within two miles of the solar facility or on the site itself. Under the No Project Alternative, no new construction and/or operational activities would result, and impacts would generally not be increased. However, the existing agricultural land and the activities associated with the agriculture currently restricts wildlife and plant use of the solar facility site. Active use associated with agricultural land includes disking and planting. The action Alternatives would no longer disk, plant, apply chemical applications that are harmful to wildlife, or implement plant and animal pest control, and would reduce vehicle traffic. The initial construction of the action Alternatives would restrict biological species, but this would be temporary. The action Alternatives would require coordination with the wildlife agencies and would allow native biological resources to utilize the site during operation and maintenance.

The gen-tie line corridors associated with the action Alternatives would account for an increase of impacts to biological resources; however, the increase would be minimal due to the existing transmission lines, planned gen-tie line, and roads that exist along the corridors.

Measured against the existing circumstances, the No Project Alternative would not result in noticeable changes to biological resources. As such, the No Project Alternative would not result in significant impacts, but it also would not result in the biological impacts or benefits described for Alternative 1.

Alternative 3: Northern Alternative 230 kV Gen-tie Line Location

Similar to Alternative 1, Alternative 3 would include the construction, operation, maintenance, and decommissioning of a solar facility and associated infrastructure. The primary difference between Alternatives 1 and 3 is the location of the proposed 230 kV gen-tie line that would extend outside of the solar facility field to the Colorado River Substation; the same 230 kV gen-tie alignment within the solar facility field would be utilized for both Alternatives 1 and 3. The gen-tie alignment for Alternative 3 would be shifted to the north, but primarily within the same BLM utility corridor, within the same SEZ, and entirely on BLM-managed lands. Unless noted, all direct and indirect impacts to vegetation communities, flora, wildlife species, and wildlife movement would be similar to Alternative 1.

Analysis of Direct and Indirect Impacts

Construction

Vegetation Communities

Although construction of Alternative 3 would be conducted in a way that avoids impacts to native plant communities to the maximum extent possible, construction of Alternative 3 would result in removal and degradation of native plants and their communities. This Alternative includes a gen-tie line that is longer than the gen-tie lines in the other action Alternatives and would impact 303.6 acres of creosote bush scrub, almost 25 more acres than Alternatives 1 and 4. In addition, Alternative 3 contains approximately 23 acres of riparian woodland wash, the same amount as Alternative 1. See *Vegetation Communities* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to the vegetation communities, which is relevant to Alternative 3.

Plants

No federal- or State-listed species were detected during the survey work conducted in 2012 along Alternative 3. The field surveys detected two non-listed species, Harwood's woollystar and Harwood's milk-vetch, occurring within the gen-tie line corridor. Although construction of Alternative 3 would be conducted in a way that avoids impacts to these non-listed species to the maximum extent possible, construction of Alternative 3 would still result in removal and degradation of these species and their habitats. Alternative 1 and Alternative 3's gen-tie lines would parallel existing and approved transmission lines and access roads; existing access roads would be utilized to the maximum extent possible.

However, Alternative 3 would have a minimally higher impact on plants when compared to Alternative 1, due to the slightly increased distance of the gen-tie line, but there would be no material difference in the level of significance of the impact. See *Vegetation Communities* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to special-status plants, which is relevant to Alternative 3.

Wildlife Species

No federal- or State-listed species were detected during the survey work conducted in 2011 and 2012 for the gen-tie line proposed for Alternative 3. Although construction of Alternative 3 would be conducted in a way that avoids impacts to wildlife to the maximum extent possible, construction of Alternative 3 would still result in direct impacts to non-listed special-status wildlife species. Alternative 1 and Alternative 3's gen-tie lines would parallel existing and approved transmission lines and access roads; existing access roads would be utilized to the maximum extent possible. However, Alternative 3 would have a minimally higher impact on wildlife species when compared to Alternative 1, due to the increased length of Alternative 3's gen-tie line, but there would be no material difference in the level of significance of the impact. See *Wildlife Species* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to these species, which is relevant to Alternative 3.

The potential for Project direct and indirect impacts to specific special-status wildlife species is discussed in the following sections.

Mojave Fringe-toed Lizard

One BLM-sensitive species, the Mojave fringe-toed lizard, was detected during the 2012 surveys along the gen-tie study area. Although construction of Alternative 3 would be conducted in a way that avoids impacts to the Mojave fringed-toed lizard to the maximum extent possible, construction of Alternative 3 would still result in removal and degradation of this species' habitat, which is still within the Aeolian sand sheet and dune habitat that supports this species. However, Alternative 1 and Alternative 3's gen-tie lines would parallel existing and approved transmission lines and access roads; existing access roads would be utilized to the maximum extent possible. Regardless, Alternative 3 would have a minimally higher impact on the Mojave fringe-toed lizard when compared to Alternative 1, due to the increased distance of the gen-tie line, but there would be no material difference in the level of significance of the impact. During surveys conducted for this Project in 2011 and 2012 and surveys conducted for the Blythe Mesa Solar Project (AECOM 2010) and the Devers-Palo Verde No. 2 500 kV Transmission Line Project (CH2M Hill 2010), a total of 71 Mojave fringe-toed lizards were detected within the BMSP survey corridor boundaries. See *Mojave Fringe-toed Lizard* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to this species, which is relevant to Alternative 3.

Desert Tortoise

The desert tortoise has a moderate potential to occur on Alternative 3 based on the suitability of the habitat in the gen-tie line corridor and tortoise sign surrounding the Colorado River Substation (AECOM 2010; CH2M Hill 2010). One instance of tortoise scat was detected within the Alternative 3 gen-tie line during previous surveys (between 2007 and 2010) around the Colorado River Substation for the Devers-Palo Verde No. 2 500 kV Transmission Line Project (CH2M Hill 2010). Construction activities that result in direct mortality or the degradation of habitat utilized by this species, if present, would be considered take of a federal- and State-listed species as described above and would constitute an impact that would be authorized only through the context of a Biological Opinion issued by the USFWS. However, in a memorandum dated November 14, 2012, the USFWS stated that the proposed Project (Alternative 1) is "not likely to incidentally take or otherwise adversely affect desert tortoise" (FWS-ERIV-12B0299-12I0497). This is based not only on existing data for the area (habitat and species records), but also on the assumption that the Applicant will comply with a number of avoidance measures that are included in the USFWS memo. While the USFWS memo refers specifically and only to Alternative 1, the Alternative 3 gen-tie line corridor runs parallel to this with a distance of only 700 feet between centerlines. The Alternative 3 gen-tie line corridor is slightly longer than the corridor for Alternative 1 and would result in slightly more habitat loss, but otherwise both corridors parallel existing transmission lines and access

roads and are expected to have largely the same potential for impacts and the same level of significance for those impacts. See *Desert Tortoise* under Alternative 1, above, for discussion of potential impacts to this species, within the context of the USFWS memo, its associated avoidance measures, and the mitigation measures that are proposed as part of this Project.

Golden Eagle

Based on the terrain, vegetation, and habitat characteristics within the study area and available data on known locations, golden eagles are not expected to be nesting within or in areas adjacent to Alternative 3. According to surveys conducted for the McCoy Solar Energy Project (TetraTech 2011), four golden eagle nests were detected in 2010 and 15 were detected in 2011 in the McCoy, Little Maria, and Big Maria Mountains. Of those nests, only one was determined to be active, in 2010, and was not determined to be active with golden eagles during the 2011 surveys. Several nests in 2011 were observed to be occupied by other species. Of all golden eagle nests detected in 2010 and 2011 during the McCoy Solar Energy Project surveys, the closest nest was approximately 4.5 miles north of the proposed gen-tie line or approximately five miles north of the Colorado River Substation. However, there is no nesting habitat for this species within the study area. Therefore, construction activity is not expected to affect golden eagle nesting. However, Alternative 3 presents marginal foraging habitat, and golden eagles may forage in areas that could be impacted by construction. Although construction of Alternative 3 would be conducted in a way that avoids impacts to the golden eagle foraging habitat to the maximum extent possible, construction of Alternative 3 would still result in removal and degradation of vegetation. Alternative 1 and Alternative 3's gen-tie lines would parallel existing and approved transmission lines and access roads; existing access roads would be utilized to the maximum extent possible. However, Alternative 3 would have a minimally higher impact on the golden eagle's potential foraging habitat when compared to Alternative 1. This is due to the increased distance of the gen-tie line and the impacts associated with the increased acreage, but there would be no material difference in the level of significance of the impact. See *Golden Eagle* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to this species, which is relevant to Alternative 3.

Western Burrowing Owl

This species is documented within the proposed solar facility site. Although construction of Alternative 3 would be conducted in a way that avoids impacts to burrowing owl to the maximum extent possible, construction of Alternative 3 would still result in impacts to this species. The impacts to this species would be the same for all action Alternatives, since the species is within the solar facility site, a Project component that all of the Alternatives share. See *Western Burrowing Owl* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to native vegetation, which is relevant to Alternative 3. While the Alternative 1 gen-tie line corridor was surveyed for burrowing owls in 2011, the Alternative 3 corridor was not, and it is unknown if any owls are present in it.

Le Conte's Thrasher

This species was previously detected in 2011 in an area between Alternatives 3 and 4. Suitable habitat for this species is present mainly in the creosote bush areas of the Alternative 3 gen-tie line corridor. Alternative 1 and Alternative 3's gen-tie lines would parallel existing and approved transmission lines and access roads; existing access roads would be utilized to the maximum extent possible. However, Alternative 3 would have a minimally higher impact on the Le Conte's thrasher when compared to Alternative 1, due to the increased distance of the gen-tie line, but there would be no material difference in the level of significance of the impact. The presence of construction vehicles, equipment, or personnel may affect individual birds in the area. Although construction of Alternative 3 would be conducted in a way that avoids impacts to Le Conte's thrasher to the maximum extent possible, construction of Alternative 3 would still result in impacts to this species. See *Le Conte's Thrasher* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to this species, which is relevant to Alternative 3.

Loggerhead Shrike

A pair of loggerhead shrikes was detected north of the Alternative 3 gen-tie line. Alternative 1 and Alternative 3's gen-tie lines would parallel existing and approved transmission lines and access roads; existing access roads would be utilized to the maximum extent possible. However, Alternative 3 would have a minimally higher impact on the loggerhead shrikes when compared to Alternative 1, due to the increased distance of the gen-tie line, but there would be no material difference in the level of significance of the impact. Although construction of Alternative 3 would be conducted in a way that avoids impacts to the loggerhead shrike to the maximum extent possible, construction of Alternative 3 would still result in impacts to this species. See *Loggerhead Shrike* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to this species, which is relevant to Alternative 3.

American Badger

Suitable badger habitat occurs throughout the vicinity in undeveloped areas including areas within the solar array site and the gen-tie line corridor. Alternative 1 and Alternative 3's gen-tie lines would parallel existing and approved transmission lines and access roads; existing access roads would be utilized to the maximum extent possible. However, Alternative 3 would have a minimally higher impact on American badger when compared to Alternative 1, due to the increased distance of the gen-tie line, but there would be no material difference in the level of significance of the impact. Although construction of Alternative 3 would be conducted in a way that avoids impacts to the American badger to the maximum extent possible, construction of Alternative 3 would still result in impacts to this species. See *American Badger* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to this species, which is relevant to Alternative 3.

Desert Kit Fox

Suitable kit fox habitat occurs throughout the Alternative 3 vicinity in undeveloped areas including areas within the solar array site and the gen-tie line corridor. Alternative 1 and Alternative 3's gen-tie lines would parallel existing and approved transmission lines and access roads; existing access roads would be utilized to the maximum extent possible. However, Alternative 3 would have a minimally higher impact on the desert kit fox when compared to Alternative 1, due to the increased distance of the gen-tie line, but there would be no material difference in the level of significance of the impact. Although construction of Alternative 3 would be conducted in a way that avoids impacts to the desert kit fox to the maximum extent possible, construction of Alternative 3 would still result in impacts to this species. See *Desert Kit Fox* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to this species, which is relevant to Alternative 3.

Migratory Birds

The Project would potentially result in direct construction-related impacts to bird populations on the solar facility site and gen-tie line corridor in the form of reduction of foraging lands. Alternative 1 and Alternative 3's gen-tie lines would parallel existing and approved transmission lines and access roads; existing access roads would be utilized to the maximum extent possible. However, Alternative 3 would have a minimally higher impact on migratory birds when compared to Alternative 1. This is due to the increased distance of the gen-tie line and impacts associated with the reduction of foraging lands and increased avian risk associated with the gen-tie line, but there would be no material difference in the level of significance of the impact. Although construction of Alternative 3 would be conducted in a way that avoids impacts to migratory birds to the maximum extent possible, construction of Alternative 3 would still result in impacts to these species. See *Migratory Birds* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to migratory birds, which is relevant to Alternative 3.

Wildlife Movement

The proposed Project would result in impacts to wildlife movement and habitat connectivity along the gen-tie line corridor. These impacts would result from construction activities and would be temporary. Alternative 1 and Alternative 3's gen-tie lines would parallel existing and approved transmission lines and access roads; existing access roads would be utilized to the maximum extent possible. Construction of Alternative 3 would be conducted in a way that avoids impacts to wildlife movement to the maximum extent possible, construction of Alternative 3 would still result in impacts. See *Wildlife Movement* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects, which is relevant to Alternative 3.

Operation and Maintenance

Operation of Alternative 3 would result in the same direct and indirect impacts to vegetation communities, flora, wildlife species, and wildlife movements as Alternative 1.

Decommissioning

Decommissioning activities associated with Alternative 3 would result in direct temporary and permanent loss of wildlife species' habitats and indirect effects to habitats and species. These activities would include such tasks as vegetation removal, grading, and surface disturbance to remove the solar array components, such as the PV panels and the tracker structures and mechanical assemblies. Surface disturbance may also occur to remove roads and the O&M buildings and to restore vegetation. It is expected that impacts during decommissioning would be similar to those of construction of Alternative 3.

Application of CEQA Significance Thresholds

With respect to Alternative 3, the application of CEQA significance thresholds applicable to construction, operation, maintenance, and decommissioning are as follows:

BIO-1) Would Alternative 3 have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game (CDFW) or the U.S. Fish and Wildlife Service (USFWS)?

Special-status plants: Harwood's woollystar and Harwood's milk-vetch occur within the gen-tie line portion of Alternative 3. Refer to the CEQA BIO-1 special-status plants discussion under Alternative 1, which is applicable to Alternative 3. Implementation of BMPs and Mitigation Measures Biology-1 through Biology-9 would reduce impacts to a less than significant level.

Special-status wildlife: Refer to the CEQA BIO-1 special-status wildlife discussion under Alternative 1, which reflects the same impacts as would occur under Alternative 3. Implementation of Mitigation Measures Biology-1 through Biology-9 would reduce impacts to a less than significant level.

Migratory birds: Refer to the CEQA BIO-1 migratory bird discussion under Alternative 1, which reflects the same impacts as would occur under Alternative 3. Implementation of Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-7 (Protect breeding birds) and, as a part of Biology-7, a BBCS would reduce impacts to less than significant level.

BIO-2) Would Alternative 3 have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS?

Alternative 3 contains approximately 25 more acres of riparian woodland wash when compared to the other action Alternatives. Potential temporary and permanent, indirect impacts to the sensitive

vegetation communities surrounding the disturbance area would occur as a result of Project construction. However, the desert riparian woodland wash is along an existing transmission line corridor and would be spanned to avoid direct impacts to this community. Potential construction- and operation-related direct and indirect impacts to special-status wildlife species would be reduced to a less than significant level through implementation Mitigation Measures Biology-1 and Biology-9. The same mitigation measures would be implemented during decommissioning.

BIO-3) Would Alternative 3 have a substantial adverse effect on federal protected wetlands as defined by Section 404 of the Clean Water Act (CWA) (including, but not limited to, marshes, vernal pools, and coastal areas) or any State-protected jurisdictional areas not subject to regulation under Section 404 of the CWA through direct removal, filling, hydrological interruption, or other means?

An ephemeral drainage bisects the gen-tie line and a portion of the solar facility site and may be affected by construction, operation, or maintenance of the proposed Project. The solar panels have been designed to avoid placement within the ephemeral drainage; however, one gen-tie pole would be within the potential ordinary high water mark of the drainage. With the implementation of the Mitigation Measure Biology-9 impacts would be reduced to a less than significant.

BIO-4) Would Alternative 3 interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Impacts to wildlife movement are anticipated; however, these impacts would generally be less than significant for most species. Refer to the CEQA BIO-4 discussion under Alternative 1, which is relevant to Alternative 3. Mitigation measures Biology 4 through Biology-7 would reduce potential impacts to a less than significant level.

Migratory birds: Refer to the CEQA BIO-1 migratory bird discussion under Alternative 1, which reflects the same impacts as would occur under Alternative 3. Implementation of Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-7 (Protect breeding birds) and, as a part of Biology-7, a BBCS would reduce impacts to less than significant level.

BIO-5) Would Alternative 3 conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Alternative 3 would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. No impact would occur.

BIO-6) Would Alternative 3 conflict with the provisions of an adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or State habitat conservation plan?

Alternative 3 would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan. No impact would occur.

BIO-7) Would Alternative 3 substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or substantially reduce the number or restrict the range of an endangered, rare, or threatened species?

Alternative 3 would not substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or substantially reduce the number or restrict the range of an endangered, rare, or threatened species. This is based on survey work that was conducted in 2011 and 2012,

database search, and consultation with the regulatory agencies. Impacts would be less than significant.

Migratory birds: Refer to the CEQA BIO-1 migratory bird discussion under Alternative 1, which reflects the same impacts as would occur under Alternative 3. Implementation of Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-7 (Protect breeding birds) and, as a part of Biology-7, a BBCS would reduce impacts to less than significant level.

Alternative 4: Southern Alternative 230 kV Gen-tie Line Location

Also similar to Alternatives 1 and 3, Alternative 4 would include the construction, operation, maintenance, and decommissioning of a solar facility and associated infrastructure. The only difference between Alternatives 1, 3, and 4 is the location of the proposed 230 kV gen-tie line that would extend outside of the solar facility. Alternative 4 would be shifted approximately 0.8 mile to the south and exit the southwestern portion of the solar facility field and continue to the Colorado River Substation. Alternative 4 would be slightly shorter than the proposed 230 kV gen-tie line; approximately three miles of the Alternative 4 230 kV gen-tie line would not parallel existing transmission lines, and new access roads may be required to construct Alternative 4. Alternative 4 would have the potential for greater ground disturbance than Alternatives 1 and 3. Unless noted, all direct and indirect impacts to vegetation communities, flora, wildlife species, and wildlife movement would be similar to Alternative 1.

Analysis of Direct and Indirect Impacts

Construction

Vegetation Communities

Although construction of Alternative 4 would be conducted in a way that avoids impacts to native plant communities to the maximum extent possible, construction of Alternative 4 would still result in removal and degradation of native plants and their communities. The Alternative 4 gen-tie transmission corridor would impact approximately 231 acres of creosote bush scrub. This corridor is on 3.4 miles of BLM-managed land and 0.6 mile of private land. There is little disturbance along this corridor and the construction of Alternative 4 would have a greater impact to this native plant community when compared to Alternatives 1 and 3. See *Vegetation Communities* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to vegetation communities, which is relevant to Alternative 4.

Plants

No listed species have the potential to occur in the areas of habitat along Alternative 4. Only one non-listed species, Harwood's woollystar, was determined to occur within the gen-tie line corridor and just south of the gen-tie line corridor based on survey results from the Blythe Solar Power Project (AECOM 2010). Protocol botanical surveys have not been conducted within the Alternative 4 gen-tie line corridor, and there may be additional special-status plants that could occur along this area. Although construction of Alternative 4 would be conducted in a way that avoids impacts to this non-listed species to the maximum extent possible, construction of Alternative 4 would still result in removal and degradation of this species and its habitat. Alternative 1 and Alternative 3's gen-tie lines would parallel existing transmission lines and access roads; however, approximately three miles of Alternative 4 would not parallel existing transmission lines or access roads and would require approximately three miles of new access roads. When compared to Alternative 1 and Alternative 3, Alternative 4 would have increased impacts to Harwood's woollystar due to the development of a new gen-tie line corridor, although effects to potential other special-status plants are not known at this time. See *Flora* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to special-status plants, which is relevant to Alternative 4.

Wildlife Species

No federal- or State-listed species were detected during the survey work conducted in 2011 and 2012 for Alternative 4. However, several records and species sign have been documented for the desert tortoise along the gen-tie corridor. Although construction of Alternative 4 would be conducted in a way that avoids impacts to wildlife to the maximum extent possible, construction of Alternative 4 would still result in direct impacts to special-status wildlife species. See *Wildlife Species* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to these species, which is relevant to Alternative 4.

The potential for Project direct and indirect impacts specific to special-status wildlife species is discussed in the following sections.

Mojave Fringe-toed Lizard

The Mojave fringed-toed lizard is expected to be present along the gen-tie line due to a 2011 sighting approximately 50 feet from the corridor (CDFW 2013), though no lizards were detected in this corridor during the 2012 habitat assessment. Alternative 1 and Alternative 3's gen-tie lines would parallel existing transmission lines and access roads; however, approximately three miles of Alternative 4 would not parallel existing transmission lines or access roads and would require approximately three miles of new access roads. As a result of the new access roads and gen-tie line, impacts to Mojave fringed-toed lizard habitat would be increased when compared to Alternative 1 or Alternative 3, though the quality of this habitat may be less optimal than that in Alternatives 1 and 3. Although construction of Alternative 4 would be conducted in a way that avoids impacts to the Mojave fringed-toed lizard to the maximum extent possible, construction of Alternative 4 would still result in removal and degradation of this species' habitat. Mitigation Measure Biology-8 (Protect Mojave fringed-toed lizard) would be implemented. See *Mojave Fringe-toed Lizard* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to this species, which is relevant to Alternative 3.

Desert Tortoise

The desert tortoise has a high potential to occur on Alternative 4. A record of a live tortoise was found approximately 0.33 mile south of Alternative 4, while another record shows that an occupied tortoise burrow is approximately 0.5 mile south of Alternative 4 (CH2M Hill 2010). Alternative 4 is closer to the Mule Mountains and, in this area, desert tortoises are more likely to be found in bajadas and on steep, rocky slopes than in flat valley areas. True to this, in 2012 there were a large number of desert tortoise sightings in the bajadas spreading out from Mule Mountain, in between Mule Mountain and the Alternative 4 gen-tie corridor (CDFW 2013). Construction activities that result in direct mortality or the degradation of habitat utilized by this species, if present, would be considered take of a federal- and State-listed species as described above and would constitute an impact that would be authorized only through the context of a Biological Opinion issued by the USFWS. Injury or mortality could occur to tortoises underground in undetected burrows that are driven over by construction vehicles or equipment, or to tortoises that are under vegetation and are not detected during construction or pre-construction surveys. As part of Alternative 4, BMP-14 (Travel and traffic) would ensure that impacts from vehicles would be minimized, as the potential for collisions between vehicles and desert tortoises would be minimized by requiring vehicles to maintain speed limits not exceeding 20 mph on off-highway access roads and by minimizing travel off established access roadways. Permanent habitat loss would occur as a result of the construction of new gen-tie structures and new access roads, resulting in decreased forage and vegetative cover for tortoises in the area. Because tortoises may use desert washes as habitat, excessive disturbance to these areas as a result of construction would degrade and possibly reduce habitat further. However, as part of Alternative 4, BMP-15 (new access roads and parking lots) would ensure that potential impacts from new access roads would be minimized.

During construction, increased predation could occur from ravens and coyotes, which are attracted to human activity to scavenge for food. As part of Alternative 4, BMP-7 (Trash Abatement Plan) would ensure minimization of opportunistic species, such as common ravens, coyotes, and feral dogs that could serve as predators of native wildlife and special-status animals from entering the study area. If a tortoise

is observed outside of exclusion fencing, construction will stop and the tortoise allowed to move out of the area on its own. If a tortoise or tortoise burrow is observed within the exclusion fencing, all construction will stop, and the USFWS contacted for direction on how to proceed. Since vegetation re-growth is a slow process in this arid climate, creosote bushes large enough to provide good cover would take a decade to revegetate the area. Mitigation Measure Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-2 (Protect Desert Tortoise) would further reduce the potential direct and indirect impacts to desert tortoise during construction of Alternative 4. However, additional mitigation may be required during consultation with both the CDFW and USFWS.

Golden Eagle

Based on the terrain, vegetation, and habitat characteristics within the Project's study area and available data on known locations, golden eagles are not expected to be nesting within the gen-tie corridor. During surveys conducted for the McCoy Solar Energy Project (TetraTech 2011), four golden eagle nests were detected in 2010 and 15 were detected in 2011 in the McCoy, Little Maria, and Big Maria Mountains. Of those nests, only one was determined to be active, in 2010, and was not determined to be active with golden eagles during the 2011 surveys. Several nests in 2011 were observed to be occupied by other species. Of all golden eagle nests detected in 2010 and 2011 during the McCoy Solar Energy Project surveys, the closest nest was approximately 4.5 miles north of the proposed gen-tie line or approximately five miles north of the Colorado River Substation. However, there is no nesting habitat for this species within the study area. Construction activity is not expected to affect golden eagle nesting efforts; however, Alternative 4 contains undisturbed foraging habitat, and golden eagles foraging in these areas may be impacted by construction. Although construction of Alternative 4 would be conducted in a way that avoids impacts to golden eagle foraging habitat to the maximum extent possible, construction of Alternative 4 would still result in removal and degradation of vegetation. In addition, the majority of the Alternative 4 gen-tie line is undisturbed (approximately three miles) and, based on the closer proximity to the Mule Mountains, golden eagles may utilize this foraging land more frequently. See *Golden Eagle* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to this species, which is relevant to Alternative 4.

Western Burrowing Owl

This species is documented within the proposed solar facility site. The impacts to this species would be the same for all action Alternatives, since the species is within the solar facility site, a Project component that all of the Alternatives share. Although construction of Alternative 4 would be conducted in a way that avoids impacts to burrowing owls to the maximum extent possible, construction of Alternative 4 would still result in impacts to this species. See *Western Burrowing Owl* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to this species, which is relevant to Alternative 4. While the Alternative 1 gen-tie corridor was surveyed for burrowing owls in 2011, the Alternative 4 corridor was not, and it is unknown if any owls are present in it.

Le Conte's Thrasher

This species was previously detected in 2011 in an area between Alternatives 3 and 4. Suitable habitat for this species is present mainly in the creosote bush areas of the Alternative 4 gen-tie line corridor. The presence of construction vehicles, equipment, or personnel may affect individual birds in the area. Although construction of Alternative 4 would be conducted in a way that avoids impacts to Le Conte's thrasher to the maximum extent possible, construction of Alternative 4 would still result in impacts to this species. See *Le Conte's Thrasher* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to this species, which is relevant to Alternative 4.

Loggerhead Shrike

Suitable habitat occurs within Alternative 4. Approximately three miles of Alternative 4 would not parallel existing transmission lines or access roads and would require new access roads. As a result of the new access roads and gen-tie line, impacts on the loggerhead shrike would potentially increase when

compared to Alternative 1 or Alternative 3. Although construction of Alternative 4 would be conducted in a way that avoids impacts to the loggerhead shrike to the maximum extent possible, construction of Alternative 4 would still result in impacts to this species. See *Loggerhead Shrike* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to this species, which is relevant to Alternative 4.

American Badger

Suitable badger habitat occurs throughout the vicinity in undeveloped areas surrounding the solar array site and gen-tie line corridor. Approximately three miles of Alternative 4 would not parallel existing transmission lines or access roads and would require new access roads; however, Alternative 1 and Alternative 3's gen-tie lines would parallel existing transmission lines and access roads. As a result of the new access roads and gen-tie line, impacts on the American badger and habitat would increase when compared to Alternative 1 or Alternative 3. Although construction of Alternative 4 would be conducted in a way that avoids impacts to the American badger to the maximum extent possible, construction of Alternative 4 would still result in impacts to this species. See *American Badger* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to this species, which is relevant to Alternative 4.

Desert Kit Fox

Suitable kit fox habitat occurs throughout the Alternative 4 vicinity in undeveloped areas. Approximately three miles of Alternative 4 would not parallel existing transmission lines or access roads and would require new access roads; however, Alternative 1 and Alternative 3's gen-tie lines would parallel existing transmission lines and access roads. As a result of the new access roads and gen-tie line, impacts on the desert kit fox and habitat would increase when compared to Alternative 1 or Alternative 3. Although construction of Alternative 4 would be conducted in a way that avoids impacts to the desert kit fox to the maximum extent possible, construction of Alternative 4 would still result in impacts to this species. See *Desert Kit Fox* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to this species, which is relevant to Alternative 4.

Migratory Birds

The Project would potentially result in direct construction-related impacts to bird populations on the solar facility site in the form of reduction in foraging lands. Although construction of Alternative 4 would be conducted in a way that avoids impacts to migratory birds to the maximum extent possible, construction of Alternative 4 would still result in impacts to these species. In addition, the gen-tie corridor for Alternative 4 is relatively undisturbed, approximately three miles, when compared to Alternative 1 and Alternative 3. With the introduction of a new gen-tie line along this corridor, there is a potential for increased impacts associated with construction. See *Migratory Birds* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects to migratory birds, which is relevant to Alternative 4.

Wildlife Movement

The proposed Project would result in impacts to wildlife movement and habitat connectivity. This is especially true for the potential presence of desert tortoise along the gen-tie line. Desert tortoise movement would be restricted during the construction phase of the gen-tie line. This species would be forced to move farther distances in search of food that would be removed for the gen-tie line, potentially causing further stress and increasing the chance of predation. These impacts would result from construction activities and would be temporary. Although construction of Alternative 4 would be conducted in a way that avoids impacts to wildlife movement to the maximum extent possible, construction of Alternative 4 would still result in impacts. See *Wildlife Movement* under Alternative 1, above, for discussion of permanent versus temporary impacts and expected direct and indirect effects, which is relevant to Alternative 4.

Operation and Maintenance

Operation of Alternative 4 would result in the same direct and indirect impacts to vegetation communities, flora, wildlife species, and wildlife movements as Alternative 1. However, there would be an increased impact to the desert tortoise and adjacent habitat during the operation and maintenance of the gen-tie line. Construction of a new gen-tie line would increase nesting and perching opportunities for ravens, increasing the likelihood of predation on desert tortoises. After construction is completed, injury or mortality from vehicle collisions may occur during maintenance activities and security patrols.

Decommissioning

Decommissioning activities associated with Alternative 4 would result in direct temporary and permanent losses of wildlife species habitats and indirect effects on habitats and species. The impacts would be similar to the impacts described under Alternative 1. These activities would include such tasks as vegetation removal, grading, and surface disturbance to remove the solar array components, such as the PV panels, the tracker structures, and mechanical assemblies. Surface disturbance may also occur to remove roads and the O&M buildings and to restore vegetation. It is expected that impacts during decommissioning would be similar to those of construction of Alternative 4.

Application of CEQA Significance Thresholds

With respect to Alternative 4, the application of CEQA significance thresholds applicable to construction, operation, maintenance, and decommissioning are as follows:

BIO-1) Would Alternative 4 have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game (CDFW) or the U.S. Fish and Wildlife Service (USFWS)?

Special-status plants: Harwood's woollystar occurs within the gen-tie line portion of Alternative 4 and Harwood's milk-vetch has a high potential to occur. Potential construction- and operation-related direct and indirect impacts to special-status plants would be reduced to a less than significant level through implementation of mitigation measure Biology-3. All mitigation measures that are required during construction of the proposed Project to avoid or minimize impacts to biological resources would also be required during decommissioning activities.

Special-status wildlife: Direct impacts to the federal- and State-listed desert tortoise could occur from mortality of individuals by crushing or vehicle collisions during the construction, operation, and maintenance activities of the Project. In addition, operation and maintenance of Alternative 4 may result in permanent, indirect impacts to non-listed special-status wildlife species, which includes edge effects, where Project facilities would lead to increased lighting and exotic plant and wildlife invasion. Potential construction- and operation-related direct and indirect impacts to special-status wildlife species would be reduced to a less than significant level through implementation of mitigation measures. Mitigation measures Biology-2, Biology-4, Biology-5, Biology-6, and Biology-7, would be implemented to reduce impacts to wildlife species including the desert tortoise. All mitigation measures that are required during construction of the proposed Project to avoid or minimize impacts to biological resources would also be required during decommissioning activities.

Migratory birds: Refer to the CEQA BIO-1 migratory bird discussion under Alternative 1, which reflects the same impacts as would occur under Alternative 4. Implementation of Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-7 (Protect breeding birds) and, as a part of Biology-7, a BBCS would reduce impacts to less than significant level.

BIO-2) Would Alternative 4 have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS?

The desert riparian woodland wash and unvegetated ephemeral dry wash are considered sensitive vegetation communities. Alternative 4 contains fewer acres (232 acres) of riparian woodland wash when compared to the other action Alternatives. However, potential temporary and permanent, indirect impacts to the sensitive vegetation communities surrounding the disturbance area would occur as a result of Project construction. The desert riparian woodland wash is along an undisturbed gen-tie line and would be spanned to avoid direct impacts to this community. The potential spread of non-native invasive species into the surrounding vegetation communities would be considered a permanent, indirect impact. Operation of the Project may result in indirect impacts, as erosion and stormwater contaminant runoff may degrade adjacent sensitive vegetation communities. Potential construction- and operation-related direct and indirect impacts to special-status wildlife species would be reduced to a less than significant level through implementation of mitigation measures. The same mitigation measures would be implemented during decommissioning.

BIO-3) Would Alternative 4 have a substantial adverse effect on federal protected wetlands as defined by Section 404 of the Clean Water Act (CWA) (including, but not limited to, marshes, vernal pools, and coastal areas) or any State-protected jurisdictional areas not subject to regulation under Section 404 of the CWA through direct removal, filling, hydrological interruption, or other means?

The potential Waters of the State that traverse the gen-tie line (approximately 11.4 acres) would be indirectly impacted by Project construction. No permanent direct impacts to jurisdictional waters are expected as a result of construction. The indirect impacts would be a result of the potential spread of exotic species into the surrounding vegetation communities, and erosion and stormwater contaminant runoff may degrade adjacent sensitive vegetation communities. Potential construction- and operation-related direct and indirect impacts to special-status wildlife species would be reduced to a less than significant level through implementation of both biology and hydrology mitigation measures. The same mitigation measures would be implemented during decommissioning.

BIO-4) Would Alternative 4 interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Impacts to wildlife movement are anticipated; however, these impacts would generally be less than significant for most species. The solar facility would not be within documented important migration routes for any terrestrial wildlife species, and most of the animals expected to move across the Project are considered common in California. Regional habitat connectivity would be reduced by implementation of the proposed Project. However, much of the land surrounding the site is expected to remain as natural desert plant communities for the foreseeable future, which would allow regional movement by common terrestrial wildlife species to continue outside and through the perimeter of the site without significant impediment once construction is completed. Operation of the Project would not result in any direct impacts to wildlife movement in addition to those already described above for construction. All mitigation measures that are required during construction of the proposed Project to avoid or minimize impacts to biological resources would also be required during decommissioning activities.

Migratory birds: Refer to the CEQA BIO-1 migratory bird discussion under Alternative 1, which reflects the same impacts as would occur under Alternative 4. Implementation of Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-7 (Protect breeding birds) and, as a part of Biology-7, a BBCS would reduce impacts to less than significant level.

BIO-5) Would Alternative 4 conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Alternative 4 would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; no impact.

BIO-6) Would Alternative 4 conflict with the provisions of an adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or State habitat conservation plan?

Alternative 4 would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan; no impact.

BIO-7) Would Alternative 4 substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or substantially reduce the number or restrict the range of an endangered, rare, or threatened species?

Alternative 4 would not substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or substantially reduce the number or restrict the range of an endangered, rare, or threatened species. The desert tortoise has the potential to occur along the Alternative 4 gen-tie line; however, in consultation with the regulatory agencies, mitigation measures would be developed to reduce potential impacts to this species, in addition to implementation of mitigation measure Biology-2. Impacts would be less than significant.

Migratory birds: Refer to the CEQA BIO-1 migratory bird discussion under Alternative 1, which reflects the same impacts as would occur under Alternative 3. Implementation of Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-7 (Protect breeding birds) and, as a part of Biology-7, a BBCS would reduce impacts to less than significant level.

Alternative 5: Reduced Acreage Alternative

Similar to Alternative 1, Alternative 5 would include the construction, operation, maintenance, and decommissioning of a solar facility and associated infrastructure. The primary difference between Alternatives 1 and 5 is the absence of solar facility development north of I-10, which would reduce electrical output from a 485 MW down to a 315 MW alternating current solar PV facility. The Reduced Acreage Alternative would be on a reduced footprint of approximately 2,476 acres (from 3,660 acres for the proposed Project). Alternative 5 would include approximately 2,403 acres for the solar field. Similar to the proposed Project, 73 acres would be utilized for the 230 kV gen-tie line. In comparison to Alternative 1, Alternative 5 would eliminate one on-site substation and one O&M building and would have one access point (planned on Seeley Avenue). The Reduced Acreage Alternative would also no longer extend a 230 kV overhead gen-tie line from an on-site substation north of I-10, as this Alternative would not be developed on land north of I-10. Instead, this Alternative would construct an approximately 7.8-mile-long, 230 kV overhead gen-tie line from the proposed on-site substation south of I-10 to the approved Colorado River Substation. Approximately three miles of the gen-tie line would be within the solar facility.

Alternative 5 would avoid impacts that would result from the construction, operation, maintenance, and decommissioning of a solar development north of I-10; however, the land on which Alternative 1 is proposed would continue with existing uses. Alternative 5 would no longer disk, plant, apply chemical applications that are harmful to wildlife, or implement plant and animal pest control, and would reduce vehicle traffic with respect to areas south of I-10. The initial construction of the Alternative 5 would restrict biological species in the area south of I-10, but on a temporary basis. Alternative 5 would require coordination with the wildlife agencies and would allow native biological resources to utilize the site during operation and maintenance. Like the other action Alternatives, the gen-tie line corridors associated with Alternative 5 would account for an increase of impacts to biological resources; however, the increase

would be minimal due to the existing transmission lines, planned gen-tie line, and roads that exist along the corridors.

The Reduced Acreage Alternative solar facility and a portion of the gen-tie line would be within the jurisdiction of the County of Riverside but not within the City limits of Blythe in comparison to the proposed Project. Alternative 5 would need to comply with the RCGP (2003) and PVVAP (2008). The remaining portion of the gen-tie line would traverse lands managed by the BLM and would need to comply with the CDCA Plan. The construction, operation, maintenance, and decommissioning of Alternative 5 would not exceed impacts to biological resources identified under the Alternative 1 analysis. Therefore, the Alternative 1 analysis would be applicable to Alternative 5, outside of those differences identified in the discussion below.

Analysis of Direct and Indirect Impacts

Construction

Vegetation Communities

The majority of vegetation communities within the Alternative 5 solar facility site are non-sensitive. Absent development of solar array facilities north of I-10, approximately 208 acres of disturbed fallow fields would not be utilized for a project under Alternative 5. The native vegetation communities that exist north of I-10 that would no longer be developed for a solar array site include approximately 113 acres of disturbed creosote bush scrub. Finally, 18 acres of bajada community are located north of I-10 and would not fall within the Alternative 5 footprint, in contrast to Alternative 1. The agricultural land within the Alternative 1 solar array Project boundary north of I-10 would continue operation under Alternative 5. Approximately 404 acres of irrigated alfalfa and 478 acres of non-irrigated wheat would also remain under this Alternative. The remaining direct and indirect impacts to vegetation communities under Alternative 5 would be similar to the proposed Project analyzed under Alternative 1.

Special-Status Plants

No federal- or State-listed plants were detected within the Alternative 5 solar array site and gen-tie line corridor.

Alternative 5 would utilize the same gen-tie line portion outside of the solar facility development area as Alternative 1. Refer to the Alternative 1 analysis for further details on impacts to special-status plants.

Wildlife Species

No federal- or State-listed species were detected during the survey work conducted in 2011 for Alternative 1. Alternative 5 also includes these same areas surveyed, with the exclusion of the solar array site north of I-10.

Alternative 5 could result in impacts to non-listed special-status wildlife species. A total of 22.9 acres of desert riparian woodland occurs within the proposed gen-tie line corridor. Riparian habitats provide the majority of foraging habitat for wildlife in the Alternative 5 area. However, the riparian woodland would be spanned and avoided during construction of the gen-tie line. In addition, within the solar array, construction activities could result in harassment of sensitive species or displacement of wildlife species that are avoiding the construction activities, including noise.

The potential for direct and indirect impacts specific to special-status wildlife species under Alternative 5 is discussed in the following sections.

Mojave Fringe-toed Lizard

Similar to Alternative 1, suitable Mojave fringe-toed lizard habitat is present throughout the Alternative 5 solar array site, and the potential for occurrence there is high (refer to Table 3.2.4-3 in Chapter 3). The species was found in high abundance throughout the gen-tie line portion of the Project. As Alternative 5 would utilize the identical gen-tie line portion, the analysis for Alternative 1 would apply.

Golden Eagle

There is no nesting habitat for this species within the study area of Alternative 1. Since Alternative 5 would encompass a reduced footprint within this same area, the analysis for Alternative 1 would apply. Development of Alternative 5 would lead to slightly reduced impacts (absent work north of I-10) as compared to Alternative 1, as construction may lead to the degradation of suitable foraging habitat adjacent to the areas that would be cleared.

Western Burrowing Owl

Based on spring 2011 protocol survey data for Alternative 1, construction activities, including the installation of the solar facility, would permanently impact BUOW by removing accessible habitat for at least four to six burrowing owls that were detected within the solar array area for Alternative 5. No breeding BUOW were documented during 2011 surveys; however, most of the proposed solar facility site contains suitable BUOW habitat. Potential impacts and associated mitigation would be similar to those analyzed under Alternative 1.

Le Conte's Thrasher

Suitable Le Conte's thrasher habitat is present throughout the proposed Alternative 5 gen-tie line corridor and would be directly impacted by construction activities, such as installation of the gen-tie towers, spur road, and access roads. As the Alternative 5 gen-tie line corridor would mirror that of Alternative 1, outside of the solar facility boundary, the Alternative 1 analysis would apply. However, Alternative 5 has less suitable habitat for this species, and the amount of habitat lost is likely to be less than that under Alternative 1.

Loggerhead Shrike

Suitable loggerhead shrike nesting and foraging habitat present throughout Alternative 5 would be directly impacted by construction in the disturbance area, similar to Alternative 1. As such, the analysis under Alternative 1 would apply. However, Alternative 5 has less suitable habitat for this species, and the amount of habitat lost is likely to be less than that under Alternative 1.

American Badger

Permanent impacts would occur to American badger habitat as a result of construction of Alternative 5. Potential American badger den activity was detected predominantly on the western portion of the proposed solar array area; however, a single potential den was identified on the eastern side of the solar array site under Alternative 1. This potential den would not be impacted under Alternative 5 development, as it is north of I-10. Similar to Alternative 1, the entire proposed gen-tie line corridor of Alternative 5 has suitable foraging and dispersal habitat for this species. The analysis for Alternative 1 would be applicable.

Desert Kit Fox

No desert kit foxes were detected during the survey effort under Alternative 1, which would include the Alternative 5 development area. Alternative 5 would have a similar potential for desert kit fox burrows and complexes distributed throughout the solar array site and within the gen-tie line corridor. As such, the analysis under Alternative 1 would apply.

Migratory Birds

Similar to Alternative 1, Alternative 5 would potentially result in construction-related impacts to bird populations on the solar facility site in the form of reduction in foraging lands. The analysis under Alternative 1 would apply. The potential for species to utilize the solar facility site or transmission line corridor for nesting and the direct impacts that may result during construction activities would be reduced to only the area south of I-10 under Alternative 5.

Other indirect impacts on migratory birds would include increased common raven and raptor predation associated with the addition of new elevated perching sites—including the structures, the gen-tie lines, perimeter fencing, and support structures—and ponded water, which are likely to attract common ravens, as discussed previously.

Wildlife Movement

Construction of Alternative 5 would have a reduced permanent indirect effect on wildlife movement in comparison to Alternative 1 as a result of no development north of I-10. Although wildlife movement would be altered due to edge effects associated with development of Alternative 5, this edge effect would be slightly reduced in comparison to Alternative 1.

Operation and Maintenance

Vegetation Communities

After the installation of the solar facilities under Alternative 5, the site would no longer be irrigated in the developed area south of I-10. Similar to Alternative 1, the contractor would control noxious weeds and invasive plants from entering the site and allow the native vegetation to reestablish itself over time for the developed area of Alternative 5; as such, the analysis for Alternative 1 would apply.

Operation of the Project may result in permanent indirect impacts to non-sensitive and sensitive vegetation communities in the areas that surround the disturbance area under Alternative 5; however, this area would be reduced in comparison to Alternative 1 absent development north of I-10. The analysis under Alternative 1 would otherwise apply.

Special-Status Plants

Similar to Alternative 1, operation and maintenance of Alternative 5 would not result in temporary or permanent, direct impacts to non-listed, special-status plant species within the study area.

Operation and maintenance of Alternative 5 may result in permanent impacts to non-listed, special-status plant species that are outside the disturbance area. The analysis for Alternative 1 would apply.

Wildlife Species

The analysis under Alternative 1 would be applicable to the developed portion south of I-10 under Alternative 5; as such, refer to the Alternative 1 analysis.

Wildlife Movement

Operation of Alternative 5 would not result in any direct or indirect impacts to wildlife movement in addition to those already described above under construction impacts.

Decommissioning

Refer to the analysis for Alternative 1.

Application of CEQA Significance Thresholds

BIO-1) Would Alternative 5 have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife (CDFW) or the U.S. Fish and Wildlife Service (USFWS)?

Potential construction- and operation-related direct and indirect impacts to non-listed special-status species occurring within the study area of Alternative 1 could occur as a result of construction activities. As the Alternative 5 development limits are within the Alternative 1 study area, the Alternative 1 analysis under BIO-1 would apply. Construction of the solar facility, gen-tie lines, new substations, access roads, and O&M buildings would require ground-disturbing activities, including clearing and grading for structure installation work areas, and access construction. Refer to the Alternative 1 analysis for impacts to special-status plant and wildlife species. Implementation of Mitigation Measures Biology-1 through Biology-9 would reduce impacts to less than significant levels.

BIO-2) Would Alternative 5 have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS?

The desert riparian woodland wash and unvegetated ephemeral dry wash are considered sensitive vegetation communities. Potential temporary and permanent, indirect impacts to the sensitive vegetation communities surrounding the disturbance area would occur as a result of Alternative 5 construction. Construction of the solar facility, gen-tie lines, access road, and O&M buildings would require ground-disturbing activities. However, the desert riparian woodland wash is along an existing transmission line corridor and would be spanned to avoid direct impacts to this community. The potential spread of exotic species into the surrounding vegetation communities would be considered a permanent, indirect impact. Operation of Alternative 5 may result in indirect impacts, as erosion and stormwater contaminant runoff may degrade adjacent sensitive vegetation communities. Potential construction- and operation-related direct and indirect impacts to desert riparian woodland wash and unvegetated ephemeral dry wash would be less than significant through implementation of Mitigation Measures Biology-1 and Biology-9. The same mitigation measures would be applied during decommissioning activities.

BIO-3) Would Alternative 5 have a substantial adverse effect on federal protected wetlands as defined by Section 404 of the Clean Water Act (CWA) (including, but not limited to, marshes, vernal pools, and coastal areas) or any State-protected jurisdictional areas not subject to regulation under Section 404 of the CWA through direct removal, filling, hydrological interruption, or other means?

An ephemeral drainage bisects the gen-tie line and a portion of the solar facility site and may be affected by construction, operation, or maintenance of the proposed Project. The solar panels have been designed to avoid placement within the ephemeral drainage; however, one gen-tie pole would be within the potential ordinary high water mark of the drainage. Potential construction- and operation-related direct and indirect impacts to desert riparian woodland wash and unvegetated ephemeral dry wash would be less than significant through implementation of Mitigation measure Biology-9. The same mitigation measures would be applied during decommissioning activities.

BIO-4) Would Alternative 5 interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Although impacts on wildlife movement are anticipated, these impacts would generally be less than significant for most species. The solar facility would not be within documented important migration routes for any terrestrial wildlife species, and most of the animals expected to move across Alternative 5 are considered common in California. Regional habitat connectivity would be reduced by implementation of Alternative 5. However, much of the land surrounding the site is

expected to remain as natural desert plant communities for the foreseeable future, which would allow regional movement by common terrestrial wildlife species to continue outside and through the perimeter of the site without significant impediment once construction is completed.

Operation of Alternative 5 would not result in any direct impacts to wildlife movement in addition to those already described for construction. BMPs would limit potential direct impacts to wildlife movement but impacts would remain potentially significant. Mitigation measures Biology-4, Biology-5, Biology-6, and Biology-7 would further reduce remaining potential impacts to a less than significant level. Post-mitigation, impacts would be less than significant.

BIO-5) Would Alternative 5 conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Alternative 5 would not conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance. Regional resource planning documents prepared by federal, State, and local agencies were reviewed, including the CDCA Plan, the RCGP, and USFWS Recovery Plans, to confirm that Alternative 5 would not conflict with and would have no impact on any local policies or ordinances protecting biological resources.

BIO-6) Would Alternative 5 conflict with the provisions of an adopted habitat conservation plan; natural community conservation plan; or other approved local, regional, or State habitat conservation plan?

Alternative 5 would not conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or State habitat conservation plan. This is because no conservation plans (local, regional, or State) encompass the study area of Alternative 1, which contains the Alternative 5 limits. Alternative 5 would have no impact on adopted habitat conservation plans, natural community conservation plans, or other approved local, regional, or State habitat conservation plans. No impact.

BIO-7) Would Alternative 5 substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or substantially reduce the number or restrict the range of an endangered, rare, or threatened species?

The analysis for Alternative 1's BIO-7 impact analysis would apply to Alternative 5. Alternative 5 would not substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; or substantially reduce the number or restrict the range of an endangered, rare, or threatened species. Based on survey work in 2011 and 2012, database search, and consultation with the regulatory agencies, no endangered, rare, or threatened species would be impacted or threatened by Alternative 5. Impacts would be less than significant.

Cumulative Impacts

Geographic Scope

Cumulative effects would result from incremental impacts of the proposed Project when added to other past, present, and reasonably foreseeable future actions within the designated region of influence. The term "cumulative effects" means those effects on species caused by other projects and activities unrelated to the proposed Project. Cumulative effects for biological resources apply to both plant and wildlife species and must take into account known distribution, availability of preferred habitat, designated critical habitat, local population size, and likely responses to effects for each species that is considered. Individually, the impacts of a project may be relatively minor, but when considered along with impacts of other closely related or nearby projects, including newly proposed projects, the effects could be cumulatively considerable. The geographic context for this cumulative analysis is bounded by the locations of the cumulative projects listed in Table 4.1-1, which represents the farthest ranges of any of

the species impacted by the Project. The Solar PEIS for the Eastern Riverside Solar Energy Zone analyzed biological impacts of utility-scale solar energy projects (BLM and DOE 2012). The PEIS did not include the proposed Project among the projects it studied and, therefore, was not used as the analysis of cumulative impacts to which the Project would contribute.

Temporal Scope

The temporal scope refers to the duration over which an impact would occur, either short-term or long-term; for example, only during the months of construction, only during operation and maintenance, or during both phases. This limits the projects whose biological impacts are included in the cumulative effects analysis to those that would cause impacts to biological resources concurrently with the proposed Project. Determining the temporal scope of impacts requires an estimation of the temporality of the individual or combined effects. The temporal scope of impacts to biological resources would be during the development of cumulative projects through the end of Project decommissioning, because any direct or indirect effects of the Project would only occur during the life of the Project.

Analysis of Direct and Indirect Impacts

Alternative 1: Proposed Project

Construction, Operation, Maintenance, and Decommissioning

Wildlife Habitat/Vegetation Communities

As the boost in solar projects and urbanization pressures increase within the region, impacts to biological resources within the region are increasing on a cumulative level. When the proposed Project is considered with other past, present, and probable future projects listed in Table 4.1-1, over 72,000 acres of solar projects and 159 miles of transmission lines would contribute to the cumulative impacts to biological resources.

If construction of all foreseeable projects within the geographic context were to occur at the same time as the BMSP, the area would be introduced to additional construction activities, equipment, and human disturbance from these sites. These construction impacts would include presence of heavy equipment, dust, fencing, materials, and supplies in the local Project region. However, following construction, the equipment and associated supplies would be removed, and impacts would be temporary. In addition, the BMSP proposes to construct a double-circuit 230 kV overhead gen-tie line to the approved Colorado River Substation. Only one circuit of the double-circuit tubular steel poles would be strung, leaving the other circuit vacant. This vacant circuit position could be utilized by other utility-scale solar energy production facilities under the cumulative scenario; as such, cumulative impacts to biological resources through land disturbance would be minimized by placing new infrastructure from other projects on existing poles within an established ROW corridor.

Rare plant species that are known to occur or are likely to occur within Alternative 1 include Harwood's milk-vetch, Harwood's woollystar, and dwarf germander. General threats to species and their habitats in the cumulative effects study area include fragmentation of habitat from roads, urban development, and agricultural development. Plants in particular could be trampled or crushed, killed, removed from the site, or otherwise indirectly affected by habitat degradation including fugitive dust, non-native weed species, and soil compaction. It should be noted that the acreage totals assumed for the surrounding projects that have been proposed and are described in Table 4.1-1 are highly unlikely to all be developed. In addition, through the project-specific environmental review process, these various projects would individually be required to mitigate their own impacts through measures such as providing suitable habitat at an agency agreed-upon ratio for the affected species to compensate for the habitat loss. Nevertheless, the development of these areas for these projects would unavoidably impact biological resources currently found on the various solar facilities.

The proposed BMSP site's existing agricultural use already fragments the existing habitat. In addition, the development of the BMSP gen-tie line would add to the fragmentation of the land. Natural (non-ruderal, non-agriculture) vegetation communities within Alternative 1 of the BMSP constitute approximately 581.8 acres, or 14.9 percent of the total Project area. In comparison, the amount of natural vegetation within the Blythe Solar Power Project study area is 7,601.93 acres (99.8 percent of total) (AECOM 2010), within the McCoy Solar Energy Project is 4,506.9 acres (99.2 percent of total) (Riverside County 2013), and within the Genesis Solar Energy Project's solar power plant site and linear facilities is 1,852 acres (100 percent of total) (BLM and CEC 2010). The aforementioned projects have all committed to a number of mitigation measures, including but not limited to restoration plans, revegetation plans, compensatory land acquisition, and weed control efforts. With implementation of project-specific mitigation and protection measures as well as adherence to BMPs as part of each project in the cumulative scenario, and compliance with State and federal laws, the cumulative effects to wildlife habitat/vegetation communities between the BMSP and past, present, and foreseeable projects would be less than significant.

Western Burrowing Owl

Burrowing owls are known to be present on the BMSP solar facility site and potential impacts are consistent across all the action Alternatives with the exception of Alternative 5, for which no burrowing owls, burrows, or sign were detected during 2011 protocol burrowing owl surveys and where potential impacts to this species may be reduced. Impacts to this species include habitat loss and/or degradation and possible injury or mortality if they happen to be present in a designated work area, particularly during nesting season. If present in undetected burrows, species such as burrowing owl may be crushed by construction. Construction activity may result in dust deposition on vegetation, which may result in decreased photosynthetic capabilities that would, in turn, cause habitat degradation through loss of plant vigor. Individuals would likely be displaced or disturbed by construction noise and human presence.

There are several transmission line, wind, or solar energy projects within the BMSP vicinity. The surrounding projects (Table 4.1-1) as implemented would presumably result in cumulative impacts to the burrowing owl. Cumulative effects from the surrounding projects may result in many different negative impacts to burrowing owl. For example, the Genesis Solar Energy Project is expected to result in, among other impacts, loss or degradation of owl habitat, failure or disturbance of nesting efforts, relocation to new locations and/or artificial burrows, and increased predation; this project would purchase 39 acres of suitable habitat for burrowing owls if necessary. The McCoy Solar Energy Project, which is nearly adjacent to the BMSP, has also documented burrowing owls on-site and will result in relocation of the owls and destruction of their nests; this project would purchase 19.5 acres of suitable burrowing owl habitat as mitigation as a requirement by CEQA and the CDFW Burrowing Owl Mitigation requirements (CDFW 2012b) The Rio Mesa Solar Project, which is also very close to the BMSP, documented many old burrows on-site and had two live owl detections, but determined that there are not likely any resident owls on-site and that owls were unlikely to be directly affected by construction. The Devers-Palo Verde 2 Transmission Line Project was expected to result in displacement, disturbance, and potential crushing of burrowing owls. Any direct or indirect mortality related to all of these projects or others could result in reduced size of local or regional populations depending on project locations. These projects all generally propose the same types of mitigation to reduce their impacts: preconstruction protocol surveys followed by relocation of any identified owls in disturbance areas (during non-breeding seasons). Direct effects from the BMSP on individual owls would be minimized by the implementation of BMPs and project-specific mitigation and protection measures. With implementation of project-specific mitigation and protection measures as well as adherence to BMPs as part of each project in the cumulative scenario, and compliance with State and federal laws, the cumulative effects to burrowing owls between the BMSP and past, present, and foreseeable projects would be less than significant.

Migratory Birds

Migratory birds are expected to occur throughout the study area during construction, operation, and maintenance of the BMSP. Areas cleared for solar fields are expected to have less activity over time than those that remain relatively vegetated (i.e., the gen-tie line corridor). Construction of the proposed Project could potentially result in habitat loss and degradation, displacement, disruption or failure of nesting efforts, decreased foraging activities, increased predation, or mortality of migratory birds. The gen-tie line

has the potential to result in avian collisions or electrocutions, while construction of the solar arrays would completely clear entire areas of whatever habitat there may be. The Project would create the impacts noted above, but would mitigate its impacts to biological resources. The proposed Project consists of 85.1 percent ruderal or agricultural lands and otherwise non-natural lands and 14.9 percent native habitat; refer to "Wildlife Habitat/Vegetation Communities" above for a vegetation comparison with nearby solar projects. The bird species found to be present within the study area are either migrating through or utilizing the area for foraging. The residual impacts that remain after mitigation are accordingly minor, and would not constitute a considerable contribution to the cumulative impacts.

There are several transmission line, wind, or solar energy projects within the BMSP vicinity. The surrounding projects (Table 4.1-1) as implemented would presumably result in cumulative impacts to migratory birds. The numerous surrounding projects are also expected to have impacts on migratory birds that may act in a cumulative sense with the BMSP. The Devers-Palo Verde 2 Transmission Line Project is expected to have the potential to affect and displace raptors and burrowing owls, as well as the nests of all migratory birds. The Blythe Solar Power Project is expected to permanently remove Sonoran creosote bush scrub and desert dry wash scrub that could be used as foraging or nesting habitat by migratory birds, as well as to disturb or cause to fail nesting efforts, increase predation and risks of mortality, and subject birds to hazardous chemicals from project-related evaporation ponds. The McCoy Solar Project may also result in nest abandonment, increased risk of mortality, loss of suitable habitat, and disturbance from night lighting during nighttime construction operations.

Potential impacts from PLP on a cumulative scale cannot be fully known. The Blythe Solar Power Project identified that some migratory birds may be affected from collisions with solar panels or other infrastructure but could not know with certainty. Post-construction monitoring data that is available from the Genesis Solar Energy Project and the Desert Sunlight Project document avian mortality. The Desert Sunlight Project recorded a total of 19 waterfowl mortalities. Only one was confirmed as caused by collision with a solar panel. Three waterfowl drowned or were reported caught in pond netting, there was one reported case of illness as a cause of death, two waterfowl deaths were caused by predation, and there were 11 unknown causes of mortality (Ironwood Consulting, Inc., 2012). The California Energy Commission (CEC) website publishes information about a total of 93 avian fatalities that were reported at the Genesis Solar Energy Project from July 2013 through October 2013 (AECOM 2014). Of the 93 fatalities reported from July through October, two species are listed as California Department of Fish and Wildlife (CDFW) species of special concern and one species is listed as a CDFW fully protected species. No federally or State listed species were reported among the avian mortalities for the July-October 2013 monthly compliance reports. No fatalities of any bird species, including waterfowl, were reported as a result of collision with the solar trough mirrors (AECOM 2014). Given the little data to support PLP and collision risk and the unknown if the contribution of avian mortality is additive the potential cumulative impact from PLP can only be speculative at this time.

The effects from the BMSP would be minimized by the implementation of Project BMPs. Mitigation Measure Biology-7 (Protect Nesting Birds) would be adopted to reduce impacts to less than significant levels. Cumulative effects to migratory birds between the BMSP and past, present, and foreseeable projects would not be significant with adequate mitigation.

Golden Eagle

Based on the terrain, vegetation, and habitat characteristics within the study area and available data on known locations, golden eagles are not expected to be nesting within the gen-tie line corridor. Cumulative effects may be projected onto this species with the combined influence of the effects of the BMSP with those projects listed in Table 4.1-1, and numerous parcels of land for which BLM has applied for applications to build wind and solar generation facilities. During surveys conducted for the McCoy Solar Energy Project (TetraTech 2011), four golden eagle nests were detected in 2010 and 15 were detected in 2011 in the McCoy, Little Maria, and Big Maria Mountains. Of those nests, only one was determined to be active, in 2010, and was not determined to be active with golden eagles during the 2011 surveys. Several nests in 2011 were observed to be occupied by other species. Of all golden eagle nests detected in 2010 and 2011 during McCoy Solar Energy Project surveys, the closest nest was approximately 4.5 miles north

of the proposed gen-tie line or approximately five miles north of the Colorado River Substation. However, there are no nests or nesting habitat for this species within the study area.

Effects from the BMSP would be reduced to less than significant levels with the implementation of Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-7 (Protect nesting birds). Habitat would be protected with the implementation of several Project BMPs such as BMP-3 (Fugitive Dust Abatement Plan), BMP-10 (Integrated Weed Management Plan), BMP-13 (Ground and surface disturbance), and BMP-19 (Plants and wildlife). Cumulative effects to the golden eagle between the BMSP and past, present, and foreseeable projects would not be significant.

Mojave Fringe-toed Lizard

This non-listed special-status species is known to occur along the gen-tie line corridors of the BMSP. Cumulative effects may be projected onto this species with the combined influence of the effects of the BMSP with those of the surrounding projects listed in Table 4.1-1. Numerous projects described the widespread distribution of the species throughout their project areas (CDFW 2013; TetraTech 2011). Because these projects will require ground to be cleared, mostly for wind or solar projects, there is potentially a very large amount of habitat that will be removed or degraded by construction of these various projects. Under Alternative 1, approximately 65 acres of habitat would be disturbed for the gen-tie line and spur roads. Loss of individuals or habitat in these areas will exert a cumulative effect on Mojave fringe-toed lizard by reducing the local population size or removing suitable habitat. Long-term predation vulnerability may occur due to vegetation loss, which decreases dispersal and refuge opportunities from predators. In addition, increased perching opportunities resulting from construction of the all associated transmission lines also increases this species' predation vulnerability. The intensity of the cumulative effect is increased due to the fact that these projects will be ongoing for several years, lost or disturbed habitat is likely to take years to recover, and unless designed with successful perch discouragers, transmission lines will provide permanent perching opportunities.

Effects from the BMSP would be reduced to less than significant levels with the implementation of Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-8 (Protect Mojave fringed-toed lizard). As part of the Project, habitat would also be protected with the implementation of BMP-3 (Fugitive Dust Abatement Plan), BMP-10 (Integrated Weed Management Plan), BMP-13 (Ground and surface disturbance), and BMP-19 (Plants and wildlife). With implementation of the above-mentioned BMPs as part of the proposed Project, in addition to protection through the implementation of Project mitigation measures, the cumulative effects to the Mojave fringed-toed lizard between the BMSP and past, present and foreseeable projects would be less than significant.

Le Conte's Thrasher

Le Conte's thrasher was detected within the study area during focused plant surveys and is expected to surrounding projects (Table 4.1-1) as implemented would presumably result in cumulative impacts to the Le Conte's thrasher. The Rio Mesa Solar Project documented this species under its gen-tie line and expected to result in habitat loss during the non-breeding season. The Devers-Palo Verde 2 Transmission Line Project estimated permanent loss of 44 acres of Le Conte's thrasher habitat and a temporary loss of five acres of suitable habitat from the construction of its Midpoint Substation, as well as loss of habitat due to a number of other project alternatives. While this species was not detected on the Blythe Solar Power Project area, this project estimated 730 acres of suitable Le Conte's thrasher habitat within its disturbance area. The most prominent cumulative impact to this species appears to be habitat loss, which will occur in every project cited above. Refer to "Wildlife Habitat/Vegetation Communities" above for a vegetation comparison with nearby solar projects. While it was not determined to be present in all aforementioned projects, this bird can also be difficult to detect and locate and could nevertheless be present at these sites. Loss of habitat at all of the above projects may have a greater impact if Le Conte's thrashers are in fact present in the area. The effects from the BMSP would be minimized by the implementation of BMPs, as part of the Project. Mitigation Measure Biology-7 (Protect Nesting Birds) would reduce potential impacts to less than significant levels. Cumulative effects to Le Conte's Thrasher between the BMSP and past, present, and foreseeable projects would be minimized through the

implementation of project-specific BMPs and mitigated through the implementation of project-specific mitigation measures.

Loggerhead Shrike

Loggerhead shrike was detected within the study area and is expected to be present or have a high likelihood of occurring. Effects to this species would be largely the same as to the Le Conte's thrasher. The BMSP would result in habitat loss, and Project construction and activity could result in disrupting breeding activity or destroying a nest. Because this species is a resident and does not migrate, it could be present at any time of year. The proposed gen-tie line could result in increased risk of collision if birds fly high enough to come into contact with the conductors.

There are several transmission line, wind, or solar energy projects within the BMSP vicinity. The surrounding projects (Table 4.1-1) as implemented would presumably result in cumulative impacts to loggerhead shrike. The Rio Mesa Solar Project documented 45 shrikes during bird surveys, 24 of which were directly within the BMSP study area, and expected to result in habitat loss during the non-breeding season. The Devers-Palo Verde 2 Transmission Line Project estimated permanent loss of 44 acres of Le Conte's thrasher habitat and a temporary loss of five acres of suitable habitat from the construction of its Midpoint Substation, as well as loss of habitat due to a number of other project alternatives. The Blythe Solar Power Project detected 32 loggerhead shrikes during point count surveys, as well as fledglings on several other occasions and several shrike nests. This project estimated its entire project area (7,077 acres) as suitable loggerhead shrike habitat. The most prominent cumulative impact to this species appears to be habitat loss, which will occur in every project cited above. Refer to "Wildlife Habitat/Vegetation Communities" above for a vegetation comparison with nearby solar projects. The cumulative impact of these projects and the BMSP would result in a large amount of habitat loss for the loggerhead shrike. The effects from the BMSP would be minimized by the implementation of Project BMPs. Mitigation Measure Biology-7 (Protect Nesting Birds) would be adopted to reduce impacts to less than significant levels. Cumulative effects on Loggerhead shrike between the BMSP and past, present, and foreseeable projects would be minimized through the implementation of project-specific BMPs and mitigated through the implementation of project-specific mitigation measures.

American Badger and Desert Kit Fox

Neither American badger nor kit fox were detected in the study area, but potential badger and kit fox burrows and dens were found during surveys. If these species are in fact present within these burrows, there is the potential that they could be crushed within the burrows, or within undetected burrows, during construction. In addition, they may be temporarily or permanently displaced from the study area due to construction activity. Other Project-related effects that may occur to these two species include habitat loss and degradation, habitat fragmentation, and increased dust and non-native plant dispersal. In addition, the Project has the potential to result in instances of canine distemper among local kit foxes, which was first discovered in the region in 2011 among kit foxes affected by the Genesis Solar Energy Project.

There are several transmission line, wind, or solar energy projects within the BMSP vicinity. The surrounding projects (Table 4.1-1) as implemented would presumably result in cumulative impacts to American badgers and kit foxes. Both species were expected to occur on the Genesis Solar Energy Project, with risk of entombing the animals inside burrows during construction. Over 65 kit fox burrow complexes were located at this project, and in 2011 and 2012 it was discovered that at least eight kit foxes had died of distemper at this project area following forced removal (i.e., destruction of burrows while unoccupied). The project initially projected the permanent loss of approximately 1,850 acres of suitable habitat for these two species, degradation of remaining habitat in the project area, disturbance, and increased risk of road kill. While kit foxes were not analyzed for impacts on the Devers-Palo Verde 2 Transmission Line Project, American badger was expected to have a potential to occur, with project-related habitat loss, burrow destruction, and potential crushing while inside burrows. The McCoy Solar Energy Project, which is very close to the BMSP, identified the same effects to these two species, also pointing out increased risk of road kill or injury. The other nearby Rio Mesa Solar Project expected that these species would voluntarily leave the area, leaving burrows available to collapse and avoiding direct mortalities; in the event that they remained, one-way doors could be installed at burrows. Finally, the

Blythe Solar Power Project expected to have both American badgers and desert kit foxes, with a known "substantial" population of kit foxes within the project area. This project expected a permanent loss of 7,077 acres of occupied kit fox and badger habitat, with fragmentation and degradation of remaining habitat and increased risk of mortality through burrows collapsing or by road kill. The cumulative impact of habitat loss and burrow destruction of all of these projects with the BMSP could result in a reduced local population, especially if the distemper that spread through the Genesis Solar Energy Project area in 2012 continues to spread into surrounding areas. Generally speaking, these projects proposed preconstruction surveys to map potential burrows, followed by collapsing of unoccupied burrows during construction, to reduce impact levels. The effects from the BMSP would be reduced to less than significant levels by the implementation of Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance), Biology-5 (Protect American badgers), and Biology-6 (Protect Desert kit fox). As part of the Project, habitat would be protected with the implementation of several BMPs such as BMP-3 (Fugitive Dust Abatement Plan), BMP-10 (Integrated Weed Management Plan), BMP-13 (Ground and surface disturbance), and BMP-19 (Plants and wildlife). Cumulative effects to the American badger and desert kit fox between the BMSP and past, present, and foreseeable projects would be minimized through the implementation of project-specific BMPs and mitigated through the implementation of project-specific mitigation measures.

Desert Tortoise

Desert tortoise has a moderate potential to occur due to surrounding and regional data, but is not expected to occur within the proposed study area. In a memorandum dated November 14, 2012, the USFWS stated that the proposed Project (Alternative 1) is "not likely to incidentally take or otherwise adversely affect desert tortoise" (FWS-ERIV-12B0299-12I0497). Potential effects to desert tortoise would be mitigated through the Project's own mitigation measures, as well as through a number of measures included in the USFWS memorandum, and it is expected that the BMSP's contribution to cumulative effects on desert tortoises would be less than significant.

Alternative 2: No Project

The No Project Alternative would continue with the status quo and include continued use of a majority of the Project area for agricultural purposes. The public lands in the study area would continue to be managed by BLM in accordance with existing land use designations in the CDCA Plan, whereas the private lands would continue to be managed for agricultural production.

The "No Project" Alternative would eliminate many of the cumulative effect contributions that are otherwise attributed to the BMSP and its action Alternatives. Land use in the proposed solar array would continue for the time being to be dedicated to agriculture, and the proposed gen-tie line corridor and its alternative routes would not be developed for this Project. Leaving the agricultural fields in place would provide marginal foraging habitat for local raptors (due to rodents that may inhabit the fields or areas adjacent to them) and for certain migratory birds that favor lowland fields such as long-billed curlews (*Numenius americanus*) and mountain bluebirds (*Sialia currucoides*). Reptiles would be expected to be relatively undisturbed by the ongoing use of agricultural fields. Rare plants and natural vegetation communities would otherwise remain relatively unaffected by the implementation of the BMSP or the No Project Alternative. However, choosing the No Project Alternative could generally expose wildlife to more unmanaged risk, particularly in the existing agricultural fields, by putting them closer to non-Project humans, whereas Project-related encounters would be legally managed within permit requirements.

Alternative 3: Northern 230 kV Gen-tie Location

Alternative 3 is similar to Alternative 1 (proposed Project), with the exception of the location of the Northern 230 kV gen-tie line, which would be approximately 700 feet north of Alternative 1's proposed 230 kV gen-tie line. The cumulative biology impacts associated with the construction, operation, maintenance, and decommissioning of Alternative 3 would be the same as Alternative 1. Alternative 3 has 607.1 acres of natural vegetation in it, which constitutes 15.4 percent of the total acreage of this alternative.

Alternative 4: Southern 230 kV Gen-tie Location

Alternative 4 is similar to Alternative 1 (proposed Project), with the exception of the location of the Southern 230 kV gen-tie line, which would be approximately 0.8 mile south of Alternative 1's proposed 230 kV gen-tie line. The cumulative impacts associated with the construction, operation, maintenance, and decommissioning of Alternative 4 would be the same as Alternative 1, except for impacts to desert tortoise and potentially to rare plants and Mojave fringe-toed lizard.

Wildlife Habitat/Vegetation Communities

Refer to the analysis under Alternative 1. Alternative 4 has 524.1 acres of natural vegetation in it, which constitutes 13.6 percent of the total acreage of this alternative. The contribution of Alternative 4 to cumulative impacts would be small compared to those of the other projects in the area, and it is expected to have less of an impact on rare plants. While protocol botanical surveys have not been conducted on this alternative, during the habitat assessment no rare plants were observed, and there is only one instance of a rare plant in this alternative, Harwood's woollystar (AECOM 2010). The proposed BMSP site's existing agricultural use already fragments the existing habitat. The development of this alternative's gen-tie line would fragment the land; however, Alternative 4 BMPs would minimize impacts and the adoption of mitigation measures would bring impacts down to less than significant levels.

Mojave Fringe-toed Lizard

Refer to the analysis under Alternative 1. This species is presumed to be present on Alternative 4 based on a 2011 record located 50 feet from the gen-tie corridor (CDFW 2013). This species was not detected during the 2012 habitat assessment that was conducted of the Alternative 4 gen-tie corridor. Alternative 1 and Alternative 4 would have largely the same types of effects, though the degree of these effects is expected to be different. Alternative 4 does not appear to have Aeolian sand sheet/dune habitat of the same quality as that in Alternative 1. As such, impacts to this species may be reduced compared to Alternative 1, as this species is likely to be present in lower abundance in this area and the habitat that is present is less adequate to support it. With the implementation of the Mitigation Measure Biology-8 (Protect Mojave fringed-toed lizard) and BMPs that are described in the Alternative 1 analysis, the BMSP's contribution to cumulative effects to this species would be less than significant.

Desert Tortoise

Desert tortoise has a high potential to occur on the Southern Alternative based on surrounding sign, including live tortoises. No tortoises or tortoise sign were identified during any surveys for BMSP. For the most part, the BMSP as proposed is expected to only remove vegetation and habitat for this species; the Southern Alternative (Alternative 4) would have an increased risk of crushing tortoises, collapsing undetected burrows, and resulting in increased predation from ravens and handling-induced stress for any tortoises that may wander into the study area. When these effects are combined with those from other projects, a potential cumulative effect can be exerted on the local population and species.

There are several transmission line, wind, or solar energy projects within the BMSP vicinity. The surrounding projects (Table 4.1-1) as implemented could potentially result in cumulative impacts to the desert tortoise. There are several other projects in the BMSP vicinity that may also affect desert tortoise and exert a cumulative effect along with the impacts from the BMSP. Using USFWS estimation formulas, the Rio Mesa Solar Project estimates eight (with a 95 percent confidence interval of three and 30) adult tortoises, 90 eggs, and 232 juveniles occurring on its Project area during construction, with potential effects from construction including direct mortality, enhanced predation, and loss or degradation of suitable habitat. The project estimates approximately 1,572 acres of tortoise-occupied habitat within its boundaries, with an additional 220 acres of occupied habitat within a 500-foot corridor. The nearby McCoy Solar Energy Project estimates approximately 4,900 acres of suitable desert tortoise habitat will be permanently removed for the project, estimating approximately 3.6 (ranging from 0.4 to 31.4) tortoises on its project area. Direct effects from the McCoy Solar Energy Project include crushing, trapping in burrows, vandalizing, disrupting daily behavior, and harassment. In addition, predation risk may increase and tortoises that are handled and relocated would undergo stress during and after. The Devers-Palo

Verde 2 Transmission Line Project expected to affect both Mojave and Sonoran desert tortoises by potentially injuring or killing tortoises, degrading habitat through soil compaction and spread of non-native plant species, increasing risk of predation by ravens, and removing suitable habitat. Finally, the Genesis Solar Energy Project expects to permanently remove approximately 1,800 acres of suitable desert tortoise habitat, including 23 acres of critical habitat; potentially kill or injure tortoises; degrade remaining habitat through spread of non-native plants; increase predation risk; and disturb tortoises.

Each of these projects may impact the desert tortoises on its own site and affect the local population, as all three are close to the BMSP Each proposes similar mitigation to reduce impacts, primarily worker environmental awareness programs, biological monitoring, preconstruction surveys, tortoise exclusion fencing, and other typical desert tortoise mitigation efforts. The effects from the BMSP would be reduced to less than significant levels by the implementation of Mitigation Measures Biology-1 (Monitor Construction Site for Biological Compliance) and Biology-2 (Protect Desert Tortoise). As part of the Project, habitat would be protected with the implementation of several BMPs such as BMP-3 (Fugitive Dust Abatement Plan), BMP-10 (Integrated Weed Management Plan), BMP-13 (Ground and surface disturbance), and BMP-19 (Plants and wildlife). BMP-14 (Travel and traffic) would ensure that impacts from vehicles would be minimized, as the potential for collisions between vehicles and desert tortoises would be minimized by requiring vehicles to maintain speed limits not exceeding 20 mph on off-highway access roads and by minimizing travel off established access roadways. With implementation of the above-mentioned BMPs as part of the proposed Project, in addition to protection through the implementation of Project mitigation measures, the cumulative effects to the desert tortoise between the BMSP and past, present, and foreseeable projects would be less than significant.

Alternative 5: Reduced Acreage Alternative

Construction, Operation, Maintenance, and Decommissioning

Wildlife Habitat/Vegetation Communities

Refer to the analysis under Alternative 1. Alternative 4 has 450.7 acres of natural vegetation in it, which constitutes 16.8 percent of the total acreage of this alternative. The same rare plant species would occur or be likely to occur on this alternative as on Alternative 1. The contribution of Alternative 5 to cumulative impacts would be small compared to those of the other projects in the area. The proposed BMSP site's existing agricultural use already fragments the existing habitat. The development of the BMSP's gen-tie line would fragment the land; however, Alternative 5 BMPs would minimize impacts and the adoption of mitigation measures would bring impacts down to less than significant levels.

Western Burrowing Owl

Burrowing owls are known to be present on the BMSP solar facility site and potential impacts are consistent across all the action Alternatives. However, under the boundaries of Alternative 5 the only instances of burrowing owl that were detected during the 2011 protocol surveys were four counts of burrowing owl sign. All instances of burrowing owls and occupied burrows were located north of I-10, within the boundaries of Alternative 1 but excluded from Alternative 5. Thus, the number of affected burrowing owls under Alternative 5 is expected to be much lower than that in Alternative 1, but otherwise the Alternative 1 analysis would apply.

Migratory Birds

Migratory birds are expected to occur throughout the study area of Alternative 1 during construction, operation, and maintenance of the BMSP. The same study area encompasses Alternative 5, excluding the area north of I-10; as such, the Alternative 1 analysis would apply with the exclusion of the area north of the freeway.

Golden Eagle

Based on the terrain, vegetation, and habitat characteristics within the Alternative 1 study area and available data on known locations, golden eagles are not expected to be nesting within the gen-tie corridor. This would also be applicable to Alternative 5, as the Reduced Acreage Alternative footprint falls within the Alternative 1 study area, though Alternative 5 does not include the area north of I-10. Thus, less potential foraging habitat for this species would be affected under this reduced acreage alternative. Refer to the Alternative 1 analysis for a discussion of potential effects that could occur within all other overlapping areas.

Mojave Fringe-toed Lizard

This non-listed special-status species is known to occur along the gen-tie line corridors of Alternative 1. As development of Alternative 5 would utilize the same gen-tie corridor, the analysis under Alternative 1 would apply.

Le Conte's Thrasher

Le Conte's thrasher was detected within the Alternative study area during focused plant surveys and is expected to be present or have a high likelihood of occurring within the proposed Project and its Alternatives. The Alternative 1 study area encompasses the Alternative 5 footprint; as such, the Alternative 1 analysis would apply. However, Alternative 5 has less suitable habitat for this species, and the amount of habitat lost is likely to be less than that under Alternative 1.

Loggerhead Shrike

Loggerhead shrike was detected within the Alternative 1 study area and is expected to be present or have a high likelihood of occurring. Effects to this species would be largely the same as to the Le Conte's thrasher. The Alternative 1 study area encompasses the Alternative 5 footprint; as such, the Alternative 1 analysis would apply. However, Alternative 5 has less suitable habitat for this species, and the amount of habitat lost is likely to be less than that under Alternative 1.

American Badger and Desert Kit Fox

Neither the American badger nor kit fox were detected in the Alternative 1 study area, which also encompasses the Alternative 5 footprint. Potential American badger den activity was detected predominantly on the western portion of the proposed solar array area; however, a single potential den was identified on the eastern side of the solar array site under Alternative 1. This potential den would not be impacted under Alternative 5 development, as it is north of I-10. Therefore, the remainder of the Alternative 1 analysis would apply to Alternative 5.

Desert Tortoise

Desert tortoise has a moderate potential to occur within the proposed study area for Alternative 1, but is still not expected to occur due to the quality of the habitat, which would also apply to development of Alternative 5. In a memorandum dated November 14, 2012, the USFWS stated that the proposed Project (Alternative 1) is "not likely to incidentally take or otherwise adversely affect desert tortoise" (FWS-ERIV-12B0299-12I0497).

Mitigation Measures

The following is a list of general impact avoidance and minimization measures that would apply to Project construction activities. These measures are standard practices designed to prevent environmental degradation, and the Applicant would be responsible for implementation of these measures to avoid and minimize impacts to the greatest extent feasible.

Biology-1 The Project inspector shall monitor the work area bi-weekly during ground disturbing construction activities. The Project inspector shall conduct monitoring for any area subject to disturbance from construction activities that may impact biological resources. The Project inspector's duties include minimizing impacts to special-status species, native vegetation, wildlife habitat, and unique resources. Where appropriate, the inspector will flag the boundaries of biologically sensitive areas and monitor any construction activities in these areas to ensure that ground disturbance activities and impacts occur within designated limits. The Project inspector will also be responsible for ensuring the BMPs shall be employed to prevent loss of habitat caused by Project-related impacts (e.g., grading or clearing for new roads) within the gen-tie line corridor. The resume of the proposed Project inspector will be provided to the BLM (as appropriate) for concurrence prior to onset of ground-disturbing activities. The Project inspector will have demonstrated expertise with the biological resources within the Project area.

Biology-2 **Desert Tortoise Protection**

(1) **Qualified Biologist:** In the following measures, a "qualified biologist" is defined as a person with appropriate education, training, and experience to conduct tortoise surveys, monitor project activities, provide worker education programs, and supervise or perform other implementing actions. The person must demonstrate an acceptable knowledge of tortoise biology, desert tortoise impact minimization techniques, habitat requirements, sign identification techniques, and survey procedures. Evidence of such knowledge may include work as a compliance monitor on a project in desert tortoise habitat, work on desert tortoise trend plot or transect surveys, conducting surveys for desert tortoise, or other research or field work on desert tortoise. Attendance at a training course endorsed by the agencies (e.g., Desert Tortoise Council tortoise training workshop) is a supporting qualification.

A qualified biologist will be on-site during all construction. The qualified biologist shall conduct a pre-construction clearance survey of the Project area, watch for tortoises wandering into the construction areas, check under vehicles, and examine excavations and other potential pitfalls for entrapped animals. The qualified biologist will be responsible for overseeing compliance with desert tortoise protective measures and for coordination with the Field Contact Representative (FCR) (described below). The qualified biologist shall have the authority to halt all Project activities that are in violation of these measures or that may result in the take of a tortoise. The qualified biologist shall have a copy of this letter when work is being conducted on the site. The qualified biologist is not authorized to handle or relocate desert tortoises as part of this project.

(2) **Preconstruction Clearance Survey**: The qualified biologist shall conduct a preconstruction clearance survey of the Project area. Transects for clearance surveys will be spaced 15 feet apart. Clearance will be considered complete after two successive surveys have been conducted without finding any desert tortoises. Clearance surveys must be conducted during the active season for desert tortoises (April through May or September through October). The qualified biologist is not authorized to handle or relocate desert tortoises as part of this project. If a tortoise or tortoise burrow is located during clearance surveys, the USFWS will be contacted for direction on how to proceed.

(3) **Field Contact Representative:** The Project Applicant will designate a FCR who will be responsible for overseeing compliance with desert tortoise protective measures and for coordination with the USFWS. The FCR will have the authority to halt all Project activities that are not in compliance with the measures in this letter. The FCR will have a copy of this letter when work is being conducted on the site. The FCR may be an agent for the company, the site manager, any other Project employee, a biological monitor, or other contracted biologist. Any incident occurring during the Project activities that is considered by the qualified biologist to be in non-compliance with these measures will be documented immediately by the qualified biologist. The FCR will ensure that appropriate corrective action is taken. Corrective actions will be documented by the qualified biologist.

The following incidents will require immediate cessation of the Project activities causing the incident: (1) location of a desert tortoise within the exclusion fencing; (2) imminent threat of injury or death to a desert tortoise; (3) unauthorized handling of a desert tortoise, regardless of intent; (4) operation of construction equipment or vehicles outside a project area cleared of desert tortoise, except on designated roads; and (5) conducting any construction activity without a biological monitor where one is required.

(4) **Worker Training:** Prior to the onset of construction activities, a desert tortoise education program will be presented by the FCR or qualified biologist to all personnel who will be present on work areas within the Project area. Following the onset of construction, any new employee will be required to formally complete the tortoise education program prior to working on-site. At a minimum, the tortoise education program will cover the following topics:

- A detailed description of the desert tortoise, including color photographs;
- The distribution and general behavior of the desert tortoise;
- Sensitivity of the species to human activities;
- The protection the desert tortoise receives under the Act, including prohibitions and penalties incurred for violation of the Act;
- The protective measures being implemented to conserve the desert tortoise during construction activities; and
- Procedures and a point of contact if a desert tortoise is observed on-site.

(5) **Site Fencing:** Desert tortoise exclusion fencing will be installed around the Project area. The fence will adhere to USFWS design guidelines, available at: http://www.fws.gov/venturaispecies _information/protocols guidelines/docs/dtlDT_ Exclusion-Fence_2005.pdf. The qualified biologist will conduct a clearance survey before the tortoise fence is enclosed to ensure no tortoises are on the Project area. If a tortoise is found, all construction activity will halt and the USFWS contacted for direction on how to proceed. Once installed, exclusion fencing will be inspected at least monthly and following all rain events, and corrective action taken if needed to maintain the integrity of the tortoise barrier.

Fencing around the Project area will include a desert tortoise exclusion gate. This gate will remain closed at all times, except when vehicles are entering or leaving the Project area. If it is deemed necessary to leave the gate open for extended periods of time (e.g., during high traffic periods), the gate may be left open as long as a qualified biologist is present to monitor for tortoise activity in the vicinity. Sites with potential hazards to desert tortoise (e.g., auger holes, steep-sided depressions) that are outside of the desert tortoise exclusion fencing will be fenced by installing exclusionary fencing, or not left unfilled overnight.

(6) **Refuse Disposal:** All trash and food items shall be promptly contained within closed, raven-proof containers. These will be regularly removed from the Project area to reduce the attractiveness of the area to common ravens and other desert predators. The FCR will be responsible for ensuring that trash is removed regularly from the site such that containers do not overflow, and that the trash containers are kept securely closed when not in use.

(7) **Tortoises under vehicles:** The underneath of vehicles parked outside of desert tortoise exclusion fencing will be inspected immediately prior to the vehicle being moved. If a tortoise is found beneath a vehicle, the vehicle will not be moved until the desert tortoise leaves of its own accord.

(8) **Tortoises on roads:** If a tortoise is observed on or near the road accessing the Project area, vehicular traffic will stop and the tortoise will be allowed to move off the road on its own.

(9) **Tortoise Observations:** No handling of desert tortoise or burrow excavation is allowed as part of the proposed action. If a tortoise is observed outside of exclusion fencing, construction will stop and the tortoise allowed to move out of the area on its own. If a tortoise or tortoise burrow is observed within the exclusion fencing, all construction will stop, and the USFWS contacted for direction on how to proceed.

The following activities are not authorized and will require immediate cessation of the construction activities causing the incident: (1) location of a desert tortoise within the exclusion fencing; (2) imminent threat of injury or death to a desert tortoise; (3) unauthorized handling of a desert tortoise, regardless of intent; (4) operation of construction equipment or vehicles outside a project area cleared of desert tortoise, except on designated roads; and (5) conducting any construction activity without a biological monitor where one is required.

(10) **Dead or Injured Specimens:** Upon locating a dead or injured tortoise, the Applicant or agent is to immediately notify the Palm Springs Fish and Wildlife Office by telephone within three days of the finding. Written notification must be made within five days of the finding, both to the appropriate USFWS field office and to the USFWS' Division of Law Enforcement. The information provided must include the date and time of the finding or incident (if known), location of the carcass or injured animal, a photograph, cause of death, if known, and other pertinent information.

Biology-3 Pre-construction surveys shall be conducted for State and federally listed Threatened and Endangered, Proposed, Petitioned, and Candidate plants in a 250-foot radius around all areas subject to ground-disturbing activity including, but not limited to, tower pad preparation and construction areas, solar facilities, pulling and tensioning sites, assembly yards, and areas subject to grading for new access roads. The surveys shall be conducted during the appropriate blooming period(s) by an authorized plant ecologist/biologist according to protocols established by the USFWS, CDFW, BLM, and California Native Plant Society (CNPS). Measures shall be taken to avoid and minimize impacts, to the greatest extent possible, to special-status plant species that are found to be present during the preconstruction surveys. This includes avoiding unnecessary or unauthorized trespass by workers and equipment, staging and storage of equipment and materials, refueling activities, and littering or dumping debris in areas known to contain special-status plant species that are not within the designated construction footprint.

Biology-4 **Burrowing Owl Protection:**
A Burrowing Owl Monitoring and Mitigation Plan (Plan) has been developed to describe monitoring, reporting, and management of the burrowing owl during the construction, O&M, and decommissioning of the proposed Project, as required by the BLM, CDFW, and County of Riverside. It has been prepared following the 2012 CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012b), and describes a multi-tiered approach to prevent or reduce impacts during construction and operation of the Project. Below is a general summary of the Plan requirements:

1) Pre-construction Surveys will be conducted throughout the Project area and laydown areas for burrowing owls, possible burrows, and sign of owls (e.g., pellets, feathers, white wash) 30 days prior to construction;
2) Should any of the pre-construction surveys yield positive results for the presence of burrowing owl or active burrows within the Project area, the approved Biologist will coordinate with the Construction Contractor to implement avoidance and set-back distances;
3) If suitable burrows are observed and documented during the pre-construction surveys within the Project footprint and determined to be inactive, these burrows will

be excavated and filled in under the supervision of the approved Biologist(s) prior to clearing and grading;

4) To compensate for impacts to the burrowing owls in activity areas on the northern part of the Project, 146 acres of habitat have been identified adjacent to the Project area;
5) The Plan provides detailed methods and guidance for passive relocation of burrowing owls occurring within the Project disturbance area; and
6) The Plan describes monitoring and management of the passive relocation effort, including the created or enhanced burrow location and the Project area where burrowing owls were relocated from and provide a reporting plan.

Biology-5 In areas identified as suitable habitat during the 2011 and 2012 surveys, biological monitors shall conduct pre-construction surveys for American badger no more than 30 days prior to initiation of construction activities. Surveys shall also consider the potential presence of dens within 100 feet of the Project boundary (including utility corridors and access roads) and shall be performed for each phase of construction. If dens are detected each den shall then be further classified as inactive, potentially active, or definitely active. Inactive dens that would be directly impacted by construction activities shall be excavated by hand and backfilled to prevent reuse by badgers. Potential dens that would be directly impacted by construction activities shall be monitored by the Biological Monitor for three consecutive nights using a tracking medium such as diatomaceous medium or fire clay and/or infrared camera stations at the entrance. If no tracks are observed in the tracking medium or no photos of the target species are captured after three nights, the den shall be excavated and backfilled by hand. If tracks are observed, the badger dens shall be fitted with the one-way trap doors to encourage badgers to move off-site. After 48 hours post-installation, the den shall be excavated and collapsed, following the same protocol as with western burrowing owl burrows. These dens shall be collapsed prior to construction of the desert tortoise fence, to allow badgers the opportunity to move off-site without impediment. If an active natal den is detected on the site, the CDFW shall be contacted within 24 hours. The course of action would depend on the age of the pups, location of the den site, status of the perimeter site fence, and the pending construction activities proposed near the den. A 500-foot no disturbance buffer shall be maintained around all active dens. Alternatively, a designated biologist, authorized by CDFW, shall trap and remove badgers from occupied dens and move them off-site into appropriate habitat.

Biology-6 In areas identified as suitable habitat during the 2011 and 2012 surveys, biological monitors shall conduct pre-construction surveys for kit fox no more than 30 days prior to initiation of construction activities. Surveys shall also consider the potential presence of dens within 100 feet of the Project boundary (including utility corridors and access roads) and shall be performed for each phase of construction. If dens are detected each den shall then be further classified as inactive, potentially active, or definitely active. Inactive dens that would be directly impacted by construction activities shall be excavated by hand and backfilled to prevent reuse by kit fox. Potential dens that would be directly impacted by construction activities shall be monitored by the Biological Monitor for three consecutive nights using a tracking medium such as diatomaceous medium or fire clay and/or infrared camera stations at the entrance. If no tracks are observed in the tracking medium or no photos of the target species are captured after three nights, the den shall be excavated and backfilled by hand. If tracks are observed, the kit fox dens shall be fitted with the one-way trap doors to encourage kit fox to move off-site. After 48 hours post-installation, the den shall be excavated and collapsed, following the same protocol as with western burrowing owl burrows. These dens shall be collapsed prior to construction of the desert tortoise fence, to allow kit fox the opportunity to move off-site without impediment. If an active natal den is detected on the site, the CDFW shall be contacted within 24 hours. The course of action would depend on the age of the pups, location of the den site, status of the perimeter site fence, and the pending construction activities proposed near the den. A 500-foot no disturbance buffer shall be maintained

around all active dens. Habitat-based mitigation or other appropriate mitigation as discussed previously for desert tortoise and western burrowing owl shall provide mitigation for impacts to non-listed special-status species that inhabit overlapping suitable habitat. The following measures are required to reduce the likelihood of distemper transmission:

- No pets shall be allowed on the site prior to or during construction;
- Any kit fox hazing activities that include the use of animal repellents such as coyote urine must be cleared through the CDFW prior to use; and
- Any documented kit fox mortality shall be reported to the CDFW and the BLM within 24 hours of identification. If a dead kit fox is observed, it shall be retained and protected from scavengers until the CDFW determines if the collection of necropsy samples is justified.

Biology-7 If Project construction activities cannot occur completely outside the bird breeding season, then pre-construction surveys for active nests shall be conducted by a qualified biologist within 1,200 feet of the construction zone no more than seven days before the initiation of construction that would occur between February 1 and August 15. The qualified biologist will hold a current Memorandum of Understanding with the County of Riverside to conduct nesting bird surveys. If breeding birds with active nests are found, a biological monitor shall establish a species-specific buffer around the nests for ground-based construction activities, 250 feet or 1,200 feet for raptor nests. Extent of protection will be based on proposed management activities, human activities existing at the onset of nesting initiation, species, topography, vegetative cover, and other factors. When appropriate, a no-disturbance buffer around active nest sites will be required from nest-site selection to fledging. If for any reason a bird nest must be removed during the nesting season, written documentation providing concurrence from the USFWS and CDFW authorizing the nest relocation shall be obtained. All nest removals shall occur after the nest is demonstrated to be inactive by a qualified biologist and have been shown to not result in take as defined by the Migratory Bird Treaty Act (MBTA). A Bird and Bat Conservation Strategy (BBCS) will be developed for this Project and include additional protections for avian species. The BBCS would be based on specific recommendations from the USFWS and would provide:

- a statement of the Applicant's understanding of the importance of bird and bat safety and management's commitment to remain in compliance with relevant laws;
- documentation of conservation measures BMSP would implement through design and operations to avoid and reduce bird and bat fatalities at both solar generation facilities as well as the associated gen-tie line, including consideration of bird height and wingspan requirements and use of flight diverters, perch and nest discouraging material, etc.;
- consistent, practical and up-to-date direction to BMSP staff on how to avoid, reduce, and monitor bird and bat fatalities;
- establishment of accepted processes to monitor and mitigate bird and bat fatalities;
- establishment of accepted fatality thresholds that, if surpassed, would trigger adaptive changes to management and mitigation management;
- an adaptive management framework to be applied, if thresholds are surpassed; and
- A three year post-construction monitoring study.

The BBCS would be considered a "living document" that articulates the Applicant's commitment to develop and implement a program to increase avian and bat safety and reduce risk. As progress is made through the program or challenges are encountered, the BBCS may be reviewed, modified, and updated. The initial goals of this BBCS are to:

- provide a framework to facilitate compliance with federal law protecting avian species and a means to document compliance for regulators and the interested public;
- allow the Agent to manage risk to protected bird and bat species in an organized and cost-effective manner;

- establish a mechanism for communication between BMSP managers and natural resource regulators (primarily USFWS);
- foster a sense of stewardship with BMSP owners, managers, and field engineers; and
- articulate and cultivate a culture of wildlife awareness (specifically birds and bats) and the importance of their protection.

Biology-8 To mitigate for permanent habitat loss and direct impacts to Mojave fringe-toed lizards the Applicant shall provide compensatory mitigation at a 3:1 ratio, which may include compensation lands purchased in fee or in easement in whole or in part, for impacts to stabilized or partially stabilized desert dune habitat (i.e., dune, sand ramp, or fine-sandy wash habitat). The Mojave fringe-toed lizard occurs within Alternatives 1, 3 and 5 gen-tie corridors and has a high potential to occur within Alternative 4 gen-tie corridor. If compensation lands are acquired, the Applicant shall provide funding for the acquisition in fee title or in easement, initial habitat improvements and long-term maintenance and management of the compensation lands.

Biology-9 Impacts to areas under jurisdiction of the USACE, Regional Water Quality Control Board (RWQCB), and CDFW shall be avoided to the extent feasible. Where avoidance of jurisdictional areas is not feasible, including emergency repairs, and access/spur roads within the ephemeral drainage, the applicant shall provide the necessary mitigation required as part of wetland permitting. This will include creation, restoration, and/or preservation of suitable jurisdictional habitat along with adequate buffers to protect the function and values of jurisdictional area mitigation. The location(s) of the mitigation will be determined in consultation with the Applicant and the responsible agency(s) as part of the permitting process.

As mentioned above, a BRMIMP will be developed to summarize all of the various biological mitigation, monitoring, and compliance measures and include measures from the various biological plans and permits developed for BMSP. The BRMIMP shall include the following:

1) All biological resources mitigation, monitoring, and compliance measures outlined in the BMSP Draft EIR/EA;
2) All biological resource mitigation, monitoring and compliance measures required in federal agency terms and conditions, such as those provided in the USFWS concurrence letter that the Project is “not likely to incidentally take or otherwise adversely affect” federally listed species (FWS-ERIV-12B0299-12I0497);
3) All biological resource mitigation, monitoring and compliance measures required by the Riverside County, such as those provided in the December 18, 2013 comment letter (DRT-EPD Corrections) on the BMSP Draft EIR/EA No. 529 (CUP 3685);
4) All biological resource mitigation, monitoring and compliance measures outlined in the Burrowing Owl Mitigation and Monitoring Plan and the Bird and Bat Conservation Strategy (the full biological plans will be included in the attachments to the BRMIMP);
5) All locations on a map, at an approved scale, of sensitive biological resource areas subject to disturbance and areas requiring temporary protection and avoidance during construction and operation;
6) Duration for each type of monitoring and a description of monitoring methodologies and frequency;
7) Performance standards to be used to help decide if/when proposed mitigation is or is not successful; and
8) A process for proposing plan modifications to appropriate agencies for review and approval.

BMSP shall provide the BRMIMP document at least 60 days prior to start of any Project-related ground disturbing activities to the BLM and the County for review and approval. Implementation of BRMIMP measures will be reported in the monthly compliance reports by the Designated Biologist (i.e., survey results, construction activities that were monitored, species observed).

Residual Impacts After Mitigation

The proposed Project would have substantial impacts to several special-status species known to occur on the Project area, including Mojave fringe-toed lizard and burrowing owl, and, for Alternative 4 only, desert tortoise. Impacts to other species that may be present on-site, such as American badger and desert kit fox (for all other Alternatives), could occur. In addition, permanent loss of golden eagle foraging habitat could occur within the solar facility site, if these areas are currently used for foraging; and operation and maintenance of the Project may result in permanent impacts to non-listed, special-status plant species that are outside the disturbance area. Potential impacts from PLP and collision risk with solar photovoltaic panels is unknown; however, the BMSP has analyzed the various variables that may be involved in the cause for birds' to be attracted to solar facilities to help identify those triggers and develop BMPs and mitigation. One variable reviewed is site selection and placement of the BMSP in predisturbed degraded area to avoid take of migratory birds and bats and/or loss, destruction or degradation of habitat. Based on the M.D. McCrary et al. 1986 findings it would suggest that the evaporation ponds act as "hot spots" for avian risk due to collision with the solar panels and associated features because the evaporation ponds attract birds. Therefore, aquatic areas are a determining factor or variable reviewed in the risk to avian species. As discussed above, the BMSP Project area is located in agricultural lands without any nearby aquatic features and no evaporation ponds are proposed. Implementation of BMPs as part of the proposed Project and Alternatives would minimize impacts. In association with these BMPs, specific mitigation measures (identified above) would be necessary to avoid impacts to these species and reduce potential impacts to less than significant levels. These avoidance and minimization measures would reduce the direct and indirect impacts to wildlife resources and the contribution of the Project and each action Alternative to cumulative impacts. Together with compliance with State and federal laws, these measures would ensure that there would be no substantial adverse effects following mitigation.

NEPA Conclusions

The direct and indirect environmental effects of the Project and the action Alternatives and their contributions toward cumulative impacts are detailed above. The Project would involve impacts to protected flora and fauna, notwithstanding its compliance with all applicable federal laws and policies. With the implementation of BMPs and mitigation measures, however, these impacts would be low. The No Project Alternative would not have impacts, as the existing circumstances and operations would continue essentially unchanged.

4.2.5 Cultural Resources

This section describes the impact analysis relating to cultural resources for the proposed Project and Alternatives.

Methodology for Analysis

As described in Chapter 3, California Historical Resources Information System (CHRIS) records were reviewed to determine the location of previously recorded archaeological and architectural resources and the locations of prior cultural resource surveys within one mile of the area of potential effects (APE). Also, two intensive BLM Class III archaeological and historic built environment surveys were conducted of the area that could potentially experience direct impacts from construction and operation of the proposed Project and Alternatives. The survey covered the APE, defined as the solar generation site boundary and 300-foot survey corridors (150-foot area on each side of the centerline) for the proposed and alternative gen-tie routes. These surveyed lands included privately owned lands and public lands managed by the BLM. For detailed information regarding the findings of the BLM Class III surveys, refer to the *Blythe Mesa Solar Project Archaeological Resource and Built Environment Survey* (POWER 2013a) and the *Blythe Mesa Solar Project Archaeological Resource and Built Environment Survey Transmission Line Alternatives Supplemental Report* (POWER 2013b) (provided in Appendix D1 and D2, respectively, of this Draft EIR/EA). The information in this section is based primarily on these two reports.

This analysis has been prepared to satisfy all applicable laws, including CEQA, NEPA, and Section 106 of the National Historic Preservation Act (NHPA), relative to identifying cultural resources and assessing potential impacts to, or effects on, such resources by the proposed Project. In particular, Section 106 of the NHPA requires that a federal agency take into account the effects of undertakings on historic properties, defined as any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register of Historic Places (NRHP), and to afford the Advisory Council on Historic Preservation (ACHP) and other parties a reasonable opportunity to comment.

The following steps, consistent with the requirements of Section 106 of the NHPA and of CEQA, have been taken to evaluate the potential cultural resource impacts of the proposed Project: (1) coordination by RRG on the scope of the assessment with federal and local lead agencies (BLM and County of Riverside); (2) identification of cultural resources within the area potentially affected by the proposed Project through both archival research and field survey; (3) communication with the Native American Heritage Commission (NAHC) and with potentially affected Indian tribes about resources or values that could be affected; (4) formal government-to-government consultation by the BLM with American Indian tribes; (5) evaluation of the eligibility of identified cultural resources for the NRHP and CRHR; (6) consultation by the BLM with the California State Historic Preservation Office (SHPO) and ACHP; (7) assessment of the proposed Project's potential effects or impacts on NRHP- or CRHR-eligible cultural resources; and (8) resolution of any adverse effects/impacts.

CEQA Significance Criteria

Under CEQA, a project is considered to have a significant impact on the environment if it causes a substantial adverse change in the significance of a historical resource. *Substantial adverse change in the significance of a historical resource* means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource would be materially impaired or diminished. Furthermore, under CEQA, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. Whenever a historical resource (Public Resources Code [PRC] 21084.1 and CEQA Guidelines 15064.5(a)) or unique archaeological resource (PRC 21083.2) cannot be avoided by project activities, impacts must be addressed and mitigated if feasible, as outlined in CEQA Guidelines 15126.4 and 15331.

CEQA criteria indicate that a project could have potentially significant impacts to cultural resources if it would:

CUL-1) Cause a substantial adverse change in the significance of a historical resource as defined in Code of Regulations Section 15064.5.

CUL-2) Cause a substantial adverse change in the significance of an archaeological resource as defined in California Code of Regulations Section 15064.5.

CUL-3) Disturb any human remains, including those interred outside of formal cemeteries.

The following additional significance criteria from the County of Riverside CEQA Environmental Assessment Form are used in the analysis. A project could have potentially significant impacts if it would:

CUL-4) Alter or destroy an historic site.

CUL-5) Alter or destroy an archaeological site.

CUL-6) Restrict existing religious or sacred uses within the potential impact area.

NEPA and NHPA Requirements

NEPA (42 United States Code [U.S.C.] 4321-4346) establishes national policy for the protection and enhancement of the environment. Part of the function of the federal government in protecting the environment is to "preserve important historic, cultural, and natural aspects of our national heritage."

The ACHP regulations at 36 CFR Part 800 implement Section 106 of the NHPA and encourage the coordination of the NEPA and NHPA compliance professes (36 CFR Part 800.8). For this Draft EIR/EA, the processes are coordinated by using the NHPA process for evaluating the significance of cultural resources and the potential effects of the BMSP on cultural resources. For example, in this Draft EIR/EA, an impact to a cultural resource under NEPA is considered the same as an adverse effect to a historic property under the NHPA and 36 CFR Part 800. To be classified as a historic property, the resource must be recommended or determined eligible to the NRHP. The criteria for determining whether cultural resources are eligible for listing in the NRHP are provided in 36 CFR Part 60.4. These criteria are:

- associated with events that have made a significant contribution to the broad patterns of our history;
- associated with the lives of persons significant in our past;
- embody the distinctive characteristics of a type, period, or method of construction;
- represent the work of a master; possess high artistic value, or represent a significant and distinguishable entity whose components may lack individual distinction; or
- have yielded, or may be likely to yield, information important in prehistory or history.

A cultural resource that is eligible to the NRHP is called a *historic property* regardless of the time period to which it dates. To be listed in, or determined eligible for, the NRHP, a cultural resource must meet one or more of the above criteria and possess integrity. *Integrity* is defined as the authenticity of a resource's historic identity as evidenced by the survival of physical characteristics that existed during the prehistoric or historic period of use. Historic properties must generally be at least 50 years old; however, a younger resource may be considered eligible if it is of exceptional importance.

An undertaking results in adverse effects, or impacts, to a cultural resource eligible to or listed in the NRHP when it alters the resource's characteristics, including relevant features of its environment or use, that qualify it for inclusion in the NRHP. Potential effects as defined in 36 CFR Part 800.5 are summarized in Section 3.2.5, Cultural Resources. Of these, the type of effect that would be most likely to occur as a result of the Project is: Physical destruction, damage, or alteration of all or part of the property.

Applicable Best Management Practices

As part of the Project and Alternatives, the following applicable BMPs would minimize the environmental impacts to cultural resources. The full list of BMPs is available in Chapter 2, Table 2-4. The BMPs listed below are discussed within the impact discussion.

NUMBER	BMP DESCRIPTION
BMP-14	**Travel and traffic.** Vehicular traffic on-site shall be confined to existing or designated travel routes and designated work areas. Access to the construction site and staging areas shall be limited to authorized vehicles and only through the designated roads. The extent of habitat disturbance during construction shall be reduced by keeping vehicles on access roads and minimizing foot and vehicle traffic through undisturbed areas. To the extent practical, travel shall be limited to stabilized roads. Road maintenance activities shall avoid blading existing forbs and grasses in ditches and adjacent to roads. Abandoned roads and roads no longer needed shall be subsoiled to increase infiltration and reduce soil compaction, then recontoured and revegetated. Construction traffic shall avoid unpaved surfaces to the extent practical (to reduce the risk of compaction) and reduce speed to lessen fugitive dust emissions. On unpaved or unstabilized surfaces within the construction site, speed limits (e.g., 20 mph) shall be posted with visible signs and enforced to minimize airborne fugitive dust. Project vehicle speeds shall be limited in areas occupied by special-status animal species. Traffic shall stop to allow wildlife to cross roads. Shuttle vans or carpooling shall be used to reduce the amount of traffic on access roads. Workers shall be trained to comply with the speed limit, use good engineering practices, minimize the drop height of materials, and minimize the number and extent of disturbed areas. The Project developer shall enforce these requirements.
BMP-13	**Ground and surface disturbance.** Construction boundaries would be clearly delineated to minimize areas of ground and surface disturbance. Ground-disturbing activities shall be minimized, especially during the rainy season. To the maximum extent possible, construction-related activities (such as vehicle and foot traffic) would avoid areas with intact biological soil crusts. For cases in which impacts cannot be avoided, soil crusts would be salvaged and restored on the basis of recommendations by the County of Riverside and BLM once construction has been completed. Existing rocks, vegetation, and drainage patterns shall be preserved to the maximum extent possible. No paint or permanent discoloring agents shall be applied to rocks or vegetation (to indicate surveyor construction activity limits or for any other purpose). All stakes and flagging shall be removed from the construction area and disposed of in an approved facility. Where feasible, brush-beating, mowing, or use of protective surface matting rather than removing vegetation shall be employed. Clearing and disturbing of sensitive areas (e.g., steep slopes and natural drainages) and other areas shall be avoided outside the construction zone. Surface disturbance would be minimized by utilizing undulating surface disturbance edges; stripping, salvaging, and replacing topsoil; using contoured grading; controlling erosion; using dust suppression techniques; and restoring exposed soils to their original contour and vegetation.

Alternative 1: Proposed Project

Analysis of Direct and Indirect Impacts

Construction

Most of the Project area has been previously disturbed by agricultural operations, which have affected cultural resources on or near the ground surface. However, Project-related construction activities may still further affect these cultural resources when they cause additional ground disturbance. Such activities could include operation of heavy equipment, trenching for foundations and utilities, grading for access roads, minor site leveling, and installation of gen-tie towers, which may reach a depth of 20 feet below surface and a height of 120 feet above surface. These activities could directly displace or damage prehistoric and historic archaeological resources that may be on the surface or hidden below grade and could physically remove surface remnants of the World War II-era Blythe Army Air Base (BAAB). Though the Project area is not considered to encompass specific areas of traditional cultural importance to Indian tribes, it is within Tribal traditional ancestral homelands: consultation with interested tribes is necessary. In addition, indirect effects such as increasing public access to sensitive resources resulting in increased vandalism could potentially occur in some cases, although for the Project, public access to the solar facility site will be restricted.

Table 4.2.5-1 lists 31 cultural resources identified within the solar generation site APE -- one proposed historic district, six archaeological sites, 22 isolated finds, and two built resources; also, three cultural resources were identified within the proposed gen-tie line APE. A portion of the BAAB (P-33-018837) is located within the solar facility site and includes archaeological remains and a standing building. None of

the cultural resources has been determined eligible to either the California Register of Historical Resources (CRHR) or the NRHP. The portion of the BAAB within the Project APE has been determined by the County and the BLM as not eligible for listing in the CRHR and the NRHP.

The specific impacts, or effects, associated with the known cultural resources are as follows:

1. P-33-009186, Refuse Deposit (Historic Archaeological Site): This cultural resource is a large World War II-era refuse dump. Material found by previous investigators in 1999 and 2003 gave no indication of being associated with BAAB's role from 1942 to 1944 of providing air support to military training activities. Rather, the large amount of building material throughout the site suggested that the refuse was deposited at the end of military activity and may be the result of demolition and cleanup of the base prior to the transfer of the land to the county after World War II (Reinoehl 2003). P-33-009186 has been determined not eligible for inclusion in either the NRHP or the CRHR. Because it is not eligible, Project construction on the portion within the APE would not have an effect under the NHPA and no impact under NEPA and CEQA.

2. P-33-012532, Transmission Line (Historic Built Resource): The Niland-Blythe 161 kV Transmission Line is an existing wooden pole, H-frame transmission line running between the Niland substation in Imperial County and the Blythe substation in Riverside County (Dolan 2000). This transmission line has been determined not eligible to either the NRHP or the CRHR. Because the resource has been determined not eligible, and because construction of the Project would occur outside the ROW for this transmission line, the Project would not have an effect under the NHPA and no impact under NEPA and CEQA.

Table 4.2.5-1 Cultural Resources within the Proposed Solar Generation Site and Gen-tie Line APE[1]

PRIMARY NUMBER	TRINOMIAL	DESCRIPTION	LAND OWNERSHIP	AGE	NRHP / CRHR ELIGIBILITY DETERMINATION
Proposed Solar Generation Site APE					
P-33-009186	--	Refuse scatter – 10x30 meters – WW II dump containing food cans, miscellaneous metal pieces, and other debris.	Private	Historic	Not Eligible
P-33-012532	--	Transmission line – 100 feet x 2.5 miles (within the APE). 161 kV transmission line with wooden pole, H-frame structures.	Private	Historic	Not Eligible
P-33-014083	--	Transmission line – 125 feet x 1.9 miles (within the APE). 161 kV transmission line with wooden pole, H-frame structures.	Private	Historic	Not Eligible
P-33-018837		Proposed Blythe Army Air Base (BAAB) Historic District. Remains of the former military base in the vicinity of the Blythe Municipal Airport. A portion of the BAAB extends into the Project APE, including one standing utility building; remains of demolished warehouses, barracks, and hospital; other infrastructure (fire hydrants, manholes); and three clusters of refuse.	Private	Historic	Elements within the APE Not Eligible
P-33-019996	CA-RIV-10165	Refuse scatter – 66x42 meters – Sparse scatter of bottles, jars, cans, and miscellaneous metal debris.	Private	Historic	Not Eligible

PRIMARY NUMBER	TRINOMIAL	DESCRIPTION	LAND OWNERSHIP	AGE	NRHP / CRHR ELIGIBILITY DETERMINATION
P-33-019997	CA-RIV-10166	Refuse scatter – 50x10 meters – Two concentrations of debris, primarily cans and glass.	Private	Historic	Not Eligible
P-33-019999	CA-RIV-10168	Refuse scatter – 67x58 meters – Cans, porcelain fragments, bottles, and whiteware, mixed with modern trash.	Private	Historic	Not Eligible
P-33-020000	CA-RIV-10169	Refuse scatter – 36x70 meters – Sparse scatter of cans, bottles, and glass, mixed with modern trash.	Private	Historic	Not Eligible
P-33-020001	CA-RIV-10170	Ceramic scatter – 17x17 meters – 16 sherds	Private	Prehistoric	Not Eligible
P-33-020003	--	Isolated find - 1 bottle	Private	Historic	Not Eligible
P-33-020004	--	Isolated find - 1 hole-in-top can	Private	Historic	Not Eligible
P-33-020005	--	Isolated find - 1 hole-in-top can	Private	Historic	Not Eligible
P-33-020006	--	Isolated find - 1 hole-in-top can	Private	Historic	Not Eligible
P-33-020007	--	Isolated find - 1 hole-in-top can	Private	Historic	Not Eligible
P-33-020008	--	Isolated find - 3 hole-in-top cans, 2 sanitary cans	Private	Historic	Not Eligible
P-33-020009	--	Isolated find - 1 bottle fragment	Private	Historic	Not Eligible
P-33-020010	--	Isolated find - 2 hole-in-cap cans, 1 tin, 2 glass fragments	Private	Historic	Not Eligible
P-33-020011	--	Isolated find - 1 hole-in-top can, 1 tin, 1 lid	Private	Historic	Not Eligible
P-33-020012	--	Isolated find - 2 hole-in-top cans, 1 tobacco tin	Private	Historic	Not Eligible
P-33-020013	--	Isolated find - 1 sherd, 1 hole-in-top can	Private	Prehistoric /Historic	Not Eligible
P-33-020014	--	Isolated find - 2 sherds	Private	Prehistoric	Not Eligible
P-33-020015	--	Isolated find - 1 hammerstone	Private	Prehistoric	Not Eligible
P-33-020016	--	Isolated find - 1 sherd	Private	Prehistoric	Not Eligible
P-33-020017	--	Isolated find - 1 sherd	Private	Prehistoric	Not Eligible
P-33-020020	--	Isolated find - 1 tobacco tin	Private	Historic	Not Eligible
P-33-020021	--	Isolated find - 1 bottle	Private	Historic	Not Eligible
P-33-020022	--	Isolated find - 1 oil can	Private	Historic	Not Eligible
P-33-020023	--	Isolated find - 1 hole-in-top can	Private	Historic	Not Eligible
P-33-020024	--	Isolated find - 1 tested cobble	Private	Prehistoric	Not Eligible
P-33-020025	--	Isolated find - 1 hole-in-top can	Private	Historic	Not Eligible
P-33-020026	--	Isolated find - 1 bottle	Private	Historic	Not Eligible
Proposed Gen-tie Line APE					
P-33-019770		Isolated find – 1 flake, 1 hole-in-top can	BLM	Prehistoric /Historic	Not Eligible
P-33-021136		Isolated find – 3 sherds	BLM	Prehistoric	Not Eligible
P-33-021137		Isolated find – 3 key-opened cans	BLM	Historic	Not Eligible

Source: POWER 2013a, 2013b.
[1] Some cultural resources described in the survey report (POWER 2013a, 2013b) are not included in this table because the sites are no longer within the APE as a result of changes in Project design.

3. P-33-014083, Transmission Line (Historic Built Resource): The Parker-Headgate Rock-Blythe 161 kV Transmission Line consists of H-frame structures placed along 64.4 miles (Pigniolo, Baksh, and Dietler 1999). A 1.9-mile segment of the transmission falls within the Project APE. This transmission line has been determined not eligible to either the NRHP or the CRHR (CEC and WAPA 2000). Because the

resource has been determined not eligible, and because construction of the Project would occur outside the ROW for this transmission line, the Project would not have an effect under the NHPA and no impact under NEPA and CEQA.

4. P-33-018837, Blythe Army Air Base (Proposed Historic District): The proposed BAAB Historic District (P-33-018837) was first recorded in 2010 (Mitchell 2010a, b). This World War II-era airfield originally covered 6,372 acres, but Mitchell recorded only an 829-acre portion of the airfield within the Project area (Mitchell 2010a, b). Mitchell (2010a) recommended the proposed BAAB Historic District as eligible for the NRHP under Criterion A and for the CRHR under Criterion 1 for its association with an event that has made a significant contribution to the broad patterns of history, that is, the World War II development of the Desert Training Center (DTC). She also recommended the proposed district as eligible under Criterion B for the NRHP and Criterion 2 for the CRHR for BAAB's association with the life of a person important in the past, General George S. Patton.

None of the structures, runways, taxiways, aprons, or features recorded by Mitchell extend into the current Project APE. Within the APE, archaeologists have identified the demolished remains of barracks, warehouses, a fire station, and a hospital and a standing utility building.

The County has determined that the portion of BAAB (P-33-018837) within the Project APE is not eligible to the CRHR. The BLM has concluded that it is premature to expand the proposed district boundaries and has determined that the remnant portions of BAAB within the Project APE are not eligible to the NRHP. While BAAB as a whole has ties to General Patton and therefore with the life of a significant person, the buildings in the portion of BAAB in the Project APE were built and used after Patton's association with the base had ended. Also, BAAB association with the DTC was brief and not substantial, lasting only until airfields were built specifically for the DTC.

Based on the proposed solar generation site plan, most remnant elements of site 33-018837 within the APE would be physically removed or altered during Project construction because they would be in an area proposed for 1.5 MW Solar Modules. Construction of the Project components in this portion of the APE would not affect site P-33-018837 under the NHPA nor have an impact under NEPA because it is not eligible to the NRHP. Construction would not have an impact on the site under CEQA because it has been determined not eligible to the CRHR.

5. P-33-019996, Refuse Scatter (Historic Archaeological Site): This site consists of a sparse scatter of historic debris covering approximately 0.25 acre in an area proposed for the location of solar components. P-33-019996 has been determined not eligible for inclusion in either the NRHP or the CRHR. Because the resource has been determined not eligible, the Project would have no effect under the NHPA and no impact under NEPA and CEQA.

6. P-33-019997, Refuse Scatter (Historic Archaeological Site): The site consists of two concentrations of historic debris, primarily cans and glass, the age of which likely falls between the late 1950s and late 1960s. P-33-019997 is determined not eligible for inclusion in either the NRHP or the CRHR. Because the resource has been determined not eligible, the Project would have no effect under the NHPA and no impact under NEPA and CEQA.

7. P-33-019999, Refuse Scatter (Historic): P-33-019999 is a scatter of historic refuse. The site has been affected by past agricultural activities, recent dumping, and construction of concrete pads and poles. P-33-019999 is determined not eligible for inclusion in either the NRHP or the CRHR. Because the resource has been determined not eligible, the Project would have no effect under the NHPA and no impact under NEPA and CEQA.

8. P-33-020000, Refuse Scatter (Historic): P-33-020000 is a sparse historic scatter of refuse from the 1950s and 1960s. P-33-020000 has been determined not eligible for inclusion in either the NRHP or the CRHR. Because the resource has been determined not eligible, the Project would have no effect under the NHPA and no impact under NEPA and CEQA.

9. P-33-020001, Ceramic Scatter (Prehistoric): P-33-020001 consists of 16 prehistoric ceramic fragments. The site is in an agricultural field. Because of the limited number and range of artifacts and the level of agricultural disturbance, P-33-020001 has been determined not eligible for inclusion in either the NRHP or the CRHR. Because the resource has been determined not eligible, the Project would have no effect under the NHPA and no impact under NEPA and CEQA.

Isolated finds, because they consist of only one or a few artifacts, are typically determined not eligible to the NRHP and CRHR. The 22 isolated finds identified within the solar generation site (Table 4.2.5-1) have been determined not eligible; therefore, the Project would have no effect on them under the NHPA and no impact under NEPA and CEQA.

Relative to the proposed gen-tie ROW area, three isolated finds (P-33-019770, P-33-021136, and P-33-021137) were found on BLM land during surveys. Isolated finds are not eligible for listing on the NRHP; therefore, the Project would have no effect on them on them under the NHPA and no impact under NEPA.

During construction, there is the possibility that previously undiscovered archaeological resources could be unearthed by various ground-disturbing activities. These activities could directly displace or damage archaeological resources that may be hidden below grade. Mitigation Measures Cultural-2, Cultural-3, and Cultural-5 would provide for monitoring and disposition of any artifacts associated with post-review discoveries during construction.

No human remains have been previously recorded or discovered during surveys for the Project. Inadvertent discovery of human remains during construction is possible; however, mitigation measures would be implemented in accordance with State and federal law to take appropriate actions to redirect construction and notify authorities (Mitigation Measure Cultural-1).

NHPA Section 106 government-to-government consultation with Indian tribes is ongoing. To date, no places to which Tribes attach cultural or religious significance have been identified, although Tribes have indicated that the Project is within their traditional ancestral homeland. Since no specific religious or sacred sites have been identified in the APE, the Project would not restrict existing religious or sacred uses.

Mitigation Measures Cultural-1 through Cultural-5 would reduce Project impacts to cultural resources to the extent feasible.

Operation and Maintenance

Direct impacts to cultural resources during operation and maintenance of the Project could occur from unanticipated damage to newly discovered eligible archaeological sites. Operation and maintenance activities, such as routine inspection and servicing of equipment, addressing equipment breakdowns, and panel cleaning, would be limited to the Project area itself and other designated areas, such as the gen-tie line ROW. However, this impact would only occur if excavation or surface disturbance (e.g., grading, leveling) in previously undisturbed areas were necessary to support operation and maintenance activities. Since no such activities are proposed, no additional impacts or effects to cultural resources are anticipated. A Long Term Management Plan will be prepared and implemented to minimize the potential for unanticipated damage to eligible archaeological sites.

Decommissioning

Direct impacts to cultural resources during decommissioning of the Project could occur from unanticipated damage to newly discovered eligible archaeological sites. These impacts could occur if excavation or surface disturbance were necessary during decommissioning that disturbed areas not previously disturbed by construction. Since no activities affecting areas of the site not previously disturbed are likely, no additional impacts to cultural resources are anticipated. A Long Term Management Plan will be prepared and implemented to minimize the potential for unanticipated damage to eligible archaeological sites.

Application of CEQA Significance Thresholds

CUL-1) Would the Project cause a substantial adverse change in the significance of a historical resource as defined in Code of Regulations Section 15064.5?

None of the cultural resources within the Project APE have been determined by the County to be eligible to the CRHR and, therefore, none qualify as historical resources under CEQA. Because of the existence of cultural resources in the APE, the potential for inadvertent discovery of historic resources is considerable and a potentially significant impact of the Project. The disturbance could not feasibly be avoided because the likelihood of undiscovered resources exists throughout the Project area; reconfiguring the Project area would not reduce the impact. The Project would incorporate a monitoring program (Mitigation Measures Cultural-2, Cultural-3, and Cultural-5) to reduce the impact to less than significant.

CUL-2) Would the Project cause a substantial adverse change in the significance of an archaeological resource as defined in California Code of Regulations Section 15064.5?

Within the solar facility site and gen-tie line, 32 archaeological resources (both historic and prehistoric), including BAAB and isolated finds, were documented within the Project's APE. None of these resources have been determined eligible to the CRHR and none qualify as unique archaeological resources. Therefore, the Project would not cause a substantial adverse change in the significance of an archaeological resource.

However, the possibility exists that archaeological resources could be located subsurface and could be unearthed during construction. The potential for inadvertent discovery of archaeological resources is considerable and a potentially significant impact of the Project. The disturbance could not feasibly be avoided because the likelihood of undiscovered resources exists throughout the Project area; reconfiguring the Project area would not reduce the impact. The Project would incorporate a monitoring program to discover and evaluate previously undiscovered resources found during construction (Mitigation Measures Cultural-2, Cultural-3, and Cultural-5). Implemented, these measures would reduce the impact to less than significant.

CUL-3) Would the Project disturb any human remains, including those interred outside of formal cemeteries?

No human remains have been previously recorded or discovered during surveys for this Project and, as such, no impacts to this type of resource are anticipated; the possibility is substantial enough that the impact is considered potentially significant. Should human remains be discovered at any time during implementation of the Project, construction in the vicinity would halt and the Coroner would be contacted immediately (Mitigation Measure Cultural-1). If the Coroner determines that the remains do not require an assessment of cause of death and are probably Native American, then the NAHC would be contacted to identify the most likely descendents in accordance with Cultural-1. Implementation of this measure would reduce impacts to a less than significant level.

CUL-4) Would the Project alter or destroy an historic site?

The Project would alter remains associated with BAAB, of which the portion within the APE has been determined not eligible to the CRHR, but its impact on the district would be less than significant with mitigation implemented (see CUL-1 above).

CUL-5) Would the Project alter or destroy an archaeological site?

No significant archaeological resources were identified during the field survey, although it is possible that undiscovered subsurface resources could be unearthed during construction. The impact would be less than significant with mitigation (see CUL-2 above).

CUL-6) Would the Project restrict existing religious or sacred uses within the potential impact area?

There are no known religious or sacred uses of the Project area. No impacts are anticipated.

Alternative 2: No Project Alternative

Cultural Resources

Alternative 2, the No Project Alternative, assumes that the proposed Project would not be constructed and that existing agricultural operations would continue. No solar PV structures, transmission lines, or associated facilities would be constructed on the solar facility site or on BLM-managed lands. Impacts to historic properties associated with the construction, operation, maintenance, and decommissioning activities from the proposed Project would be avoided; therefore, direct or indirect impacts of the Project would not occur to cultural resources under CEQA or NEPA, and there would be no effects to historic properties under the NHPA.

Under the No Project Alternative, there would be no new impacts to cultural resources relative to any CEQA significance criteria. However, continued agricultural operations could result in disturbance to historic or archaeological resources. Also, in the absence of this Project, other renewable energy projects may be constructed to meet State mandates at other locations, and those projects would likely have similar impacts as the proposed Project in those locations.

Alternative 3: Northern Alternative 230 kV Gen-tie Line Location

Cultural Resources

The impacts of Alternative 3 would be the same as Alternative 1 relative to the solar generation site portion of the Project(see impact discussion under Alternative 1). Thirty-one cultural resources were identified within the solar generation site APE - one proposed historic district, six archaeological sites, 22 isolated finds, and two built resources. None have been determined eligible for listing in the CRHR by the County or eligible for listing in the NRHP by the BLM.

Only five cultural resources were identified in the Alternative 3 gen-tie line APE -- two historic archaeological sites and three isolated finds (two historic and one prehistoric). Isolated finds are not eligible for listing on the NRHP.

Table 4.2.5-1 lists cultural resources that were identified within the solar generation site and Table 4-2 lists resources within the Northern Gen-tie Alternative APE.

Table 4.2.5-2 Cultural Resources within the Northern Gen-tie Line APE

PRIMARY NUMBER	TRINOMIAL	DESCRIPTION	LAND OWNERSHIP	AGE	NRHP / CRHR ELIGIBILITY DETERMINATION
Northern Gen-tie Alternative APE					
P-33-017319	CA-RIV-9009	Refuse scatter – 3x5 meters – WWII cans, glass and metal	BLM	Historic	Not eligible
P-33-019612	--	Isolated find – 1 can	BLM	Historic	Not eligible
P-33-021133	--	Refuse scatter – 15x10 meters – 10 WW II K-ration cans.	BLM	Historic	Not eligible
P-33-021134	--	Isolated find – 3 sherds	BLM	Prehistoric	Not eligible
P-33-021135	--	Isolated find – 3 hole-in-top cans, 1 beer can	BLM	Historic	Not eligible

1. P-33-021133, World War II Refuse Scatter (Historic): This site contains a small scatter of ten "K-ration" cans related to the military use of the area during World War II. P-33-021133 has been determined by the BLM to be not eligible for inclusion in the NRHP. Because the resource has been determined not eligible, the Project would have no effect under the NHPA and no impact under NEPA.

2. P-33-017319, Refuse Scatter (Historic): This site was recorded in 2008 (Eckardt and Jordan 2008) as a small scatter of refuse probably dating to the 1942 to 1944 use of the area by the military. The artifacts include 15 cans, one glass jar, and several metal remnants. The site has been disturbed by erosion and does not appear to contain subsurface deposits. P-33-017319 has been determined by the BLM to be not eligible for inclusion in the NRHP. Because the resource has been determined not eligible, the Project would have no effect under the NHPA and no impact under NEPA.

Because the resources identified along the Northern Gen-tie alternative, all of them on BLM land, have been determined not eligible to the NRHP, the Project would have no effect to them under the NHPA and no impact under NEPA.

Construction activities along the alternate transmission route would include minor surface excavations and installation of gen-tie towers, which may reach a depth of 20 feet below surface and a height of 120 feet above surface. These activities could directly displace or damage undiscovered archaeological resources that may be hidden below grade. Inadvertent damage to undiscovered cultural resources remains a possibility under this Alternative.

Monitoring during construction of Alternative 3 is proposed to ensure that any previously unrecorded human remains or archaeological resources are properly identified, evaluated, and treated Mitigation Measures Cultural-1 through Cultural-5).

Operation and Maintenance

Direct impacts to cultural resources during operation and maintenance of Alternative 3 could occur from unanticipated damage to newly discovered eligible archaeological sites. Operation and maintenance activities, such as routine inspection and servicing of equipment, addressing equipment breakdowns, and panel cleaning, would be limited to the Project area itself and other designated areas, such as the gen-tie line ROW. However, this impact would only occur if excavation or surface disturbance (e.g., grading, leveling) in previously undisturbed areas were necessary to support operation and maintenance activities. Since no such activities are proposed, no additional impacts or effects to cultural resources are anticipated. A Long Term Management Plan will be prepared and implemented to minimize the potential for unanticipated damage to eligible archaeological sites.

Decommissioning

Direct impacts to cultural resources during decommissioning of the Project could occur from unanticipated damage to newly discovered eligible archaeological sites. These impacts could occur if excavation or surface disturbance were necessary during decommissioning that disturbed areas not previously disturbed by construction. Since no activities affecting areas of the site not previously disturbed are likely, no additional impacts to cultural resources are anticipated. A Long Term Management Plan will be prepared and implemented to minimize the potential for unanticipated damage to eligible archaeological sites.

Application of CEQA Significance Thresholds

The impacts associated with construction, operation, maintenance, and decommissioning of all portions of the Project other than the gen-tie line would occur with this Alternative as well. Additional or different impacts related to the relocation of the gen-tie line are as follows:

CUL-1) Would Alternative 3 cause a substantial adverse change in the significance of a historical resource as defined in Code of Regulations Section 15064.5?

None of the cultural resources within the APE of this Alternative have been determined by the County to be eligible to the CRHR and, therefore, none quality as historical resources under CEQA.

The adverse impact of inadvertent discovery of historic resources in relation to Alternative 3 is potentially significant. Cultural resource mitigation measures would be implemented to mitigate adverse impacts, including Mitigation Measures Cultural-2, Cultural-3, and Cultural-5. With implementation of these measures, impacts on historic resources would be less than significant.

CUL-2) Would Alternative 3 cause a substantial adverse change in the significance of an archaeological resource as defined in California Code of Regulations Section 15064.5?

None of these resources identified within Alternative 3 have been determined eligible to the CRHR and none qualify as unique archaeological resources. Therefore, the Project would not cause a substantial adverse change in the significance of an archaeological resource.

The adverse impact of inadvertent discovery of archaeological resources in relation to Alternative 3 is potentially significant. Cultural resource mitigation measures would be implemented to mitigate adverse impacts, including Mitigation Measures Cultural-2, Cultural-3, and Cultural-5. With implementation of these measures, impacts on prehistoric resources would be less than significant.

CUL-3) Would Alternative 3 disturb any human remains, including those interred outside of formal cemeteries?

No human remains have been previously recorded or discovered during surveys for this Alternative and, as such, no impacts are anticipated; however, the site location within traditional Native American ancestral homelands means there is a potentially significant impact. Should human remains be discovered at any time during implementation of the Project, construction in the vicinity would halt and the Coroner would be contacted immediately (Mitigation Measure Cultural-1). With implementation of this mitigation measure, the impact would be less than significant.

CUL-4) Would Alternative 3 alter or destroy an historic site?

See CUL-1 above. Alternative 3's impact related to inadvertent discovery of historic resources during construction would be less than significant with mitigation.

CUL-5) Would Alternative 3 alter or destroy an archaeological site?

See CUL-2 above. While no significant archaeological resources were identified during the field survey, it is possible that undiscovered subsurface resources could be unearthed during construction, resulting in potential for a significant impact. The impact would be less than significant with mitigation implemented.

CUL-6) Would Alternative 3 restrict existing religious or sacred uses within the potential impact area?

There are no known religious or sacred uses of the Alternative 3 site. No impacts are anticipated.

Alternative 4: Southern Alternative 230 kV Gen-tie Line Location

The impacts of Alternative 4 would be the same as Alternative 1 relative to the solar generation site portion of the Project (see impact discussion under Alternative 1). Thirty-one cultural resources were identified within the solar generation site APE -- one proposed historic district, six archaeological sites, 22 isolated finds, and two built resources. None have been determined eligible for listing in the CRHR by the County or determined eligible for listing in the NRHP by the BLM.

The cultural resource survey of the Alternative 4 gen-tie line APE (POWER 2013b) revealed 12 archaeological sites and four isolated finds. Isolated finds are not eligible for listing on the NRHP or the CRHR. All 12 sites are on BLM land. Table 4.2.5-1 lists cultural resources that were identified within the solar generation site and Table 4.2.5-3 lists resources within the Southern Gen-tie Alternative APE.

Table 4.2.5-3 Cultural Resources within the Southern Gen-tie Line APE

PRIMARY NUMBER	TRINOMIAL	DESCRIPTION	LAND OWNERSHIP	AGE	NRHP ELIGIBILITY DETERMINATION
Southern Gen-tie Alternative APE					
P-33-014150	CA-RIV-9100	Road – 6 feet x 2 miles (in 9 segments) -- Two-track road.	BLM	Historic	Determined not eligible by SHPO 2/11/09
P-33-019682	CA-RIV-9997	Refuse scatter – 6x22 meters – 30 cans and more than 100 can fragments related to military use.	BLM	Historic	Not eligible
P-33-019703	CA-RIV-10018	Military feature and refuse scatter – 8x11 meters -- WW II fighting hole and food cans.	BLM	Historic	Not eligible
P-33-019704	CA-RIV-10019	Isolated find – 1 wire, 1 can, 1 metal disk.	BLM	Historic	Not eligible
P-33-019712	--	Isolated find – Survey marker	BLM	Historic	Not eligible
P-33-019714	CA-RIV-10028	Refuse scatter and isolated stone tool – 5x10 meters – Scatter of WW II-related food cans, 1 piece of lumber, 1 quartzite core	BLM	Prehistoric /Historic	Unevaluated and avoided by design
P-33-019733	CA-RIV-10047	Lithic scatter – 162x70 meters – Sparse lithic assay site with chert and quartzite flakes and cobbles.	BLM	Prehistoric	Not eligible
P-33-019736	CA-RIV-10050	Wood debris –30x15 meters -- Over 50 fragments of wooden boards next to an abandoned two-track road.	BLM	Historic	Not eligible
P-33-019737	CA-RIV-10051	Lithic scatter – 54x44 meters -- Sparse scatter of about 24 y flakes and 1 core.	BLM	Prehistoric	Not eligible
P-33-019739	CA-RIV-10053	Lithic scatter – 40x27 meters -- Sparse scatter of 3 cores and two dozen quartzite and chert flakes.	BLM	Prehistoric	Not eligible
P-33-019760	CA-RIV-10073	Lithic scatter – 7x57 meters -- Small scatter of 4 chert flakes and 1 piece of shatter	BLM	Prehistoric	Unevaluated and avoided by design
P-33-020317	--	Isolated find – 1 hammerstone.	BLM	Prehistoric	Not eligible
P-33-021130	CA-RIV10962	Ceramic scatter – 2x2 meters – Small concentration of 22 sherds, probably a pot drops.	BLM	Prehistoric	Not eligible
P-33-021131	CA-RIV-10963	Ceramic Scatter – 6x2 meters – 10 sherds, probably a pot drop	BLM	Prehistoric	Not eligible
P-33-021132	CA-RIV-10964	Refuse scatter – 3x3 meters – Debris scatter with cans and bottles	BLM	Historic	Not eligible
P-33-021134	--	Isolated Find – 3 sherds	BLM	Prehistoric	Not eligible

Source: POWER 2013b.

Of the 12 recorded archaeological sites, two have not been evaluated for eligibility to the NRHP. Should Alternative 4 be the selected alternative, evaluation, an assessment of effects, and, if appropriate, treatment of the resource to mitigate adverse effects would take place prior to construction. The 12 recorded sites are described as follows:

1. P-33-014150, Road (Historic Archaeological Site): This site consists of several segments of a two-track road. The site was determined not eligible because it does not represent a major road system and was not used in a historically significant context. This site was determined not eligible by the California SHPO in 2009 (Farrell et al. 2009). Because the resource has been determined not eligible, construction of Alternative 4 gen-tie components would not affect this resource under the NHPA and would not have an impact under NEPA.

2. P-33-019682, Refuse Scatter (Historic Archaeological Site): This site, a historic refuse scatter, consists of complete cans and can fragments related to the military use of the area between 1942 and 1944. This site has been determined by the BLM to be not eligible for the NRHP. Because the resource has been determined not eligible, construction of Alternative 4 gen-tie components would not affect this resource under the NHPA and would not have an impact under NEPA.

3. P-33-019703, Fighting Hole (Historic Archaeological Site): This site consists of a fighting-hole and small refuse scatter related to the World War II military use of the area between 1942 and 1944. The site has been determined not eligible for listing in the NRHP by the BLM. Because the resource has been determined not eligible, construction of Alternative 4 gen-tie components would not affect this resource under the NHPA and would not have an impact under NEPA.

4. P-33-019714, Refuse Scatter (Historic Archaeological Site) and Quartzite Core (Prehistoric Isolated Find): This site contains historic refuse items likely related to the military use of the area between 1942 and 1944. The historic artifacts include about two dozen cans and a piece of lumber. A single quartzite core was the only prehistoric artifact. Because of the potential for subsurface material, the BLM considers this site to be unevaluated. Should Alternative 4 be the selected alternative, this site will be assumed eligible for the NRHP and its significant values (Criterion D) will be avoided by Project design. The site will be designated an Environmentally Sensitive Area (ESA) and the gen-tie poles will be engineered to avoid direct impacts to the site.

5. P-33-019733, Lithic Scatter (Prehistoric Archaeological Site): This site was recorded by Applied EarthWorks in 2011 as a sparse surface scatter of prehistoric flakes and cobbles (Enright and Mirro 2011). Applied EarthWorks indicated that subsurface deposit of artifacts was unlikely and the information potential was low (Enright and Mirro 2011). The BLM has determined that the site is not eligible for listing on the NRHP. Because the resource has been determined not eligible, construction of Alternative 4 gen-tie components would not affect this resource under the NHPA nor impact it under NEPA.

6. P-33-019736, Wood Debris (Historic Archaeological Site): This site contains over 50 wood boards next to an abandoned two-track road. The boards were probably discarded 40 to 70 years ago. The BLM has determined that the site is not eligible for the NRHP. Because the resource has been determined not eligible, construction of Alternative 4 gen-tie components would not affect this resource under the NHPA and would not impact it under NEPA.

7. P-33-019737, Lithic Scatter (Prehistoric Archaeological Site): This site is a sparse scatter of prehistoric flakes. Based on previously recorded information presented by Enright and Mirro (2011), the BLM has determined that the site is not eligible to the NRHP. Because the resource has been determined not eligible, construction of Alternative 4 gen-tie components would not affect this resource under the NHPA and would not impact it under NEPA.

8. P-33-019739, Lithic Scatter (Prehistoric Archaeological Site): This site is a scatter of quartzite and chert flakes (Enright and Mirro 2011). The site integrity has been disturbed by wind erosion and sheet wash; the likelihood of subsurface deposits is low. Based on previously recorded information (Enright and Mirro 2011), the BLM has determined that the site is not eligible to the NRHP. Because the resource has been determined not eligible, construction of Alternative 4 gen-tie components would not affect this resource under the NHPA and would not impact it under NEPA.

9. P-33-019760, Lithic Scatter (Prehistoric Archaeological Site): This site is a small scatter of prehistoric lithic artifacts, primarily chert flakes. Based on the previously recorded information (Enright and Mirro 2011) and because of the possibility for additional artifacts under shifting dune sand, the BLM considers

this site to be unevaluated. Should Alternative 4 be the selected alternative, this site will be assumed eligible for the NRHP and its significant values (Criterion D) will be avoided by Project design. The site will be designated an ESA and the gen-tie poles will be engineered to avoid direct impacts to the site.

10. P-33-021130, Ceramic Scatter (Prehistoric Archaeological Site): This site contains a small concentration of prehistoric pottery fragments, representing a single prehistoric activity, probably a pot drop. Because the likelihood of subsurface deposits is minimal, the BLM has determined that this site is not eligible to the NRHP or the CRHR. Because the resource has been determined not eligible, construction of Alternative 4 gen-tie components would not affect this resource under the NHPA nor impact the resource under NEPA.

11. P-33-021131, Ceramic Scatter (Prehistoric Archaeological Site): This site consists of ten fragments of prehistoric pottery, all of which appear to be from the same vessel. This site represents a single event, probably a pot drop. Site P-33-021131 has been determined not eligible for inclusion in the NRHP by the BLM. Because the resource has been determined not eligible, construction of Alternative 4 gen-tie components would not affect this resource under the NHPA nor impact it under NEPA.

12. P-33-021132, Refuse Scatter (Historic Archaeological Site): The site consists of a scatter of cans, bottles, and other debris dating to the early to mid-twentieth century. P-33-021132 has been determined not eligible for inclusion in the NRHP by the BLM. Because the resource has been determined not eligible, construction of Alternative 4 gen-tie components would not affect this resource under the NHPA nor impact it under NEPA.

Four isolated finds (P-33-019704, P-33-0019712, P-33-0201317 and P-33-021134) were found during survey of the Alternative 4 gen-tie APE, all on BLM land. Isolated finds are not eligible for listing on the NRHP. Because these resources have been determined not eligible, Alternative 4 would have no effect on them under the NHPA and no impacts under NEPA.

Only two of the 12 recorded archaeological sites, P-33-019714 and P-33-019760, on this alignment may be eligible for listing on the NRHP pending further investigation. Should either site be determined eligible by the BLM, direct adverse effects to these two sites are possible if towers are constructed at those locations. Potential impacts could be reduced if tower locations are chosen to avoid these resources.

Construction activities along the alternate transmission route would include minor surface excavations and installation of gen-tie towers, which may reach a depth of 20 feet below surface and a height of 120 feet above surface. These activities could directly displace or damage undiscovered archaeological resources that may be hidden below grade. The site is not considered to encompass specific areas of traditional cultural importance to Indian tribes. Inadvertent damage to undiscovered cultural resources remains a possibility under this Alternative 4.

Monitoring during construction of Alternative 4 is proposed to ensure that any previously unrecorded human remains or cultural resource mentioned above are properly identified, evaluated, and treated (Mitigation Measures Cultural-1 through Cultural-5).

Operation and Maintenance

Direct impacts to cultural resources during operation and maintenance of Alternative 4 could occur from unanticipated damage to newly discovered eligible archaeological sites. Operation and maintenance activities, such as routine inspection and servicing of equipment, addressing equipment breakdowns, and panel cleaning, would be limited to the Project area itself and other designated areas, such as the gen-tie line ROW. However, this impact would only occur if excavation or surface disturbance (e.g., grading, leveling) in previously undisturbed areas were necessary to support operation and maintenance activities. Since no such activities are proposed, no additional impacts or effects to cultural resources are anticipated. A Long Term Management Plan will be prepared and implemented to minimize the potential for unanticipated damage to eligible archaeological sites.

Decommissioning

Direct impacts to cultural resources during decommissioning of the Project could occur from unanticipated damage to newly discovered eligible archaeological sites. These impacts could occur if excavation or surface disturbance were necessary during decommissioning that disturbed areas not previously disturbed by construction. Since no activities affecting areas of the site not previously disturbed are likely, no additional impacts to cultural resources are anticipated. Long Term Management Plan will be prepared and implemented to minimize the potential for unanticipated damage to eligible archaeological sites.

Application of CEQA Significance Thresholds

The impacts associated with construction, operation, maintenance, and decommissioning of all portions of the Project other than the gen-tie line would occur with this Alternative. Additional or different impacts related to the relocation of the gen-tie line are as follows:

CUL-1) Would Alternative 4 cause a substantial adverse change in the significance of a historical resource as defined in Code of Regulations Section 15064.5?

Two sites, P-33-019714 and P-33-019760, are potentially eligible to the NRHP, but are on BLM land. None of the cultural resources on private land within the APE of this Alternative have been determined eligible to the CRHR and, therefore, none quality as historical resources under CEQA.

The adverse impact of inadvertent discovery of historic resources in relation to Alternative 4 is potentially significant. Cultural resource mitigation measures would be implemented to mitigate adverse impacts, including Mitigation Measures Cultural-2, Cultural-3 and Cultural-5. With implementation of these measures, impacts on historic resources would be less than significant.

CUL-2) Would Alternative 4 cause a substantial adverse change in the significance of an archaeological resource as defined in California Code of Regulations Section 15064.5?

Two archaeological sites, P-33-019714 and P-33-019760, are potentially eligible to the NRHP, but are both on BLM land. None of the cultural resources on private land within the APE of this Alternative have been determined eligible to the CRHR nor do they qualify as unique archaeological resources under CEQA. Therefore, the Project would not cause a substantial adverse change in the significance of an archaeological resource.

The adverse impact of inadvertent discovery of archaeological resources in relation to Alternative 4 is potentially significant. Cultural resource mitigation measures would be implemented to mitigate adverse impacts, including Mitigation Measures Cultural-2, Cultural-3, and Cultural-5. With implementation of these measures, impacts on prehistoric resources would be less than significant.

CUL-3) Would Alternative 4 disturb any human remains, including those interred outside of formal cemeteries?

No human remains have been previously recorded or discovered during surveys for this Alternative and, as such, no impacts are anticipated; however, the site location within traditional Native American ancestral homelands means there is a potentially significant impact. Should human remains be discovered at any time during implementation of the Project, construction in the vicinity would halt and the Coroner would be contacted immediately (Mitigation Measure Cultural-1). With implementation of this mitigation measure, the impact would be less than significant.

CUL-4) Would Alternative 4 alter or destroy an historic site?

See CUL-1 above. Alternative 4's impact related to inadvertent discovery of historic sites during construction would be less than significant with mitigation.

CUL-5) Would Alternative 4 alter or destroy an archaeological site?

See CUL-2 above. While no significant archaeological resources were identified on private land during the field survey, it is possible that undiscovered subsurface resources could be unearthed during construction. The impact is less than significant with mitigation.

CUL-6) Would Alternative 4 restrict existing religious or sacred uses within the potential impact area?

There are no known religious or sacred uses of the Alternative 4 site. No impacts are anticipated.

Alternative 5: Reduced Acreage Alternative

Similar to Alternative 1, Alternative 5 would include the construction, operation, maintenance, and decommissioning of a solar facility and associated infrastructure. The primary difference between Alternatives 1 and 5 is the absence of solar facility development north of I-10, which would reduce electrical output from 485 MW to 315 MW. The Reduced Acreage Alternative would be on a reduced footprint of approximately 2,476 acres (from 3,660 acres for the proposed Project). Alternative 5 would include approximately 2,403 acres for the solar facility. Similar to the proposed Project, 73 acres would be utilized for the 230 kV gen-tie line. In comparison to Alternative 1, Alternative 5 would eliminate one on-site substation and one O&M building north of the I-10 freeway. Alternative 5 would have one access point (planned on Seeley Avenue); no access would be proposed for Riverside Drive. The Reduced Acreage Alternative would also no longer extend a 230 kV overhead gen-tie line from an on-site substation north of I-10, as this Alternative would not be developed on land north of I-10. Instead, this Alternative would construct an approximately 7.8-mile-long, 230 kV overhead gen-tie line from the proposed on-site substation south of I-10 to the approved Colorado River Substation. Approximately three miles of the gen-tie line would be within the solar facility. Alternative 5 would avoid solar development north of I-10 and the existing agricultural operations would continue in this area (approximately 1,184 acres); therefore, no effects/impacts would occur to the existing cultural resources located in this area.

Analysis of Impacts

Construction

The development footprint of Alternative 5 falls entirely within that of Alternative 1; unlike Alternative 1, Alternative 5 would exclude solar development north of the I-10 freeway (approximately 1,184 acres). Therefore, impacts associated with construction, operation, maintenance, and decommissioning of the solar generation site and gen-tie line would be similar to Alternative 1.

Under Alternative 5, 17 cultural resources would be within the solar generation site APE south of the I-10 freeway (Table 4.2.5-4). Alternative 5 would avoid 14 cultural resources that would be within the APE for Alterative 1. These include 10 isolated finds plus P-33-009186, Refuse Scatter (Historic); P-33-014083, Transmission Line (Historic); P-33-018837, and the proposed BAAB Historic District; P-33-020000, Refuse Scatter (Historic).

Table 4.2.5-4 Cultural Resources within the Reduced Acreage Alternative Solar Generation Site and Proposed Gen-tie Line APE[1]

PRIMARY NUMBER	TRINOMIAL	DESCRIPTION	LAND OWNERSHIP	AGE	NRHP / CRHR ELIGIBILITY DETERMINATION
Solar Facility APE South of I-10 Freeway					
P-33-012532	--	Transmission line – 100 feet x 2.5 miles (within the APE). 161 kV transmission line with wooden pole, H-frame structures.	Private	Historic	Not Eligible

PRIMARY NUMBER	TRINOMIAL	DESCRIPTION	LAND OWNERSHIP	AGE	NRHP / CRHR ELIGIBILITY DETERMINATION
P-33-019996	CA-RIV-10165	Refuse scatter – 66x42 meters – Sparse scatter of bottles, jars, cans, and miscellaneous metal debris.	Private	Historic	Not Eligible
P-33-019997	CA-RIV-10166	Refuse scatter – 50x10 meters – Two concentrations of debris, primarily cans and glass.	Private	Historic	Not Eligible
P-33-019999	CA-RIV-10168	Refuse scatter – 67x58 meters – Cans, porcelain fragments, bottles, and whiteware, mixed with modern trash.	Private	Historic	Not Eligible
P-33-020001	CA-RIV-10170	Ceramic scatter – 17x17 meters – 16 sherds	Private	Prehistoric	Not Eligible
P-33-020003	--	Isolated find - 1 bottle	Private	Historic	Not Eligible
P-33-020004	--	Isolated find - 1 hole-in-top can	Private	Historic	Not Eligible
P-33-020005	--	Isolated find - 1 hole-in-top can	Private	Historic	Not Eligible
P-33-020006	--	Isolated find - 1 hole-in-top can	Private	Historic	Not Eligible
P-33-020010	--	Isolated find - 2 hole-in-cap cans, 1 tin, 2 glass fragments	Private	Historic	Not Eligible
P-33-020011	--	Isolated find - 1 hole-in-top can, 1 tin, 1 lid	Private	Historic	Not Eligible
P-33-020012	--	Isolated find - 2 hole-in-top cans, 1 tobacco tin	Private	Historic	Not Eligible
P-33-020013	--	Isolated find - 1 sherd, 1 hole-in-top can	Private	Prehistoric/ Historic	Not Eligible
P-33-020014	--	Isolated find - 2 sherds	Private	Prehistoric	Not Eligible
P-33-020015	--	Isolated find – 1 hammerstone	Private	Prehistoric	Not Eligible
P-33-020016	--	Isolated find - 1 sherd	Private	Prehistoric	Not Eligible
P-33-020017	--	Isolated find - 1 sherd	Private	Prehistoric	Not Eligible
Proposed Gen-tie Line APE					
P-33-019770		Isolated find – 1 flake, 1 hole-in-top can	BLM	Prehistoric/ Historic	Not eligible
P-33-021136		Isolated find – 3 sherds	BLM	Prehistoric	Not eligible
P-22-021137		Isolated find – 3 key-opened cans	BLM	Historic	Not Eligible

Source: POWER 2013a, 2013b.
[1] Some cultural resources described in the survey report (POWER 2013a, 2013b) are not included in this table because the sites are no longer within the APE as a result of changes in Project design.

None of the cultural resources within the Alternative 5 APE have been determined eligible to the NRHP by the BLM or eligible to the CRHR by the County of Riverside. The construction of the solar facility and gen-tie line would be approximately 2,700 feet (0.5 mile) south of the proposed BAAB Historic District (Site 33-018837). Because these resources are not eligible, Alternative 5 would have no effect on any known cultural resources under the NHPA and no impact to these resources under NEPA or CEQA.

During construction, there is the possibility that previously undiscovered archaeological resources could be unearthed by various ground-disturbing activities. These activities could directly displace or damage archaeological resources that may be hidden below grade. Mitigation Measures Cultural-2, Cultural-3, and Cultural-5would provide for monitoring and disposition of any artifacts associated with post-review discoveries during construction.

No human remains have been previously recorded or discovered during surveys for the Project. Inadvertent discovery of human remains during construction is possible; however, mitigation measures

would be implemented in accordance with State and federal law to take appropriate actions to redirect construction and notify authorities (Mitigation Measure Cultural-1).

NHPA Section 106 government-to-government consultation with Indian tribes is ongoing. To date, no places to which Tribes attach cultural or religious significance have been identified. Since no specific religious or sacred sites have been identified in the APE, the Project would not restrict existing religious or sacred uses.

Mitigation Measures Cultural-1 through Cultural-5 would reduce Project impacts to cultural resources to the extent feasible.

Operation and Maintenance

Direct impacts to cultural resources during operation and maintenance of Alternative 5 could occur from unanticipated damage to newly discovered eligible archaeological sites. Operation and maintenance activities, such as routine inspection and servicing of equipment, addressing equipment breakdowns, and panel cleaning, would be limited to the Project area itself and other designated areas, such as the gen-tie line ROW. However, this impact would only occur if excavation or surface disturbance (e.g., grading, leveling) in previously undisturbed areas were necessary to support operation and maintenance activities. Since no such activities are proposed, no additional impacts or effects to cultural resources are anticipated. A Long Term Management Plan will be prepared and implemented to minimize the potential for unanticipated damage to eligible archaeological sites.

Decommissioning

Direct impacts to cultural resources during decommissioning of the Project could occur from unanticipated damage to newly discovered eligible archaeological sites. These impacts could occur if excavation or surface disturbance were necessary during decommissioning that disturbed areas not previously disturbed by construction. Since no activities affecting areas of the site not previously disturbed are likely, no additional impacts to cultural resources are anticipated. Long Term Management Plan will be prepared and implemented to minimize the potential for unanticipated damage to eligible archaeological sites.

Application of CEQA Significance Thresholds

CUL-1) Would Alternative 5 cause a substantial adverse change in the significance of a historical resource as defined in Code of Regulations Section 15064.5?

None of the cultural resources on private land within the APE of this Alternative have been determined eligible to the CRHR and, therefore, none qualify as historical resources under CEQA.

The adverse impact of inadvertent discovery of historic resources in relation to Alternative 5 is potentially significant. Cultural resource mitigation measures would be implemented to mitigate adverse impacts, including Mitigation Measures Cultural-2, Cultural-3, and Cultural-5. With implementation of these measures, impacts on historic resources would be less than significant.

CUL-2) Would Alternative 5 cause a substantial adverse change in the significance of an archaeological resource as defined in California Code of Regulations Section 15064.5?

None of the archaeological resources on private land within the APE of this Alternative have been determined eligible to the CRHR nor do they qualify as unique archaeological resources under CEQA. Therefore, the Project would not cause a substantial adverse change in the significance of an archaeological resource.

The adverse impact of inadvertent discovery of archaeological resources in relation to Alternative 5 is potentially significant. Cultural resource mitigation measures would be

implemented to mitigate adverse impacts, including Mitigation Measures Cultural-2, Cultural-3, and Cultural-5. With implementation of these measures, impacts on prehistoric resources would be less than significant.

CUL-3) Would Alternative 5 disturb any human remains, including those interred outside of formal cemeteries?

No human remains have been previously recorded or discovered during surveys for Alternative land, as such, no impacts are anticipated. Since Alternative 5 falls within the Alternative 1 footprint, the Alternative 1 analysis under CUL-3 would apply. Should human remains be discovered at any time during implementation of Alternative 5, construction in the vicinity would halt and the Coroner would be contacted immediately (Mitigation Measure Cultural-1). If the Coroner determines that the remains do not require an assessment of cause of death and are probably Native American, then the NAHC would be contacted to identify the most likely descendants in accordance with Mitigation Measure Cultural-1. Implementation of this measure would reduce impacts to a less than significant level.

CUL-4) Would Alternative 5 alter or destroy an historic site?

Alternative 5 would not damage any known CRHR-eligible historic site. No impacts to this class of resource would occur.

CUL-5) Would Alternative 5 alter or destroy an archaeological site?

While no significant archaeological resources were identified during the field survey, it is possible that undiscovered subsurface resources could be unearthed during construction. The impact would be less than significant with mitigation (see CUL-2 above).

CUL-6) Would Alternative 5 restrict existing religious or sacred uses within the potential impact area?

There are no known religious or sacred uses of the Alternative 5 site. No impacts are anticipated.

Cumulative Impacts

Geographic Scope

The past, present, and reasonably foreseeable projects considered to be the cumulative scenario for this Project are listed in Table 4.1-1. The geographic extent of these projects in relation to the BMSP is shown in Figure 4.1-1, which includes a number of the large-scale renewable energy projects and related transmission lines and also includes some small-scale land development projects. Each of these projects would result in ground disturbance, primarily during Project construction that could damage or destroy archaeological sites; however, ground-disturbing activities during operation and maintenance and decommissioning could also potentially affect cultural resources.

Temporal Scope

Cultural and Paleontological Resources

Cultural resources are non-renewable; any loss or physical damage to these resources is permanent. They would be subject to direct impacts primarily during Project construction; however, impacts could occur during any ground-disturbing activities during operation and maintenance and decommissioning. For purposes of the cumulative analysis, the temporal impact scope is the life of the Project.

Analysis of Direct and Indirect Impacts

Alternative 1: Proposed Project

Construction, Operation and Maintenance, and Decommissioning

NRHP and CRHR eligibility of cultural resources identified with the Project APE was evaluated in part by considering their potential to address various research questions under NRHP Criterion D/CRHR Criterion 4 (POWER 2013a). These questions, presented in the archaeological and built environment inventory reports for the Project (POWER 2013a, 2013b) included:

1) Do diagnostic artifacts from sites in the Project area occur in sufficient numbers and in suitable contexts to allow reliable cross-dating with archaeological sites elsewhere in the Palo Verde Valley/Colorado Desert area?
2) Do artifacts and other evidence from archaeological sites indicate Paleoindian, Archaic or Late Prehistoric period occupation or use of the Project area?
3) Can the characteristics and contexts of ceramics in the Project area allow further refinement of chronological change within the Late Prehistoric Patayan Complex?
4) Did chronological variation in the types of resources exploited reflect environmental change, technological change, or fluctuations in the size and distribution of the human population?
5) Do archaeological sites in the Project area represent base camps, temporary camps, or specific task-related loci?
6) What environmental variables (e.g., water, natural habitats) influenced the use of the site or the distribution of the human population?
7) Are the distribution of prehistoric sites and the contents of the sites associated with known prehistoric trails?
8) Is there evidence of early European (i.e., Spanish) activity at archaeological sites in the Project area?
9) Do any archaeological sites in the Project area contain artifacts or other evidence suggesting eighteenth- or nineteenth-century occupation by Native Americans?
10) How did Native American and Euroamerican populations interact, and how did this interaction change as Euroamerican population increase?
11) How did the subsistence practices of Native Americans in the Project area change after Euroamericans land use practices had altered the distribution and abundance of natural resources?
12) How did the introduction of Euroamerican agriculture and domesticated animals affect the artifact assemblages found at Native American sites?
13) How did the Euroamerican mining and transportation activities affect traditional tribal practices?
14) How were land improvements first made under the Homestead Act and Desert Land Act affected by later development of extensive irrigation systems in the Blythe area?
15) Did historic settlement and use of the Project area change as transportation into the Blythe area improve?
16) Did the reduced incidence of flooding brought on by the construction of Boulder Dam in the 1930s affect land use in the Project area?
17) Are there differences in the location and contents of archaeological resources associated with the DTC/C-AMA and those associated strictly with BAAB after it was no longer tied to the DTC/C-AMA?

Using these research questions as a guide, it was determined that for various reasons, none of the cultural resources identified within the APE for Alternative 1 had potential to yield information important in prehistory or history (NRHP Criterion D/CRHR Criterion 4). In some cases (e.g., P-33-018837, BAAB; P-33-019999, a historic refuse scatter), past farming and construction activities or demolition had seriously compromised the integrity of the resource. Other cultural resources in the APE (e.g., historic transmission lines, P-33-012532 and P-33-014083; a prehistoric pot drop, P-33-020001; surface concentrations of cans, glass and other twentieth century debris; and isolated artifacts) contain very little information beyond that obtained by simply recording the site. Other sites (e.g., sparse historic trash scatters, P-33-

019996, P-33-020000) had a very low density of artifacts with limited potential to produce information important in prehistory or history.

The construction, operation and maintenance, and decommissioning of the proposed Project would not affect any historic properties under Section 106 of the NHPA nor would the proposed Project impact resources under NEPA. Under CEQA, the proposed Project would not impact any known historical resources, unique archaeological resources or human remains. Unanticipated impacts/effects could occur to previously undiscovered cultural resources, but these impacts would be reduced by implementing monitoring and other procedures.

Most of the projects used for the cumulative impact analysis would be subject to both State and federal laws, including Section 106 of the NHPA and CEQA's cultural resource protective requirements. Therefore, cultural resources impacts caused by these projects would be reduced by mitigation.

Of the projects listed in Table 4.1-1, it is likely that some of these projects would adversely affect cultural resources that might yield information important to addressing research questions similar to those listed above. Some of the projects are far from BAAB (P-33-018377) and would have no potential to affect that particular resource. On the other hand, some of the projects would have greater potential than Alternative 1 to adversely affect other World War II-era resources, such as those associated with the DTC/C-AMA. Most of the project areas in Table 4.1-1 probably contain isolated finds, low density can scatters, and prehistoric pot drops that are often found to be not eligible to either the NRHP or CRHR. On the other hand, depending on the specific locations, unlike Alternative 1, some projects could adversely affect eligible prehistoric habitation sites, quarries, or trails, and some projects could directly or indirectly adversely affect prehistoric and historic landscapes and resources of special importance to Native American groups. Though the implementation of cumulative projects could collectively impact cultural resources in the geographic area, the proposed Project's contribution to this cumulative impact would be relatively minor because no known eligible resources would be impacted by the Alternative 1.

For projects listed in Table 4.1-1, there is usually a potential of previously unrecorded cultural resources to be discovered during or after construction. Of the projects listed in Table 4.1-1, over 88,000 acres fall within the combined project areas. The 3,761-acre APE for Alternative 1 (including the proposed gen-tie line) would be only 4.3 percent of this combined total. Even if a previously undiscovered cultural resource were identified during or after construction, the effects of Alternative 1 would likely make a relatively minor contribution to the cumulative effects of all these projects.

Alternative 2: No Project Alternative

The No Project Alternative would not contribute to any new cultural resource effects; however, continuation of the status quo would include continued use of a majority of the Project area for agricultural purposes and continued potential for inadvertent effects on known resources in the Project APE. The public lands in the Project area would continue to be managed by BLM in accordance with existing land use designations in the CDCA Plan, whereas the private lands would continue to be managed for agricultural production. Alternative 2 would not contribute to cumulative cultural resource impacts.

Alternative 3: Northern 230 kV Gen-tie Line Location

Construction, Operation and Maintenance, and Decommissioning

NRHP and CRHR eligibility of cultural resources identified with the Alternative 3 APE was evaluated in part by considering their potential to address various research questions under NRHP Criterion D/CRHR Criterion 4 (POWER 2013a). These research questions are listed under Alternative 1.

Using these research questions as a guide, it was determined that for various reasons, none of the cultural resources identified within the APE for Alternative 3 had potential to yield information important in prehistory or history (NRHP Criterion D/CRHR Criterion 4). In some cases (e.g., P-33-018837, BAAB; P-33-019999, a historic refuse scatter) past farming and construction activities or demolition had seriously compromised the integrity of the resource. Other cultural resources in the APE (e.g., historic transmission

lines, P-33-012532 and P-33-014083; a prehistoric pot drop, P-33-020001; a group of K-ration cans, P-33-021133; and prehistoric and historic isolated finds) contain very little information beyond that obtained by simply recording the site. Other sites (e.g., P-33-019996, P-33-020000) had a very low density of artifacts with little potential to produce information important in prehistory or history.

The construction, operation and maintenance, and decommissioning of the Alternative 3 would not affect any historic properties under Section 106 of the NHPA nor would the proposed Project impact resources under NEPA. Under CEQA, the proposed Project would not impact any known historical resources, unique archaeological resources or human remains. Unanticipated impacts/effects could occur to previously undiscovered cultural resources, but these impacts would be reduced by implementing monitoring and other procedures.

Most of the projects used for the cumulative impact analysis would be subject to both State and federal laws, including Section 106 of the NHPA and CEQA's cultural resource protective requirements. Therefore, cultural resources impacts caused by these projects would be reduced by mitigation.

Of the projects listed in Table 4.1-1, it is likely that some of these projects would adversely affect cultural resources that might yield information important to addressing research questions similar to those listed above. Some of the projects are far from BAAB (P-33-018377) and would have no potential to affect that particular resource. On the other hand, some of the projects would have greater potential than Alternative 3 to adversely affect other World War II-era resources, such as those associated with the DTC/C-AMA. Most of the project areas in Table 4.1-1 probably contain isolated finds, low density can scatters, and prehistoric pot drops that are often found to be not eligible to either the NRHP or CRHR. On the other hand, depending on the specific locations, unlike Alternative 3, some projects could adversely affect eligible prehistoric habitation sites, quarries, or trails, and some projects could directly or indirectly adversely affect prehistoric and historic landscapes and resources of special importance to Native American groups. Though the implementation of cumulative projects could collectively impact cultural resources in the geographic area, Alternative 3's contribution to this cumulative impact would be relatively minor because no known eligible resources would be impacted by the Alternative 3.

For projects listed in Table 4.1-1, there is usually a potential of previously unrecorded cultural resources to be discovered during or after construction. Of the projects listed in Table 4.1-1, over 88,000 acres fall within the combined Project areas. The 3,776-acre APE for Alternative 3 (including the Northern gen-tie line) would be only 4.3 percent of this combined total. Even if a previously undiscovered cultural resource were identified during or after construction, the effects of Alternative 3 would likely make a relatively minor contribution to the cumulative effects of all these projects.

Alternative 4: Southern 230 kV Gen-tie Line Location

Construction, Operation and Maintenance, and Decommissioning

NRHP and CRHR eligibility of cultural resources identified with the Alternative 4 APE was evaluated in part by considering their potential to address various research questions under NRHP Criterion D/CRHR Criterion 4 (POWER 2013a). These research questions are listed under Alternative 1.

The construction, operation and maintenance, and decommissioning of Alternative 4 could adversely affect two BLM archaeological sites (P-33-019714, a World War II-era refuse scatter, and P-33-019760, a prehistoric lithic scatter) that are unevaluated and have the potential to contain buried cultural deposits. Both these resources would be designated ESAs and would be avoided during construction, operation and maintenance, and decommissioning.

Using these research questions as a guide, it was determined that for various reasons no other cultural resources identified within the APE for Alternative 4 had potential to yield information important in prehistory or history (NRHP Criterion D/CRHR Criterion 4). In some cases (e.g., P-33-018837, BAAB; P-33-019999, a historic refuse scatter; P-33-019379, a lithic scatter) past farming and construction activities, demolition, or natural erosion had seriously compromised the integrity of the resource. Other cultural resources in the APE (e.g., historic transmission lines, P-330012532 and P-33-014083;

prehistoric pot drops, P-33-020001 and P-33-021130; segments of an old road, P-33-014150; surface scatters of cans and other historic debris; and prehistoric and historic isolated finds) contain very little information beyond that which would be obtained by simply recording the site. Other sites (e.g., P-33-019996, P-33-019737) had a very low density of artifacts that would limit the ability to produce information important in prehistory or history.

Most of the projects used for the cumulative impact analysis would be subject to both State and federal laws, including Section 106 of the NHPA and CEQA's cultural resource protective requirements. Therefore, cultural resources impacts caused by these projects would be reduced by mitigation.

Of the projects listed in Table 4.1-1, it is likely that some of these projects would adversely affect cultural resources that might yield information important to addressing research questions similar to those listed above. Some of the projects are far from BAAB (P-33-018377) and would have no potential to affect that particular resource. On the other hand, some of the projects would have greater potential than Alternative 4 to adversely affect other World War II-era resources, such as those associated with the DTC/C-AMA. Most of the project areas in Table 4.1-1 probably contain isolated finds, low density can scatters, and prehistoric pot drops that are often found to be not eligible to either the NRHP or CRHR. On the other hand, depending on the specific locations, unlike Alternative 4, some projects could adversely affect eligible prehistoric habitation sites, quarries, or trails, and some projects could directly or indirectly adversely affect prehistoric and historic landscapes and resources of special importance to Native American groups. Though the implementation of cumulative projects could collectively impact cultural resources in the geographic area, Alternative 4's contribution to this cumulative impact would be relatively minor because only two known resources that might be determined eligible to the NRHP could be impacted by the Alternative 4.

For projects listed in Table 4.1-1, there is usually a potential of previously unrecorded cultural resources to be discovered during or after construction. Of the projects listed in Table 4.1-1, over 88,000 acres fall within the combined Project areas. The 3,732-acre APE for Alternative 4 (including the Southern gen-tie line) would be only 4.2 percent of this combined total. Even if a previously undiscovered cultural resource were identified during or after construction, the effects of Alternative 4 would likely make a relatively minor contribution to the cumulative effects of all these projects.

Alternative 5: Reduced Acreage Alternative

Construction, Operation and Maintenance, and Decommissioning

NRHP and CRHR eligibility of cultural resources identified with the Alternative 5 APE was evaluated in part by considering their potential to address various research questions under NRHP Criterion D/CRHR Criterion 4 (POWER 2013a). These research questions are listed under Alternative 1.

Using these research questions as a guide, it was determined that for various reasons none of the cultural resources identified within the APE for Alternative 5 had potential to yield information important in prehistory or history (NRHP Criterion D/CRHR Criterion 4). In some cases (e.g., P-33-019999, a historic refuse scatter), past farming and construction activities had seriously compromised the integrity of the resource. Other cultural resources in the APE (e.g., an historic transmission line, P-33-012532; a prehistoric pot drop, P-33-020001; and prehistoric and historic isolated finds) contain very little information beyond that which would be obtained by simply recording the site. Other sites (e.g., P-33-019996, P-33-019997, P-33-19999) had a very low density of artifacts with little potential to produce information important in prehistory or history.

The construction, operation and maintenance, and decommissioning of the Alternative 5 would not affect any historic properties under Section 106 of the NHPA nor would the proposed Project impact resources under NEPA. Under CEQA, the proposed Project would not impact any known historical resources, unique archaeological resources or human remains. Unanticipated impacts/effects could occur to previously undiscovered cultural resources, but these impacts would be reduced by implementing monitoring and other procedures.

Most of the projects used for the cumulative impact analysis would be subject to both State and federal laws, including Section 106 of the NHPA and CEQA's cultural resource protective requirements. Therefore, cultural resources impacts caused by these projects would be reduced by mitigation.

Of the projects listed in Table 4.1-1, it is likely that some of these projects would adversely affect cultural resources that might yield information important to addressing research questions similar to those listed above. Some of the projects are much farther from BAAB (P-33-018377) than Alternative 5 and would have no potential to affect that particular resource. On the other hand, some of the projects would have greater potential than Alternative 5 to adversely affect other World War II-era resources, such as those associated with the DTC/C-AMA. Most of the project areas in Table 4.1-1 probably contain isolated finds, low density can scatters, and prehistoric pot drops that are often found to be not eligible to either the NRHP or CRHR. On the other hand, depending on the specific locations, unlike Alternative 5, some projects could adversely affect eligible prehistoric habitation sites, quarries, or trails, and some projects could directly or indirectly adversely affect prehistoric and historic landscapes and resources of special importance to Native American groups. Though the implementation of cumulative projects could collectively impact cultural resources in the geographic area, Alternative 5's contribution to this cumulative impact would be relatively minor because no known eligible resources would be impacted by the Alternative 4.

For projects listed in Table 4.1-1, there is usually a potential of previously unrecorded cultural resources to be discovered during or after construction. Of the projects listed in Table 4.1-1, over 88,000 acres fall within the combined Project areas. The 2,650-acre APE for Alternative 4 (including the proposed gen-tie line) would be only 3.0 percent of this combined total. Even if a previously undiscovered cultural resource were identified during or after construction, the effects of Alternative 5would likely make a relatively minor contribution to the cumulative effects of all these projects.

Mitigation Measures for Cultural Resources

Cultural-1 For human remains discovered on BLM land, the process for securing the site, notification of responsible parties, and subsequent actions shall be identified in the Cultural Resources Management Plan (CRMP) required by Cultural-3. The actions to be identified include consultation with Native Americans if appropriate and actions to comply with NAGPRA (25 U.S.C.§ 3001) relative to handling of Native American cultural items such as human remains, funerary objects, sacred objects, or objects of cultural patrimony.

For human remains encountered on private lands, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin. Further, pursuant to PRC Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to treatment and disposition has been made. If the Riverside County Coroner determines the remains to be Native American, the NAHC shall be contacted within the period specified by law. The NAHC shall identify the "Most Likely Descendant," who shall then make recommendations to and engage in consultation with the County and property owner concerning the treatment of the remains as provided in PRC Section 5097.98. The landowner may reach an agreement with the Most Likely Descendant for treating and disposing of human remains pursuant to CEQA Guidelines Section 15064.5(d). Human remains from other ethnic/cultural groups with recognized historical associations to the Project area shall also be subject to consultation between appropriate representatives from that group and the County Archaeologist.

Cultural-2 If, during ground disturbance activities associated with construction, operation and maintenance, or decommissioning, archaeological sites are discovered that were not identified and evaluated in the archaeological survey reports or the Draft EIR/EA conducted prior to Project approval, and the following procedures shall be followed.

1) All ground disturbance activities within 100 feet of the discovered cultural resource shall be halted until a meeting is convened between the developer, the Project archaeologist, the Native American tribal representative, the BLM, and (on non-federal land) the County archaeologist to discuss the significance of the find.
2) At the meeting, the significance of the discoveries shall be discussed in consultation with the Native American tribal representative and the Project archaeologist. The BLM alone shall determine the appropriate treatment for cultural resources on BLM-managed lands. The County Archaeologist and the BLM together shall determine the appropriate mitigation (documentation, evaluation, recovery, avoidance, etc.) for cultural resources on private lands. In determining the appropriate treatment on private land, the BLM shall follow requirements of 36 CFR Part 800.13 for post-review discoveries and the County Archaeologist shall implement CEQA Guidelines Section 15126.4(b) regarding mitigation related to impacts on historical resources and CEQA Guidelines Section 15064.5(c) and 21083.2(g) regarding archaeological resources.
3) Further ground disturbance shall not resume within the area of the discovery until a meeting is convened with the aforementioned parties and a decision is made with the concurrence of the BLM and (on private land) the County Archaeologist as to the appropriate preservation or mitigation measures. The Applicant shall comply with the determinations of the County Archaeologist and BLM.

Cultural-3 The Applicant shall have the Secretary of the Interior Qualified/County-approved Project Archaeologist prepare and submit for approval to the BLM and the County of Riverside a CRMP. The CRMP shall map all cultural resources within the APE, as described in this Draft EIR/EA. The CRMP shall also detail how resources, if any, are determined eligible or resources that are unevaluated but avoided by Project design, would be marked and protected as Environmentally Sensitive Areas during construction. The CRMP shall also map additional areas that are considered to be of high sensitivity for discovery of buried significant cultural resources, including burials, cremations, or sacred features. The CRMP shall detail provisions for monitoring construction in these high-sensitivity areas. It shall also detail procedures for halting construction, making appropriate notifications to agencies, officials, and Native American tribes, and assessing NRHP and CRHR eligibility in the event that unknown archaeological resources are discovered during construction. For all post-review discoveries, the CRMP shall detail the methods, consultation procedures, and timelines for implementing Mitigation Measures Cultural-1 and Cultural-2.

Cultural-4 Prior to any ground disturbances within the Project area, the Applicant shall, for a period of at least 60 days, make a good faith effort to enter into a contract with and retain monitors designated by Tribal representatives. These monitors shall be known as the Tribal Observer for this Project.

Cultural-5 Prior to the final inspection of the first building permit, the Applicant shall prompt the Project Archaeologist to submit one (1) wet-signed hard copy and one (1) CD of a Cultural Resources Monitoring Report that meets BLM Manual requirements and also complies with the current Riverside County Planning Department's requirements for Phase IV Cultural Resource Monitoring Reports. The report shall include documentation of the required cultural/historical sensitivity training for the construction staff held during the pre-grade meeting, which shall include the BLM and County Archaeologist's attendance. The BLM and County Archaeologist shall review the report to determine adequate mitigation compliance. The accepted report shall be submitted to the BLM, County, Eastern Information Center, the Patton Memorial Museum, and interested tribes.

Residual Impacts After Mitigation

Implementation of BMPs and Mitigation Measures Cultural-1 through Cultural-5, under both NEPA and CEQA, would minimize the effects of Project-related impacts on cultural resources. However, even with

implementation of all mitigation measures, there will still be a reduction in the quantity of resources that make up California's heritage.

NEPA Conclusions

The No Project Alternative would not have impacts, as the existing circumstances and operations would continue essentially unchanged. The Project and each of the action Alternatives would have the direct and indirect impacts and contribution toward cumulative impacts that are described above. Alternative 1, Alternative 3, and Alternative 5 would each comply with applicable plans and laws, and would not result in would not result in substantial adverse impacts. Alternative 4, however, could adversely affect two BLM archaeological sites (P-33-019714 and P-33-019760) that are unevaluated. If Alternative 4 is selected, these two sites would be assumed eligible for the NRHP, would be designated ESAs, and would be avoided by Project design.

4.2.6 Geology and Soils

Evaluation of potential geologic and soil-related impacts were based on the *Geological Reconnaissance Evaluation, Blythe Mesa Solar Project, Blythe, California*, prepared by Ninyo & Moore (refer to Appendix E). This section discusses geologic hazards. While the impacts of the existing environment on the Project and Alternatives are not encompassed by CEQA or NEPA, this section discusses those issues to assist decision-makers in addressing regulatory concerns. It also discusses potential impacts of the Project and Alternatives, and describes the methods used to determine the impacts of the Project, and measures to mitigate (i.e., avoid, minimize, rectify, reduce, eliminate, or compensate for) impacts accompany each impact discussion.

Methodology for Analysis

The Project's geotechnical investigation included review of pertinent background data, including geotechnical reports, topographic maps, geologic data, fault maps, and aerial photographs. A geological reconnaissance was conducted at the Project area, which included observation and photo-documentation of existing geologic conditions across the site and an evaluation of possible geologic hazards that may impact the proposed Project. Site-specific subsurface exploration, laboratory testing, and engineering analysis was not conducted in preparation of the geotechnical report prepared for the proposed Project. However, subsurface data was obtained from nearby borings during previous geologic reconnaissance for the Blythe Energy Center, and included in this analysis.

It is assumed that geotechnical design considerations for future structures are in accordance with applicable requirements of the 2010 California Building Code (CBC), the County of Riverside County Code (for the portion of the Project under County jurisdiction), the City of Blythe Municipal Code (for the portion of the Project under City jurisdiction), the International Building Code (IBC) (for the portion of the Project under BLM jurisdiction), and any applicable building and seismic codes in effect at the time the grading plans are approved.

For ease of reference, both potential impacts of the Project and Alternatives on the environment and potential impacts of the existing environment on the Project are both referred to as impacts of the Project and Alternatives, and measures to ameliorate both types of impacts are referred to as mitigation measures. However, as noted below, CEQA and NEPA address only the impacts of the Project and Alternatives on the environment and not impacts of the environment on the Project and Alternatives. Impacts of the environment on the Project and Alternatives are nonetheless addressed to assist decision-makers in addressing regulatory concerns.

CEQA Significance Criteria

The criteria used to determine the significance of potential geology and soils and mineral resources impacts are based on Appendix G of the CEQA Guidelines. The Project would result in a significant impact under CEQA related to geology, soils, and mineral resources if it would:

GEO-1) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving:

a) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.
b) Strong Seismic ground shaking.
c) Seismic-related ground failure, including liquefaction.
d) Landslides.

GEO-2) Result in substantial soil erosion or the loss of topsoil.

GEO-3) *Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.*

GEO-4) *Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life and property.*

GEO-5) *Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water.*

MR-1) *Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state.*

MR-2) *Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.*

The following additional significance criteria from the County of Riverside CEQA Environmental Assessment Form are used in the analysis. A project could have potentially significant impacts if it would:

GEO-6) *Be subject to geologic hazards, such as seiche, mudflow, or volcanic hazard.*

GEO-7) *Change topography or ground surface relief features.*

GEO-8) *Create cut or fill slopes greater than 2:1 or higher than 10 feet.*

GEO-9) *Result in grading that affects or negates subsurface sewage disposal systems.*

GEO-10) *Change deposition, siltation, or erosion that may modify the channel of a river or stream or the bed of a lake.*

GEO-11) *Result in any increase in water erosion either on- or off-site.*

GEO-12) *Be impacted by or result in an increase in wind erosion and blowsand, either on- or off-site.*

GEO-13) *Be an incompatible land use located adjacent to a State classified or designated area or existing surface mine.*

GEO-14) *Expose people or property to hazards from proposed, existing or abandoned quarries or mines.*

NEPA Requirements

The potential effects of the proposed Project and Alternatives are analyzed in relation to the baseline conditions (described in Chapter 3). Potential direct and indirect impacts of the Project and Alternatives are analyzed below and discussed as construction-related, operation- and maintenance-related, and decommissioning effects.

Applicable Best Management Practices

As part of the Project and Alternatives, the following applicable BMPs would minimize the environmental impacts to geology and soils. The full BMPs have been detailed below (see also Table 2-4 in Chapter 2) and are further referenced (by number) within the impact discussion.

NUMBER	BMP DESCRIPTION
BMP-1	**Drainage, Erosion, and Sedimentation Control Plan**. As part of the County of Riverside's Conditional Use Permit (CUP) requirements, a Drainage, Erosion, and Sedimentation Control Plan would be developed for the Project. The plan would address the drainage, erosion, and sediment control requirements to support all activities associated with construction, operation, maintenance, and decommissioning of the Project. For example, any stockpiles created would be kept on-site, with an upslope barrier in place to divert runoff. Stockpiles would be sprayed with water, covered with tarpaulins, and/or treated with appropriate dust suppressants, especially in preparation for high wind or storm conditions. Certified weed-free straw bale barriers would be installed to control sediment in runoff water; straw bale barriers would be installed only where sediment-laden water can pond, thus allowing the sediment to settle out. Topsoil from the site would be stripped, stockpiled, and stabilized before excavating earth for facility construction. Topsoil would be segregated and spread on freshly disturbed areas to reduce color contrast and aid rapid revegetation.
BMP-2	**Stormwater Pollution Prevention Plan.** In compliance with requirements of the National Pollutant Discharge Elimination System (NPDES) permit, a Stormwater Pollution Prevention Plan (SWPPP) would be developed and prepared for the Project to ensure that protection of water quality and soil resources is consistent with County and State regulations. The plan would identify site surface water runoff patterns and include measures that prevent excessive and unnatural soil deposition and erosion throughout and downslope of the Project area and Project-related construction areas, and would also include measures for non-stormwater discharge and waste management. The SWPPP would cover all activities associated with the construction of the Project, including clearing, grading, and other ground disturbance such as stockpiling or excavation erosion control. The plan would prevent off-site migration of contaminated stormwater, changes in pre-Project storm hydrographs, or increased soil erosion.
BMP-3	**Fugitive Dust Abatement Plan.** As required by the Mojave Desert Air Quality Management District Rule 403, a Fugitive Dust Abatement Plan would be prepared to address fugitive dust emissions during Project construction, operation, maintenance, and decommissioning. The plan would include measures to minimize fugitive dust emissions from wrecking, excavation, grading, clearing of land, and solid waste disposal operations, and would take every reasonable precaution to prevent visible particulate matter from being deposited upon public roadways as a direct result of operations. During construction, all unpaved roads, disturbed areas (e.g., areas of scraping, excavation, backfilling, grading, and compacting), and loose materials generated during Project construction activities would be watered as frequently as necessary to minimize fugitive dust generation. However, the amount of water will be minimized each time to prevent temporarily ponding water that may occur as a result of the fugitive dust plan. In water-deprived locations, water spraying would be limited to active disturbance areas only, and non-water-based dust control measures would be implemented in areas with intermittent use or use that is not heavy, such as stockpiles or access roads. Alternatively, chemical dust suppressants or durable polymeric soil stabilizers could be used. The dust suppression measures would consider the sensitivity of wildlife to the windborne dispersal of fugitive dust containing dust suppressants and the potential impact on future reclamation.
BMP-11	**Project structures, gen-tie line, and building surfaces.** Project facilities would be sited to ensure that there is adequate space (i.e., setbacks of no less than 100 feet) between solar facilities and natural washes. These setbacks would preserve and maintain the natural washes' hydrological functions. The color and finish of Project structure and building surfaces that are visible to the public will be designed to ensure minimal visual intrusion, contrast, and glare. Grouped structures will be painted the same color to reduce visual complexity and color contrast. Solar panel backs will be color-treated to reduce visual contrast with the landscape setting. Materials, coatings, or paints having little or no reflectivity will be used wherever possible. The visual color contrast of graveled surfaces will be reduced with approved color treatment practices.

Alternative 1: Proposed Project

Analysis of Direct and Indirect Impacts

Construction

The Project area is relatively flat and slopes gently toward the southeast. The PV solar panels proposed for the site can operate on slopes up to nine percent in all directions; therefore, no mass grading would be required. Some of the parcels where facilities and arrays would be located would require light grubbing. Access roads would require minimal grading. After grubbing and light grading, construction of staging

areas would occur. During the three-year construction period, approximately 1,354 acre-feet (AF) of water (or about 451 AF per year) would be required for each year of construction for dust suppression, concrete manufacturing, and fire safety (POWER 2013b).

Demolition of existing site structures (e.g., storage buildings in citrus grove and three residences on the Project area) would be required prior to construction of proposed Project components. Installation of the electrical collection system would require excavations to a depth of about three feet for underground electrical circuits, inverter and switchgear enclosure foundations, and transformer foundation. The O&M building foundations would also be excavated to a depth of about three feet. The O&M buildings would include bathroom facilities serviced by a private septic system and would be designated occupancy classification U[5].

The gen-tie line facilities would include a set of double-circuit tubular steel poles (only one circuit would be strung and the other circuit would be vacant) that are 85 to 125 feet tall with an average tower-to-tower span length of 500 to 800 feet (see Figure 2-7). Structure heights and corresponding span lengths would meet Federal Aviation Administration (FAA) requirements for the nearby Blythe Airport. The suspension poles would typically be four to six feet in diameter. At angle or dead-end points along the gen-tie path, larger poles (approximately six to ten feet in diameter) would be required. The poles would be directly embedded in the soil or set in concrete foundations approximately four to six feet in diameter and 20 to 30 feet deep. Concrete foundations, if used, would typically extend one foot laterally beyond the base of the poles, adding up to two feet to the overall diameter of the permanent footprint of each pole location. Any native soil not used to backfill would be spread around the poles. Although not expected, the use of a backhoe could be necessary in some instances because of specific geologic conditions. Laydown areas would be required for construction of the gen-tie line; ideally, an already disturbed area would be used for this purpose, which will be determined at the onset of construction. The ground disturbing activities related to the preparation for the laydown areas would involve grubbing and some possible light grading. Temporary access roads to each structure would be 12 to 16 feet wide, covered with eight inches of gravel over compacted sub-grade, and within the proposed ROW.

Seismic Hazards

The solar facility, as with the entire Southern California region, is subject to secondary effects from earthquakes. As shown in Table 3.2.6-1, Principal Active Faults, in Chapter 3, the closest active fault to the solar facility is the Brawley Seismic Zone, approximately 57.9 miles from the solar facility. As such, the solar facility would not be within a designated Alquist-Priolo Fault Zone, and there are no known active or potentially active faults underlying the solar facility. Therefore, the potential for surface ground rupture and lurching or cracking of the ground surface at the solar facility is considered low.

While the solar facility would not be within a designated Alquist-Priolo Fault Zone and there are no known active or potentially active faults underlying the Solar facility, severe ground-shaking along the faults identified in Table 3.2.6-1 could result in damage to site structures, including the PV solar panels, inverters/transformers, interior collection power lines, on-site substations, and O&M buildings, as well as the 8.4-mile gen-tie line on BLM-managed lands. Implementation of the proposed Project would not change the intensity of ground shaking that would occur on the solar facility during a seismic event. Potential effects to the solar facility and associated structures related to ground shaking would be reduced through compliance with State and local regulations and standards and established engineering procedures. Future structures would be designed in accordance with the County of Riverside and City of Blythe Building Codes and the most recent CBC and IBC requirements, and would be consistent with the recommendations outlined in a final design level geotechnical report prepared for the proposed Project.

[5] Utility and Miscellaneous Group U: uses intended for structures of an accessory character and not classified in any specific occupancy, 2009 International Building Code, Chapter 3.

Liquefaction/Lateral Spreading

Liquefaction and associated lateral spreading is the phenomenon in which loosely deposited, saturated granular soils (located below the water table), with clay contents (particles less than 0.005 millimeter) of less than 15 percent, a liquid limit of less than 35 percent, and natural moisture content greater than 90 percent of the liquid limit undergo rapid loss of shear strength due to development of excess pore pressure during strong earthquake-induced ground shaking. Ground shaking of sufficient duration results in the loss of grain-to-grain contact due to rapid rise in pore water pressure, and it eventually causes the soil to behave as a fluid for a short period of time. Liquefaction generally occurs in saturated or near-saturated cohesionless soils at depths shallower than approximately 50 feet below grade. Factors known to influence liquefaction potential include composition and thickness of soil layers, grain size, relative density, groundwater level, degree of saturation, and both intensity and duration of ground shaking.

The RCGP, Figure S-3, indicates the site is mapped within a zone described as “moderately susceptible” to liquefaction for areas with deep groundwater. However, borings conducted at Project area indicated that the groundwater is at a depth greater than 50 feet. Therefore, due to the lack of shallow groundwater, liquefaction and seismically induced settlement at the Project area are unlikely.

Landslides/Slope Stability

Landslides may be induced by strong vibratory motion produced by earthquakes. Research and historical data indicate that seismically induced landslides tend to occur in weak soil and rock on sloping terrain. Based on review of the RCGP Figure S-4, on the relatively gentle slopes in areas underlain by alluvium, and on the dense nature of the older alluvium, the potential for seismically induced landslides and debris flows at the site is considered low. In addition, no landslides, debris flows, or rock falls are known to be present on the site.

Preliminary Project plans indicate that the Project boundary would be adjacent to the descending bluff along the eastern site boundary. A review of the RCGP Figure S-5 indicates that this slope has a low to locally moderate susceptibility to seismically induced landslides and rockfalls. However, proposed Project improvements are not anticipated to be constructed on or near the bluff slope. Because the solar facility would be on relatively flat terrain and not subject to landslides, and Project components would not be on or near the bluff slope, the potential for seismically induced landslides and debris flows at the site is considered low.

Soil Erosion

In general, erosion refers to the process by which soil or earth material is loosened or dissolved and removed from its original location. Erosion can occur by varying processes and may occur in the Project area where bare soil (or rock) is exposed to wind or moving water (both rainfall and surface runoff). The processes of erosion are generally functions of material type, terrain steepness, rainfall or irrigation levels, surface drainage conditions, wind velocity, and general land use. According to the geotechnical report prepared for the Project, surface soils on the solar facility generally comprise sand and gravels. Based on the gentle gradients across the site, the potential for water erosion is low. However, portions of the Project area situated along the eastern boundary may be subject to water erosion down the bluff face.

According to the geotechnical report, eolian deposits (wind deposited) and areas of deflation (coarse sand and gravel concentrated due to wind erosion of the fine-grain silts and sands) are present across portions of the Project area. The presence of eolian sand across the Project area indicates that the Project area has been historically subject to moderate to relatively high winds. Based on review of the RCGP Figure S-8, the solar facility and the gen-tie line are moderately to highly susceptible to wind erosion.

Construction of the Project would require ground-disturbing activities, including solar panel installation, substation and O&M buildings and associated septic systems, installation of the gen-tie line in the transmission corridor, and construction of access roads. Disturbed soils accelerate erosion and increase sediment in stormwater runoff to receiving waters, causing increased turbidity and sedimentation.

The soils on the solar facility site would be subject to wind erosion during construction activities. The proposed Project would implement fugitive dust control measures as required under MDAQMD Rule 403 as a matter of regulation.

Subsidence

Subsidence is characterized as a settlement of the ground surface relative to surrounding areas and generally occurs where deep alluvial deposits are present in valley areas. Subsidence in alluvial valley areas is typically associated with groundwater withdrawal or other fluid withdrawal from the subsurface, such as of oil or natural gas. Extraction of these geologic components can cause subsidence, which can result in the development of surface ground cracks and fissures, particularly near valley margins. Cracks and earth fissures can cause damage to improvements, including roads, transmission lines, foundations, and structures. The RCGP Figure S-7 designates the Project area as a “Susceptible Area.” Based on the geotechnical report’s site reconnaissance, no ground cracks or earth fissures were observed. However, the solar generation site and gen-tie ROW are generally covered with a mantle of eolian sand or active or plowed agricultural fields that may conceal underlying cracks or fissures. Subsidence can also occur as a result of placement of new loads such as new structures or other improvements unless the underlying soils are given appropriate site preparation.

Based on the geotechnical report, the proposed Project is geotechnically feasible. Prior to final Project design and construction, and to address regulatory concerns rather than impacts of the Project on the environment, a site-specific subsurface geotechnical evaluation would be required to assess the potential for subsidence and/or the presence of earth fissures underlying the solar facility.

Based on the geotechnical report, the underlying alluvium is expected to consist of loose to dense layers of silty sands and gravel. Therefore, some settlement of the loose soils underlying the surface is possible.

Expansive Soil

Expansive soils generally result from specific clay minerals that have the capacity to shrink or swell in response to changes in moisture content. Based on review of regional geologic maps and geologic reconnaissance, the deposits underlying the solar generation site and gen-tie ROW consist of granular alluvial deposits (sand and gravel). It is expected that grading recommendations would likely be specified as granular. Therefore, the potential for near-surface expansive soils to adversely affect proposed improvements at the solar facility is considered low. However, the geotechnical report recommends that, prior to final Project design and construction, a site-specific subsurface evaluation be performed to assess the potential for expansive soils so that, to address regulatory concerns rather than impacts of the Project on the environment, appropriate site-specific structural design techniques for both the solar array site and the gen-tie line can be implemented as necessary.

Septic Tanks/Alternative Waste Water Disposal Systems

On-site Wastewater Treatment Systems or Advanced Treatment Units would be installed to treat domestic sewage (non-hazardous liquid waste) from the O&M buildings on-site. Prior to the issuance of a building permit, the Project shall be required to obtain permit approval from DEH to install an On-site Wastewater Treatment Systems or ATU. Additional soils percolation testing shall be required at time of building plan check submittal.

Mineral Resources

The Project area and area in the vicinity of the gen-tie line are not used for mineral production, nor is it under claim, lease, or permit for the production of locatable, leasable, or salable minerals or mineral materials. However, the solar facility site and gen-tie line corridor are underlain by sand and gravel, which potentially could represent a source of saleable minerals or mineral materials if there is a sufficient local demand for construction aggregate.

The fact that the Project would make land unavailable for the life of the Project represents minor potential for an adverse impact on mineral resources for several reasons:

1) Deposits of similar age and lithology that are likewise potential sources of sand and gravel are estimated to underlie a large portion of eastern Riverside County.
2) There is no information to indicate that the sand and gravel underlying the site is unique, of higher quality, or any more marketable than other similar deposits that are widespread throughout eastern Riverside County.
3) There is an existing producer of sand and gravel close to the Blythe Landfill, which likely would be able to serve local future demand for sand and gravel.
4) Following the decommissioning of the Project, the land previously occupied by the Project would again be as available for exploration or production of aggregate construction materials as it is currently.

The Project and gen-tie line would not block or otherwise impair access to a major public roadway. The presence of the Project would not prevent permitted prospectors or owners of mineral leases in the surrounding region from accessing areas outside the footprint of the Project, such as the McCoy Mountains, because there are other routes available to access the surrounding mountains.

Seiche, Mudflow or Volcanic Hazard

There are no bodies of constant water in proximity to the Project area, and the site is not near the shoreline or within 50 feet of sea level; therefore, hazards from a seiche or tsunami are considered to be negligible. There are no hillside areas within the Project vicinity that would generate mudflow. In addition, no known active volcanic features occur in the Project area.

Operation and Maintenance

As stated above, the solar facility would be in a seismically active region, and people and structures associated with the Project could be exposed to seismic ground shaking and subsequent seismic-related ground failure.

Operation and maintenance activities could include daily operations and routine maintenance activities, such as PV panel washing, which are anticipated to occur up to two times per year, if necessary, to optimize output. Cleaning of the panels would require up to 345 AF/year[6]. Cleaning operations would not alter the drainage patterns on-site, and would not lead to a substantial increase in erosion or loss of topsoil. Any surface water runoff resulting from permanent Project features is not anticipated to influence surface runoff in a manner that would result in erosion or loss of topsoil.

Operation and maintenance vehicles would include trucks (pickup and flatbed), forklifts, and loaders for routine and unscheduled maintenance and water trucks for solar panel washing. Large, heavy-haul transport equipment may be brought to the solar facility infrequently for equipment repair or replacement. Due to the infrequent and temporary nature of operation and maintenance activities, no substantial erosion or loss of topsoil is anticipated.

The O&M buildings would include bathroom facilities serviced by a private septic system and would be designated occupancy classification U. The septic system would be placed in soils capable of adequately supporting the septic system as required by local permitting; therefore, operation of the septic system would not adversely affect soil resources.

Decommissioning

Decommissioning and dismantling activities could include recovering the silicon from the solar panels, reselling the aluminum, and recycling the glass. Other components of the solar installation, such as the

[6] The operational water needs would be further refined pre-construction.

tracker structures and mechanical assemblies, can also be recycled, as they are made from galvanized steel. Equipment such as drive controllers, inverters, transformers, and switchgear can be either reused or their components recycled. The equipment pads would be made of concrete, which can be crushed and recycled. Underground conduit and wire can be removed by uncovering trenches and backfilling when done. The electrical wiring would be made of copper and/or aluminum and can be reused or recycled, as well. The 230 kV gen-tie line would also be dismantled and its material recycled. Because areas subject to decommissioning would have been disturbed during construction, no additional direct (at the time of decommissioning) or indirect (in the future after decommissioning is completed) effects to geological/soil resources within the Project area are anticipated during decommissioning of the proposed Project.

As stated above, the solar facility and gen-tie line would be in a seismically active region, and people and structures could be exposed to seismic ground shaking and subsequent seismic-related ground failure. These potentially significant impacts have been addressed above, and the regulatory requirements put in place prior to final Project design and construction would minimize any potential effects to geological/soil resources during decommissioning activities.

Application of CEQA Significance Thresholds

The solar facility would be in a seismically active region, and people and structures could be exposed to seismic ground shaking. In addition, impacts related secondary seismic effects, including liquefaction and liquefaction-induced settlement, may be potentially significant. However, geotechnical design considerations for structures shall be in accordance with applicable requirements of the 2010 CBC, the County of Riverside Municipal Code, and any applicable building and seismic codes in effect at the time the grading plans are approved. Additionally, with implementation of Mitigation Measure Geology-1, impacts would be considered less than significant during construction, operation, maintenance, and decommissioning.

GEO-1) Would the Project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving:

a) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.
b) Strong Seismic ground shaking.
c) Seismic-related ground failure, including liquefaction.
d) Landslides.

The solar facility would be in a seismically active region, and people and structures could be exposed to seismic ground shaking. Implementation of Mitigation Measure Geology-1 requires subsequent geotechnical work to determine site specific parameters for foundation design and engineering. Implementation of Mitigation Measure Geology-3 would require the removal of loose soil layers and replacement with compacted fill or specialized foundation design, including the use of deep foundation systems, if appropriate, to help support structures. With implementation of Mitigation Measures Geology-1 and Geology-3, impacts would be reduced to less than significant levels.

GEO-2) Would the Project result in substantial soil erosion or the loss of topsoil?

Implementation of the proposed Project would result in both short-term, construction-related wind and water erosion related to Project operation and maintenance activities if not managed appropriately. Cleaning operations would not alter the drainage patterns on-site, and would not lead to a substantial increase in erosion or loss of topsoil. Any surface water runoff resulting from permanent Project features is not anticipated to influence surface runoff in a manner that would result in erosion or loss of topsoil. As part of the proposed Project, a Drainage, Erosion, and Sedimentation Control Plan (BMP-1) would be implemented, which would identify site surface water runoff patterns; develop mitigation measures that prevent excessive, unnatural

soil deposition and erosion throughout and downslope of the Project area and Project-related construction areas; minimize impacts related to soil erosion during construction; and protect soil resources consistent with City, County, and State regulations. Also as part of the proposed Project, a SWPPP (BMP-2) would be implemented, which would prevent excessive and unnatural soil deposition and erosion throughout and downslope of the Project area and Project-related construction areas, and would also include measures for non-stormwater discharge and waste management. Impacts would be less than significant for construction, operation, maintenance, and decommissioning.

GEO-3) Would the Project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

The underlying alluvium is expected to consist of loose to dense layers of silty sands and gravel, and some settlement of the loose soils underlying the surface is possible. This potentially significant impact would be reduced to a level considered less than significant with implementation of Mitigation Measures Geology-1 through Geology 4.

Seismic ground-shaking impacts resulting in on- or off-site landslides and lateral spreading are considered less than significant during construction, operation, maintenance, and decommissioning, and no mitigation measures are recommended.

GEO-4) Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life and property?

The potential for expansive soils to be encountered on the solar facility site and in the vicinity of the gen-tie line is considered low; however, implementation of Mitigation Measure Geology-4 would reduce any significant impacts during construction to a level considered less than significant. No impacts are anticipated during operation and decommissioning, as Project design and construction would minimize any potential effects to geological/soil resources.

GEO-5) Would the Project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

The proposed Project would require the use of a septic tank system on the solar facility site to treat domestic wastewater from the two O&M buildings. Preliminary soils percolation testing (POWER Engineers: 123128 Percolation Test Report dated October 5, 2012) showed soils ranging from poorly graded, fine to medium grained, loose to medium dense sand with a trace of silt indicating that the proposal for an on-site wastewater treatment system or advanced treatment unit is feasible. Construction-related impacts from the septic system would be considered less than significant with implementation of Mitigation Measure Geology-3. No operation or decommissioning impacts are anticipated.

GEO-6) Would the Project be subject to geologic hazards, such as seiche, mudflow, or volcanic hazard?

There are no bodies of constant water in proximity to the Project area, and the site is not near the shoreline or within 50 feet of sea level; therefore, hazards from a seiche or tsunami are considered to be negligible. There are no hillside areas within the Project vicinity that would generate mudflow. In addition, no known active volcanic features occur in the Project area. No impacts would occur and no mitigation is recommended.

GEO-7) Would the Project change topography or ground surface relief features?

The Project boundary would be adjacent to the descending bluff along the eastern site boundary. The proposed Project improvements are not anticipated to be constructed on or near the bluff slope. Since most of the site has nearly level to gently sloping topography, no mass grading would be required. Because the solar facility would be on relatively flat terrain and

Project components would not be on or near the bluff slope, implementation of the proposed Project would not significantly change site topography or ground surface relief features. Construction would not substantially grade, excavate, or cut and fill slopes greater than 2:1 or higher than 10 feet. No impact.

GEO-8) Would the Project create cut or fill slopes greater than 2:1 or higher than 10 feet?

As discussed above in GEO-7, the proposed Project would be located on relatively flat terrain and would not be located on or near the bluff slope; therefore no significant change in site topography or ground surface relief features. No impact.

GEO-9) Would the Project result in grading that affects or negates subsurface sewage disposal systems?

Implementation of the Project would require the removal of three residences within the Project area that may have septic systems to treat domestic wastewater. These septic systems would be removed prior to Project construction under permit with the County of Riverside, Department of Environmental Health. In addition, the proposed Project would not require extensive grading. Impacts would be less than significant.

GEO-10) Would the Project change deposition, siltation, or erosion that may modify the channel of a river or stream or the bed of a lake?

Although on-site grading would be minimized, construction of the proposed facilities, including roads, fencing, and solar arrays, could result in deposition, siltation, or erosion to on-site drainages; such changes could result in altered runoff and erosional processes on-site, which could lead to increased erosion and sedimentation on-site or downstream. Project construction, operation, maintenance, and decommissioning may result in potentially significant impacts to surface and stormwater quality. With implementation of Mitigation Measures Hydrology-1 through Hydrology-4 in Section 4.2.9, *Hydrology and Water Quality*, impacts would be reduced to less than significant levels.

GEO-11) Would the Project result in any increase in water erosion either on- or off-site?

See GEO-6 above. The soils on the Project area would be subject to wind and water erosion during construction activities. The proposed Project would implement fugitive dust control measures as required under MDAQMD Rule 403 as a matter of regulation. Further, as part of the proposed Project, a Drainage, Erosion, and Sedimentation Control Plan (BMP-1) would be implemented, which would minimize impacts related to water erosion during construction. The Drainage, Erosion, and Sedimentation Control Plan would protect soil resources consistent with City, County, and State regulations. The plan will identify site surface water runoff patterns and develop mitigation measures that prevent excessive and unnatural soil deposition and erosion throughout and downslope of the Project area and Project-related construction areas. Also as part of the proposed Project, a SWPPP (BMP-2) would be implemented, which would prevent excessive and unnatural soil deposition and erosion throughout and downslope of the Project area and Project-related construction areas, and would also include measures for non-stormwater discharge and waste management. The SWPPP would also prevent off-site migration of contaminated stormwater, changes in pre-Project storm hydrographs, or increased soil erosion. Impacts would be less than significant; no mitigation is recommended.

GEO-12) Would the Project be impacted by or result in an increase in wind erosion and blowsand, either on- or off-site?

See analysis for GEO-11 above. Impacts would be less than significant

MR-1) Would the Project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Based on the RCGP Figure OS-5, Mineral Resource Area, the proposed Project would be within the State of California-designated Mineral Resources Zone (MRZ) Classification of MRZ-

4, which is defined as an area where there is not enough information available to determine the presence or absence of mineral deposits. Therefore, the Project would not result in the loss of availability of a known mineral resource classified by the State, and there would be no impact.

MR-2) Would the Project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

The proposed Project area is not delineated in the PVVAP or RCGP as a locally important mineral resource recovery site; therefore, the loss of availability of a delineated locally important mineral resource recovery site would not occur. There would be no impact.

MR-3) Would the Project be an incompatible land use located adjacent to a State classified or designated area or existing surface mine?

Because there are other major roadways within the Project area, the Project would not prevent permitted prospectors or owners of mineral leases in the surrounding region from accessing areas outside the footprint of the Project, such as the McCoy Mountains. Therefore, the Project would not be an incompatible land use with a State-classified or designated area for mining operations. No impact would occur.

MR-4) Would the Project expose people or property to hazards from proposed, existing or abandoned quarries or mines?

The Project area is not used for mineral production, nor is it under claim, lease, or permit for the production of locatable, leasable, or salable minerals or mineral materials. The Project would not expose people or property to hazards from proposed, existing, or abandoned quarries or mines. No impact would occur.

Alternative 2: No Project Alternative

Alternative 2, the No Project Alternative, assumes that the Project would not be constructed. Under this Alternative, no federal approval would be required, as no BLM-managed land would be crossed. Continuation of existing land uses would be expected based on the current General Plan and land use ordinance designations. Potential geologic resources in the affected environment, including highly erosion-sensitive soils, would not be impacted by construction, operation and maintenance, and decommissioning of the Project.

The baseline conditions associated with geologic and soil resources would continue under the No Project Alternative.

Alternative 3: Northern Alternative 230 kV Gen-tie Line Location

Alternative 3 would be similar to Alternative 1, with the exception of the location of the proposed 230 kV gen-tie line. Alternative 3's gen-tie line would cause the same types of geologic and soil resource-related impacts as the proposed Project's gen-tie line, although the location of the impacts associated with this Alternative would be shifted to the north relative to the proposed Project's gen-tie line. Alternative 3's gen-tie line would be slightly longer than the proposed Project's gen-tie line. Consequently, activities associated with construction, operation, maintenance, and decommissioning of this Alternative would affect or occupy a slightly larger area of potential geologic and soil resources. Nonetheless, there would be no substantial difference between impacts related to Alternative 3's gen-tie line and the proposed Project's gen-tie line.

Application of CEQA Significance Thresholds

GEO-1) Would Alternative 3 expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving:

a) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.
b) Strong Seismic ground shaking.
c) Seismic-related ground failure, including liquefaction.
d) Landslides.

The solar facility would be in a seismically active region, and people and structures could be exposed to seismic ground shaking. Potentially significant impacts related to secondary seismic effects, including liquefaction and liquefaction-induced settlement, would be reduced to less than significant with implementation of Mitigation Measure Geology-1.

GEO-2) Would Alternative 3 result in substantial soil erosion or the loss of topsoil?

Implementation of Alternative 3 would result in both temporary, construction-related wind and water erosion and wind and water erosion related to operation and maintenance over the life of Alternative 3 if not managed appropriately. However, as part of Alternative 3, a Drainage, Erosion, and Sedimentation Control Plan (BMP-1) and SWPPP (BMP-2) would be implemented. The Drainage, Erosion, and Sedimentation Control Plan would protect soil resources consistent with City, County, and State regulations. The plan will identify site surface water runoff patterns and develop mitigation measures that prevent excessive and unnatural soil deposition and erosion throughout and downslope of the Alternative 3 site and Alternative 3-related construction areas. Impacts would be less than significant. Impacts would also be less than significant during decommissioning.

GEO-3) Would Alternative 3 be located on a geologic unit or soil that is unstable, or that would become unstable as a result of Alternative 3, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

The underlying alluvium is expected to consist of loose to dense layers of silty sands and gravel, and some settlement of the loose soils underlying the surface is possible. This potentially significant impact would be reduced to a level considered less than significant with implementation of Mitigation Measure Geology-1.

Seismic ground-shaking impacts resulting in on- or off-site landslides and lateral spreading are considered less than significant during construction, operation, maintenance, and decommissioning, and no mitigation measures are recommended.

GEO-4) Would Alternative 3 be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life and property?

The potential for expansive soils to be encountered on the solar facility site is considered low; however, implementation of Mitigation Measure Geology-1 would reduce any significant impacts during construction to a level considered less than significant. No impacts are anticipated during operation and decommissioning, as Alternative 3 design and construction would minimize any potential effects to geologic and soil resources.

GEO-5) Would Alternative 3 have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

Alternative 3 would require the use of a septic tank system on the solar facility site to treat domestic wastewater from the two O&M buildings. Preliminary soils percolation testing (POWER Engineers: 123128 Percolation Test Report dated October 5, 2012) showed soils ranging from poorly graded, fine to medium grained, loose to medium dense sand with a trace of silt indicating that the proposal for an on-site wastewater treatment system or advanced treatment unit is feasible. Construction-related impacts from the septic system would be considered less than significant with implementation of Mitigation Measure Geology-2. No operation or decommissioning impacts are anticipated.

GEO-6) Would Alternative 3 be subject to geologic hazards, such as seiche, mudflow, or volcanic hazard?

There are no bodies of constant water in proximity to the Alternative 3 site, and the site is not near the shoreline or within 50 feet of sea level; therefore, hazards from a seiche or tsunami are considered to be negligible. There are no hillside areas within the Alternative 3 vicinity that would generate mudflow. In addition, no known active volcanic features occur in the Alternative 3 area. No impacts would occur and no mitigation is recommended.

GEO-7) Would Alternative 3 change topography or ground surface relief features?

The Alternative 3 boundary would be adjacent to the descending bluff along the eastern site boundary. Alternative 3 improvements are not anticipated to be constructed on or near the bluff slope. Since most of the site has nearly level to gently sloping topography, no mass grading would be required. Because the solar facility would be on relatively flat terrain and Alternative 3 components would not be on or near the bluff slope, implementation of Alternative 3 would not significantly change site topography or ground surface relief features. Construction would not substantially grade, excavate, or cut and fill slopes greater than 2:1 or higher than 10 feet. No mitigation is recommended.

GEO-8) Would Alternative 3 create cut or fill slopes greater than 2:1 or higher than 10 feet?

See GEO-7 analysis above.

GEO-9) Would Alternative 3 result in grading that affects or negates subsurface sewage disposal systems?

Implementation of Alternative 3 would require the removal of three residences within the Alternative 3 site that may have septic systems to treat domestic wastewater. These septic systems would be removed prior to Alternative 3 construction. In addition, Alternative 3 would not require extensive grading. Impacts would be less than significant.

GEO-10) Would Alternative 3 change deposition, siltation, or erosion that may modify the channel of a river or stream or the bed of a lake?

Although on-site grading would be minimized, construction of the proposed facilities, including roads, fencing, and solar arrays, could result in deposition, siltation, or erosion to on-site drainages; such changes could result in altered runoff and erosional processes on-site, which could lead to increased erosion and sedimentation on-site or downstream. Alternative 3's construction, operation, maintenance, and decommissioning may result in potentially significant impacts to surface and stormwater quality. With implementation of Mitigation Measures Hydrology-1 through Hydrology-4 in Section 4.2.9, *Hydrology and Water Quality*, impacts would be reduced to less than significant levels.

GEO-11) Would Alternative 3 result in any increase in water erosion either on- or off-site?

See GEO-6 analysis above. The soils on the Alternative 3 site would be subject to wind and water erosion during construction activities. Alternative 3 would implement fugitive dust control measures as required under MDAQMD Rule 403 as a matter of regulation. As previously described, a Drainage, Erosion, and Sedimentation Control Plan (BMP-1) and SWPPP (BMP-2) would be implemented as part of Alternative 3. The Drainage, Erosion, and Sedimentation Control Plan would protect soil resources consistent with City, County, and State regulations. The plan will identify site surface water runoff patterns and develop mitigation measures that prevent excessive and unnatural soil deposition and erosion throughout and downslope of the Alternative 3 site and related construction areas. The SWPPP would also prevent off-site migration of contaminated stormwater, changes in pre-Project storm hydrographs, or increased soil erosion. Impacts would be less than significant. No further mitigation is required.

GEO-12) Would Alternative 3 be impacted by or result in an increase in wind erosion and blowsand, either on- or off-site?

See GEO-11 analysis above.

MR-1) Would Alternative 3 result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Based on the RCGP Figure OS-5, Mineral Resource Area, the proposed Project would be within the State of California-designated MRZ Classification of MRZ-4, which is defined as an area where there is not enough information available to determine the presence or absence of mineral deposits. Alternative 3 would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. No impacts would occur.

MR-2) Would Alternative 3 result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

The proposed Project area is not delineated in the PVVAP or RCGP as a locally important mineral resource recovery site; therefore, the loss of availability of a delineated locally important mineral resource recovery site would not occur. Alternative 3 would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. No impacts would occur.

MR-3) Would Alternative 3 be an incompatible land use located adjacent to a State classified or designated area or existing surface mine?

Because there are other major roadways within the Alternative 3 area, Alternative 3 would not prevent permitted prospectors or owners of mineral leases in the surrounding region from accessing areas outside the footprint of Alternative 3, such as the McCoy Mountains. Therefore, Alternative 3 would not be an incompatible land use with a State-classified or designated area for mining operations. No impact would occur.

MR-4) Would Alternative 3 expose people or property to hazards from proposed, existing or abandoned quarries or mines?

The Alternative 3 site is not used for mineral production, nor is it under claim, lease, or permit for the production of locatable, leasable, or salable minerals or mineral materials. Alternative 3 would not expose people or property to hazards from proposed, existing, or abandoned quarries or mines. No impact would occur.

Alternative 4: Southern Alternative 230 kV Gen-tie Line Location

Alternative 4 would be similar to Alternative 1, with the exception of the location of the proposed 230 kV gen-tie line. Although the location of the impacts associated with this Alternative would be shifted to the south, Alternative 4's gen-tie line would cause the same types of geologic and soil resource-related impacts as the proposed Project's gen-tie line. Alternative 4's gen-tie line would be longer than the proposed Project's gen-tie line. Consequently, activities associated with construction, operation, maintenance, and decommissioning of this Alternative would affect or occupy a slightly larger area of potential geologic and soil resources. Nonetheless, there would be no substantial difference in impacts between Alternative 4's gen-tie line and the proposed Project's gen-tie line.

Application of CEQA Significance Thresholds

Under Alternative 4, the implementation of mitigation measures would reduce impacts to less than significant.

GEO-1) Would Alternative 4 expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving:

a) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.
b) Strong Seismic ground shaking.
c) Seismic-related ground failure, including liquefaction.
d) Landslides.

The solar facility would be in a seismically active region, and people and structures could be exposed to seismic ground shaking. Potentially significant impacts related to secondary seismic effects, including liquefaction and liquefaction-induced settlement, would be reduced to less than significant with implementation of Mitigation Measure Geology-1.

GEO-2) Would Alternative 4 result in substantial soil erosion or the loss of topsoil?

Implementation of Alternative 4 would result in both short-term, construction-related wind and water erosion, and wind and water erosion related to long-term operation and maintenance activities if not managed appropriately. Implementation of Alternative 4 would result in both temporary, construction-related wind and water erosion and wind and water erosion related to operation and maintenance over the life of Alternative 4. However, as part of Alternative 4, a Drainage, Erosion, and Sedimentation Control Plan (BMP-1) and SWPPP (BMP-2) would be implemented. The Drainage, Erosion, and Sedimentation Control Plan would protect soil resources consistent with City, County, and State regulations. The plan will identify site surface water runoff patterns and develop mitigation measures that prevent excessive and unnatural soil deposition and erosion throughout and downslope of the Alternative 4 site and related construction areas. Impacts would be less than significant. Impacts would also be less than significant during decommissioning.

GEO-3) Would Alternative 4 be located on a geologic unit or soil that is unstable, or that would become unstable as a result of Alternative 4, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

The underlying alluvium is expected to consist of loose to dense layers of silty sands and gravel, and some settlement of the loose soils underlying the surface is possible. This potentially significant impact would be reduced to a level considered less than significant with implementation of Mitigation Measure Geology-1.

Seismic ground-shaking impacts resulting in on- or off-site landslides and lateral spreading are considered less than significant during construction, operation, maintenance, and decommissioning, and no mitigation measures are recommended.

GEO-4) Would Alternative 4 be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life and property?

The potential for expansive soils to be encountered on the solar facility site is considered low; however, implementation of Mitigation Measure Geology-1 would reduce any significant impacts during construction to a level considered less than significant. No impacts are anticipated during operation and decommissioning, as Alternative 4 design and construction would minimize any potential effects to geological/soil resources.

GEO-5) Would Alternative 4 have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

Alternative 4 would require the use of a septic tank system on the solar facility site to treat domestic wastewater from the two O&M buildings. Preliminary soils percolation testing (POWER Engineers: 123128 Percolation Test Report dated October 5, 2012) showed soils

ranging from poorly graded, fine to medium grained, loose to medium dense sand with a trace of silt indicating that the proposal for an on-site wastewater treatment system or advanced treatment unit is feasible. Construction-related impacts from the septic system would be considered less than significant with implementation of Mitigation Measure Geology-2. No operation or decommissioning impacts are anticipated.

GEO-6) Would Alternative 4 be subject to geologic hazards, such as seiche, mudflow, or volcanic hazard?

There are no bodies of constant water in proximity to the Alternative 4 site, and the site is not near the shoreline or within 50 feet of sea level; therefore, hazards from a seiche or tsunami are considered to be negligible. There are no hillside areas within the Alternative 4 vicinity that would generate mudflow. In addition, no known active volcanic features occur in the Alternative 4 area. No impacts would occur and no mitigation is recommended.

GEO-7) Would Alternative 4 change topography or ground surface relief features?

The Alternative 4 boundary would be adjacent to the descending bluff along the eastern site boundary. Alternative 4 improvements are not anticipated to be constructed on or near the bluff slope. Since most of the site has nearly level to gently sloping topography, no mass grading would be required. Because the solar facility would be on relatively flat terrain and Alternative 4 components would not be on or near the bluff slope, implementation of Alternative 4 would not significantly change site topography or ground surface relief features. Construction would not substantially grade, excavate, or cut and fill slopes greater than 2:1 or higher than 10 feet. No mitigation is recommended.

GEO-8) Would Alternative 4 create cut or fill slopes greater than 2:1 or higher than 10 feet?

As discussed above in GEO-7, the proposed Project would be located on relatively flat terrain and would not be located on or near the bluff slope; therefore no significant change in site topography or ground surface relief features. No impact.

GEO-9) Would Alternative 4 result in grading that affects or negates subsurface sewage disposal systems?

Implementation of Alternative 4 would require the removal of three residences within the Alternative 4 site that may have septic systems to treat domestic wastewater. These septic systems would be removed prior to Alternative 4 construction in accordance with local permit requirements. In addition, Alternative 4 would not require extensive grading. Impacts would be less than significant.

GEO-10) Would Alternative 4 change deposition, siltation, or erosion that may modify the channel of a river or stream or the bed of a lake?

Although on-site grading would be minimal, construction of the proposed facilities, including roads, fencing, and solar arrays, could result in deposition, siltation, or erosion to on-site drainages; such changes could result in altered runoff and erosional processes on-site, which could lead to increased erosion and sedimentation on-site or downstream. Alternative 4's construction, operation, maintenance, and decommissioning may result in potentially significant impacts to surface and stormwater quality. With implementation of Mitigation Measures Hydrology-1 through Hydrology-4 in Section 4.2.9, *Hydrology and Water Quality*, impacts would be reduced to less than significant levels.

GEO-11) Would Alternative 4 result in any increase in water erosion either on- or off-site?

See GEO-6 above. The soils on the Alternative 4 site would be subject to wind and water erosion during construction activities. Alternative 4 would implement fugitive dust control measures as required under MDAQMD Rule 403 as a matter of regulation. As previously described, a Drainage, Erosion, and Sedimentation Control Plan (BMP-1) and SWPPP (BMP-2) would be implemented as part of Alternative 4. The Drainage, Erosion, and Sedimentation

Control Plan would protect soil resources consistent with City, County, and State regulations. The plan will identify site surface water runoff patterns and develop mitigation measures that prevent excessive and unnatural soil deposition and erosion throughout and downslope of the Alternative 4 site and related construction areas. The SWPPP would also prevent off-site migration of contaminated stormwater, changes in pre-Project storm hydrographs, or increased soil erosion. Impacts would be less than significant. No further mitigation is required.

GEO-12) Would Alternative 4 be impacted by or result in an increase in wind erosion and blowsand, either on- or off-site?

See GEO-11 above. Impacts would be less than significant.

MR-1) Would Alternative 4 result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Based on the RCGP Figure OS-5, Mineral Resource Area, the proposed Project would be within the State of California-designated MRZ Classification of MRZ-4, which is defined as an area where there is not enough information available to determine the presence or absence of mineral deposits. Alternative 4 would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state. No impacts would occur.

MR-2) Would Alternative 4 result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Alternative 4 would not result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan. No impacts would occur.

MR-3) Would Alternative 4 be an incompatible land use located adjacent to a State classified or designated area or existing surface mine?

Because there are other major roadways within the Alternative 4 area, Alternative 4 would not prevent permitted prospectors or owners of mineral leases in the surrounding region from accessing areas outside the footprint of Alternative 4, such as the McCoy Mountains. Therefore, Alternative 4 would not be an incompatible land use with a State-classified or designated area for mining operations. No impact would occur.

MR-4) Would Alternative 4 expose people or property to hazards from proposed, existing or abandoned quarries or mines?

The Alternative 4 site is not used for mineral production, nor is it under claim, lease, or permit for the production of locatable, leasable, or salable minerals or mineral materials. Alternative 4 would not expose people or property to hazards from proposed, existing, or abandoned quarries or mines. No impact would occur.

Alternative 5: Reduced Acreage Alternative

Similar to Alternative 1, Alternative 5 would include the construction, operation, maintenance, and decommissioning of a solar facility and associated infrastructure. The primary difference between Alternatives 1 and 5 is the absence of solar facility development north of I-10, which would reduce electrical output from a 485 MW down to a 315 MW alternating current solar PV facility. The Reduced Acreage Alternative would be on a reduced footprint of approximately 2,476 acres (from 3,660 acres for the proposed Project). Alternative 5 would include approximately 2,403 acres for the solar field. Similar to the proposed Project, 73 acres would be utilized for the 230 kV gen-tie line. In comparison to Alternative 1, Alternative 5 would eliminate one on-site substation and one O&M building and would have one access

point (planned on Seeley Avenue). The Reduced Acreage Alternative would also no longer extend a 230 kV overhead gen-tie line from an on-site substation north of I-10, as this Alternative would not be developed on land north of I-10. Instead, this Alternative would construct an approximately 7.8-mile-long, 230 kV overhead gen-tie line from the proposed on-site substation south of I-10 to the approved Colorado River Substation. Approximately three miles of the gen-tie line would be within the solar facility. Alternative 5 would avoid impacts that would result from the construction, operation, maintenance, and decommissioning of a solar development north of I-10; however, continuation of existing land uses in this area would be expected based on the current General Plan and land use ordinance designations. Potential geologic resources in the affected environment, including highly erosion-sensitive soils, would not be impacted by construction, operation and maintenance, and decommissioning of a solar project north of I-10. The baseline conditions associated with geologic and soil resources north of I-10 would continue under Alternative 5.

The Reduced Acreage Alternative solar facility and a portion of the gen-tie line would be within the jurisdiction of the County of Riverside but not within the City limits of Blythe in comparison to the proposed Project. Alternative 5 would need to comply with the RCGP (2003) and PVVAP (2008). The remaining portion of the gen-tie line would traverse lands managed by the BLM and would need to comply with the CDCA Plan. The construction, operation, maintenance, and decommissioning of Alternative 5 would not exceed the impacts to geology and soils identified under the Alternative 1 analysis. Therefore, the Alternative 1 analysis would be applicable to Alternative 5, outside of those differences identified in the discussion below.

Analysis of Direct and Indirect Impacts

Construction

The construction of Alternative 5 would be similar to that of Alternative 1, with the exclusion of solar development north of I-10. Due to a reduced solar facility footprint under Alternative 5, the projected construction water requirements ([non-potable] used for dust suppression, concrete manufacturing, and fire safety) would be reduced below those estimated under Alternative 1.

Seismic Hazards

Seismic hazards related to Alternative 5 development would be similar to those under Alternative 1. The analysis under Alternative 1 would apply. The solar facility, as with the entire Southern California region, is subject to secondary effects from earthquakes. The closest active fault to the solar facility is the Brawley Seismic Zone. Severe ground shaking along the faults could result in damage to site structures, including the PV solar panels, inverters/transformers, interior collection power lines, the two on-site substations, and one O&M building, as well as the 7.8-mile gen-tie line. Implementation of Alternative 5 would not change the intensity of ground shaking that would occur on the solar facility during a seismic event.

Liquefaction

The RCGP indicates the Alternative 1 site is mapped within a zone described as “moderately susceptible” to liquefaction for areas with deep groundwater. As the Alternative 5 development footprint would fall within this area, the analysis for Alternative 1 would apply.

Landslides/Slope Stability

Preliminary Project plans indicate that the Alternative 1 Project boundary would be adjacent to the descending bluff along the eastern site boundary. A review of the RCGP Figure S-5 indicates that this slope has a low to locally moderate susceptibility to seismically induced landslides and rockfalls. However, Alternative 1 improvements are not anticipated to be constructed on or near the bluff slope. Because the Alternative 1 solar facility would be on relatively flat terrain and not subject to landslides, and Alternative 1 Project components would not be on or near the bluff slope, the potential for seismically induced landslides and debris flows at the site is considered low. As Alternative 5 would eliminate

development north of I-10, which also represents the eastern limits of Alternative 1, the potential for seismically induced landslides and debris flows at the site is considered even lower.

Soil Erosion

According to the geotechnical report prepared for the Project area, surface soils on the solar facility are generally comprised of sands and gravels. Based on the gentle gradients across the site, the potential for water erosion is low. However, portions of the site situated along the eastern boundary may be subject to water erosion down the bluff face. With implementation of Alternative 5, the area north of I-10, which also represents the eastern boundary, would not be developed. The remaining developed area of Alternative 5 would be similar to that of Alternative 1; as such, the Alternative 1 analysis would apply.

Subsidence/Lateral Spreading

RCGP Figure S-7 designates the Alternative 1 Project area as a “Susceptible Area.” As the Alternative 5 development footprint is in the Alternative 1 Project area, the analysis under Alternative 1 would apply.

Expansive Soil

Based on a review of regional geologic maps and geologic reconnaissance, the deposits underlying the Alternative 1 solar generation site and gen-tie ROW consist of granular alluvial deposits (sands and gravels) with a low clay component which is generally not susceptible to expansion. This would also apply to Alternative 5, as the Alternative 5 footprint falls within the same areas as Alternative 1, with the exception of solar facility development north of I-10. Therefore, the same analysis for Alternative 1 would be applicable to Alternative 5.

Septic Tanks/Alternative Waste Water Disposal Systems

Alternative 5 would require the use of a septic tank system on the solar facility to treat domestic wastewater from one O&M building proposed to be adjacent to the solar facility. Alternative 5 would require a septic system permit from the Riverside County Department of Environmental Health Services prior to the installation of the septic system on the solar facility site.

Mineral Resources

Alternative 5 would make land unavailable for mineral extraction during the life of the Project on the solar facility site south of I-10. This would represent a minor potential for an adverse impact on mineral resources for several reasons:

1) Deposits of similar age and lithology that are likewise potential sources of sand and gravel are estimated to underlie a large portion of eastern Riverside County.
2) There is no information to indicate that the sand and gravel underlying the site is unique, of higher quality, or any more marketable than other similar deposits that are widespread throughout eastern Riverside County.
3) There is an existing producer of sand and gravel close to the Blythe Landfill, which likely would be able to serve local future demand for sand and gravel.
4) Following the decommissioning of Alternative 5, the land previously occupied by Alternative 5 would again be as available for exploration or production of aggregate construction materials as it is currently.

Alternative 5 and the associated gen-tie line would not block or otherwise impair access to a major public roadway. The presence of Alternative 5 would not prevent permitted prospectors or owners of mineral leases in the surrounding region from accessing areas outside the footprint of Alternative 5, such as the McCoy Mountains, because there are other routes available to access the surrounding mountains.

Seiche, Mudflow or Volcanic Hazard

There are no bodies of constant water in proximity to the Alternative 5 site, and the site is not near the shoreline or within 50 feet of sea level; therefore, hazards from a seiche or tsunami are considered to be negligible. Refer to the analysis for Alternative 1.

Operation and Maintenance

Similar to Alternative 1, and as stated above, the Alternative 5 solar facility would be in a seismically active region, and people and structures associated with Alternative 5 could be exposed to seismic ground shaking and subsequent seismic-related ground failure. The analysis for Alternative 1 would apply. Cleaning of the panels would require fewer AF/year under Alternative 5 as compared to Alternative 1. Cleaning operations would not alter the drainage patterns on-site, and would not lead to a substantial increase in erosion or loss of topsoil. Any surface water runoff resulting from permanent Alternative 5 features is not anticipated to influence surface runoff in a manner that would result in erosion or loss of topsoil.

The one O&M building under Alternative 5 would include a bathroom facility serviced by a private septic system and would be designated occupancy classification U. The septic system would be placed in soils capable of adequately supporting the septic system; therefore, operation of the septic system would not adversely affect soil resources.

Decommissioning

Because areas subject to decommissioning would have been disturbed during construction, no additional direct (at the time of decommissioning) or indirect (in the future after decommissioning is completed) effects to geologic and soil resources within the Alternative 5 area are anticipated during decommissioning of Alternative 5.

As stated above, the solar facility and gen-tie line would be in a seismically active region, and people and structures could be exposed to seismic ground shaking and subsequent seismic-related ground failure. These potentially significant impacts have been addressed above, and the regulatory requirements put in place prior to final design and construction would minimize any potential effects to geologic and soil resources during decommissioning activities.

Application of CEQA Significance Thresholds

GEO-1) Would Alternative 5 expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving:

a) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.
b) Strong Seismic ground shaking.
c) Seismic-related ground failure, including liquefaction.
d) Landslides.

The Alternative 5 solar facility would be in a seismically active region, and people and structures could be exposed to seismic ground shaking. Potentially significant impacts related to secondary seismic effects, including liquefaction and liquefaction-induced settlement, would be reduced to less than significant with implementation of Mitigation Measure Geology-1.

GEO-2) Would Alternative 5 result in substantial soil erosion or the loss of topsoil?

Implementation of Alternative 5 would result in both short-term, construction-related wind and water erosion and wind and water erosion related to Alternative 5 operation and maintenance

activities. These impacts would be reduced slightly in comparison to Alternative 1; however, the GEO-2 analysis under Alternative 1 would apply.

GEO-3) Would Alternative 5 be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?

The GEO-3 analysis under Alternative 1 would apply to Alternative 5, as the underlying alluvium is expected to consist of loose to dense layers of silty sands and gravel, and some settlement of the loose soils underlying the surface is possible.

GEO-4) Would Alternative 5 be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life and property?

The potential for expansive soils to be encountered on the solar facility site and in the vicinity of the gen-tie line is considered low for Alternative 1. As the Alternative 5 development footprint falls within this same area, the GEO-4 analysis for Alternative 1 would apply.

GEO-5) Would Alternative 5 have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

Alternative 5 would require the use of a septic tank system on the solar facility site to treat domestic wastewater from the one O&M building under this Alternative. Preliminary soils percolation testing (POWER Engineers: 123128 Percolation Test Report dated October 5, 2012) showed soils ranging from poorly graded, fine to medium grained, loose to medium dense sand with a trace of silt indicating that the proposal for an on-site wastewater treatment system or advanced treatment unit is feasible. Construction-related impacts from the septic system would be considered less than significant with implementation of Mitigation Measure Geology-2. No operation or decommissioning impacts are anticipated.

GEO-6) Would Alternative 5 be subject to geologic hazards, such as seiche, mudflow, or volcanic hazard?

There are no bodies of constant water in proximity to the Alternative 1 site, and the site is not near the shoreline or within 50 feet of sea level. Alternative 5 falls within this same location. Therefore, the GEO-6 analysis for Alternative 1 would apply.

GEO-7) Would Alternative 5 change topography or ground surface relief features?

The Alternative 5 boundary would not be adjacent to the descending bluff along the eastern site boundary as with Alternative 1. The remaining portion of the Alternative 5 site south of I-10 would be identical to Alternative 1. As such, the GEO-7 analysis for Alternative 1 would apply in this area.

GEO-8) Would Alternative 5 create cut or fill slopes greater than 2:1 or higher than 10 feet?

See GEO-7 above.

GEO-9) Would Alternative 5 result in grading that affects or negates subsurface sewage disposal systems?

Similar to Alternative 1, implementation of Alternative 5 would require the removal of three residences within the proposed development site that may have septic systems to treat domestic wastewater. These septic systems would be removed prior to Alternative 5 construction. In addition, Alternative 5 would not require extensive grading. Impacts would be less than significant.

GEO-10) Would Alternative 5 change deposition, siltation, or erosion that may modify the channel of a river or stream or the bed of a lake?

Refer to the Alternative 1 analysis for GEO-10.

GEO-11) Would Alternative 5 result in any increase in water erosion either on- or off-site?

See GEO-6 above.

GEO-12) Would Alternative 5 be impacted by or result in an increase in wind erosion and blowsand, either on- or off-site?

See GEO-11 above.

MR-1) Would Alternative 5 result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Based on the RCGP Figure OS-5, Mineral Resource Area, Alternative 1 would be within the State of California-designated MRZ Classification of MRZ-4, which is defined as an area where there is not enough information available to determine the presence or absence of mineral deposits. Alternative 5 would fall within this same location; therefore, the MR-1 analysis for Alternative 1 would apply.

MR-2) Would Alternative 5 result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

Similar to Alternative 1, the Alternative 5 site is not delineated in the PVVAP or RCGP as a locally important mineral resource recovery site; therefore, the loss of availability of a delineated locally important mineral resource recovery site would not occur. There would be no impact.

MR-3) Would Alternative 5 be an incompatible land use located adjacent to a State classified or designated area or existing surface mine?

Because there are other major roadways within the Alternative 5 area, Alternative 5 would not prevent permitted prospectors or owners of mineral leases in the surrounding region from accessing areas outside the footprint of the Project, such as the McCoy Mountains. Therefore, Alternative 5 would not be an incompatible land use with a State-classified or designated area for mining operations. No impact would occur.

MR-4) Would Alternative 5 expose people or property to hazards from proposed, existing or abandoned quarries or mines?

Similar to Alternative 1, the Alternative 5 site is not used for mineral production, nor is it under claim, lease, or permit for the production of locatable, leasable, or salable minerals or mineral materials. Alternative 5 would not expose people or property to hazards from proposed, existing, or abandoned quarries or mines. No impact would occur.

Cumulative Impacts

Geographic Scope

Potential cumulative impacts to geology and soil resources would be limited to soil erosion and soil subsidence because many of the cumulative projects which would require soil disturbances in areas with loosely placed deposits, and collectively are cumulatively considerable. These potential cumulative impacts would apply mostly to construction and decommissioning phases of the Project. Other potential geology and soils issues (such as strong seismic ground shaking, liquefaction potential, collapsible soils, and expansive soils) relate to local and site-specific soil conditions, the severity of which is not connected with activities at the Project area. Such issues are site-specific and unaffected by the presence of other projects in the cumulative scenario.

The geographic scope of cumulative effects for mineral resources could include all areas within the cumulative projects area shown on Table 4.1-1. However, the proposed solar array site and private land portion of the gen-tie line are not in a designated mineral resource zone, and mineral extraction from the ROW portion on federal lands is not likely due to use of the area Solar Energy Zone. Consequently, the cumulative impacts relative to mineral resources are not cumulatively considerable and will not be discussed further.

Temporal Scope

The temporal scope of impacts associated with the proposed Project includes both short and long-term impacts to geology, soils, and seismicity during the construction and operation and maintenance periods. Short-term impacts related to construction are related to ground-disturbing activities such as grading and excavation to install or remove foundations. Long-term impacts associated with the Project include potential damage to proposed facilities due to seismic hazards that could occur over the operational life of the Project.

Analysis of Direct and Indirect Impacts

Alternative 1: Proposed Project

Construction, Operation, Maintenance, and Decommissioning

Environmental impacts related to geology and soils are generally site-specific. While geotechnical impacts may be associated with other developments in the Project area, by the very nature of the impacts (e.g., unstable soil units, expansive soils, seismic hazards), the constraints are site-specific and need to be addressed on a project-specific basis (impacts GEO-1 through GEO-12 and MR-1 through MR-4). Liquefaction and unstable soil hazards are very site-specific and are not cumulatively additive, but rather depend on local conditions as well as the characteristics of the overlying improvements.

The proposed Project, as well as other development projects, would be required to comply with the applicable State and local requirements including, but not limited to, the CBC, the County of Riverside County Code, and the City of Blythe Municipal Code (impact GEO-4). As such, Project-specific impacts, as well as the potential impacts associated with other projects, would be reduced to a less than significant level. Seismic impacts are a regional issue and are also addressed through compliance with applicable codes and design standards. The nature of these projects do not represent cumulatively significant impacts to geologic and soil resources following a seismic event, as the effects would be site-specific based on site-specific underlying conditions and proximity to the source of the seismic event. Therefore, the Project's contribution to cumulative geotechnical and soils impacts would be less than considerable (impact GEO-1).

In addition, implementation of site-specific SWPPPs (BMP-2) would minimize erosion potential from the Project areas (impact GEO-2). Impacts from erosion or loss of topsoil for other cumulative projects may require site-specific analysis to determine the underlying permeability, slope angle and length, extent of groundcover, and human influence on the sites; however, all projects in the cumulative setting would be required to adhere to similar erosion control requirements of a Drainage, Erosion, and Sedimentation Control Plan (BMP-1), as would the proposed Project. All construction phases of this Project, and other foreseeable projects in the area, would be required to adhere to all federal, State, and local programs, requirements, and policies pertaining to building safety and construction permitting. Accordingly, no significant cumulative impact would result from the cumulative scenario to which the Project's incremental impact could contribute.

Decommissioning activities are anticipated to be similar construction-related impacts, and would be required to comply with all local, State, and federal laws, regulations, and standards applicable at the time of decommissioning. Accordingly, no significant cumulative impact would result from the cumulative scenario to which the Project's incremental impacts resulting from decommissioning could contribute.

Alternative 2: No Project Alternative

Under the No Project Alternative, gen-tie facilities would not be constructed on BLM-managed lands and solar facilities would not be constructed on private lands. The public lands in the Project area would continue to be managed by BLM in accordance with existing land use designations in the CDCA Plan, whereas the private lands would continue to be managed for agricultural production. Alternative 2 would not contribute cumulative geology and soils impacts.

Alternative 3: Northern Alternative 230 kV Gen-tie Line Location

Alternative 3 is similar to Alternative 1 (proposed Project), with the exception of the location of the Northern 230 kV gen-tie line, which would be approximately 700 feet north of Alternative 1's proposed 230 kV gen-tie line. The cumulative impacts associated with the construction, operation, maintenance, and decommissioning of the solar facility would be the same as Alternative 1. As previously described under the cumulative analysis for Alternative 1, environmental impacts related to geology and soils are generally site-specific. While geotechnical impacts may be associated with other developments in the Project area, by the very nature of the impacts (e.g., unstable soil units, expansive soils, seismic hazards), the constraints are site-specific and need to be addressed on a project-specific basis (impacts GEO-1 through GEO-12 and MR-1 through MR-4). Liquefaction and unstable soil hazards are very site-specific and are not cumulatively additive, but rather depend on local conditions as well as the characteristics of the overlying improvements.

This Alternative, along with other development projects, would be required to comply with the applicable State and local requirements including, but not limited to, the CBC, the County of Riverside County Code, and the City of Blythe Municipal Code (impact GEO-4). As such, specific impacts with the development of Alternative 3, as well as the potential impacts associated with other projects, would be reduced to a less than significant level. Seismic impacts are a regional issue and are also addressed through compliance with applicable codes and design standards. The nature of these projects do not represent cumulatively significant impacts to geologic and soil resources following a seismic event, as the effects would be site-specific based on site-specific underlying conditions and proximity to the source of the seismic event. Therefore, Alternative 3's contribution to cumulative geotechnical and soils impacts would be less than considerable (impact GEO-1).

As also with Alternative 1, implementation of site-specific SWPPPs (BMP-2) would minimize erosion potential from the Project areas (impact GEO-2). Impacts from erosion or loss of topsoil for other cumulative projects may require site-specific analysis to determine the soils' permeability, slope angle and length, extent of groundcover, and human influence on the sites; however, all projects in the cumulative setting would be required to adhere to similar erosion control requirements of a Drainage, Erosion, and Sedimentation Control Plan (BMP-1), as would Alternative 3. All construction phases of this Project, and other foreseeable projects in the area, would be required to adhere to all federal, State, and local programs, requirements, and policies pertaining to building safety and construction permitting. Accordingly, no significant cumulative impact would result from the cumulative scenario to which this Alternative's incremental impact could contribute.

Decommissioning activities are anticipated to have similar construction-related impacts as described under Alternative 1.

Alternative 4: Southern Alternative 230 kV Gen-tie Line Location

Alternative 4 is similar to Alternative 1 (proposed Project), with the exception of the location of the Southern 230 kV gen-tie line, which would be approximately 0.8 mile south of Alternative 1's proposed 230 kV gen-tie line. The cumulative impacts associated with the construction, operation, maintenance, and decommissioning of the solar facility would be the same as Alternative 1. As previously described under the cumulative analysis for Alternative 1, environmental impacts related to geology and soils are generally site-specific. While geotechnical impacts may be associated with other developments in the Project area, by the very nature of the impacts (e.g., unstable soil units, expansive soils, seismic hazards), the constraints are site-specific and need to be addressed on a project-specific basis (impacts

GEO-1 through GEO-12 and MR-1 through MR-4). Liquefaction and unstable soil hazards are very site-specific and are not cumulatively additive, but rather depend on local conditions as well as the characteristics of the overlying improvements.

This Alternative, along with other development projects, would be required to comply with the applicable State and local requirements including, but not limited to, the CBC, the County of Riverside County Code, and the City of Blythe Municipal Code (impact GEO-4). As such, specific impacts with the development of Alternative 4, as well as the potential impacts associated with other projects, would be reduced to a less than significant level. Seismic impacts are a regional issue and are also addressed through compliance with applicable codes and design standards. The nature of these projects do not represent cumulatively significant impacts to geologic and soil resources following a seismic event, as the effects would be site-specific based on site-specific underlying conditions and proximity to the source of the seismic event. Therefore, Alternative 4's contribution to cumulative geotechnical and soils impacts is less than considerable (impact GEO-1).

As also with Alternative 1, implementation of site-specific SWPPPs (BMP-2) would minimize erosion potential from the Project areas (impact GEO-2). Impacts from erosion of loss or topsoil for other cumulative projects may require site-specific analysis to determine the soils' permeability, slope angle and length, extent of groundcover, and human influence on the sites; however, all projects in the cumulative setting would be required to adhere to similar erosion control requirements of a Drainage, Erosion, and Sedimentation Control Plan (BMP-1), as would Alternative 4. All construction phases of this Project, and other foreseeable projects in the area, would be required to adhere to all federal, State, and local programs, requirements, and policies pertaining to building safety and construction permitting. Accordingly, no significant cumulative impact would result from the cumulative scenario to which this Alternative's incremental impact could contribute.

Decommissioning activities are anticipated to be similar construction-related impacts as described under Alternative 1.

Alternative 5: Reduced Acreage Alternative

Construction, Operation, Maintenance, and Decommissioning

Alternative 5, as well as other development projects, would be required to comply with the applicable State and local requirements including, but not limited to, the CBC and the County of Riverside County Code; as such, the cumulative discussion under Alternative 1 would apply.

Mitigation Measures

The following mitigation measures would minimize and avoid impacts to geological and soil resources. No mitigation measures were proposed for mineral resources.

Geology-1 Prior to final design and construction, a site-specific subsurface geotechnical evaluation/report shall be prepared to evaluate the potential ground-shaking hazard, which would meet the requirements of the most recent version of the California Building Code. A state certified Project geologist shall ensure appropriate structural design and mitigation techniques achieve adequate protection according to industry standards and building code requirements.

Geology-2 Should future data suggest the presence of active faulting at the Project area, a fault evaluation may be performed. Mitigation of potential fault rupture hazard would typically include locating improvements away from the trace of an active fault, designing structures for an acceptable amount of movement, or implementing systems to maintain safety and that allow for displacement that could be repaired.

Geology-3 Removal of loose soil layers shall be replaced with compacted fill or specialized foundation design, including the use of deep foundation systems, to support structures. The septic system shall be placed in soils capable of adequately supporting the septic system as determined by the Project Geologist and in accordance with County requirements specified in the Department of Environmental Health Technical Guidance Manual.

Geology-4 Additional hydro-consolidation tests should be performed to verify soil stability during the design stages of the Project. Mitigation recommendations for hydro-consolidation may include removal of the collapsible soil layers and replacement with compacted fill or specialized foundation design including the use of deep foundations systems to support structures.

Residual Impacts After Mitigation

Implementation of mitigation measures Geology-1 and Geology-4 would reduce impacts to less than significant under CEQA and not substantial under NEPA.

NEPA Conclusions

The Project and each of the action Alternatives would have the impacts and contribution to cumulative impacts described above. These would not be significant with implementation of the mitigation measures described above. The Project would comply with all federal laws and criteria relating to geology and soils. The No Project Alternative would not have impacts, as the existing circumstances and operations would continue essentially unchanged.

4.2.7 Greenhouse Gas Emissions

This section describes the impact analysis relating to greenhouse gas (GHG) emissions for the proposed Project and Alternatives. Information in this section was derived from the Project *Air Quality and Global Climate Change Technical Report* prepared by SRA, 2012 (included in this Draft EIR/EA as Appendix B).

The Climate Scenarios Report (CCC 2006) uses a range of emissions scenarios developed by the Intergovernmental Panel on Climate Change (IPCC) to project a series of potential warming ranges (i.e., temperature increases) that may occur in California during the twenty-first century. Three warming ranges were identified: lower warming range (3.0 to 5.5 degrees Fahrenheit [ºF]); medium warming range (5.5 to 8.0 ºF); and higher warming range (8.0 to 10.5 ºF). The Climate Scenarios Report then presents an analysis of the future projected climate changes in California under each warming range scenario.

According to the report, substantial temperature increases would result in a variety of impacts to the people, economy, and environment of California. These impacts would result from a projected increase in extreme conditions, with the severity of the impacts depending upon actual future emissions of GHGs and associated warming. If the Project were to contribute substantially to climate change, then it would be contributing to the following potential consequences of climate change.

Public Health. Higher temperatures are expected to increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone (O_3) formation are projected to increase by 25 to 35 percent under the lower warming range and 75 to 85 percent under the medium warming range. In addition, if global background O_3 levels increase as is predicted in some scenarios, it may become impossible to meet local air quality standards. An increase in wildfires could also occur, and the corresponding increase in the release of pollutants, including fine particulate matter less than or equal to 2.5 microns in diameter ($PM_{2.5}$), could further compromise air quality. The Climate Scenarios Report indicates that large wildfires could become up to 55 percent more frequent if GHG emissions are not significantly reduced.

Potential health effects from global climate change may arise from temperature increases, climate-sensitive diseases, extreme events, and air quality degradation. There may be direct temperature effects through increases in average temperature leading to more extreme heat waves and less extreme cold spells. Those living in warmer climates are likely to experience more stress- and heat-related problems (e.g., heat rash and heat stroke). In addition, climate-sensitive diseases (such as malaria, dengue fever, yellow fever, and encephalitis) may increase, such as those spread by mosquitoes and other disease-carrying insects.

Water Resources. A vast network of reservoirs and aqueducts captures and transports water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada mountain snowpack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snowpack, increasing the risk of summer water shortages. In addition, if temperatures continue to rise, more precipitation would fall as rain instead of snow, further reducing the Sierra Nevada spring snowpack by as much as 70 to 90 percent. The state's water resources are also at risk from rising sea levels. An influx of seawater would degrade California's estuaries, wetlands, and groundwater aquifers.

Agriculture. Increased GHG and associated increases in temperature are expected to cause widespread changes to the agricultural industry, reducing the quantity and quality of agricultural products statewide. Significant reductions in available water supply to support agriculture would also impact production. Crop growth and development would change, as would the intensity and frequency of pests and diseases.

Ecosystems/Habitats. Continued global warming would likely shift the ranges of existing invasive plants and weeds, thus altering competition patterns with native plants. Range expansion is expected in many species, while range contractions are less likely in rapidly evolving species with significant populations already established. Continued global warming is also likely to increase the populations and types of pests. Continued global warming would also affect natural ecosystems and biological habitats throughout

the state. This effect of global climate change could affect current ecosystems/habitats in desert areas near the proposed solar facility.

Wildland Fires. Global warming is expected to increase the risk of wildfire and alter the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55 percent, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors including precipitation, winds, temperature, and landscape and vegetation conditions, future risks would not be uniform throughout the State. Global climate change in the Southern California region could lead to increased risk of wildfires, which could reduce solar energy output by obscuring sunlight.

Rising Sea Levels. Rising sea levels, more intense coastal storms, and warmer water temperatures would increasingly threaten the State's coastal regions. Under the high warming scenario, sea level is anticipated to rise 22 to 35 inches by 2100. A sea level risk of this magnitude would inundate coastal areas with salt water, accelerate coastal erosion, threaten levees and inland water systems, and disrupt wetlands and natural habitats.

Methodology for Analysis

The effects of GHG emissions that would be generated from the proposed Project, as well as the consistency of the proposed Project with the applicable plans and programs that have been implemented by various federal, State, and local agencies with jurisdiction over the Project area, are addressed in this section. Potential GHG emissions from construction and operation, as well as potential emission reductions from fossil-fuel fired electricity generation displacement, are estimated quantitatively to evaluate the Project's contribution to cumulative GHG emissions.

CEQA Significance Criteria

The effects of project-specific greenhouse gas emissions are cumulative, and therefore global climate change impacts are addressed as a cumulative, rather than a direct, impact. The guidance for determining significance of impacts has been developed from the requirements of AB 32. The guideline addresses the potential cumulative impacts that a project's GHG emissions could have on global climate change. Based on Appendix G of the CEQA Guidelines and the County of Riverside CEQA Environmental Assessment Form, the following criteria indicate that a project could have potentially significant impacts to global climate change if it would:

GHG-1) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

GHG-2) Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

As discussed in Section 15064.4 of the CEQA Regulations, the determination of the significance of GHG emissions requires a good-faith effort to assess the significance of impacts from GHG emissions, considering:

1) The extent to which the project may increase or reduce GHG emissions as compared to the existing environmental setting.
2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions.

The California Air Pollution Controls Officers Association (CAPCOA) suggested several thresholds and approaches that could be used to determine the significance of greenhouse gas emissions (CAPCOA

2008). Of these, the threshold of 900 metric tons of CO_2-equivalent (CO_2e) was determined to be an appropriate threshold to determine a significant GHG impact because it is a very conservative threshold that is on the low end of CEQA significance thresholds that have been considered for implementation by other California air pollution responsible agencies, such as the Bay Area Air Quality Management District. The County of Riverside has not adopted this particular threshold for GHG emissions; however, the MDAQMD CEQA and Federal Conformity Guidelines (August 2011) includes the 100,000 tons per year (tpy) CO_2e and 548,000 pounds per day (lbs/day) CO_2e thresholds. As such, the significance criteria are used to provide a context for the magnitude of Project emissions in relation to its contribution to the cumulative impact of global climate change.

The CAPCOA approach directs that a GHG inventory be prepared for each project, and that GHG emissions associated with project implementation and operation be disclosed under “business as usual” conditions. “Business as usual” is defined as the emissions that would have occurred in the absence of reductions mandated under AB 32.

NEPA Requirements

On February 18, 2010, the CEQ issued draft guidance to federal agencies regarding GHG emissions. This guidance instructs agencies to take the following steps in an analysis of the direct effects of GHG emissions: quantify cumulative emissions over the life of the project; discuss measures to reduce emissions, including consideration of reasonable alternatives; and qualitatively discuss the link between such emissions and climate change. The CEQ further recommends that if a proposed action is reasonably anticipated to annually cause direct emissions of 25,000 metric tons or more of carbon dioxide equivalent (CO_2e) GHGs, agencies should consider conducting a quantitative and qualitative assessment. The guidance also states that “it is not currently useful for the NEPA analysis to attempt to link specific climatological changes, or the environmental impacts thereof, to the particular project or emissions, as such direct linkage is difficult to isolate and to understand.”

Applicable Best Management Practices

No BMPs are proposed for GHG emissions.

Alternative 1: Proposed Project

Direct, Indirect and Cumulative Effects

Construction

The main source of GHG emissions associated with the Project would be combustion of fossil fuels during construction of the Project. Emissions of GHG were calculated using the same approach as emissions for overall construction emissions discussed in Section 4.2.3 and described in the *Air Quality and Global Climate Change Technical Report*, Appendix B. Construction of the solar arrays, substation, associated buildings, and gen-tie line, using “business as usual” conditions, would generate approximately 5,479 tons of CO_2e.

Emissions associated with construction would be temporary, occurring in one three-year period. Climate change, by contrast, occurs as a result of long-term changes in the earth’s atmosphere. Accordingly, the total construction emissions were amortized over the life of the Project. Amortization of the construction emissions over the life of the Project would result in a contribution of about 183 metric tons of CO_2e per year.

It is noted that the existing baseline conditions on the site include GHG emissions associated with cultivation and harvest of field and orchard crops; however, the GHG emissions from these activities have not been estimated.

Operation and Maintenance

Emissions associated with operations are estimated to be 271 metric tons per year of CO_2e. It should be noted that the purpose of the Project is to provide electricity generation from a renewable resource. The Project would serve to meet the State's goals for the Renewable Portfolio Standard (RPS), which has been identified by the State as a means of meeting the goals of AB 32 to reduce emissions to 1990 levels by the year 2020. The Project's operational emissions would therefore be offset by the Project's provision of renewable energy that would replace conventionally generated electricity in the service area.

The Project is proposed to produce approximately 485 MW of electrical energy, which would be approximately 1,329,439,261 kilowatt hours (kWh) of electrical energy per year. In comparison, GHG emissions were estimated for a conventional fossil-fuel combustion power plant producing the same electrical energy (kWh) per year as the Project facility. Data from the U.S. Department of Energy, the EPA, and the Electric Power Research Institute provided GHG production rates per megawatt-hour (MWh). GHG emissions from the most efficient combined cycle gas turbine power plant and a coal-fired power plant were calculated based on 0.35 and 1.0 metric tons of CO_2e per MWh of electricity produced by gas turbine and coal-fired plants, respectively. Gas turbine and coal-fired plants are estimated to produce approximately 371,922 and 1,062,635 metric tons of CO_2e, respectively. The Project would result in a net GHG reduction (displacement) through the replacement of fossil-fuel generated electricity with solar electricity of from 371,116 to 1,061,829 metric tons of CO_2e per year. Operation of the Project would result in a substantial net displacement of GHG emissions in the region with the implementation of the Project's solar facility, when compared to a conventional fossil-fuel combustion power plant.

Decommissioning

Decommissioning of the proposed Project would require removal of the solar equipment and facilities (including gen-tie structures) and transporting all components off-site. Equipment used for decommissioning would generally be similar to that used for construction; however, it is anticipated that the overall activity necessary during decommissioning could be completed in one year and would be much less than that of construction. Conservatively, it is estimated that the annual GHG emissions for decommissioning would be about one half that of construction, resulting in emissions during the one-year decommissioning period of 913 metric tons of CO_2e.

Total GHG from All Phases

Adding the construction, operations, and decommissioning emissions, amortized over the life of the Project (considering three years of construction, 25 years of operation, and two years of decommissioning), the total GHG emissions from the Project are estimated to be approximately 484 metric tons of CO_2e annually, which is below the CAPCOA-based threshold of 900 metric tons per year of CO_2e and is also below the federal mandatory GHG emissions reporting threshold of 25,000 metric tons of CO_2e. Consequently, even if displacement of electricity use were not considered, the proposed Project's GHG emissions would not contribute substantially to global GHG emissions.

As explained above, the Project's operation would result in a net GHG reduction (displacement) through the replacement of fossil-fuel-generated electricity with solar electricity of from 371,116 to 1,061,829 metric tons of CO_2e per year. The Project's displacement of emissions from fossil-fuel-generated electricity offsets the total GHG emissions from all aspects of the Project, and results in a substantial Project benefit.

Application of CEQA Significance Thresholds

Construction, Operation, Maintenance, and Decommissioning

GHG-1) Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

The proposed Project would not generate GHG emissions, either directly or indirectly, such that they would have a significant impact on the environment. Overall, the total GHG emissions for all phases amortized over the life of the Project would not exceed CAPCOA thresholds and would be less than significant. In addition, the Project would result in a substantial benefit by offsetting GHG emission from fossil-fuel-generated electricity, and would assist in meeting the State's adopted RPS.

GHG-2) Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Since the proposed Project would result in a significant offset of regional air emissions associated with energy production from fossil fuels, a net reduction in GHG emissions could result. The Project would serve to meet the State's goals for the RPS, which has been identified by the State as a means of meeting the goals of AB 32 to reduce emissions to 1990 levels by the year 2020.

Alternative 2: No Project Alternative

The Project would not be constructed or require any operations or maintenance or decommissioning activities should Alternative 2, the No Project Alternative, be selected. As such, there would be no effects related to GHG emissions beyond those that already occur on the Project area as a result of existing agricultural operations. However, the beneficial impacts of the proposed Project associated with providing renewable energy in accordance with the State's adopted RPS would also not occur under this Alternative. That is, under the No Project Alternative, renewable energy would not be available to offset the use of energy from other sources, including fossil fuels. Consequently, the No Project Alternative would not achieve the GHG reduction associated with the proposed Project's operation, which was estimated to range from 371,116 to 1,061,829 metric tons of CO_2e per year.

Alternative 3: Northern Alternative 230 kV Gen-tie Line Location

Alternative 3 would be similar to Alternative 1, with the exception of the location of the proposed 230 kV gen-tie line. Considering that Alternative 3 would require a slightly longer gen-tie line outside of the solar array site, the GHG emissions are estimated to be slightly greater than Alternative 1 during construction. Total GHG emissions would be minimally higher than Alternative 1, but would remain below the CAPCOA-recommended threshold of 900 metric tons per year of CO_2e; there would be no material difference in the level of significance of the impact. In addition, Alternative 3 would result in a substantial benefit by offsetting GHG emission from fossil-fuel-generated electricity, and would assist in meeting the State's adopted RPS.

Application of CEQA Significance Thresholds

Construction, Operation, Maintenance, and Decommissioning

GHG-1) Would Alternative 3 generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Alternative 3 would not generate GHG emissions, either directly or indirectly, such that they would have a significant impact on the environment. Overall, the total GHG emissions for all phases amortized over the life of Alternative 3 would not exceed CAPCOA thresholds and would be less than significant. In addition, Alternative 3 would result in a substantial benefit by offsetting GHG emission from fossil-fuel-generated electricity, and would assist in meeting the State's adopted RPS.

GHG-2) Would Alternative 3 conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Alternative 3 would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG. No impacts would occur.

Alternative 4: Southern Alternative 230 kV Gen-tie Line Location

Alternative 4 would be very similar to Alternative 1, with the exception of the location of the proposed 230 kV gen-tie line. Considering that Alternative 4 would require a slightly longer total length of gen-tie line, the total GHG emissions are estimated to be slightly greater than Alternative 1 construction. Total GHG emissions would be minimally higher than Alternative 1, but would remain below the CAPCOA-recommended threshold of 900 metric tons per year of CO_2e; there would be no material difference in the level of significance of the impact. In addition, Alternative 4 would result in a substantial benefit by offsetting GHG emission from fossil-fuel-generated electricity, and would assist in meeting the State's adopted RPS.

Application of CEQA Significance Thresholds

Construction, Operation, Maintenance, and Decommissioning

GHG-1) Would Alternative 4 generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Alternative 4 would not generate GHG emissions, either directly or indirectly, such that they would have a significant impact on the environment. Overall, the total GHG emissions for all phases amortized over the life of Alternative 4 would not exceed CAPCOA thresholds and would be less than significant. In addition, Alternative 4 would result in a substantial benefit by offsetting GHG emission from fossil-fuel-generated electricity, and would assist in meeting the State's adopted RPS.

GHG-2) Would Alternative 3 conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Alternative 4 would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHG. No impacts would occur.

Alternative 5: Reduced Acreage Alternative

Similar to Alternative 1, Alternative 5 would include the construction, operation, maintenance, and decommissioning of a solar facility and associated infrastructure. The primary difference between Alternatives 1 and 5 is the absence of solar facility development north of I-10, which would reduce electrical output from a 485 MW down to a 315 MW alternating current solar PV facility. The Reduced Acreage Alternative would be on a reduced footprint of approximately 2,476 acres (from 3,660 acres for the proposed Project). Alternative 5 would include approximately 2,403 acres for the solar field. Similar to the proposed Project, 73 acres would be utilized for the 230 kV gen-tie line. In comparison to Alternative 1, Alternative 5 would eliminate one on-site substation and one O&M building and would have one access point (planned on Seeley Avenue). The Reduced Acreage Alternative would also no longer extend a 230 kV overhead gen-tie line from an on-site substation north of I-10, as this Alternative would not be developed on land north of I-10. Instead, this Alternative would construct an approximately 7.8-mile-long, 230 kV overhead gen-tie line from the proposed on-site substation south of I-10 to the approved Colorado River Substation. Approximately three miles of the gen-tie line would be within the solar facility.

Under Alternative 5, a solar facility north of I-10 would not be constructed or require any operation, maintenance, or decommissioning activities. As such, there would be fewer GHG emissions from construction, maintenance, and decommissioning activities because the actual project development footprint would be smaller. However, the portion of the proposed Project's beneficial impacts of a solar development in the area north of I-10, associated with providing renewable energy in accordance with the State's adopted RPS, would also not occur under Alternative 5.

Direct, Indirect, and Cumulative Effects

Construction

As with Alternative 1, the main source of GHG emissions associated with Alternative 5 would be combustion of fossil fuels during construction. Alternative 5, because it proposes less construction, would emit fewer GHG than Alternative 1. When these emissions are amortized over the life of Alternative 5, these emissions would be less than significant and would not contribute considerably to a cumulative impact.

Operation and Maintenance

Operational emissions of Alternative 1 would not exceed the GHG significance threshold. Alternative 5 operations would result in reduced air emissions compared to Alternative 1, due to fewer full-time employees and a smaller footprint with less solar facilities. Accordingly, it too would not exceed the GHG significance threshold. Similar to Alternative 1, the purpose of Alternative 5 is to provide electricity generation from a renewable resource. The Reduced Acreage Alternative's operational emissions would therefore be offset by this Alternative's provision of renewable energy that would replace conventionally generated electricity in the service area. The extent of the benefit from replacing conventionally generated electricity with renewable energy would be less under Alternative 5 than under the proposed Project.

Decommissioning

Decommissioning of Alternative 5 would result in no greater GHG emissions than what was estimated under Alternative 1. As such, the annual GHG emissions for decommissioning would be approximately one half that of construction.

Total GHG from All Phases

Adding the construction, operation, maintenance, and decommissioning emissions, amortized over the life of the Project (considering three years of construction, 25 years of operation, and two years of decommissioning), the total GHG emissions from Alternative 5 would still remain below the CAPCOA-based threshold and also below the federal mandatory GHG emissions reporting threshold. Moreover, the long-term benefits of replacing conventionally generated electricity with renewable energy would reduce GHG emissions and is considered beneficial. Consequently, the Reduced Acreage Alternative's GHG emissions would not constitute a cumulatively considerable contribution to global climate change.

Application of CEQA Significance Thresholds

Construction, Operation, Maintenance, and Decommissioning

GHG-1) Would Alternative 5 generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Alternative 5 would not generate GHG emissions, either directly or indirectly, such that they would have a significant impact on the environment. The Reduced Acreage Alternative's construction and decommissioning GHG emissions would be temporary, and long-term operational GHG emissions would be less than significant. Moreover, the long-term benefits of replacing conventionally generated electricity with renewable energy would reduce GHG emissions and is considered beneficial. Overall, the total GHG emissions for all phases amortized over the life of Alternative 5 would be less than significant and would not constitute a cumulatively considerable contribution to global climate change.

GHG-2) Would Alternative 5 conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Since Alternative 5 would result in a significant offset of regional air emissions associated with energy production from fossil fuels, a net reduction in GHG emissions would result. Alternative 5 would serve to meet the State's goals for the RPS, which has been identified by the State as a means of meeting the goals of AB 32 to reduce emissions to 1990 levels by the year 2020.

Cumulative Impacts

The potential effects of proposed GHG emissions are by nature global and are cumulative in scope. As individual sources, GHG emissions are not large enough to have an appreciable effect on climate change. Therefore, the impact of proposed GHG emissions on climate change as discussed previously in this section is meant to address cumulative impacts of the proposed Project. As noted in the analysis, the proposed Project would contribute approximately 484 metric tons of CO_2e annually, which would not contribute considerably to a cumulative GHG impact, even if offsetting reductions in emissions from fossil-fuel-generated electricity were not considered. Alternatives 3 and 4 would generate slightly greater annual GHG emissions than Alternative 1 but would not contribute considerably to cumulative GHG impact. There would be fewer GHG emissions from construction, maintenance, and decommissioning activities for Alternative 5 because the actual project development footprint would be smaller. However, the portion of the proposed Project's beneficial impacts of a solar development in the area north of I-10, associated with providing renewable energy in accordance with the State's adopted RPS, would also not occur under Alternative 5. In addition, the proposed Project and Alternatives 3, 4, and 5 would result in a substantial benefit by offsetting GHG emissions from fossil-fuel-generated electricity, and would assist in meeting the State's adopted RPS.

The No Project Alternative would generate net zero GHG emissions, which would not contribute to a cumulative impact. However, the No Project Alternative also would not assist in meeting the State's adopted RPS.

Geographic Scope

By their nature, GHG emission impacts are cumulative, as GHG emission are aggregated across the global atmosphere and cumulatively contribute to climate change. Since GHG emission impacts are considered to be global effects, Earth's atmosphere is used as the geographic scope for analysis of GHG emissions impacts.

Temporal Scope

The temporal scope refers to the duration over which GHG impacts would occur. Given that GHG concentrations in Earth's atmosphere can lead to global climate change, which has the potential to impact numerous environmental resources through potential, though uncertain, impacts related to future air temperatures and precipitation patterns, there is currently no way to determine a definitive timeline wherein the full scale of consequences may occur from GHG impacts. Thus, it is not possible to determine the specific impact on global climate change from GHG emissions associated with the BMSP over the life of the Project.

Analysis of Direct and Indirect Impacts

Alternative 1 (Proposed Project), Alternative 3 (Northern 230 kV Gen-tie Line Location), and Alternative 4 (Southern 230 kV Gen-tie Line Location)

Construction, Operation, Maintenance, and Decommissioning

As discussed above, the proposed Project would contribute approximately 484 metric tons of CO_2e annually, which would not contribute considerably to a cumulative GHG impact even if offsetting reductions in emissions from fossil fuel generation of electricity were not considered. Alternatives 3 and 4

would generate slightly greater annual GHG emissions than Alternative 1 but would not contribute considerably to a cumulative GHG impact. In addition, as a renewable energy project, Alternatives 1, 3, and 4 would have a net benefit on climate change by reducing the State's reliance on non-renewable energy sources.

As described in the Solar PEIS, utility-scale solar energy development contributes relatively minor GHG emissions, generally from emissions from heavy equipment, primarily used during the construction phase; vehicular emissions; and natural gas or propane combustion of back-up generators (a factor not present in the proposed Project). The removal of plants from within a Project area can also reduce the amount of carbon intake from terrestrial vegetation, but only by a minimal amount. As discussed in the Solar PEIS, however, utility-scale solar energy production over the next 20 years will likely result in fewer CO_2 emissions from utilities by offsetting emissions from new fossil fuel energy sources. Overall, CO_2 emission offsets from increased solar energy production can range from a few percentage points to more than twenty percent in some study area states. According to the analysis in the Solar PEIS, "an estimated 716 kg (1,578 lb) of CO_2 would be displaced annually per megawatt-hour of solar energy produced" (DPEIS, § 5.11.1.2. Table 5.11-1, and § 5.11.4).

While in the near term, solar facilities such as development under Alternative scenarios 1, 3, 4, and 5 would tend to offset facilities serving peak loads rather than baseline loads served by large fossil-fuel plants, GHG emissions from future fossil fuel plants serving peak loads, typically natural gas-fired plants, would nevertheless be offset and CO_2 emissions on a per-average megawatt basis from non-renewable sources such as natural gas are exponentially higher than the incremental annual emissions from the proposed Alternatives. Further, the CARB has identified implementation of the Renewable Portfolio Standard as an integral part of AB 32. According to the AB 32 Scoping Plan, implementation of the RPS will contribute to a 21.3 million metric tons (MMT) of CO_2E reduction in GHG emissions by 2020 by reducing the State's reliance on fossil-fuel and natural gas-fired plants. The proposed Project is being designed and implemented in part to assist in achieving the RPS, and therefore the State's GHG reduction goals.

Since GHG emissions are aggregated across the global atmosphere and cumulatively contribute to climate change, it is not possible to determine the specific impact on global climate change from GHG emissions associated with the action Alternatives presented, or in conjunction with the identified cumulative projects. As noted in the analysis, however, the proposed Project would contribute approximately 484 metric tons of CO_2e annually, which would not contribute considerably to a cumulative GHG impact even if offsetting reductions in emissions from fossil fuel generation of electricity were not considered. Alternatives 3 and 4 would generate slightly greater annual GHG emissions than Alternative 1 but would not contribute considerably to a cumulative GHG impact. In addition, implementation of the proposed action Alternatives would likely lead to a net reduction in GHG emissions in the state overall, and thus a net benefit to global climate change, by displacing GHG emissions from non-renewable power sources. Implementation of the proposed action Alternatives would also assist the State in implementing the GHG reduction goals established in AB 32. In summary, it is likely that the proposed action Alternatives would have a net benefit on GHG emissions. The action Alternatives presented would not make a considerable contribution to global climate change, and therefore would not contribute significantly to cumulatively significant impacts related to global climate change when considered with other closely related past, present, and reasonably foreseeable future projects.

Alternative 2: No Project Alternative

The No Project Alternative would not contribute to any cumulative GHG effects. Unlike the action Alternatives, the No Project Alternative would not involve construction activities or operation of a solar generating facility; therefore, heavy equipment operation, truck deliveries, and construction worker commute trips would not be utilized, and increased GHG emissions would not occur as a result. However, the No Project Alternative would not assist in meeting AB 32 or Executive Order S-3-05 emission reduction targets, nor would it offset emissions generated by fossil-fuel-based sources of energy. Therefore, the No Project Alternative would have fewer impacts than the construction periods of the action Alternatives, but would result in greater impacts during the action Alternatives' operational periods.

Alternative 5: Reduced Acreage Alternative

Construction, Operation, Maintenance, and Decommissioning

Similar to the proposed Project, Alternative 5 would not contribute considerably to a cumulative GHG impact even if offsetting reductions in emissions from fossil fuel generation were not considered. In addition, as a renewable energy project, Alternatives 1, 3, 4, and 5 would have a net benefit on climate change by reducing the State's reliance on non-renewable energy sources.

In the near-term, solar facilities such as development under Alternative scenarios 1, 3, 4, and 5 would tend to offset facilities serving peak loads rather than baseline loads. In the long-term, such development would offset future fossil fuel plants serving peak loads, typically natural gas-fired plants. CO_2 emissions on a per-average megawatt basis from non-renewable sources such as natural gas are exponentially higher than the incremental annual emissions from the proposed Alternatives. Further, the CARB has identified implementation of the Renewable Portfolio Standard as an integral part of AB 32. According to the AB 32 Scoping Plan, implementation of the RPS will contribute to a 21.3 MMT of CO_2E reduction in GHG emissions by 2020 by reducing the State's reliance on fossil-fuel and natural gas-fired plants. The BMSP is being designed and implemented in part to assist in achieving the RPS, and therefore the State's GHG reduction goals.

Since GHG emissions are aggregated across the global atmosphere and cumulatively contribute to climate change, it is not possible to determine the specific impact on global climate change from GHG emissions associated with the action Alternatives presented, or in conjunction with the identified cumulative projects. Alternative 5 would contribute CO_2e annually, but would not contribute considerably to a cumulative GHG impact and its emissions would be more than offset by its replacement of fossil-fuel and natural gas-fired plants as noted above. Implementation of the proposed action Alternatives would likely lead to a net reduction in GHG emissions in the state overall, and thus a net benefit to global climate change, by displacing GHG emissions from non-renewable power sources. Implementation of the proposed action Alternatives would also assist the State in implementing the GHG reduction goals established in AB 32. In summary, it is likely that the proposed action Alternatives would have a net benefit on GHG emissions. The action Alternatives presented would not make a considerable contribution to global climate change, and therefore would not contribute significantly to cumulatively significant impacts related to global climate change when considered with other closely related past, present, and reasonably foreseeable future projects.

Mitigation Measures

Impacts would be less than significant for CEQA; no mitigation measures are recommended.

Residual Impacts After Mitigation

While the Project would generate some GHG emissions, the emissions are not projected to be substantial, and would not hinder compliance with any plans intended to avoid or reduce climate change. In addition, the Project would result in a substantial benefit by offsetting GHG emissions from fossil-fuel-generated electricity, and would assist in meeting the State's adopted RPS.

NEPA Conclusions

The Project and each of the action Alternatives would have the direct and indirect impacts and contribution towards cumulative impacts that are described above. The Project and the action Alternatives would conform to the policies and help achieve the goals of federal and State regulations and plans. The Project and each of the action Alternatives would help BLM implement the federal management objectives described in Chapter 1. The No Project Alternative would not have direct impacts, as the existing circumstances and operations would continue essentially unchanged. However, the No Project Alternative would not help achieve the goals of federal and State regulations and plans to reduce GHG emissions.

4.2.8 Hazards and Hazardous Materials

This section describes the impact analysis relating to hazards and hazardous materials for the proposed Project and Alternatives. It focuses on hazardous materials and hazards requiring remediation or mechanisms to prevent accidental release. Measures are identified to reduce or avoid adverse impacts anticipated from construction, operation, maintenance, and decommissioning of the proposed Project.

Various other hazards associated with the Project, such as exposure to electric and magnetic fields, interference with radio-frequency communications, hazardous shocks, fire hazards (non-wildland/operational), and valley fever are briefly discussed. These hazards are acknowledged as potential areas of concern, but there is no indication that the Project would cause a significant increase in these risks, as explained below.

This analysis does not address the potential exposure of workers to hazardous materials used at the proposed solar facility. Employers must inform employees of hazards associated with their work and provide those employees with special protective equipment and training to reduce the potential for health impacts from the handling of hazardous materials.

Methodology for Analysis

The hazardous materials analyzed include those potentially existing on the site and those that would be used as part of Project construction, operations and maintenance, and decommissioning. Potential existing hazards were assessed based on information contained in the *Phase I DataMap Area Study* prepared for the parcels comprising the Project area. This report is available in Appendix F of this Draft EIR/EA.

Some hazardous materials would be used on a short-term basis during construction and decommissioning. Others would be stored on-site for use during operations and maintenance. Therefore, this analysis was conducted by examining the choice and amount of chemicals to be used, the manner in which the Applicant would use the chemicals, the manner by which they would be transported to the facility, and the way in which the Applicant plans to store the materials on-site.

CEQA Significance Criteria

The criteria listed below were used to determine if the proposed Project would cause or exacerbate hazards on and in the vicinity of the solar facility. While CEQA and NEPA do not encompass a study of the environment on the Project, these criteria were also applied to determine whether the Project or any of its components would be exposed to substantial, existing risks. These criteria are the same as the significance criteria for Hazards and Hazardous Materials listed in the CEQA Environmental Checklist, Appendix G of the 2012 CEQA Guidelines. Under CEQA, the proposed Project and Alternatives would have a significant impact on hazards and hazardous materials if they would:

HAZ-1) *Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.*

HAZ-2) *Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.*

HAZ-3) *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.*

HAZ-4) *Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment.*

HAZ-5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would result in a safety hazard for people residing or working in the project area.

HAZ-6) For a project within the vicinity of a private airstrip, would result in a safety hazard for people residing or working in the project area.

HAZ-7) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

HAZ-8) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

The following additional significance criteria from the County of Riverside CEQA Environmental Assessment Form are used in the analysis. A project could have potentially significant impacts if it would:

HAZ-9) Result in an inconsistency with an Airport Master Plan.

HAZ-10) Require review by the Airport Land Use Commission.

NEPA Requirements

The potential effects of the proposed Project and Alternatives are analyzed in relation to the baseline conditions (described in Chapter 3). The context and intensity of the environmental effects (40 CFR Part 1508.27) of the proposed Project and Alternatives with regard to creation of hazards and use of hazardous materials, as well as with regard to exposure to any existing or potential hazards or hazardous materials, are analyzed below and discussed as construction-related, operation and maintenance-related, and decommissioning effects.

Applicable Best Management Practices

As part of the Project and Alternatives, the following applicable BMPs would minimize the environmental impacts for hazards and hazardous materials. The full BMPs have been detailed below (see also Table 2-4 in Chapter 2) and are further referenced (by number) within the impact discussion.

NUMBER	BMP DESCRIPTION
BMP-3	**Fugitive Dust Abatement Plan.** As required by the Mojave Desert Air Quality Management District Rule 403, a Fugitive Dust Abatement Plan would be prepared to address fugitive dust emissions during Project construction, operation, maintenance, and decommissioning. The plan would include measures to minimize fugitive dust emissions from wrecking, excavation, grading, clearing of land, and solid waste disposal operations, and would take every reasonable precaution to prevent visible particulate matter from being deposited upon public roadways as a direct result of operations. During construction, all unpaved roads, disturbed areas (e.g., areas of scraping, excavation, backfilling, grading, and compacting), and loose materials generated during Project construction activities would be watered as frequently as necessary to minimize fugitive dust generation. However, the amount of water will be minimized each time to prevent temporarily ponding water that may occur as a result of the fugitive dust plan. In water-deprived locations, water spraying would be limited to active disturbance areas only, and non-water-based dust control measures would be implemented in areas with intermittent use or use that is not heavy, such as stockpiles or access roads. Alternatively, chemical dust suppressants or durable polymeric soil stabilizers could be used. The dust suppression measures would consider the sensitivity of wildlife to the windborne dispersal of fugitive dust containing dust suppressants and the potential impact on future reclamation.

NUMBER	BMP DESCRIPTION
BMP-9	**Hazardous materials.** As required by the Clean Air Act, Section 401 of the Clean Water Act, the Toxic Substance Control Act, and the Hazardous Materials Transportation Act, all vehicles and equipment must be in proper working condition to ensure that there is no potential for fugitive emissions or accidental release of motor oil, fuel, antifreeze, hydraulic fluid, grease, or other hazardous materials. Equipment must be checked for leaks prior to operation and repaired as necessary. Refueling of equipment must take place on existing paved roads, where possible, and not within or adjacent to drainages. Hazardous spills must be cleaned up immediately. Contaminated soil would be disposed of at an approved off-site landfill, and spills reported to the permitting agencies. Service/maintenance vehicles should carry appropriate equipment and materials to isolate and remediate leaks or spills, and an on-site spill containment kit for fueling, maintenance, and construction will be available. Cleaning of construction vehicles at commercial car washes should be considered rather than washing vehicles on the Project area so that dirt, grease, and detergents are treated effectively at existing facilities designed to handle those types of wastes.
BMP-10	**Integrated Weed Management Plan.** In compliance with the Federal Noxious Weed Act and the Plant Protection Act, a Project-specific integrated weed management plan for the control of noxious weeds and invasive plant species would be prepared. The plan would identify presence, location, and abundance of weed species in the Project area and surrounding area adjacent to the Project, as well as identify suppression and containment measures to prevent the spread of weed species and introduction of weed species. Prevention techniques would include: limiting disturbance areas during construction to the minimum required to perform work; limiting ingress and egress to defined routes; maintaining vehicle wash and inspection stations; and closely monitoring the types of materials brought on-site to minimize the potential for weed introduction. During operations, noxious and invasive weed management will be incorporated as a part of mandatory site training for groundskeepers and maintenance personnel. Training will include weed identification and the impacts on agriculture, wildlife, and fire frequencies. Training will also cover the importance of preventing the spread of noxious weeds and of controlling the proliferation of existing weeds.

Alternative 1: Proposed Project

Analysis of Direct and Indirect Impacts

Construction

Pesticide Residue

Portions of the proposed Project area are in agricultural production. As a result, there is a potential for residual, low-level concentrations of pesticides and other agricultural chemicals to be present in soil and/or groundwater. Should there be chemically impacted soils (i.e., fuels, pesticides, herbicides) be present in the Project area, the risk of exposure to human health is not believed to be a significant concern (refer to Environmental Data Resources, Inc. [EDR] report in Appendix F of this Draft EIR/EA). The construction of the proposed Project would require minimal grading for the foundations of the substations and O&M buildings; therefore, it is anticipated that workers' exposure to impacted soils would be at low-level concentrations.

Asbestos-Containing Materials and Lead-Based Paint

The three properties (APNs 821-120-026, 821-120-039, and 863-100-106) within the solar facility site would be removed as part of the proposed Project. These properties were constructed prior to or during the 1970s; therefore, it is very likely that the building materials used for the on-site structures have asbestos-containing materials (ACM) or lead-based paint (LBP). Generally, asbestos removal operations are low risk. When following asbestos-related regulations, the possibility of exposure to airborne asbestos fibers from asbestos removal projects is limited. Buildings identified as containing building components coated with LBP would tested for LBP. All on-site construction workers that would be working with coated or glazed building components would be knowledgeable about LBP removal and abatement.

Hazardous Materials on Adjacent Properties

The Project area is situated on the very east end of the Palo Verde Mesa. Urban development near and adjacent to the Project area includes the community of Nicholls Warm Springs/Mesa Verde, Blythe Airport, the 520-MW natural gas-fired Blythe Generating Plant, an existing solar facility site (Blythe Solar Project, owned by NRG), electrical substations, electrical transmission lines, ancillary agricultural facilities, dirt roads, and commercial businesses. I-10 crosses through the study area in an east-west alignment. It is not anticipated, however, that there would be associated risks resulting from hazardous materials on adjacent properties due to the nature of these developments and their proximity to the Project facility.

Herbicide Use

During the construction period, herbicide may be applied to control weed growth. Use of herbicides would occur in accordance with all recommended application procedures as identified on product labels as well as in cooperation with the County Agricultural Commissioner and BLM. In addition, a project-specific Integrated Weed Management Plan (BMP-10) would be developed and approved by the County Agricultural Commissioner and BLM prior to any application of herbicides on the Project for weed management.

Hazardous Materials Use

A variety of hazardous materials listed below would be used during construction of the proposed Project and stored on-site:

- 20 – cans of miscellaneous paint stored in its original tin-coated steel quart or gallon containers
- 20 – 30 gallon diesel tank storage drum barrels
- 20 – 30 gallon gasoline tank storage drum barrels
- 100 – Silicone Sealants (12 ounce tubes)
- 100 – Foam Sealants (24 ounce tubes)
- 100 – Silicone Adhesives (12 ounce tubes)

No secondary containment method is included in these containers. Basic hazardous material spill kits will be stored in the temporary construction trailers located on the Project area during construction. The Project will coordinate with registered hazardous waste transporters if spills or release result in contaminated soils.

Transport

Some hazardous materials, which would be transported to the site, would be required during construction of the proposed Project. These include diesel fuel, oil, and grease for heavy equipment as well as paints and solvents. Large quantities of these materials are not anticipated to be transported. However, all hazardous materials transported to the site would be managed in compliance with applicable laws and regulations. Should a vehicle such as a gasoline tank be required, transport would occur in compliance with Department of Toxic Substances Control (DTSC) regulations.

Use and Storage

As described above, a variety of hazardous materials would be used during construction of the proposed Project. Typical materials associated with construction include gasoline, diesel fuel, oils, and lubricants for operation and maintenance of heavy equipment. Solvents, detergents, and degreasers are also used in association with heavy equipment. Other materials, such as paints, ethylene glycol, and welding materials, may all be used to varying extents as the Project is constructed. No acutely toxic hazardous materials would be used during construction. Further, none of the materials are anticipated to pose a

significant potential for off-site impacts as a result of the quantities used, their relative toxicity, physical states (e.g., liquid or gas), and/or environmental mobility (e.g., ability to travel through soil or water).

Disposal

Leftover or spent materials would be generated during construction of the Project. These materials could include empty containers, used oil filters, used batteries, used hydraulic fluid, oils, and grease. BMPs have been identified to prevent improper handling and disposal of materials by prohibiting hazardous materials from being drained onto the ground or into streams or drainage areas. Likewise, all construction waste, including petroleum products, and other potentially hazardous materials would be required to be removed to a disposal facility authorized to accept such materials. Hazardous wastes generated during construction (such as spent oil) or remaining from construction activities would be disposed of in an approved landfill (Blythe Landfill). All hazardous wastes shipped off-site for disposal would be transported by a licensed and permitted hazardous waste hauler. Any waste generated by the Project will be disposed of at the Blythe Landfill. It is estimated that the remaining disposal capacity of the Blythe Landfill will last until approximately 2047. Compliance with these BMPs and haul methods would be effective to ensure proper disposal of hazardous materials.

If any underground storage tanks are discovered during construction and require removal, the Project will comply with the Underground Storage Tank Guidelines to Closure by Removal procedures published by the Hazardous Materials Management Division of Riverside County Department of Environmental Health.

Hazardous Materials/Spill Release Response Procedures

The Project will have an Emergency Action Team on-site to lead hazardous material or spill release response procedures as outlined in the *Release Reporting Guidelines* published by the Riverside County Department of Environmental Health, Hazardous Materials Management Branch. The Emergency Action Team is made up of two to three construction personnel who include the Construction Manager (Team Leader), a Field Engineer, and a construction worker.

The Emergency Action Team will initiate emergency communication and full evacuation procedures when conditions warrant for the following major emergencies (including, but not limited too);

1) Large or rapidly spreading fires.
2) Combustible gas line/tank ruptures.
3) Other immediate releases of flammable, corrosive, or noxious, oxidizer/highly visible gases, vapor, smoke and dust or toxic gases.
4) Spills, leaks or releases of flammable, corrosive or toxic materials of a large enough quantity to present a hazard to site occupants, adjacent properties and personnel or the community at large.
5) Explosions, Detonations or Deflagrations.
6) Earthquakes.
7) Bomb threats.
8) Security, violence, civil disobedience incident/situations.
9) Severe weather conditions (heat, cold, lightning).

Other actions to take may include:

1) Fires: Close all doors or tight fitting enclosures leading to the fire area during evacuation.
2) Interior Flammable or Combustible/Explosive Gas Releases: Leave all doors and building entry doors open during evacuation.
3) Earthquakes: Move away from window areas. Take cover in a doorway if possible. Do not leave the building during the earthquake. Be aware of overhead hazards, power lines, cranes,
4) Hoists or scaffolding or other heavy materials that could fall.
5) Bomb threats: Consult "Bomb Threat Procedures" located in the "Emergency Action Plan" section.

For smaller spills or leaks, the Emergency Action Team will shut-off valves or otherwise attempt to stop leaks at the source only if it is safe to do so. Small spills or leaks that can be safely controlled will be immediately contained by members of the Emergency Action Team in accordance with instructions from the Team Leader.

One universal spill kit and one oil-only spill kit will be located on-site at the temporary construction trailer throughout the duration of the construction process. Tables 4.2.8-1 and 4.2.8-2 list the contents of each spill release kit.

Table 4.2.8-1 Universal Spill Kit (Absorbs 24.6 gallons)

QUANTITY	CONTENTS
100	Gray universal heavyweight SonicBonded pads 15" x 19"
6	Gray universal polypropylene socks 3" x 4'
4	Gray universal polypropylene pillows 8" x 18"
1	Nitrile gloves, pair
1	Safety goggles
1	DOT Emergency Response GuideBook
1	7" Epoxy putty stick
3	Yellow disposal bag (black text: "Caution Handle with Care")
3	8" Nylon zip tie
1	Wheeled Kaddie with interior shelves and easy-view compartments

Table 4.2.8-2 Oil-only Spill Kit (Absorbs 24.6 gallons)

QUANTITY	CONTENTS
100	White oil-only heavyweight SonicBonded pads 15" x 19"
6	White oil-only polypropylene socks 3" x 4'
4	White oil-only polypropylene pillows 8" x 18"
1	Nitrile gloves, pair
1	Safety goggles

Hazardous spill mitigation materials and equipment, as well as personal protective equipment, will be used as needed in an effort to prevent spills into waterways by protecting drainage inlets, gutters, etc., and for cleanup. Sand or other absorbent materials can also be useful for absorption and containment. Material Safety Data Sheets for the materials in use on-site will be located at the temporary construction trailer.

Airport Land Use Compatibility Plan

The proposed Project falls within the Blythe Municipal Airport Influence Area (AIA), which is covered by the Riverside County Airport Land Use Compatibility Plan (RCALUCP). The majority of the proposed Project components would be within Compatibility Zones C, D, and E; no structures are proposed in Zone B1 (see Figure 4.2.8-1). Construction of the proposed Project is expected to require about three years total to complete. During the peak 24-month period, the number of construction workers could at times reach 500 persons and would typically range between 300 and 500 workers at the site. Up to 400 workers could be involved with solar panel installation at one time, and up to 150 persons could be involved with substation and O&M facility construction at any one time.

It is estimated that the construction of solar panels would proceed in stages, with about six blocks (600 acres total) under construction at any one time. Up to 350 workers could be involved with assembling these blocks. Assuming that all 350 workers could be involved with assembling an individual 100-acre block, the average intensity would be about four workers per acre, which does not exceed any RCALUCP Zone average occupancy criteria. For peak intensity, it is reasonable to expect that up to 50 persons

could be involved with assembling panels on any acre of the Project area. This level of activity would not exceed any RCALUCP Zone peak occupancy criteria.

The O&M sites each measure about two acres in area; one would be in Zone D and the other in Zone E. The three substation sites are each about two acres in area; two would be in Zone D and one in Zone E. The peak construction work force for these facilities would be about 150 persons, or about 75 persons per acre. This level of activity would not exceed the peak or average intensity factor for Zone D.

Operation and Maintenance

Herbicides

A long-term strategy for weed control and management would be implemented during operation of the Project. An Integrated Weed Management Plan (BMP-10) would be prepared and approved by the County and BLM prior to ground-disturbing activities, and implemented during operation and maintenance of the gen-tie line. The Integrated Weed Management Plan would describe specific ongoing measures to remove weedy plant species from the ROW and encourage native plant growth. If herbicides are used, they would be applied in accordance with all recommended application procedures as identified on product labels as well as in cooperation with the County Agricultural Commissioner for application on County lands.

Transport, Use and Storage, and Disposal of Hazardous Materials

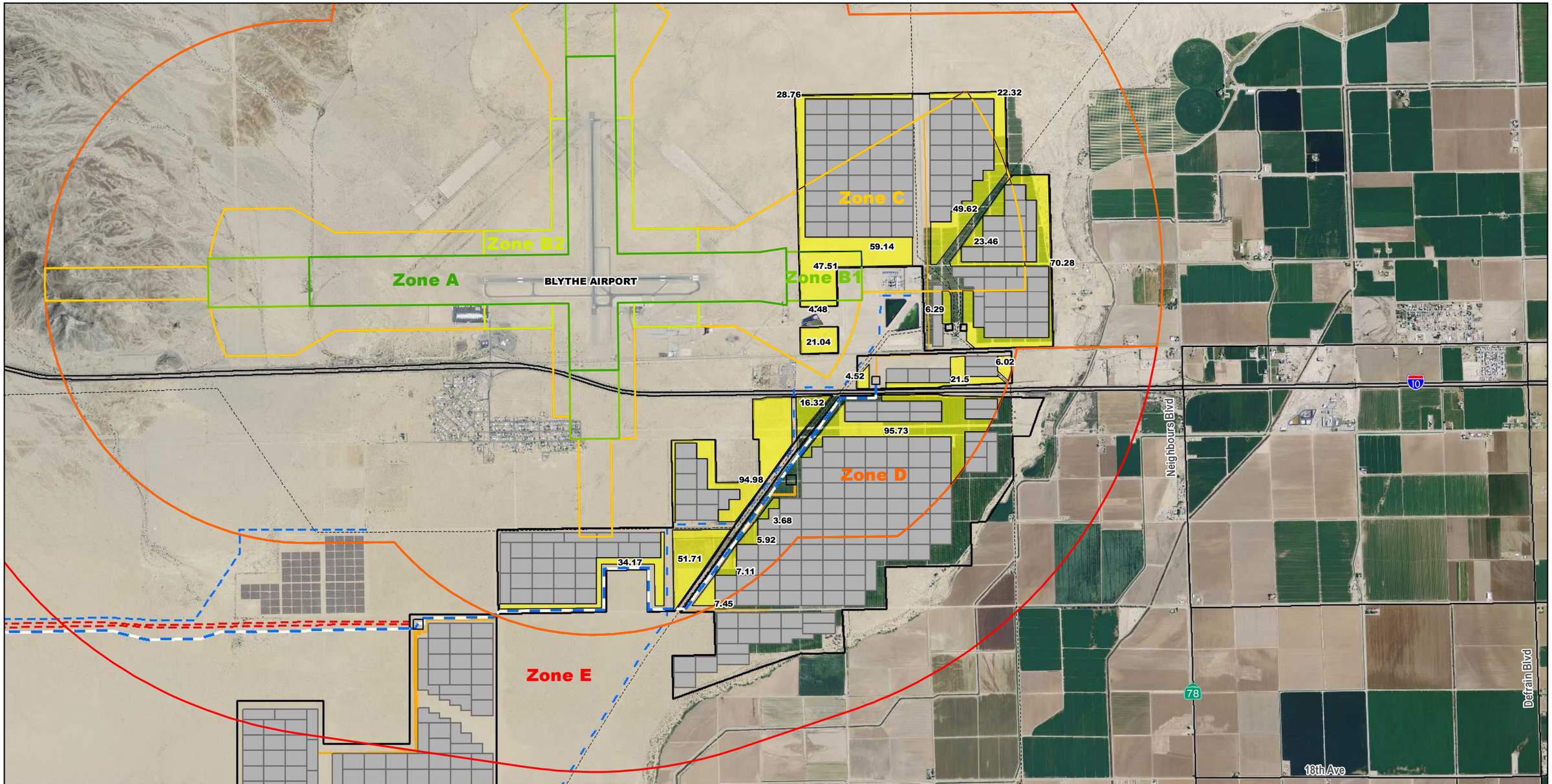
Small quantities of hazardous materials would be transported to the site (in accordance with DTSC regulations, as applicable) and used and stored on-site for miscellaneous, general maintenance activities. Hazardous materials are expected to include consumer-sized containers of oils, grease, paints, and solvents. Small quantities of diesel fuel and gasoline may also be stored at the facility for use in off-road service vehicles and generators. Dielectric insulating oil would be used in some electrical equipment, such as the on-site transformer(s). Oil-containing equipment would be installed with a spill containment system designed to contain all the oil in the event of a leak designed to contain all the oil in the event of a leak.

As part of the proposed Project, BMP-9 (Hazardous Materials) would be implemented, which would ensure that impacts would be minimized associated with hazardous materials storage and use during operation and maintenance by requiring that all fuels, fluids, and components with hazardous materials/wastes be handled in accordance with applicable regulations. Likewise, all such materials would be required to be kept in segregated storage with secondary containment. Compliance with applicable laws and the implementation of BMPs would be adequate to address storage and handling of hazardous materials for the solar facility. Vehicles and equipment would also be in proper working condition to ensure there is no potential for fugitive dust (BMP-3) and accidental release of motor oil, fuel, or other hazardous materials.

In addition to Riverside Waste Management, several agencies impose regulations regarding storage and management of hazardous materials. The Riverside County Fire Department, Riverside County Office of Emergency Services, the DTSC, and the Certified Unified Program Agency (CUPA) all regulate storage of hazardous materials. Compliance with the standards of these agencies must be followed. As with construction, any hazardous materials requiring disposal would be disposed of in an approved landfill.

Riverside County Airport Land Use Compatibility Plan

Table 4.2.8-3 lists the total acreage of the proposed solar facility site that would be within the Compatibility Zones, acreage of disturbance (areas with above-ground structures), open space (areas without above-ground structures that are a minimum size of 300 feet by 75 feet), percentage of the solar facility site that contains open space within each zone, and the RCALUCP's minimum open space requirements. As illustrated in the table below and Figure 4.2.8-1, the Project would meet the RCALUCP's minimum open space requirements.



Legend

Proposed Project
- Blythe Mesa Solar Project Boundary
- Solar Array Location
- Proposed 230 kV Transmission Line
- Proposed 34.5 kV Transmission Line

Transmission Lines
- Existing 138-161 kV Line
- Existing 500 kV Line
- Planned 500 kV Line
- Existing 230 kV Line
- Planned 230 kV Line

Blythe Airport Zoning
- Zone A
- Zone B1
- Zone B2
- Zone C
- Zone D
- Zone E

- Open Space

N

0 3,000 6,000
Feet
1:36,000

FIGURE 4.2.8-1
AIRPORT COMPATIBILITY ZONES AND OPEN SPACE

BLYTHE MESA SOLAR PROJECT

POWER ENGINEERS
RENEWABLERESOURCESGROUP

Source: USDA NAIP Imagery, 2012.

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Table 4.2.8-3 Blythe Municipal Airport Compatibility Zones Associated with the Solar Facility

ZONE	TOTAL ACRES WITHIN ZONE	ACRES OF DISTURBANCE	OPEN SPACE ACRES	% OF OPEN SPACE	MIN. RCALUCP REQUIREMENTS
Zone B1	47.5	0.0	47.5	**100.0%**	30%
Zone C	668.2	510.4	157.8	**23.6%**	20%
Zone D	1,676.6	1,199.8	476.8	**28.4%**	10%
Zone E	901.3	771.5	129.8	**14.4%**	not applicable

Source: Compiled by POWER 2012.

The electricity from the PV panels would be transferred along medium-voltage (34.5 kV) distribution lines that would consist of above-ground poles (35 to 60 feet tall), with an average tower-to-tower span of 200 feet, and cross through Compatibility Zones C, D, and E.

The 230 kV gen-tie line (poles approximately 85 to 125 feet in height) would cross through Compatibility Zones D and E and proceed generally from I-10 in a southwesterly direction. The line would continue in a westerly direction, where it would terminate at the Colorado River Substation outside the Blythe Municipal AIA. The structure heights for the 34.5 kV distribution lines and 230 kV gen-tie line would be below the maximum height requirements of the RCALUCP's Policy 1.5.3(a)(9). The proposed gen-tie line would be within or adjacent to an existing utility corridor and co-located with other existing and planned transmission lines of similar height (see Figure 4.2.8-1 and Table 3.3.8-1). In addition, FAA issued "No Hazard to Air Navigation" Determinations for the 230 kV gen-tie line structures.

The Riverside County Airport Land Use Commission (ALUC) was concerned about the height of the 230 kV gen-tie line poles' potential reflection and glare impacts, and cumulative impacts and potential impacts to operations at the Blythe Airport. However, as requested by the ALUC, several 230 kV structures within Compatibility Zone C were relocated approximately 2,500 feet farther from Runway 17-35. In addition, as described in Section 4.2.1, *Aesthetics, Visual Resources, and Reflection*, a Glare Study was performed for the Project to assess potential impacts from reflection and glare. The findings from the Glare Study, as well as simulated animations, were presented to the ALUC. In April 2012, the ALUC found the Project is consistent with the RCALUCP (refer to Appendix N of this Draft EIR/EA).

Decommissioning

During decommissioning, substantial quantities of solid wastes (concrete, metal) and industrial wastes (dielectric insulating oil, diesel fuel) could result from dismantling the proposed Project. Large quantities of broken concrete from gen-tie line structure and building foundations and rock or gravel from on-site roads or electrical substations would be generated in addition to metal from fencing, structures, wiring, and water storage tanks. Transformers, inverters, the substation, and the septic system would all require removal and disposal. Other concrete foundations, such as those for buildings and inverter pads, would be demolished and removed or used on-site for fill as needed.

Gravel from roads would be either used on-site for fill or removed. Commercially reasonable efforts would be made to recycle or reuse materials from the decommissioning. All other materials would be disposed of at a licensed facility.

As part of the Project, BMP-9 (Hazardous Materials) would be implemented to ensure minimization of impacts associated with hazardous materials storage and use during decommissioning, as would be applied during construction and operation and maintenance. Compliance with applicable laws, as well as standards enforced by the agencies, including the DTSC, would reduce potential impacts from the use of hazardous materials at the solar facility such that no direct (spill or accidental release) or indirect (residual contamination after decommissioning) impact would occur during decommissioning of the proposed

Project. After decommissioning activities, the use of hazardous materials associated with the proposed Project would no longer exist.

The construction workforce anticipated for decommissioning would require a similar workforce to construction, but decommissioning would be less intense and last for a shorter duration; therefore, it is anticipated that the proposed Project would not exceed the RCALUCP's maximum densities/intensities thresholds during decommissioning.

Several hazards of potential concern to the public with no corresponding criteria are briefly discussed below. These hazards are acknowledged and discussed to the extent that they would result from the proposed Project and Alternatives.

Electric and Magnetic Fields

Any electricity generation project poses a potential for impacts to public health with respect to electric and magnetic fields (EMF). Both electric and magnetic fields occur together whenever electricity flows. Electric voltage (electric field) and electric current (magnetic field) from the proposed gen-tie line and the electrical collection system that would serve the solar array would create the potential for EMF exposure. The available evidence as evaluated by the California Public Utilities Commission (CPUC) and other regulatory agencies has not established that such fields pose a significant health hazard to exposed humans. To date, there are no health-based federal regulations or industry codes specifying environmental limits on the strengths of fields from power lines. Likewise, the State has not adopted any specific limits or regulations on EMF levels related to electric power facilities.

The potential for the gen-tie line on BLM-managed land to impact human health is minimal because it would primarily be within Utility Corridor K of the CDCA Plan. No residential uses are allowed within this corridor. In addition to the gen-tie line, the Project would include an electrical collection system that would primarily be installed underground. Based on the undeveloped and unpopulated nature of the setting for the Project overall (gen-tie line and PV solar facility), long-term exposure to EMF related to the Project is not expected and no impact would occur.

Interference with Radio-Frequency Communications

Gen-tie line-related radio-frequency interference is one of the indirect effects of Project operation. Interference may be produced by the physical interactions of line electric fields. Such interference is due to the radio noise produced by the action of the electric fields on the surface of the energized conductor. The phenomena involved is known as "corona discharge," but is referred to as "spark gap electric discharge" when it occurs within gaps between the conductor and insulators or metal fittings. When generated, spark gap electric discharge manifests itself as perceivable interference with radio or television signal reception or with other forms of radio communication. The level of interference depends on such factors as line voltage, distance from the line to the receiving device, orientation of the antenna, signal level, line configuration, and weather conditions. As a result, maximum interference levels are not specified as design criteria for modern transmission lines. The level of any such interference usually depends on the magnitude of the electric fields involved and the distance from the line. The potential for such impacts is minimized by reducing the line electric fields and locating the line away from inhabited areas. The proposed gen-tie line is primarily proposed within CDCA Corridor K in an unpopulated portion of the county.

The proposed gen-tie line would be built and maintained in keeping with all applicable standards and regulations, including those prescribed by the CPUC and State of California Rules for Overhead Electric Line Construction, General Order No. 95 (GO-95). The potential for spark gap electric discharge interference is usually of concern for lines of 345 kV and above, not for 230 kV lines. Since the proposed gen-tie line would be in rural and uninhabited desert open space, no direct (at the time of construction) or indirect (during operation of the gen-tie line) impacts related to radio-frequency interference would occur.

Hazardous Shocks

Hazardous shocks are those that could result from direct or indirect contact between an individual and an energized line. No design-specific federal regulations have been established to prevent hazardous shocks from overhead power lines. Safety is ensured within the industry through compliance with the requirements specifying the minimum national safe operating clearances applicable in areas where the line might be accessible to the public. The proposed gen-tie line would be in rural and uninhabited desert open space, making it highly unlikely that the public would come in contact with the line. Moreover, the gen-tie line would primarily be in a designated utility corridor (Corridors J and K) within the CDCA. The Project would be designed, constructed, and operated to meet or exceed the requirements of GO-95. The Project would include a grounding system that would dissipate current created by lightning and ground faults). Additionally, the Project would comply with the applicable U.S. Department of Labor, Occupational Safety and Health Standards.

The solar energy facility inverters and transformers would be placed on concrete foundations. Inverters would be housed in brick enclosures, while transformers would be housed in metal cabinets designed to meet National Electric Manufacturers Association 3R IP44 standards for electrical enclosures. Additionally, all electrical equipment would be subject to the product safety standard requirements of the Underwriters Laboratory and Conformance European certifications, which include assurance that the equipment would be safe to touch by humans and wildlife, and would not pose electrical shock or fire hazards. Therefore, no direct (during construction) or indirect (during operations and maintenance) impacts associated with hazardous shocks are anticipated to occur.

Fire Hazard (Non-Wildland/Operational)

Standard fire prevention and suppression measures would be implemented for the proposed Project. O&M buildings would be designed with fire protection systems based on applicable Riverside County and City of Blythe requirements. Systems where pressurized firewater is used would have electric pumps. Portable fire extinguishers of appropriate sizes and types would be located throughout the facility site. Class C (electrical) rated fire extinguishers would be mounted at each inverter.

The PV modules are typically Class C fire-rated and the remainder of the equipment would be of nonflammable material (aluminum, steel, and glass). The solar facility would be maintained with a minimum of vegetation and other combustible materials. Up to nine 10,000-gallon firewater tanks would be distributed throughout the solar facility. Access roads would provide emergency access throughout the solar facility. The Applicant would design, construct, and operate the solar facility to meet or exceed the requirements of GO-95, as well as implement BMP-4 (Fire Management and Protection Plan) to minimize potential hazards and accidents. Compliance with GO-95 includes clearance-related aspects that would apply to the gen-tie line to ensure adequate emergency access in the event of a fire.

Based on compliance with applicable requirements and design features incorporated as part of the Project, no direct impacts relative to fire hazards are anticipated during operation of the proposed Project.

Valley Fever

Construction of the proposed Project would occur in an area favorable to the growth of Valley Fever, a fungus (*Coccidioides immitis*) that grows in soils in areas of low rainfall, high summer temperatures, and moderate winter temperatures. Project construction would disturb the soil and cause the fungal spores to become airborne, potentially putting construction personnel and wildlife at risk of contracting Valley Fever. Most Valley Fever cases are very mild, and more than half of infected people either have no symptoms or experience flu-like symptoms and never seek medical attention.

While the potential for a direct impact could occur during construction in association with exposure of workers to Valley Fever spores, a dust abatement plan as required by the MDAQMD would minimize the spread of fungal spores, thereby reducing potential for contracting Valley Fever during construction (refer

to BMP-2: Fugitive Dust). No direct or indirect impacts associated with exposure to Valley Fever would occur during operation and maintenance.

Application of CEQA Significance Thresholds

HAZ-1) Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

The Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. The hazardous materials used during the construction phase would be typical of most construction projects of this type. Hazardous materials would be stored, managed, and disposed of per requirements of the Riverside County Fire Department, Riverside County Office of Emergency Services, DTSC, and CUPA. In addition, BMPs listed above would be implemented to minimize or avoid impacts related to the routine transport, use, or disposal of hazardous materials. Three structures on APNs 821-120-026 (shop), 821-120-039 (shop), and 863-100-016 (residence) would be removed as part of the proposed Project. These properties were constructed prior to or during the 1970s; therefore, it is very likely that the building materials used for the on-site structures ACM or LBP. With implementation of Mitigation Measures Hazards-1 and Hazards-2, impacts regarding the transport, use, and handling of hazardous materials during construction and operation of the proposed Project would be reduced to less than significant levels. It is anticipated that impacts from decommissioning would be similar to construction; however, decommissioning would not impact ACM or LBP.

HAZ-2) Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

The Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Impacts would be less than significant.

HAZ-3) Would the Project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

The Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No impacts would occur.

HAZ-4) Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?

One aboveground storage tank was located within the Project solar facility site. It would be removed in compliance with all rules, laws, and regulations. Therefore, the Project would result in a less than significant hazard to the public or the environment.

HAZ-5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard for people residing or working in the project area?

The Project would be within an existing airport land use plan. With implementation of Mitigation Measures Noise-1 and Noise-2, the Project would result in less than significant impacts to the safety of people residing and working in the Project area. In addition, the Project was designed to minimize and avoid obstructions that would compromise safe operations at the Blythe Airport. Accordingly, impacts would be less than significant.

HAZ-6) For a project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the project area?

The Project would not be within the vicinity of a private airstrip; therefore, no impact would occur.

HAZ-7) Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

The Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; therefore, no impact would occur.

HAZ-8) Would the Project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

The Project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires; therefore, no impact would occur.

HAZ-9) Would the Project result in an inconsistency with an Airport Master Plan?

The proposed Project would not conflict with the RCALUCP. As described above, the proposed Project would not exceed the RCALUCP Zone maximum densities/intensities per acre for the average and peak criteria, as well as minimum open space requirements during construction, operation, maintenance, and decommissioning. The gen-tie line poles and 34.5 kV distribution line poles would not exceed the RCALUCP development height for Zones B1, C, D, or E. The gen-tie lines would also be parallel to existing and planned transmission lines that would be similar in height. In April 2012, the ALUC found the Project to be consistent with the RCALUCP. In addition, the FAA issued “No Hazard to Air Navigation” Determinations for the 230 kV gen-tie line structures. Less than significant impact would occur and no mitigation recommended.

HAZ-10) Would the Project require review by the Airport Land Use Commission?

See HAZ-9 above.

Alternative 2: No Project Alternative

Alternative 2, the No Project Alternative, assumes that the proposed Project would not be constructed. Under this Alternative, no federal approval would be required and no BLM-managed land would be crossed. The continuation of existing land uses would be expected based on the current General Plan and land use ordinance designations, and existing agricultural operations would continue on the site. Under the No Project Alternative, existing on-site hazards in the form of oil staining, unauthorized solid waste piles, and 55-gallon storage drums would remain on the solar facility.

Alternative 3: Northern Alternative 230 kV Gen-tie Line Location

Alternative 3 would be similar to Alternative 1, with the exception of the location of the proposed 230 kV gen-tie line. Alternative 3 would place the gen-tie line several hundred feet north of the proposed alignment, and would impact essentially the same resources as the proposed alignment, except that the Alternative route would be closer to the airport. Given these similarities, potential impacts resulting from Alternative 3 would be essentially the same as those of Alternative 1.

Application of CEQA Significance Thresholds

HAZ-1) Would Alternative 3 create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Alternative 3 would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. The hazardous materials used during the construction phase would be typical of most construction projects of this type. Hazardous materials would be stored, managed, and disposed of per requirements of the Riverside County Fire Department, Riverside County Office of Emergency Services, DTSC, and CUPA. In addition, BMPs listed above would be implemented to minimize or avoid impacts related to the routine transport, use, or disposal of hazardous materials. Three structures on APNs 821-120-026 (shop), 821-120-039 (shop), and 863-100-016 (residence) would be removed as part of the proposed Project. These properties were constructed prior to or during the 1970s; therefore, it is very likely that the building materials used for the on-site structures have ACM or LBP. With implementation of Mitigation Measures Hazards-1 and Hazards-2, impacts regarding the transport, use, and handling of hazardous materials during construction and operation of the proposed Project would be reduced to less than significant levels. It is anticipated that impacts from decommissioning would be similar to construction; however, decommissioning would not impact ACM or LBP.

HAZ-2) Would Alternative 3 create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Alternative 3 would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Impacts would be less than significant.

HAZ-3) Would Alternative 3 emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Alternative 3 would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No impacts would occur.

HAZ-4) Would Alternative 3 be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?

One aboveground storage tank was located within the Alternative 3 solar facility site. It would be removed in compliance with all rules, laws, and regulations. Therefore, Alternative 3 would result in a less than significant hazard to the public or the environment.

HAZ-5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would Alternative 3 result in a safety hazard for people residing or working in the Alternative 3 area?

Alternative 3 would be within an existing airport land use plan. With implementation of Mitigation Measures Noise-1 and Noise-2, Alternative 3 would result in less than significant impacts to the safety of people residing and working in Alternative 3 area. In addition, Alternative 3 was designed to minimize and avoid obstructions that would compromise safe operations at the Blythe Airport.

HAZ-6) For a project within the vicinity of a private airstrip, would Alternative 3 result in a safety hazard for people residing or working in the Alternative 3 area?

Alternative 3 would not be within the vicinity of a private airstrip; therefore, no impact would occur.

HAZ-7) Would Alternative 3 impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Alternative 3 would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; therefore, no impact would occur.

HAZ-8) Would Alternative 3 expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Alternative 3 would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires; therefore, no impact would occur.

HAZ-9) Would Alternative 3 result in an inconsistency with an Airport Master Plan?

Alternative 3 would not conflict with the RCALUCP. Alternative 3 would require the same number of workers as the proposed Project; therefore, it would not exceed the RCALUCP Zone maximum densities/intensities per acre for the average and peak criteria, as well as minimum open space requirements during construction, operation, maintenance, and decommissioning. The gen-tie line poles and 34.5 kV distribution line poles would not exceed the RCALUCP development height for Zones B1, C, D, or E. The gen-tie line, which would be slightly closer to the Blythe Airport than the proposed Project, would also be parallel to existing and planned transmission lines that would be similar in height. The FAA issued “No Hazard to Air Navigation” Determinations for Alternative 3’s gen-tie poles on June 15, 2012. No impact would occur and no mitigation recommended.

HAZ-10) Would Alternative 3 require review by the Airport Land Use Commission?

The solar facility component of Alternatives 1 and 3 are the same; therefore, the ALUC has reviewed this component of Alternative 3. However, within the Blythe AIA, seven poles have not been reviewed by the ALUC and would require review. Since the FAA issued “No Hazard to Air Navigation” Determinations for these poles, no impacts are anticipated from the review of the ALUC.

Alternative 4: Southern Alternative 230 KV Gen-tie Line Location

Alternative 4 would be similar to Alternative 1, with the exception of the location of the proposed 230 kV gen-tie line. Alternative 4 would place the gen-tie line several hundred feet south of the proposed alignment, and would impact the essentially the same resources as the proposed alignment, though the Alternative route would be farther away from the airport. Given these similarities, potential impacts resulting from Alternative 4 would be the essentially the same as or slightly less than those of Alternative 1.

Application of CEQA Significance Thresholds

HAZ-1) Would Alternative 4 create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Alternative 4 would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. The hazardous materials used during the construction phase would be typical of most construction projects of this type. Hazardous materials would be stored, managed, and disposed of per requirements of the Riverside County Fire Department, Riverside County Office of Emergency Services, DTSC, and CUPA. In addition, BMPs listed above would be implemented to minimize or avoid impacts related to the routine transport, use or disposal of hazardous materials. Three structures on APNs 821-120-026 (shop), 821-120-039 (shop), and 863-100-016 (residence) would be removed as part of the proposed Project. These properties were constructed prior to or during the 1970s; therefore, it is very likely that the building materials used for the on-site structures have ACM or LBP. With implementation of Mitigation Measures Hazards-1 and

Hazards-2, impacts regarding the transport, use, and handling of hazardous materials during construction and operation of the proposed Project would be reduced to less than significant levels. It is anticipated that impacts from decommissioning would be similar to construction; however, decommissioning would not impact ACM or LBP.

HAZ-2) Would Alternative 4 create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Alternative 4 would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Impacts would be less than significant.

HAZ-3) Would Alternative 4 emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Alternative 4 would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No impacts would occur.

HAZ-4) Would Alternative 4 be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?

One aboveground storage tank was located within the Alternative 4 solar facility site. It would be removed in compliance with all rules, laws, and regulations. Therefore, Alternative 4 would result in a less than significant hazard to the public or the environment.

HAZ-5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would Alternative 4 result in a safety hazard for people residing or working in the Alternative 4 area?

Alternative 4 would be within an existing airport land use plan. With implementation of Mitigation Measures Noise-1 and Noise-2, Alternative 4 would result in less than significant impacts to the safety of people residing and working in the Project area. In addition, Alternative 4 was designed to minimize and avoid obstructions that would compromise safe operations at the Blythe Airport.

HAZ-6) For a project within the vicinity of a private airstrip, would Alternative 4 result in a safety hazard for people residing or working in the Alternative 4 area?

Alternative 4 would not be within the vicinity of a private airstrip; therefore, no impact would occur.

HAZ-7) Would Alternative 4 impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Alternative 4 would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; therefore, no impact would occur.

HAZ-8) Would Alternative 4 expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Alternative 4 would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires; therefore, no impact would occur.

HAZ-9) Would Alternative 4 result in an inconsistency with an Airport Master Plan?

Alternative 4 would not conflict with the RCALUCP. Alternative 4 would require the same number of workers as the proposed Project; therefore, it would not exceed the RCALUCP Zone maximum densities/intensities per acre for the average and peak criteria, as well as minimum open space requirements during construction, operation, maintenance, and decommissioning. Alternative 4's gen-tie line poles would be farther away from the Blythe Airport than the proposed Project's (Alternative 1). Therefore, the gen-tie line poles would not exceed the RCALUCP development height for Zones B1, C, D, or E. The gen-tie line would also be parallel to existing and planned transmission lines that are similar in height. No impact would occur and no mitigation recommended.

HAZ-10) Would Alternative 4 require review by the Airport Land Use Commission?

The solar facility component of Alternatives 1, 3, and 4 are the same; therefore, the ALUC has reviewed this component of Alternative 4. The portion of the gen-tie line that would extend outside the solar facility site would not be within the Blythe AIA; therefore, no review would be required by the ALUC. No impact would occur.

Alternative 5: Reduced Acreage Alternative

Similar to Alternative 1, Alternative 5 would include the construction, operation, maintenance, and decommissioning of a solar facility and associated infrastructure. The primary difference between Alternatives 1 and 5 is the absence of solar facility development north of I-10, which would reduce electrical output from a 485 MW down to a 315 MW alternating current solar PV facility. The Reduced Acreage Alternative would be on a reduced footprint of approximately 2,476 acres (from 3,660 acres for the proposed Project). Alternative 5 would include approximately 2,403 acres for the solar field. Similar to the proposed Project, 73 acres would be utilized for the 230 kV gen-tie line. In comparison to Alternative 1, Alternative 5 would eliminate one on-site substation and one O&M building and would have one access point (planned on Seeley Avenue). The Reduced Acreage Alternative would also no longer extend a 230 kV overhead gen-tie line from an on-site substation north of I-10, as this Alternative would not be developed on land north of I-10. Instead, this Alternative would construct an approximately 7.8-mile-long, 230 kV overhead gen-tie line from the proposed on-site substation south of I-10 to the approved Colorado River Substation. Approximately three miles of the gen-tie line would be within the solar facility. Alternative 5 would avoid impacts that would result from the construction, operation, maintenance, and decommissioning of a solar development north of I-10; however, the land on which Alternative 1 is proposed would continue with existing uses. Current agricultural practices north of I-10 would continue, and the expected current use of pesticides, fertilizers, and fuels for farming equipment would remain unchanged.

The Reduced Acreage Alternative solar facility and a portion of the gen-tie line would be within the jurisdiction of the County of Riverside but not within the City limits of Blythe in comparison to the proposed Project. Alternative 5 would need to comply with the RCGP (2003) and PVVAP (2008). The remaining portion of the gen-tie line would traverse lands managed by the BLM and would need to comply with the CDCA Plan. The construction, operation, maintenance, and decommissioning of Alternative 5 would not exceed those hazards and hazardous materials impacts identified under the Alternative 1 analysis. Therefore, the Alternative 1 analysis would be applicable to Alternative 5, outside of those differences identified in the discussion below.

Analysis of Direct and Indirect Impacts

Construction

Pesticide Residue

Similar to the Alternative 1 site, portions of the Alternative 5 site are in agricultural production. As a result, there is a potential for residual, low-level concentrations of pesticides and other agricultural chemicals to

be present in soil and/or groundwater. Application of herbicides and pesticides used in accordance with manufacturer-prescribed and labeled instructions would result in the potential presence of low concentrations of agricultural chemicals on the solar facility site, which is not anticipated to be at hazardous levels. Should they be chemically impacted soils (i.e., fuels, pesticides, herbicides) be present in the Project area, the risk of exposure to human health is not believed to be a significant concern. Furthermore, Alternative 5 would not contain a residential or commercial component that would expose people to potential pesticides or herbicides.

Hazardous Materials on Adjacent Properties

Refer to the analysis under Alternative 1.

Herbicide Use

During the construction period, herbicide may be applied to control weed growth. Use of herbicides would occur in accordance with all recommended application procedures as identified on product labels as well as in cooperation with the County Agricultural Commissioner and BLM. In addition, a project-specific Integrated Weed Management Plan (BMP-10) would be developed and approved by the County Agricultural Commissioner and BLM prior to any application of herbicides on Alternative 5 for weed management.

Hazardous Materials Use

Transport

Some hazardous materials, which would be transported to the Alternative 5 site, would be required during construction. These include diesel fuel, oil, and grease for heavy equipment as well as paints and solvents. Large quantities of these materials are not anticipated to be transported. However, all hazardous materials transported to the site, under the reduced access point for Alternative 5, would be managed in compliance with applicable laws and regulations. Should a vehicle such as a gasoline tank be required, transport would occur in compliance with DTSC regulations.

Use and Storage

Similar to Alternative 1, a variety of hazardous materials would be used during construction of Alternative 5. The analysis under Alternative 1 would apply.

Disposal

Although reduced under Alternative 5, leftover or spent materials would be generated during construction, similar to Alternative 1. The analysis under Alternative 1 would apply.

Airport Land Use Compatibility Plan

Although reduced to only the area south of I-10, Alternative 5 would fall within the Blythe Municipal AIA, which is covered by the RCALUCP. Similar to Alternative 1, the majority of Alternative 5 components would be within Compatibility Zones C, D and E; no structures are proposed in Zone B1. Construction of the proposed Project is expected to require about three years total to complete. During the peak 24-month period, the number of construction workers could at times reach 400 persons and would typically range between 200 and 400 workers at the site. As these numbers would fall under estimations for Alternative 1 and Alternative 1 does not exceed any RCALUCP Zone average occupancy criteria, it is reasonable to expect that the Alternative 5 level of activity would not exceed any RCALUCP Zone peak occupancy criteria.

Under Alternative 5, one O&M site would be developed in Zone D and the other in Zone E. The three substation sites would each about two acres in area; two would be in Zone E. The peak construction work

force for this facility would be about 150 persons, or about 75 persons per acre. This level of activity would not exceed the peak or average intensity factor.

Operation and Maintenance

Herbicides

A long-term strategy for weed control and management would be implemented during operation of Alternative 5, similar to Alternative 1. Refer to analysis under Alternative 1.

Transport, Use and Storage, and Disposal of Hazardous Materials

As with Alternative 1, small quantities of hazardous materials would be transported to the site for Alternative 5 (in accordance with DTSC regulations, as applicable) and used and stored on-site for miscellaneous, general maintenance activities. Refer to analysis under Alternative 1.

Riverside County Airport Land Use Compatibility Plan

As development of Alternative 1 would meet the RCALUCP's minimum open space requirements, so would development of Alternative 5, since the Reduced Acreage Alternative would fall within the portion of Alternative 1 that would occur south of I-10. All remaining development under Alternative 5 south of I-10 would mirror Alternative 1; as such, the analysis for Alternative 1 in this area would apply. The FAA issued "No Hazard to Air Navigation" Determinations for the 230 kV gen-tie line structures.

The findings from the Glare Study, as well as simulated animations, were presented to the ALUC. On April 2012, the ALUC found Alternative 1 to be consistent with the RCALUCP. As Alternative 5 would develop a portion of the Alternative 1 site, Alternative 5 would be consistent with the RCALUCP determination, as well.

Decommissioning

During decommissioning, substantial quantities of solid wastes (concrete, metal) and industrial wastes (dielectric insulating oil, diesel fuel) could result from dismantling Alternative 5, similar to Alternative 1. The analysis under Alternative 1 would apply.

Application of CEQA Significance Thresholds

HAZ-1) Would Alternative 5 create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Similar to Alternative 1, Alternative 5 would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. The hazardous materials used during the construction phase would be typical of most construction projects of this type. Hazardous materials would be stored, managed, and disposed of per requirements of the Riverside County Fire Department, Riverside County Office of Emergency Services, DTSC, and CUPA. In addition, BMPs listed above would be implemented to minimize or avoid impacts related to the routine transport, use, or disposal of hazardous materials. Alternative 5 would avoid the removal of two structures that would be impacted by Alternative 1—APNs 821-120-026 (shop) and 821-120-039 (shop). Alternative 5 would require the removal of a residential structure on APN 863-100-016. The residence was constructed prior to or during the 1970s; therefore, it is very likely that the building materials used for the structure contain ACM and/or LBP. With implementation of Mitigation Measures Hazards-1 and Hazards-2, impacts regarding the transport, use, and handling of hazardous materials during construction and operation of Alternative 5 would be reduced to less than significant levels. It is anticipated that impacts from decommissioning would be similar to construction; however, decommissioning would not impact ACM or LBP.

HAZ-2) Would Alternative 5 create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Similar to Alternative 1, Alternative 5 would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. As such, the HAZ-2 analysis under Alternative 1 would apply.

HAZ-3) Would Alternative 5 emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Similar to Alternative 1, Alternative 5 would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. As such, the HAZ-3 analysis under Alternative 1 would apply.

HAZ-4) Would Alternative 5 be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment?

One aboveground storage tank was located within the Alternative 1 solar facility site. This site is north of I-10, outside of the Alternative 5 development footprint. No impact would occur.

HAZ-5) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would Alternative 5 result in a safety hazard for people residing or working in the project area?

Similar to Alternative 1, Alternative 5 would be within an existing airport land use plan. The HAZ-5 analysis for Alternative 1 would apply.

HAZ-6) For a project within the vicinity of a private airstrip, would Alternative 5 result in a safety hazard for people residing or working in the project area?

Alternative 5 would not be within the vicinity of a private airstrip; therefore, no impact would occur.

HAZ-7) Would Alternative 5 impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Alternative 5 would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; therefore, no impact would occur.

HAZ-8) Would Alternative 5 expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Alternative 5 would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires; therefore, no impact would occur.

HAZ-9) Would Alternative 5 result in an inconsistency with an Airport Master Plan?

Similar to Alternative 1, Alternative 5 would not conflict with the RCALUCP. The HAZ-9 analysis for Alternative 1 would apply.

HAZ-10) Would Alternative 5 require review by the Airport Land Use Commission?

See HAZ-9 above.

Cumulative Impacts

Geographic Scope

The geographic scope considered for cumulative impacts from health, safety, and hazardous materials/fire and fuels management is the area within one mile of the boundary of the study area. One mile is the American Society of Testing and Materials standard search distance for hazardous materials and captures all areas within which a receptor might be expected to experience hazard impacts from the Project along with hazard impacts of other projects. This one-mile standard distance was also applied to other potential safety risks associated with fire and fuels management.

Temporal Scope

The temporal scope refers to the duration over which an impact would occur: short-term or long-term; for example, only during the months of construction, only during operation and maintenance, or during both phases. This limits the projects whose impacts are to be analyzed in the cumulative effects analysis to those that would cause impacts at the same time as the BMSP. Determining the temporal scope requires estimating the length of time the effects of the proposed action would last, either individually or in combination with other anticipated effects. The temporal scope of impacts to hazards and hazardous materials would be during the development of cumulative projects through the end of Project decommissioning, because any direct or indirect effects of the Project would only occur during the life of the Project. The temporal scope of the cumulative impact analysis includes related project construction schedules that overlap with those of the BMSP and the operation of related projects after the construction of the proposed Project has been completed and through the end of Project decommissioning.

Analysis of Direct and Indirect Impacts

Alternative 1: Proposed Project

Construction, Operation, Maintenance, and Decommissioning

Compliance with existing BMP-9 (Hazardous Materials) and agency regulations that address the handling of hazardous materials would ensure that the proposed Project would not create a significant hazard to the public or the environment related to the handling or accidental release of hazardous materials. Past, present, and reasonably foreseeable future projects are also subject to existing agency regulations that address the handling and accidental release of hazardous materials (impact HAZ-1). Therefore, existing agency regulations would ensure that the incremental effects of the Project, when considered together with the effects of past, present, and reasonably foreseeable projects, would not create a cumulatively considerable hazard to the public or environment related to the handling or accidental release of hazardous materials (impact HAZ-2).

Under cumulative conditions, implementation of the proposed Project in conjunction with development of projects listed in Table 4.1-1 is not anticipated to present a public health and safety hazard to residents. Implementation of BMP-3 (Fugitive Dust Abatement Plan) and BMP-9 (Hazardous Materials) would ensure that Project-specific health and safety hazards would be minimized. Additionally, the proposed Project and projects listed in Table 4.1-1 would all involve the storage, use, disposal, and transport of hazardous materials to varying degrees during construction and operation. Impacts from these activities are less than significant for the projects because the storage, use, disposal, and transport of hazardous materials are extensively regulated by various federal, State, and local laws, regulations, and policies. The proposed Project and projects listed in Table 4.1-1 would likely implement and comply with these existing hazardous materials laws, regulations, and policies. Therefore, the projects listed in Table 4.1-1 would not cause a cumulative impact, and the Project would not result in a cumulatively considerable incremental contribution to a cumulative impact related to use or routine transport of hazardous materials (impacts HAZ-1 through HAZ-4).

The gen-tie line component of the proposed Project would connect with other off-site proposed and planned transmission infrastructure to the west of the study area and run parallel to these facilities. As a result of this circumstance, the cumulative projects would be contained within the same ROW as the off-site Project facilities and would not subject additional land areas to hazards associated with hazardous materials and fuels management. Thus, the Project's incremental contribution to any potential cumulative impacts would not be considerable.

Alternative 2: No Project Alternative

If the No Project Alternative is implemented, the proposed action Alternatives would not be implemented and the current agricultural practices and expected current use of pesticides, fertilizers, and fuels for farming equipment would remain unchanged.

Alternative 3: Northern 230 kV Gen-tie Line Location

Alternative 3 is similar to Alternative 1 (proposed Project), with the exception of the location of the Northern 230 kV gen-tie line, which would be approximately 700 feet north of Alternative 1's proposed 230 kV gen-tie line. The cumulative impacts associated with the construction, operation, maintenance, and decommissioning of the solar facility would be the same as Alternative 1. As with Alternative 1, compliance with BMP-9 (Hazardous Materials) and existing agency regulations that address the handling of hazardous materials would ensure that Alternative 3 would not create a significant hazard to the public or the environment related to the handling or accidental release of hazardous materials. Past, present, and reasonably foreseeable future projects are also subject to existing agency regulations that address the handling and accidental release of hazardous materials (impact HAZ-1). Therefore, existing agency regulations would ensure that the incremental effects of Alternative 3, when considered together with the effects of past, present, and reasonably foreseeable projects, would not create a cumulatively considerable hazard to the public or environment related to the handling or accidental release of hazardous materials (impact HAZ-2).

Under cumulative conditions, implementation of Alternative 3 in conjunction with development of projects under the cumulative scenario is not anticipated to present a public health and safety hazard to residents. Implementation of BMP-3 (Fugitive Dust Abatement Plan) and BMP-9 (Hazardous Materials) would ensure that Alternative 3-specific health and safety hazards would be minimized. Additionally, development of Alternative 3 and the projects listed in Table 4.1-1 would all involve the storage, use, disposal, and transport of hazardous materials to varying degrees during construction and operation. Impacts from these activities are less than significant for the projects because the storage, use, disposal, and transport of hazardous materials are extensively regulated by various federal, State, and local laws, regulations, and policies. Alternative 3 and the cumulative scenario projects listed in Table 4.1-1 would likely implement and comply with these existing hazardous materials laws, regulations, and policies. Therefore, the projects listed in Table 4.1-1 would not cause a cumulative impact, and Alternative 3 would not result in a cumulatively considerable incremental contribution to a cumulative impact related to use or routine transport of hazardous materials (impacts HAZ-1 through HAZ-4).

The gen-tie line component of this Alternative would connect with other off-site proposed and planned transmission infrastructure to the west of the study area and run parallel to these facilities. As a result of this circumstance, the cumulative projects would be contained within the same ROW as the off-site Project facilities and would not subject additional land areas to hazards associated with hazardous materials and fuels management. Thus, Alternative 3's incremental contribution to any potential cumulative impacts would not be considerable.

Alternative 4: Southern 230 kV Gen-tie Line Location

Alternative 4 is similar to Alternative 1 (proposed Project), with the exception of the location of the Southern 230 kV gen-tie line, which would be approximately 0.8 mile south of Alternative 1's proposed 230 kV gen-tie line. The cumulative impacts associated with the construction, operation, maintenance, and decommissioning of the solar facility would be the same as Alternative 1. As with Alternative 1, compliance with BMP-9 (Hazardous Materials) and existing agency regulations that address the handling

of hazardous materials would ensure that Alternative 4 would not create a significant hazard to the public or the environment related to the handling or accidental release of hazardous materials. Past, present, and reasonably foreseeable future projects are also subject to existing agency regulations that address the handling and accidental release of hazardous materials (impact HAZ-1). Therefore, existing agency regulations would ensure that the incremental effects of Alternative 4, when considered together with the effects of past, present, and reasonably foreseeable projects, would not create a cumulatively considerable hazard to the public or environment related to the handling or accidental release of hazardous materials (impact HAZ-2).

Under cumulative conditions, implementation of Alternative 4 in conjunction with development of projects under the cumulative scenario is not anticipated to present a public health and safety hazard to residents. Implementation of BMP-3 (Fugitive Dust Abatement Plan) and BMP-9 (Hazardous Materials) would ensure that Alternative 4-specific health and safety hazards would be minimized. Additionally, development of Alternative 4 and the projects listed in Table 4.1-1 would all involve the storage, use, disposal, and transport of hazardous materials to varying degrees during construction and operation. Impacts from these activities are less than significant for the projects because the storage, use, disposal, and transport of hazardous materials are extensively regulated by various federal, State, and local laws, regulations, and policies. Alternative 4 and the cumulative scenario projects listed in Table 4.1-1 would likely implement and comply with these existing hazardous materials laws, regulations, and policies. Therefore, the projects listed in Table 4.1-1 would not cause a cumulative impact, and Alternative 4 would not result in a cumulatively considerable incremental contribution to a cumulative impact related to use or routine transport of hazardous materials (impacts HAZ-1 through HAZ-4).

The gen-tie line component of this alternative would be approximately 0.8 mile south of Alternative 1's proposed 230 kV gen-tie line. However, cumulative scenario projects would likely connect with other proposed and planned transmission infrastructure to the west of the study area and run parallel to these facilities. As a result of this circumstance, the cumulative projects would be contained within the same ROW as the off-site Project facilities and would not subject additional land areas to hazards associated with hazardous materials and fuels management. Thus, Alternative 4's incremental contribution to any potential cumulative impacts would be greater than the proposed Alternatives 1 and 3, but would not be considerable.

Alternative 5: Reduced Acreage Alternative

Construction, Operation, Maintenance, and Decommissioning

Similar to Alternative 1, compliance with BMP-9 (Hazardous Materials) and existing agency regulations, under Alternative 5, that address the handling of hazardous materials would ensure that Alternative 5 would not create a significant hazard to the public or the environment related to the handling or accidental release of hazardous materials. Past, present, and reasonably foreseeable future projects are also subject to existing agency regulations that address the handling and accidental release of hazardous materials (impact HAZ-1). Therefore, existing agency regulations would ensure that the incremental effects of Alternative 5, when considered together with the effects of past, present, and reasonably foreseeable projects, would not create a cumulatively considerable hazard to the public or environment related to the handling or accidental release of hazardous materials (impact HAZ-2).

Under cumulative conditions, implementation of Alternative 5 in conjunction with development of projects listed in Table 4.1-1 is not anticipated to present a public health and safety hazard to residents. Implementation of BMP-3 (Fugitive Dust Abatement Plan) and BMP-9 (Hazardous Materials) would ensure that Alternative 5-specific health and safety hazards would be minimized. Additionally, Alternative 5 and projects listed in Table 4.1-1 would all involve the storage, use, disposal, and transport of hazardous materials to varying degrees during construction and operation. Impacts from these activities are less than significant for the projects because the storage, use, disposal, and transport of hazardous materials are extensively regulated by various federal, State, and local laws, regulations, and policies. Alternative 5 and projects listed in Table 4.1-1 would likely implement and comply with these existing hazardous materials laws, regulations, and policies. Therefore, the projects listed in Table 4.1-1 would not cause a cumulative impact, and Alternative 5 would not result in a cumulatively considerable incremental

contribution to a cumulative impact related to use or routine transport of hazardous materials (impacts HAZ-1 through HAZ-4).

The gen-tie line component of Alternative 5 would connect with other off-site proposed and planned transmission infrastructure to the west of the study area and run parallel to these facilities. As a result of this circumstance, the cumulative projects would be contained within the same ROW as the off-site Alternative 5 facilities and would not subject additional land areas to hazards associated with hazardous materials and fuels management. Thus, Alternative 5's incremental contribution to any potential cumulative impacts would not be considerable.

Mitigation Measures

Hazards-1 Prior to issuance of permits for any demolition activity involving the removal of structures that may contain ACM, an asbestos survey and sampling shall be conducted for existing structures. If ACM are present, they shall be abated in compliance with SCAQMD Rule 1403. Additionally, SCAQMD would be notified prior to any structure renovation or demolition pursuant Rule 1403 (d)(1)(B).

Hazards-2 Prior to issuance of permits for any demolition activity involving structures that may contain LBP, a LBP assessment of each existing structure shall be conducted. LBP found within the Project area shall be removed and disposed of as a hazardous waste in accordance with all applicable regulations.

Residual Impacts

With implementation of the above-listed BMPs as part of the Project and Mitigation Measures Hazards-1 and Hazards-2, the Project would result in less than significant impacts from hazards and hazardous materials.

NEPA Conclusions

The No Project Alternative would not have impacts, as the existing circumstances and operations would continue essentially unchanged. The Project and each of the action Alternatives would comply with federal, State, and local laws, regulations, and policies for hazardous waste and materials. With implementation of BMPs and Mitigation Measures Hazards-1 and Hazards-2, the Project and each of the action Alternatives would not create a significant hazard to the public or the environment related to the handling or accidental release of hazardous materials, use or routine transport of hazardous materials, or subject additional land areas to hazards associated with hazardous materials and fuels management.

4.2.9 Hydrology and Water Quality

This section describes the impact analysis relating to hydrology and water quality for the proposed Project and Alternatives. Additional information on water supply for the Project can be found in the *Water Supply Assessment for the Blythe Mesa Solar Project*, prepared by POWER Engineers, Inc. 2013 (provided in Appendix G of this Draft EIR/EA). Information regarding the floodplain was obtained from the *Blythe Mesa CUP 03685 Wash Feature Summary of Findings* (Appendix H of this Draft EIR/EA).

Methodology for Analysis

To assess potential effects of the proposed Project and Alternatives related to hydrology and water quality, water resources on the proposed solar facility site and within the area were inventoried to allow a location-specific analysis of temporary and permanent effects of the proposed Project. Potential effects to hydrology and water quality include temporary (i.e., construction-related and those related to decommissioning) effects and long term (i.e., operational) effects. When evaluating potential effects of the proposed Project resulting from construction, operation and maintenance, and decommissioning of the Project, it was assumed that the Project would comply with all applicable federal, State, and local regulatory requirements and permits that protect surface water and groundwater.

CEQA Significance Criteria

In compliance with CEQA requirements, determinations were made regarding the significance of each identified impact that would potentially result from construction and operation of the proposed Project. Appropriate criteria derived from the CEQA Guidelines have been identified and utilized to make these significance determinations. Potential impacts are assessed and determined to be either of no impact, less than significant impact, less than significant impact with implementation of mitigation measures, or significant impact. Impacts resulting from the proposed Project would be considered significant and would require mitigation if the Project would:

HYD-1) Violate any water quality standards or waste discharge regulations.

HYD-2) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted).

HYD-3) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.

HYD-4) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site.

HYD-5) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.

HYD-6) Otherwise substantially degrade water quality.

HYD-7) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map.

HYD-8) Place within a 100-year flood hazard area structures which would impede or redirect flood flows.

HYD-9) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam.

HYD-10) Be at risk of inundation by seiche, tsunami, or mudflow.

The following additional significance criteria from the County of Riverside CEQA Environmental Assessment Form are used in the analysis. A project could have potentially significant impacts if it would:

HYD-11) Include new or retrofitted Stormwater Treatment Control BMPs (e.g., water quality treatment basins, constructed treatment wetlands), the operation of which could result in significant environmental effects (i.e., increased vectors and/or odors).

HYD-12) Cause changes in absorption rates or the rate and amount of surface runoff.

HYD-13) Cause changes in the amount of surface water in any water body.

NEPA Requirements

Pursuant to NEPA, this analysis is intended to compare the Alternatives and identify any adverse effects to water resources that cannot be avoided. Adverse effects may be direct, indirect, or cumulative. Potential direct and indirect effects of the proposed Project and Alternatives are analyzed below and discussed as construction-related, operation- and maintenance-related, and decommissioning effects.

Applicable Best Management Practices

As part of the Project and Alternatives, the following applicable BMPs would minimize the environmental impacts to hydrology and water quality. The full BMPs have been detailed below (see also Table 2-4 in Chapter 2) and are further referenced (by number) within the impact discussion.

NUMBER	BMP DESCRIPTION
BMP-1	**Drainage, Erosion, and Sedimentation Control Plan**. As part of the County of Riverside's Conditional Use Permit (CUP) requirements, a Drainage, Erosion, and Sedimentation Control Plan would be developed for the Project. The plan would address the drainage, erosion, and sediment control requirements to support all activities associated with construction, operation, maintenance, and decommissioning of the Project. For example, any stockpiles created would be kept on-site, with an upslope barrier in place to divert runoff. Stockpiles would be sprayed with water, covered with tarpaulins, and/or treated with appropriate dust suppressants, especially in preparation for high wind or storm conditions. Certified weed-free straw bale barriers would be installed to control sediment in runoff water; straw bale barriers would be installed only where sediment-laden water can pond, thus allowing the sediment to settle out. Topsoil from the site would be stripped, stockpiled, and stabilized before excavating earth for facility construction. Topsoil would be segregated and spread on freshly disturbed areas to reduce color contrast and aid rapid revegetation.
BMP-2	**Stormwater Pollution Prevention Plan.** In compliance with requirements of the National Pollutant Discharge Elimination System (NPDES) permit, a Stormwater Pollution Prevention Plan (SWPPP) would be developed and prepared for the Project to ensure that protection of water quality and soil resources is consistent with County and State regulations. The plan would identify site surface water runoff patterns and include measures that prevent excessive and unnatural soil deposition and erosion throughout and downslope of the Project area and Project-related construction areas, and would also include measures for non-stormwater discharge and waste management. The SWPPP would cover all activities associated with the construction of the Project, including clearing, grading, and other ground disturbance such as stockpiling or excavation erosion control. The plan would prevent off-site migration of contaminated stormwater, changes in pre-Project storm hydrographs, or increased soil erosion.
BMP-3	**Fugitive Dust Abatement Plan.** As required by the Mojave Desert Air Quality Management District Rule 403, a Fugitive Dust Abatement Plan would be prepared to address fugitive dust emissions during Project construction, operation, maintenance, and decommissioning. The plan would include measures to minimize fugitive dust emissions from wrecking, excavation, grading, clearing of land, and solid waste disposal operations, and would take every reasonable precaution to prevent visible particulate matter from being deposited upon public roadways as a direct result of operations. During construction, all unpaved roads, disturbed areas (e.g., areas of scraping, excavation, backfilling, grading, and compacting), and loose materials generated during Project construction activities would be watered as frequently as necessary to minimize fugitive dust generation. However, the amount of water will be minimized each time to prevent temporarily ponding water that may occur as a result of the fugitive dust plan. In water-deprived locations, water spraying would be limited to active disturbance areas only, and non-water-based dust control measures would be implemented in areas with

NUMBER	BMP DESCRIPTION
	intermittent use or use that is not heavy, such as stockpiles or access roads. Alternatively, chemical dust suppressants or durable polymeric soil stabilizers could be used. The dust suppression measures would consider the sensitivity of wildlife to the windborne dispersal of fugitive dust containing dust suppressants and the potential impact on future reclamation.
BMP-9	**Hazardous materials.** As required by the Clean Air Act, Section 401 of the Clean Water Act, the Toxic Substance Control Act, and the Hazardous Materials Transportation Act, all vehicles and equipment must be in proper working condition to ensure that there is no potential for fugitive emissions or accidental release of motor oil, fuel, antifreeze, hydraulic fluid, grease, or other hazardous materials. Equipment must be checked for leaks prior to operation and repaired as necessary. Refueling of equipment must take place on existing paved roads, where possible, and not within or adjacent to drainages. Hazardous spills must be cleaned up immediately. Contaminated soil would be disposed of at an approved offsite landfill, and spills reported to the permitting agencies. Service/maintenance vehicles should carry appropriate equipment and materials to isolate and remediate leaks or spills, and an on-site spill containment kit for fueling, maintenance, and construction will be available. Cleaning of construction vehicles at commercial car washes should be considered rather than washing vehicles on the Project area so that dirt, grease, and detergents are treated effectively at existing facilities designed to handle those types of wastes.
BMP-10	**Integrated Weed Management Plan.** In compliance with the Federal Noxious Weed Act and the Plant Protection Act, a Project-specific integrated weed management plan for the control of noxious weeds and invasive plant species would be prepared. The plan would identify presence, location, and abundance of weed species in the Project area and surrounding area adjacent to the Project, as well as identify suppression and containment measures to prevent the spread of weed species and introduction of weed species. Prevention techniques would include: limiting disturbance areas during construction to the minimum required to perform work; limiting ingress and egress to defined routes; maintaining vehicle wash and inspection stations; and closely monitoring the types of materials brought on-site to minimize the potential for weed introduction. During operations, noxious and invasive weed management will be incorporated as a part of mandatory site training for groundskeepers and maintenance personnel. Training will include weed identification and the impacts on agriculture, wildlife, and fire frequencies. Training will also cover the importance of preventing the spread of noxious weeds and of controlling the proliferation of existing weeds.
BMP-11	**Project structures, gen tie line, and building surfaces.** Project facilities would be sited to ensure that there is adequate space (i.e., setbacks of no less than 100 feet) between solar facilities and natural washes. These setbacks would preserve and maintain the natural washes' hydrological functions. The color and finish of Project structure and building surfaces that are visible to the public will be designed to ensure minimal visual intrusion, contrast, and glare. Grouped structures will be painted the same color to reduce visual complexity and color contrast. Solar panel backs will be color-treated to reduce visual contrast with the landscape setting. Materials, coatings, or paints having little or no reflectivity will be used wherever possible. The visual color contrast of graveled surfaces will be reduced with approved color treatment practices.
BMP-13	**Ground and surface disturbance.** Construction boundaries would be clearly delineated to minimize areas of ground and surface disturbance. Ground-disturbing activities shall be minimized, especially during the rainy season. To the maximum extent possible, construction-related activities (such as vehicle and foot traffic) would avoid areas with intact biological soil crusts. For cases in which impacts cannot be avoided, soil crusts would be salvaged and restored on the basis of recommendations by the County of Riverside and BLM once construction has been completed. Existing rocks, vegetation, and drainage patterns shall be preserved to the maximum extent possible. No paint or permanent discoloring agents shall be applied to rocks or vegetation (to indicate surveyor construction activity limits or for any other purpose). All stakes and flagging shall be removed from the construction area and disposed of in an approved facility. Where feasible, brush-beating, mowing, or use of protective surface matting rather than removing vegetation shall be employed. Clearing and disturbing of sensitive areas (e.g., steep slopes and natural drainages) and other areas shall be avoided outside the construction zone. Surface disturbance would be minimized by utilizing undulating surface disturbance edges; stripping, salvaging, and replacing topsoil; using contoured grading; controlling erosion; using dust suppression techniques; and restoring exposed soils to their original contour and vegetation.
BMP-14	**Travel and traffic.** Vehicular traffic on-site shall be confined to existing or designated travel routes and designated work areas. Access to the construction site and staging areas shall be limited to authorized vehicles and only through the designated roads. The extent of habitat disturbance during construction shall be reduced by keeping vehicles on access roads and minimizing foot and vehicle traffic through undisturbed areas. To the

NUMBER	BMP DESCRIPTION
	extent practical, travel shall be limited to stabilized roads. Road maintenance activities shall avoid blading existing forbs and grasses in ditches and adjacent to roads. Abandoned roads and roads no longer needed shall be subsoiled to increase infiltration and reduce soil compaction, then recontoured and revegetated. Construction traffic shall avoid unpaved surfaces to the extent practical (to reduce the risk of compaction) and reduce speed to lessen fugitive dust emissions. On unpaved or unstabilized surfaces within the construction site, speed limits (e.g., 20 mph) shall be posted with visible signs and enforced to minimize airborne fugitive dust. Project vehicle speeds shall be limited in areas occupied by special-status animal species. Traffic shall stop to allow wildlife to cross roads. Shuttle vans or carpooling shall be used to reduce the amount of traffic on access roads. Workers shall be trained to comply with the speed limit, use good engineering practices, minimize the drop height of materials, and minimize the number and extent of disturbed areas. The Project developer shall enforce these requirements.
BMP-15	**New access roads and parking lots.** New access roads shall be designed and constructed to the appropriate road design standards, such as those described in BLM Manual 9113 or County standards, whichever is applicable. New access roads shall be designed to follow natural land contours in the Project area and avoid existing desert washes. The specifications and codes developed by the U.S. Department of Transportation (DOT) and County of Riverside Transportation Department are also to be taken into account. Primary access roads and parking lots shall be surfaced with aggregate that is hard enough that vehicles cannot crush it and thus cause dust or compacted soil conditions. Paving may also be used on access roads and parking lots. Alternatively, chemical dust suppressants or durable polymeric soil stabilizers would be used on these locations.

Alternative 1: Proposed Project

Analysis of Direct and Indirect Impacts

Construction

Water Quality

Construction of the solar facility, gen-tie lines, new substations, access roads, and O&M buildings would require ground-disturbing activities, including clearing and grading for structure installation work areas, and access for construction. Disturbed soils accelerate erosion and increase sediment in stormwater runoff to receiving waters, causing increased turbidity and sedimentation if not managed appropriately. Construction-related erosion and sedimentation as a result of soil disturbance would be minimized as part of the Project with preparation of a Drainage, Erosion, and Sedimentation Control Plan (BMP-1) and Stormwater Pollution Prevention Plan (BMP-2). Construction of the proposed Project would not permanently alter the course of any of the drainages. Additionally, fuel, oil, and other fluids used in construction vehicles, equipment, and heavy machinery could enter drainages via storm flow and contaminate water, introducing additional sources of polluted stormwater runoff. The potential for accidental release of motor oil, fuel, antifreeze, hydraulic fluid, grease, and other hazardous materials would be minimized as part of the Project with implementation of BMP-2 and BMP-9.

Ground disturbance related to construction of the Project could potentially degrade water quality through the inadvertent release of residual pesticides from former agricultural lands. All pesticides used in the United States must be registered (licensed) by the EPA, which requires that pesticides would not cause unreasonable harm to the environment. Registered pesticides must be used in accordance with directions contained on the label of the product. The Project would not include the use of pesticides during construction or operation. While the Project may involve the use of herbicides as part of the Integrated Weed Management Plan (BMP-10), herbicides would be applied in accordance with all recommended or required application procedures.

Hazardous material storage and management would be implemented in accordance with requirements set forth by the Riverside County Fire Department (RCFD), Riverside County Office of Emergency Services, DTSC, and CUPA for storage and handling of hazardous materials. As part of the Project, the potential for accidental release of motor oil, fuel, antifreeze, hydraulic fluid, grease, and other hazardous

materials would be minimized with implementation of BMP-9. In addition, construction activities would occur according to Occupational Safety and Health Administration (OSHA) regulatory requirements; therefore, it is not anticipated that construction activities for the proposed Project would release hazardous materials, substances, or waste.

Surface Water, Groundwater, and Water Supply

An ephemeral drainage bisects the gen-tie line and a portion of the solar facility site and may be affected by construction, operation, or maintenance of the proposed Project. The solar panels have been designed to avoid placement within the ephemeral drainage; however, one gen-tie pole would be within the potential ordinary high water mark of the drainage. Construction of the new substations (approximately 90,000 square feet each), O&M buildings (approximately 3,500 square feet each), and equipment pads (approximately 360 square feet each) would introduce new areas of impermeable surfaces that would potentially interfere with groundwater recharge within the groundwater basin. The two primary access roads (Seeley Avenue and Riverside Drive) to the O&M buildings would be improved for approximately 100 feet and would be 16 to 20 feet wide. The interior access roads within the solar facility site would be unpaved and pervious. The new impermeable surface areas would not result in substantial negative effects on groundwater recharge due to the high proportion of permeable surfaces that would remain. Construction of the interior unpaved access roads and use of heavy equipment and vehicles across the Project area could result in soil compaction, which could increase surface water runoff rates and quantities, as well as decrease the rate at which water is able to percolate through the ground. As part of the Project, soil compaction would be reduced through minimization of ground disturbance (BMP-13) and use of aggregate for new access roads (BMP-15).

Based on the 2010 Palo Verde Irrigation District (PVID) records, irrigation of the agricultural fields on the proposed solar facility site used approximately 12,000 AF per year (AF/yr) of surface water. It is assumed that Project construction would not involve the use of groundwater pumped from existing wells on-site. During the 36-month (three-year) construction period for the proposed Project, the water supply supplied by the PVID would be reduced to approximately 1,354 AF of water compared to earlier agricultural uses (totaling approximately 1,354 AF over the three-year construction period). Construction water would be used for dust suppression, concrete manufacturing, and fire safety. Accordingly, there would be a beneficial impact to the water supply via reduced need for water.

Existing Drainage Patterns

Project facilities would be sited to provide adequate setbacks between most solar facility components (solar panels, gen-tie lines, substations, access roads, and O&M buildings) and ephemeral drainages (BMP-11). These setbacks would preserve and maintain the hydrological functions of the drainage to the extent possible (see Figure 3.2.9-1 *Floodplain Delineation*). Construction of the Project would require ground-disturbing activities, including solar array installation, substation and O&M building construction, and construction of access roads. Grading could potentially alter naturally occurring drainage patterns and result in soil erosion, sedimentation, long-term siltation, and increased stormwater runoff, which increases the potential for flooding off-site or downstream of the construction areas. However, the Project area is relatively flat and would not require mass grading for construction purposes. The majority of the existing topography at the Project area would be maintained and, therefore, no added storm drainage control would be required outside of the substations and switching station. Stormwater drainage inside the substations and switching station would be designed to minimize erosion and sediment-laden runoff, as described in mitigation measure Hydrology-4. Blading and other methods of vegetation removal for clearance of roads and construction areas decrease the ability of the soil to absorb water, which also increases stormwater runoff from such disturbed areas. As part of the Project, BMP-1 (Drainage, Erosion, and Sedimentation Control Plan) and BMP-2 (Stormwater Pollution Prevention Plan) would be implemented; this would minimize impacts from storm water runoff and existing drainage patterns. In addition, the minimization of ground and surface disturbance (BMP-13), limitation of vehicle travel and traffic (BMP-14), and limited construction of new access roads and parking lots (BMP-15) would minimize impacts to the existing drainage patterns.

Operation and Maintenance

Water Quality

The new substations and O&M buildings would create new areas of impermeable surfaces, which have the potential to increase the rate of stormwater runoff, leading to increased erosion and long-term siltation and flooding downstream of the new impermeable areas, and contribute additional sources of polluted runoff. As part of the Project, however, BMP-1 and BMP-2 would be implemented, which would minimize impacts to water quality that would result from erosion and increased turbidity and sedimentation downstream. Maintenance of access roads and structure pads (e.g., gravelling and vegetation clearance) would contribute additional sources of runoff. As part of the Project, BMP-13 through BMP-15 would be implemented, which would also minimize potential impacts from runoff.

The O&M buildings would generate a minimum volume of wastewater as result of daily activities. Wastewater would be treated via a septic system permitted through the Riverside County Department of Environmental Health Services, and would be in compliance with Department requirements.

Groundwater and Water Supply

The Project would require a limited amount of water for periodic washing of the solar panels, fire water supply, and supply for the operations and maintenance buildings. A total of up to 345 AF per year of non-potable water would be required for Project operation, which is well below the existing (pre-Project) irrigation use of approximately 12,000 AF/yr. Water for the Project would be taken from existing PVID water entitlements that support the agricultural operations currently on the proposed solar facility site; current operations are not supported by groundwater wells. Riverside County Community Service Area #122 (CSA #122) has issued a will-serve letter for the Project's limited potable water needs. Less than one AF of groundwater per year would be required for potable use in the two O&M buildings.

The water supply from PVID sources and CSA #122 is sufficient to meet requirements of the proposed Project, including the minor potable groundwater demand under average-year, single-dry year, and multiple-dry year conditions over a 20-year future projection (refer to Appendix G, *Water Supply Assessment*).

Flood Hazards

The Project would be in an area designated by the Federal Emergency Management Agency (FEMA) as Zone D, which is reserved for areas where there are possible but undetermined flood hazards, and where no FEMA flood hazard analysis has been conducted. However, the Project would be on the Palo Verde Mesa, which is on high ground, at an elevation approximately 50 feet above the historic floodplain of the Colorado River (i.e., the Palo Verde Valley). Additionally, the Project would be approximately eight miles west of the current channel of the Colorado River, and it is unlikely floodwaters associated with the Colorado River that floodwaters would affect the Project.

The ephemeral drainage that bisects the southern portion of the proposed solar facility site was analyzed to determine the depth and extent of a 100-year flood hazard area associated with this drainage (see Appendix H *Blythe Mesa CUP 03685 Wash Feature Summary of Findings*). The extent of the floodplain for this area is delineated in Figure 3.2.9-1 *Floodplain Delineation*. The analysis determined a 100-year flood flow would have a flow velocity of 5,557 cubic feet per second and, given the wide, flat nature of the topography, flood depths would be shallow (3.71 feet maximum depth) and average stream velocities would vary from 6.8 feet per second (4.6 mph) to 2.4 feet per second (1.6 mph) outside of the main channel, and scour would be minimal. Based on the results of this analysis, solar panels, associated hardware, and substation foundations could be elevated to provide additional clearance above the calculated 100-year flood depth, and structured that could not be relocated (e.g., transmission line structures) would be designed to withstand potential flood hazards.

This ephemeral drainage would be crossed by the gen-tie line; the width of the calculated floodplain would preclude the floodplain from being crossed in a single span, and one pole structure would be sited

within the limits of the potential ordinary high water mark, as estimated by field personnel from the USACE. The Project would obtain a Nationwide Permit 12 from the USACE for the placement of the pole structure within the potential ordinary high water mark.

The Project would not be located in the vicinity of a levee or dam, nor would the Project be located such that it would expose people or structures to significant risk of loss, injury, or death involving flooding.

The Project would not be in a location that could be affected by a tsunami or seiche. The Project would be in an area characterized by well-drained soils and low precipitation and would not be within a State of California Earthquake Fault Zone for known active faults, and no known or potentially active faults are mapped within the vicinity of the Project area (the nearest active fault is approximately 58 miles away).

Decommissioning

Activities associated with decommissioning are similar to construction; therefore, effects related to hydrology and water quality associated with decommissioning would be similar to construction-related effects of the proposed Project.

Application of CEQA Significance Thresholds

HYD-1) Would the Project violate any water quality standards or waste discharge regulations?

Temporary, direct impacts to water quality could result from stormwater runoff during construction and operation of the Project, resulting in erosion and increased turbidity and sedimentation downstream if not managed appropriately. In addition, stormwater runoff could transport fuel, oil, and other fluids into drainages via stormwater flow. As part of the Project, BMP-1, BMP-2, BMP-9, BMP-13, BMP-14, and BMP-15 would be implemented to minimize potential impacts to water quality from sedimentation, turbidity, and oil/chemical contamination. Implementation of Mitigation Measure Hydrology-1 would further reduce these potential impacts to a less than significant level.

HYD-2) Would the Project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Construction and operation of the O&M buildings, substations, and equipment pads would create new areas of impermeable surfaces that could potentially interfere with groundwater recharge; however, the new impermeable surfaces would be minimal in comparison to the total solar facility area which would be left in a pervious condition and would not significantly interfere with groundwater recharge. Water supplies required for construction, operation, and maintenance of the Project would be provided by PVID water entitlements that currently support the agricultural operations on-site; these operations are not currently supported by groundwater wells. The Watershed Supply Assessment conducted for the Project determined that adequate water supplies exist to serve the Project over the life of the Project (construction, operation and maintenance, and decommissioning). The great majority of water for the proposed Project (i.e., all of the non-potable water) would not be delivered by a public water system or using public water system connections. The proposed Project would use existing water infrastructure that currently delivers irrigation water from the PVID. Riverside County Community Service Area #122 (CSA #122) has substantiated its intention to provide this potable supply by issuing a will-serve letter (October 26, 2012 c/o Steve H. Jones – Manager) for the Project's limited potable water needs. CSA #122 has provided a will-serve letter for the small amount (up to 150 gallons per day) of potable water for the two O&M buildings. The Project would result in a beneficial increase in available PVID water supply due to the reduction in water demand for the Project compared to existing agricultural use. No impact

HYD-3) Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

An ephemeral drainage bisects the gen-tie line and the southern portion of the proposed solar facility site; however, Project design includes buffers between Project facilities and natural washes, as described in BMP-11. Although on-site grading would be minimized, the installation of proposed facilities, including roads, fencing, solar arrays, and towers along the transmission corridor, could interfere with existing drainage patterns on-site. Any necessary grading would follow existing contours as feasible to minimize alteration of existing drainage patterns (BMP-11). Erosion and sedimentation would be minimized through implementation of the Project Drainage, Erosion, and Sedimentation Control Plan (BMP-1), as well as the required Project SWPPP (BMP-2), and other measures as described in Mitigation Measures Hydrology-1 through Hydrology-4. Implementation of the BMPs, as part of the Project, and mitigation measures would reduce these impacts to less than significant.

HYD-4) Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

As described in HYD-2, the creation of impermeable surfaces relative to the Project area would be nominal. The proposed Project would result in slight alterations in the existing drainage pattern of the site or area (refer to discussion in HYD-3). The Project would be in an area characterized by well-drained soils and low precipitation, and any necessary grading would follow existing contours as feasible to minimize alteration to the existing drainage patterns as described in HYD-3. Designed setbacks, as described in BMP-11, would also minimize alterations to drainage patterns of the ephemeral wash and its associated floodplain, further reducing the potential for flooding on- or off-site. Therefore, there is low potential for flooding on- or off-site during construction, operation, maintenance, and decommissioning of the Project. Impacts would be less than significant.

HYD-5) Would the Project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Creation of new permanent access roads (both paved and unpaved) and construction of the substations, O&M buildings, and equipment pads, along with grading for installation of the solar array, would create additional sources of runoff. Likewise, grading for construction of the solar facility would potentially contribute additional sources of runoff. As part of the Project BMPs discussed above, impacts related to the introduction of additional sources of polluted runoff would be minimized. The majority of the original grades and natural drainage features within the solar facility site and gen-tie line corridor would be maintained; within the substations and switching station, stormwater drainage would be designed to minimize erosion and sediment-laden runoff as well as control the flow of water leaving the property to minimize potential for erosion and flooding off-site, as described in mitigation measure Hydrology-4. Impacts would be less than significant.

HYD-6) Would the Project otherwise substantially degrade water quality?

Ground disturbance related to construction of the Project would potentially degrade water quality through the inadvertent release of hazardous materials, pesticides, and herbicides.

While Project construction and operation could include use or application of hazardous materials or wastewater with potential to degrade water quality, compliance with all applicable regulations and permit requirements would reduce the potential impacts to a less than significant level.

HYD-7) Would the Project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

The proposed Project would not include the construction of any residential units, and would not introduce new housing to the area. No impact would occur.

HYD-8) Would the Project place within a 100-year flood hazard area structures which would impede or redirect flood flows?

The Project would be on the Palo Verde Mesa, at an elevation approximately 50 feet above the historic floodplain of the Colorado River (i.e., Palo Verde Valley approximately eight miles west of the current channel of the Colorado River) and would be unlikely to impede or redirect flood flows associated with the Colorado River. The Project would relocate or elevate Project components to avoid placing structures within the 100-year flood hazard area associated with the ephemeral drainage; gen-tie line structures that could not be relocated would be designed to withstand flood flows to the extent possible to minimize potential of these structures to impede or redirect flood flows. Implementation of Mitigation Measures Hydrology-5 and Hydrology-6 would reduce impacts during construction, operation, maintenance, and decommissioning to less than significant levels.

HYD-9) Would the Project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

The Project would not be located in the vicinity of a levee or dam. Portions of the Project would be located in a floodplain, such that it would expose people or structures to significant risk of loss, injury, or death involving flooding. However, with implementation of Mitigation Measures Hydrology-5 and Hydrology-6 would reduce impacts during construction, operation, maintenance, and decommissioning to less than significant levels.

HYD-10) Would the Project be at risk of inundation by seiche, tsunami, or mudflow?

The Project would not be sited in a location that could be affected by a tsunami or seiche. The Project would be sited in an area characterized by well-drained soils and low precipitation, which is not within a State of California Earthquake Fault Zone for known active faults, and no known or potentially active faults are mapped within the vicinity of the Project area. The Project would not be affected by or result in a mudflow; no impact would occur.

HYD-11) Would the Project include new or retrofitted Stormwater Treatment Control BMPs (e.g., water quality treatment basins, constructed treatment wetlands), the operation of which could result in significant environmental effects (i.e., increased vectors and/or odors)?

No storm water drainage system exists on the Project area. Construction of the proposed Project would include implementation of a SWPPP (BMP-2). The plan would specify measures that would minimize or avoid potential effects associated with storm water runoff. Operation and maintenance would not introduce new infrastructure or alter existing surface water and drainage patterns beyond what occurred during the construction period. Therefore, impacts would be less than significant.

HYD-12) Would the Project cause changes in absorption rates or the rate and amount of surface runoff?

See HYD-3 and HYD-4 above. The proposed Project would cause slight changes in the absorption rates and amount of surface water to on-site or off-site drainages. Implementation of Mitigation Measures Hydrology-3 and Hydrology-4 would reduce potential impacts resulting from runoff and absorption rates.

HYD-13) Would the Project cause changes in the amount of surface water in any water body?

See HYD-2 above. The proposed Project would reduce the amount of water used on-site compared to existing agricultural use, which would not have an adverse effect on Colorado River water supplies or diversions.

Alternative 2: No Project Alternative

Under the No Project Alternative, no new construction and/or operational activities would result, and no new impacts would occur. However, the existing agricultural use on the Project area would continue to utilize a greater amount of water than the action Alternatives, resulting in a negative impact to water supplies as compared to the action Alternatives.

Alternative 3: Northern Alternative 230 KV Gen-tie Line Location

Similar to Alternative 1, Alternative 3 would include the construction, operation, maintenance, and decommissioning of a solar facility and associated infrastructure. The primary difference between Alternatives 1 and 3 is the location of the proposed 230 kV gen-tie alignment within the solar facility to the Colorado River Substation. Within the solar field, the same 230 kV gen-tie alignment would be used for both Alternatives 1 and 3; however, the gen-tie alignment for Alternative 3 would be shifted to the north, but primarily within the same BLM utility corridor and within the SEZ, and entirely on BLM-managed lands. All direct and indirect impacts to groundwater, water supply, water quality, drainage patterns, and flood hazards would be the same as Alternative 1.

Analysis of Direct and Indirect Impacts

Construction

Water Quality

Construction of the solar facility, gen-tie lines, new substations, access roads, and O&M buildings would require ground-disturbing activities, including clearing and grading for structure installation work areas, and access construction. Disturbed soils accelerate erosion and increase sediment in stormwater runoff to receiving waters, causing increased turbidity and sedimentation. Construction-related erosion and sedimentation as a result of soil disturbance would be minimized as part of Alternative 3 with preparation of a Drainage, Erosion, and Sedimentation Control Plan (BMP-1) and SWPPP (BMP-2). Construction of Alternative 3 would not permanently alter the course of any of the drainages. Additionally, fuel, oil, and other fluids used in construction vehicles, equipment, and heavy machinery could enter drainages via storm flow and contaminate water, introducing additional sources of polluted stormwater runoff. The potential for accidental release of motor oil, fuel, antifreeze, hydraulic fluid, grease, and other hazardous materials would be minimized as part of Alternative 3 with implementation of BMP-9, in addition to BMP-2.

Ground disturbance related to construction of Alternative 3 could potentially degrade water quality through the inadvertent release of residual pesticides from former agricultural uses. All pesticides used in the United States must be registered (licensed) by the EPA, which requires that pesticides would not cause unreasonable harm to the environment. Registered pesticides must be used in accordance with directions contained on the label of the product. Furthermore, similar to Alternative 1, Alternative 3 would not include the use of pesticides during construction or operation. While the Project may involve the use of herbicides as part of the Integrated Weed Management Plan (BMP-10), herbicides would be applied in accordance with all recommended or required application procedures.

Hazardous material storage and management would be implemented in accordance with requirements set forth by the RCFD, Riverside County Office of Emergency Services, DTSC, and CUPA for storage and handling of hazardous materials. As part of Alternative 3, the potential for accidental release of motor oil, fuel, antifreeze, hydraulic fluid, grease, and other hazardous materials would be minimized with implementation of BMP-9. In addition, construction activities would occur according to OSHA regulatory

requirements; therefore, it is not anticipated that construction activities for Alternative 3 would release hazardous materials, substances, or waste.

Surface Water, Groundwater, and Water Supply

The Alternative 3 site contains the same ephemeral drainage that bisects Alternative 1, and which may would be affected by construction, operation, or maintenance of Alternative 3. The solar panels would be designed to avoid placement within the ephemeral drainage; however, similar to Alternative 1 at least one gen-tie pole would be within the potential ordinary high water mark of the drainage. Construction of the new substations, O&M buildings, and equipment pads would introduce new areas of impermeable surfaces that would potentially interfere with groundwater recharge within the groundwater basin. The two primary access roads to the O&M buildings would be improved for approximately 100 feet and would be 20 feet wide. The interior access roads within the solar facility site would 12 feet wide and unpaved and pervious. The new impermeable surface areas would not result in substantial negative effects on groundwater recharge. Construction of the interior unpaved access roads and use of heavy equipment and vehicles across the Alternative 3 area could result in soil compaction, which could increase surface water runoff rates and quantities, as well as decrease the rate at which water is able to percolate through the ground. As part of Alternative 3, soil compaction would be minimized through minimization of ground disturbance (BMP-13) and use of aggregate for new access roads (BMP-15).

Based on the 2010 PVID records, irrigation of the agricultural fields on the proposed solar facility site used approximately 12,000 AF per year of surface water. It is assumed that Alternative 3 construction would not involve the use of groundwater pumped from existing wells on-site. During the 36-month construction period for Alternative 3, the water supply that is presently used for agricultural irrigation would be reduced to a maximum of 345 AF/year (up to 1,354 AF of water for the three-year construction period). Construction water would be used for dust suppression, concrete manufacturing, and fire safety. Accordingly, there would be a beneficial impact to the water supply through reduced usage.

Existing Drainage Patterns

Alternative 3 facilities would be sited to provide adequate setbacks between solar facility components and ephemeral drainage (BMP-11). These setbacks would preserve and maintain the hydrological functions of the drainage to the extent possible. Construction of Alternative 3 would require ground-disturbing activities, including solar array installation, substation and O&M building construction, and construction of access roads. Grading could potentially alter naturally occurring drainage patterns and result in soil erosion, sedimentation, long-term siltation, and increased stormwater runoff, which increases the potential for flooding off-site or downstream of the construction areas. However, the Alternative 3 site is relatively flat and would not require mass grading for construction purposes. The majority of the original grades and natural drainage features at the Alternative 3 site would be maintained and, therefore, no added storm drainage control would be required outside of the substations and switching station. Blading and other methods of vegetation removal for clearance of roads and construction areas decrease the ability of the soil to absorb water, which also increases stormwater runoff from such disturbed areas. As part of Alternative 3, BMP-1 (Drainage, Erosion, and Sedimentation Control Plan) and BMP-2 (Stormwater Pollution Prevention Plan) would be implemented; this would minimize impacts from storm water runoff and existing drainage patterns. In addition, the minimization of ground and surface disturbance (BMP-13), limitation of vehicle travel and traffic (BMP-14), and construction of new access roads and parking lots (BMP-15) would minimize impacts to the existing drainage patterns.

Operation and Maintenance

Water Quality

The new substations and O&M buildings would create new areas of impermeable surfaces, which have the potential to increase the rate of stormwater runoff, leading to increased erosion and long-term siltation and flooding downstream of the new impermeable areas, and contribute additional sources of polluted runoff. As part of Alternative 3, however, BMP-1 and BMP-2 would be implemented, which would minimize impacts to water quality that would result from erosion and increased turbidity and

sedimentation downstream. Maintenance of access roads and structure pads (e.g., gravelling and vegetation clearance) would contribute additional sources of runoff. As part of Alternative 3, BMP-13 through BMP-15 would be implemented, which would also minimize potential impacts from runoff.

The O&M buildings would generate a minimum volume of wastewater as result of daily activities. Wastewater would be treated via a septic system permitted through the Riverside County Department of Environmental Health Services, and would be in compliance with Department requirements.

Groundwater and Water Supply

Alternative 3 would require a limited amount of water for washing of the solar panels, fire water supply, and supply for the operations and maintenance buildings. Up to 345 AF/yr of non-potable water would be required for Alternative 3 operation, which is well below the existing irrigation use of approximately 12,000 AF/yr. Water for Alternative 3 would be taken from existing PVID water entitlements that support the agricultural operations currently on the proposed solar facility site; current operations are not supported by groundwater wells. CSA #122 has issued a will-serve letter for BMSP's limited potable water needs. Less than 1.0 AF of groundwater per year would be required for potable use in the two O&M buildings.

The water supply from PVID sources and CSA #122 is sufficient to meet requirements of Alternative 3, including the minor potable groundwater demand under average-year, single-dry year, and multiple-dry year conditions over a 20-year future projection (refer to Appendix G, *Water Supply Assessment Report*).

Flood Hazards

Alternative 3 would be in an area designated by FEMA as Zone D, which is reserved for areas where there are possible but undetermined flood hazards, and where no flood hazard analysis has been conducted. However, Alternative 3 would be on the Palo Verde Mesa, which is on high ground, at an elevation approximately 50 feet above the historic floodplain of the Colorado River. Additionally, Alternative 3 would be approximately eight miles west of the current channel of the Colorado River, and it is unlikely that floodwaters associated with the Colorado River would affect Alternative 3.

The ephemeral drainage that bisects the southern portion of the proposed solar facility site was analyzed to determine the depth and extent of a 100-year flood hazard area associated with this drainage (see Appendix H *Blythe Mesa CUP 03685 Wash Feature Summary of Findings*). The extent of the floodplain for this area is delineated in Figure 3.2.9-1 *Floodplain Delineation*. The analysis determined a 100-year flood flow would have a flow velocity of 5,557 cubic feet per second and, given the wide, flat nature of the topography, flood depths would be shallow (3.71 feet maximum depth) and average stream velocities would vary from 6.8 feet per second (4.6 mph) to 2.4 feet per second (1.6 mph) outside of the main channel, and scour would be minimal. Based on the results of this analysis, solar panels, associated hardware, and substation foundations could be elevated to provide additional clearance above the calculated 100-year flood depth, and structured that could not be relocated (e.g., gen-tie line structures) would be designed to withstand potential flood hazards.

Alternative 3 would not involve work in the vicinity of a levee or dam, nor would Alternative 3 be located such that it would expose people or structures to significant risk of loss, injury, or death involving flooding.

Alternative 3 would not be in a location that could be affected by a tsunami or seiche. Alternative 3 would be in an area characterized by well-drained soils and low precipitation and would not be within a State of California Earthquake Fault Zone for known active faults, and no known or potentially active faults are mapped within the vicinity of the Alternative 3 area (the nearest active fault is approximately 58 miles away).

Decommissioning

Activities associated with decommissioning are similar to construction; therefore, effects related to hydrology and water quality associated with decommissioning would be similar to construction-related effects of Alternative 3.

Application of CEQA Significance Thresholds

HYD-1) Would Alternative 3 violate any water quality standards or waste discharge regulations?

Temporary, direct impacts to water quality could result from stormwater runoff during construction and operation of Alternative 3, resulting in erosion and increased turbidity and sedimentation downstream if not managed appropriately. In addition, stormwater runoff could transport fuel, oil, and other fluids into drainages via stormwater flow. As part of the Project, BMP-1, BMP-2, BMP-9, BMP-13, BMP-14, and BMP-15 would be implemented to minimize potential impacts to water quality from sedimentation, turbidity, and oil/chemical contamination. Implementation of Mitigation Measure Hydrology-1 would further reduce these potential impacts to a less than significant level.

HYD-2) Would Alternative 3 substantially deplete supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Construction and operation of the O&M buildings, substations, and equipment pads would create new areas of impermeable surfaces that could potentially interfere with groundwater recharge; however, the new impermeable surfaces would be minimal in comparison to the total solar facility area, which would be left in a pervious condition, and would not significantly interfere with groundwater recharge. Water supplies required for construction, operation, and maintenance of Alternative 3 would be provided by PVID water entitlements that currently support the agricultural operations on-site; these operations are not currently supported by groundwater wells. The Watershed Supply Assessment conducted for the Project determined that adequate water supplies would exist to serve the Project over the life of Alternative 3 (construction, operation, maintenance, and decommissioning). The great majority of water for Alternative 3 (i.e., all of the non-potable water) would not be delivered by a public water system or using public water system connections. Alternative 3 would use existing water infrastructure that currently delivers irrigation water from the PVID. Riverside County Community Service Area #122 (CSA #122) has substantiated its intention to provide this potable supply by issuing a will-serve letter (October 26, 2012 c/o Steve H. Jones – Manager) for the Project's limited potable water needs. CSA #122 has provided a will-serve letter for the small amount (up to 150 gallons per day) of potable water for the two O&M buildings. Alternative 3 would result in a beneficial increase in available PVID water supply due to the reduction in water demand on compared to existing agricultural use.

HYD-3) Would Alternative 3 substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

As described previously, an ephemeral drainage bisects the gen-tie line and the southern portion of the proposed solar facility site; however, Alternative 3 design would include buffers between Project facilities and natural washes, as described in BMP-11. Although on-site grading would be minimized, the installation of proposed facilities, including roads, fencing, solar arrays, and towers along the transmission corridor, could interfere with existing drainage patterns on-site. Any necessary grading would follow existing contours as feasible to minimize alteration of existing drainage patterns (BMP-11). Erosion and sedimentation would be minimized through implementation of the Project Drainage, Erosion, and Sedimentation Control Plan (BMP-1), as well as the required Project SWPPP (BMP-2), and other measures as described in Mitigation Measures Hydrology-1 through Hydrology-4. Implementation of the BMPs, as part of the Project, and mitigation measures would reduce these impacts to less than significant.

HYD-4) Would Alternative 3 substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

As described in HYD-2, the creation of impermeable surfaces relative to the area of Alternative 3 would be nominal. The Alternative 3 would result in slight alterations in the existing drainage pattern of the site or area (refer to discussion in HYD-3). Alternative 3 would be in an area characterized by well-drained soils and low precipitation, and any necessary grading would follow existing contours as feasible to minimize alteration to the existing drainage patterns as described in HYD-3. Designed setbacks, as described in BMP-11, would also minimize alterations to drainage patterns of the ephemeral wash and its associated floodplain, further reducing the potential for flooding on- or off-site. Therefore, there is low potential for flooding on- or off-site during construction, operation, maintenance, and decommissioning of Alternative 3. Impacts would be less than significant.

HYD-5) Would Alternative 3 create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Creation of new permanent access roads (both paved and unpaved) and construction of the substations, O&M buildings, and equipment pads, along with grading for installation of the solar array, would create additional sources of runoff. Likewise, grading for construction of the solar facility would potentially contribute additional sources of runoff. As part of BMPs discussed above, impacts related to the introduction of additional sources of polluted runoff would be minimized. The majority of the original grades and natural drainage features within the solar facility site and gen-tie line corridor would be maintained; within the substations and switching station, stormwater drainage would be designed to minimize erosion and sediment-laden runoff as well as control the flow of water leaving the property to minimize potential for erosion and flooding off-site, as described in mitigation measure Hydrology-4. Impacts would be less than significant.

HYD-6) Would Alternative 3 otherwise substantially degrade water quality?

Ground disturbance related to construction of Alternative 3 would potentially degrade water quality through the inadvertent release of hazardous materials, pesticides, and herbicides.

While Alternative 3 construction and operation could include use or application of hazardous materials or wastewater with potential to degrade water quality, compliance with all applicable regulations and permit requirements would reduce the potential impacts to a less than significant level.

HYD-7) Would Alternative 3 place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

Alternative 3 would not include the construction of any residential units, and would not introduce new housing to the area. No impact would occur.

HYD-8) Would Alternative 3 place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Alternative 3 would be on the Palo Verde Mesa, at an elevation approximately 50 feet above the historic floodplain of the Colorado River (i.e., Palo Verde Valley approximately eight miles west of the current channel of the Colorado River) and would be unlikely to impede or redirect flood flows associated with the Colorado River. The Project would relocate or elevate Project components to avoid placing structures within the 100-year flood hazard area associated with the ephemeral drainage; gen-tie line structures that could not be relocated would be designed to withstand flood flows to the extent possible to minimize potential of these structures to

impede or redirect flood flows. Implementation of Mitigation Measures Hydrology-5 and Hydrology-6 would reduce impacts during construction, operation, maintenance, and decommissioning to less than significant levels.

HYD-9) Would Alternative 3 expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Alternative 3 would not be located in the vicinity of a levee or dam. Portions of the Project would be located in a floodplain, such that it would expose people or structures to significant risk of loss, injury, or death involving flooding. However, with implementation of Mitigation Measures Hydrology-5 and Hydrology-6 would reduce impacts during construction, operation, maintenance, and decommissioning to less than significant levels.

HYD-10) Would Alternative 3 be at risk of inundation by seiche, tsunami, or mudflow?

Alternative 3 would not be sited in a location that could be affected by a tsunami or seiche. Alternative 3 would be sited in an area characterized by well-drained soils and low precipitation, which is not within a State of California Earthquake Fault Zone for known active faults, and no known or potentially active faults are mapped within the vicinity of the Project area. Alternative 3 would not be affected by or result in a mudflow; no impact would occur.

HYD-11) Would Alternative 3 include new or retrofitted Stormwater Treatment Control BMPs (e.g., water quality treatment basins, constructed treatment wetlands), the operation of which could result in significant environmental effects (i.e., increased vectors and/or odors)?

No storm water drainage system exists on the Alternative 3 site. Construction of Alternative 3 would include implementation of a SWPPP (BMP-2). The plan would specify measures that would minimize or avoid potential effects associated with storm water runoff. Operation and maintenance would not introduce new infrastructure or alter existing surface water and drainage patterns beyond what occurred during the construction period. Therefore, impacts would be less than significant.

HYD-12) Would Alternative 3 cause changes in absorption rates or the rate and amount of surface runoff?

See HYD-2 above. Alternative 3 would cause slight changes in the absorption rates and amount of surface water to on-site or off-site drainages. Implementation of Mitigation Measures Hydrology-3 and Hydrology-4 would reduce potential impacts resulting from runoff and absorption rates.

HYD-13) Would Alternative 3 cause changes in the amount of surface water in any water body?

See HYD-2 above. Alternative 3 would reduce the amount of water used on-site compared to existing agricultural use, which would not have an adverse effect on Colorado River water supplies or diversions.

Alternative 4: Southern Alternative 230 kV Gen-tie Line Location

Also similar to Alternatives 1 and 3, Alternative 4 would include the construction, operation, maintenance, and decommissioning of a solar facility and associated infrastructure. The only difference between Alternatives 1, 3, and 4 is the location of the proposed 230 kV gen-tie line that would extend from the solar facility to the Colorado River Substation. The gen-tie alignment for Alternative 4 would be shifted approximately 0.8 mile to the south, leaving the southwestern section of the solar facility and continuing to the Colorado River Substation. Alternative 4 would be slightly longer than the proposed 230 kV gen-tie alignment (9.5 miles versus 8.4 miles); approximately three miles of the Alternative 4 230 kV gen-tie line would not parallel existing transmission lines, and new access roads may be required for construction of Alternative 4. In addition to the ephemeral stream that runs through the solar facility, the gen-tie line for this Alternative would twice cross an ephemeral drainage that drains from Mule Mountain. Alternative 4 would potentially have greater ground disturbance and areas of soil compaction than Alternatives 1 and 3.

Unless noted below, all direct and indirect impacts to groundwater, water supply, water quality, drainage patterns, and flood hazards would be the same as Alternative 1.

Analysis of Direct and Indirect Impacts

Construction

Water Quality

Construction of Alternative 4 has the potential to affect an ephemeral drainage that flows north/northeast from Mule Mountain. Construction of the Alternative 4 gen-tie line would require ground-disturbing activities, including clearing and grading for structure installation work areas, and construction access. Disturbed soils can be susceptible to erosion and increase sediment in stormwater runoff to receiving waters, causing increased turbidity and sedimentation. Construction-related erosion and sedimentation as a result of soil disturbance would be minimized as part of Alternative 4, with preparation of a Drainage, Erosion, and Sedimentation Control Plan (BMP-1) and SWPPP (BMP-2). Additionally, fuel, oil, and other fluids used in construction vehicles, equipment, and heavy machinery could enter drainages via storm flow and contaminate water, introducing additional sources of polluted stormwater runoff. Implementation of BMP-9, as part of Alternative 4, would minimize the potential for accidental release of motor oil, fuel, antifreeze, hydraulic fluid, grease, and other hazardous materials.

Hazardous material storage and management would be implemented in accordance with requirements set forth by the RCFD, Riverside County Office of Emergency Services, DTSC, and CUPA for storage and handling of hazardous materials. Implementation of BMP-9 as part of Alternative 4 would minimize the potential for accidental release of motor oil, fuel, antifreeze, hydraulic fluid, grease, and other hazardous materials. In addition, construction activities would occur according to OSHA regulatory requirements; therefore, it is not anticipated that construction activities for Alternative 4 would release hazardous materials, substances, or waste.

Surface Water, Groundwater, and Water Supply

Construction of new access or spur roads for the Alternative 4 gen-tie line would potentially affect the ephemeral drainage that flows from Mule Mountain. These access roads would be sited to avoid natural drainages as feasible, would be unpaved and pervious, and would not result in substantial negative effects on groundwater recharge. Use of heavy equipment and vehicles on these access roads could result in soil compaction, which could increase surface water runoff rates and quantities, as well as increase the rate at which water is able to percolate through the ground. Minimization of ground disturbance (BMP-13) would minimize soil compaction.

Existing Drainage Patterns

Alternative 4 gen-tie lines and access roads would be sited to provide adequate setbacks from natural washes (BMP-11). These setbacks would preserve and maintain the hydrological functions of drainages. As described previously, construction of Alternative 4 would require ground-disturbing activities. Grading could potentially alter naturally-occurring drainage patterns and result in soil erosion, sedimentation, long-term siltation, and increased stormwater runoff, which increases the potential for flooding off-site or downstream of the construction areas. However, the Alternative 4 alignment is relatively flat and would not require significant grading for construction purposes. The majority of the original grades and natural drainage features along the Alternative 4 alignment would be maintained and, therefore, no added storm drainage control would be required outside of the substations and switching station. Blading and other methods of vegetation removal for clearance of roads and construction areas decrease the ability of the soil to absorb water, which also increases stormwater runoff from such disturbed areas. As part of Alternative 4, implementation of BMP-1 (Drainage, Erosion, and Sedimentation Control Plan) and BMP-2 (Stormwater Pollution Prevention Plan) would ensure minimization of impacts from storm water runoff and existing drainage patterns. In addition, the minimization of ground and surface disturbance (BMP-13), limitation of vehicle travel and traffic (BMP-14), and siting of new access roads (BMP-15) would minimize impacts to the existing drainage patterns.

Operation and Maintenance

Water Quality

Maintenance of access roads and structure pads (e.g., gravelling and vegetation clearance) would contribute additional sources of runoff that could result in erosion and increased turbidity and sedimentation downstream. As part of Alternative 4, BMP-13 through BMP-15 would be implemented, which would minimize potential impacts from runoff.

Decommissioning

Activities associated with decommissioning of Alternative 4 are similar to construction of Alternatives 1 and 3; therefore, effects related to hydrology and water quality associated with decommissioning of Alternative 4 would be similar to construction-related effects of the proposed Project.

Application of CEQA Significance Thresholds

With respect to Alternative 4, the application of CEQA significance thresholds applicable to construction, operation, maintenance, and decommissioning are as described below.

HYD-1) Would Alternative 4 violate any water quality standards or waste discharge regulations?

Temporary, direct impacts to water quality could result from stormwater runoff during construction and operation of Alternative 4, resulting in erosion and increased turbidity and sedimentation downstream if not managed appropriately. In addition, stormwater runoff could transport fuel, oil, and other fluids into drainages via stormwater flow. As part of Alternative 4, BMP-1, BMP-2, BMP-9, BMP-13, BMP-14, and BMP-15 would be implemented to minimize potential impacts to water quality from sedimentation, turbidity, and oil/chemical contamination. Implementation of Mitigation Measure Hydrology-1 would further reduce these potential impacts to a less than significant level.

HYD-2) Would Alternative 4 substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Construction and operation of Alternative 4 would create a new but small area of impermeable surfaces that could potentially interfere with groundwater recharge. Water supplies required for construction, operation, and maintenance of Alternative 4 would be provided by PVID water entitlements that currently support the agricultural operations on-site; these operations are not currently supported by groundwater wells. The Watershed Supply Assessment conducted for the Project determined that adequate water supplies exist to serve Alternative 4 over the life of the Project (construction, operation, maintenance, and decommissioning). The great majority of water for Alternative 4 (i.e., all of the non-potable water) would not be delivered by a public water system or using public water system connections. Alternative 4 would use existing water infrastructure that currently delivers irrigation water from the PVID. Riverside County Community Service Area #122 (CSA #122) has substantiated its intention to provide this potable supply by issuing a will-serve letter (October 26, 2012 c/o Steve H. Jones – Manager) for the Project's limited potable water needs. CSA #122 has provided a will-serve letter for the small amount (up to 150 gallons per day) of potable water for the two O&M buildings. Alternative 4 would result in a beneficial increase in available PVID water supply due to the reduction in water demand on-site.

HYD-3) Would Alternative 4 substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Alternative 4 would cross one ephemeral stream that could potentially be affected by the proposed gen-tie line alignment. However, BMP-11 would be implemented as part of the Project; therefore, the potential impacts to this drainage would be minimized by ensuring a setback between the drainage and access roads and construction areas. As such, no Project-related impact to this drainage would occur. Although on-site grading would be minimized, the installation of proposed facilities, including roads and towers along the Alternative 4 alignment, could interfere with existing drainage patterns on-site. Any necessary grading would follow existing contours as feasible to minimize alteration of existing drainage patterns (BMP-11). Erosion and sedimentation would be minimized through implementation of the Drainage, Erosion, and Sedimentation Control Plan (BMP-1), as well as the required SWPPP (BMP-2), and other measures as described in Mitigation Measures Hydrology-1 through Hydrology-4. Implementation of these BMPs and mitigation measures would reduce these impacts to less than significant.

HYD-4) Would Alternative 4 substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Construction of Alternative 4 would result in slight alterations in the existing drainage pattern of the site or area (refer to discussion in HYD-3). Alternative 4 would be in an area characterized by well-drained soils and low precipitation; furthermore, Alternative 4 would be on the Palo Verde Mesa, which is at a higher elevation than the Palo Verde Valley to the east. Although there is an ephemeral drainage that bisects the Project area, there are no existing perennial streams or rivers within the Project area. Therefore, there is a low potential for flooding on- or off-site during construction, operation, maintenance, and decommissioning of Alternative 4. Impacts would be less than significant.

HYD-5) Would Alternative 4 create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Creation of new permanent access roads (unpaved) would create additional sources of runoff. With implementation of the BMPs discussed above, impacts related to the introduction of additional sources of polluted runoff would be minimized. The majority of the original grades and natural drainage features along the Alternative 4 gen-tie line corridor would be maintained; therefore, no added storm drainage control would be required. Impacts would be less than significant.

HYD-6) Would Alternative 4 otherwise substantially degrade water quality?

While Alternative 4 construction and operation could include use or application of hazardous materials with potential to degrade water quality, compliance with all applicable regulations and permit requirements would reduce the potential impacts to a less than significant level.

HYD-7) Would Alternative 4 place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

Alternative 4 would not include the construction of any residential units, and would not introduce new housing to the area. No impact would occur.

HYD-8) Would Alternative 4 place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Alternative 4 would be on the Palo Verde Mesa, at an elevation approximately 50 feet above the historic floodplain of the Colorado River (i.e., Palo Verde Valley approximately eight miles west of the current channel of the Colorado River) and would be unlikely to impede or redirect flood flows associated with the Colorado River. Alternative 4 would relocate or elevate Project components to avoid placing structures within the 100-year flood hazard area associated with the ephemeral drainage described in Alternatives 1 and 3. Implementation of Mitigation Measures Hydrology-5 and Hydrology-6 would reduce impacts during construction, operation, maintenance, and decommissioning to less than significant levels.

HYD-9) Would Alternative 4 expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Alternative 4 would not be located in the vicinity of a levee or dam. Portions of the Project would be located in a floodplain, such that it would expose people or structures to significant risk of loss, injury, or death involving flooding. However, with implementation of Mitigation Measures Hydrology-5 and Hydrology-6 would reduce impacts during construction, operation, maintenance, and decommissioning to less than significant levels.

HYD-10) Would Alternative 4 be at risk of inundation by seiche, tsunami, or mudflow?

Alternative 4 would not be sited in a location that could be affected by a tsunami or seiche. Alternative 4 would be sited in an area characterized by well-drained soils and low precipitation, which is not within a State of California Earthquake Fault Zone for known active faults, and no known or potentially active faults are mapped within the vicinity of the Project area. Alternative 4 would not be affected by or result in a mudflow; no impact would occur.

HYD-11) Would Alternative 4 include new or retrofitted Stormwater Treatment Control BMPs (e.g., water quality treatment basins, constructed treatment wetlands), the operation of which could result in significant environmental effects (i.e., increased vectors and/or odors)?

No storm water drainage system exists on the Project area. Construction of Alternative 4 would include implementation of a SWPPP (BMP-2). The plan would specify measures that would minimize or avoid potential effects associated with storm water runoff. Operation and maintenance would not introduce new infrastructure or alter existing surface water and drainage patterns beyond what occurred during the construction period. Therefore, impacts would be less than significant.

HYD-12) Would Alternative 4 cause changes in absorption rates or the rate and amount of surface runoff?

See HYD-3 and HYD-4 above. Alternative 4 would cause slight changes in the absorption rates and amount of surface water to on-site or off-site drainages. Implementation of Mitigation Measures Hydrology-3 and Hydrology-4 would reduce potential impacts resulting from runoff and absorption rates.

HYD-13) Would Alternative 4 cause changes in the amount of surface water in any water body?

See HYD-2 above. Alternative 4 would reduce the amount of water used on-site compared to existing agricultural use, which would not have an adverse effect on Colorado River water supplies or diversions.

Alternative 5: Reduced Acreage Alternative

Similar to Alternative 1, Alternative 5 would include the construction, operation, maintenance, and decommissioning of a solar facility and associated infrastructure. The primary difference between Alternatives 1 and 5 is the absence of solar facility development north of I-10, which would reduce

electrical output from a 485 MW down to a 315 MW alternating current solar PV facility. The Reduced Acreage Alternative would be on a reduced footprint of approximately 2,476 acres (from 3,660 acres for the proposed Project). Alternative 5 would include approximately 2,403 acres for the solar field. Similar to the proposed Project, 73 acres would be utilized for the 230 kV gen-tie line. In comparison to Alternative 1, Alternative 5 would eliminate one on-site substation and one O&M building and would have one access point (planned on Seeley Avenue). The Reduced Acreage Alternative would also no longer extend a 230 kV overhead gen-tie line from an on-site substation north of I-10, as this Alternative would not be developed on land north of I-10. Instead, this Alternative would construct an approximately 7.8-mile-long, 230 kV overhead gen-tie line from the proposed on-site substation south of I-10 to the approved Colorado River Substation. Approximately three miles of the gen-tie line would be located within the solar facility. Alternative 5 would avoid impacts that would result from the construction, operation, maintenance, and decommissioning of a solar development north of I-10; however, the land on which Alternative 1 is proposed would continue with existing uses and the existing agricultural use north of I-10 would continue to utilize a greater amount of water than with utilization of this same area for a solar facility, resulting in a lesser degree of beneficial impact for Alternative 5 than for Alternative 1. Nonetheless, the impact of Alternative 5 would be beneficial as water demand would be less post-project than the pre-project agricultural usage.

The Reduced Acreage Alternative solar facility and a portion of the gen-tie line would be within the jurisdiction of the County of Riverside but not within the City limits of Blythe in comparison to the proposed Project. Alternative 5 would need to comply with the RCGP (2003) and PVVAP (2008). The remaining portion of the gen-tie line would traverse lands managed by the BLM and would need to comply with the CDCA Plan. The construction, operation and decommissioning of Alternative 5 would not exceed the impacts to hydrology and water quality identified under the Alternative 1 analysis. Therefore, the Alternative 1 analysis would be applicable to Alternative 5, outside of those differences identified in the discussion below.

Analysis of Direct and Indirect Impacts

Construction

Water Quality

In comparison to the proposed Project, Alternative 5 would be on a reduced footprint of approximately 2,476 acres from 3,660 acres. Although reduced in total acreage in comparison to Alternative 1, construction of the Alternative 5 solar facility, gen-tie line, new substations, access road, and O&M building would require ground-disturbing activities, including clearing and grading for structure installation work areas, and access construction similar to Alternative 1. As such, the direct and indirect impact analysis under Alternative 1 would apply.

Surface Water, Groundwater, and Water Supply

As previously analyzed, the Alternative 1 Project area contains one ephemeral drainage that would be affected by construction, operation, or maintenance of the proposed Project. Alternative 5 falls within the same footprint as Alternative 1, with the exception of the development north of I-10. As such, the Alternative 1 analysis would apply for Alternative 5 assuming construction of the new substations, one O&M building, and equipment pad. The one primary access road (Seeley Avenue) to the O&M building would be improved for approximately 100 feet and would be 16 to 20 feet wide.

Similar to Alternative 1, it is assumed that Alternative 5 construction would not involve the use of groundwater pumped from existing wells on-site. During the 36-month construction period for Alternative 5, a fraction of the water demand that is presently needed for agricultural irrigation would be reduced even greater than under Alternative 1 development. Construction water would be used for dust suppression, concrete manufacturing, and fire safety. Accordingly, there would be a beneficial impact to the water supply.

Existing Drainage Patterns

Similar to development of Alternative 1, facilities under Alternative 5 would be sited to provide adequate setbacks between solar facility components (solar panels, gen-tie lines, substations, access roads, and O&M building) and natural washes (BMP-11). These setbacks would preserve and maintain the natural washes' hydrological functions. Construction of Alternative 5 would require less ground-disturbing activities compared to Alternative 1, due to no development north of I-10. However, grading could potentially alter naturally occurring drainage patterns and result in soil erosion, sedimentation, long-term siltation, and increased stormwater runoff, which increases the potential for flooding off-site or downstream of the construction areas. Refer to the Alternative 1 analysis for the development area south of I-10.

Operation and Maintenance

Water Quality

The analysis for Alternative 1 would apply for Alternative 5, with the exception of no development north of I-10 and one less substation and O&M building that would create new areas of impermeable surfaces to potentially increase the rate of stormwater runoff, leading to increased erosion and long-term siltation and flooding downstream of the new impermeable areas, and contribute additional sources of polluted runoff.

Groundwater and Water Supply

Similar to Alternative 1, development of Alternative 5 would require a limited amount of water for washing of the solar panels, fire water supply, and supply for the operations and maintenance building. In comparison, Alternative 5 would require a reduced amount of water due to fewer facilities and a smaller footprint. As these water needs would fall within those specific under Alternative 1, the water supply from PVID sources and CSA #122 would be sufficient to meet requirements of Alternative 5, including the minor potable groundwater demand under average-year, single-dry year, and multiple-dry year conditions over a 20-year future projection.

Flood Hazards

Similar to Alternative 1, Alternative 5 would be in an area designated by FEMA as Zone D, which is reserved for areas where there are possible but undetermined flood hazards, and where no flood hazard analysis has been conducted. Alternative 5 would contain the floodplain of the small ephemeral drainage for which flood hazards were analyzed (see Appendix H *Blythe Mesa CUP 03685 Wash Feature Summary of Findings*). The Alternative 1 analysis would apply.

Decommissioning

Activities associated with decommissioning are similar to construction; therefore, effects related to hydrology and water quality associated with decommissioning would be similar to construction-related effects of Alternative 5.

Application of CEQA Significance Thresholds

HYD-1) Would Alternative 5 violate any water quality standards or waste discharge regulations?

Temporary, direct impacts to water quality could result from stormwater runoff during construction and operation of Alternative 5, similar to Alternative 1. The HYD-1 Alternative 1 analysis would apply.

HYD-2) Would Alternative 5 substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table (e.g., the production rate of pre-existing nearby

wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Alternative 5 construction and operation of the one O&M building, substations, and equipment pads would create new areas of impermeable surfaces that could potentially interfere with groundwater recharge, similar to Alternative 1; however, the new impermeable surfaces would be nominal in comparison to the solar facility area and would not significantly interfere with groundwater recharge. The great majority of water for Alternative 5 (i.e., all of the non-potable water) would not be delivered by a public water system or using public water system connections. Alternative 5 would use existing water infrastructure that currently delivers irrigation water from the PVID. Riverside County Community Service Area #122 (CSA #122) has substantiated its intention to provide this potable supply by issuing a will-serve letter (October 26, 2012 c/o Steve H. Jones – Manager) for the Project's limited potable water needs. CSA #122 has provided a will-serve letter for the small amount (up to 150 gallons per day) of potable water for the two O&M buildings. The HYD-2 Alternative 1 analysis would apply.

HYD-3) Would Alternative 5 substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

Alternative 5 would be developed within the limits of Alternative 1, under reduced acreage; as such, the HYD-3 analysis for Alternative 1 would apply.

HYD-4) Would Alternative 5 substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

As described in HYD-2, the creation of impermeable surfaces relative to the Alternative 5 area would be nominal. Alternative 5 would result in slight alterations in the existing drainage pattern of the site or area (refer to discussion in HYD-3). Alternative 5 would be in an area characterized by well-drained soils and low precipitation; furthermore, Alternative 5 would be on the Palo Verde Mesa, which is at a higher elevation than the Palo Verde Valley to the east. There is one ephemeral drainage, but no existing perennial streams or rivers are within the Alternative 5 area. Therefore, there is low potential for flooding on- or off-site during construction, operation, maintenance, and decommissioning of Alternative 5. Impacts would be less than significant.

HYD-5) Would Alternative 5 create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Although Alternative 5 would involve a reduced amount of development compared to Alternative 1, the HYD-1 analysis for Alternative 1 would apply to the Alternative 5 development portion south of I-10.

HYD-6) Would Alternative 5 otherwise substantially degrade water quality?

Similar to Alternative 1, ground disturbance related to construction of Alternative 5 would potentially degrade water quality through the inadvertent release of hazardous materials, pesticides, and herbicides. However, the development footprint of Alternative 5 would be reduced in comparison to Alternative 1. While Alternative 5 construction and operation could include use or application of hazardous materials or wastewater with potential to degrade water quality, compliance with all applicable regulations and permit requirements would reduce the potential impacts to a less than significant level.

HYD-7) Would Alternative 5 place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

Alternative 5 would not include the construction of any residential units, and would not introduce new housing to the area. No impact would occur.

HYD-8) Would Alternative 5 place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Similar to Alternative 1, it is unlikely that floodwaters would significantly affect Alternative 5, or that Project structures or components would impede or redirect flood flows, as Alternative 5 would be developed in the same area south of I-10. The HYD-8 analysis for Alternative 1 would apply. Implementation of Mitigation Measures Hydrology-5 and Hydrology-6 would reduce impacts during construction, operation, maintenance, and decommissioning to less than significant levels.

HYD-9) Would Alternative 5 expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

Alternative 5 would not be located in the vicinity of a levee or dam. Portions of the Project would be located in a floodplain, such that it would expose people or structures to significant risk of loss, injury, or death involving flooding. However, with implementation of Mitigation Measures Hydrology-5 and Hydrology-6 would reduce impacts during construction, operation, maintenance, and decommissioning to less than significant levels.

HYD-10) Would Alternative 5 be at risk of inundation by seiche, tsunami, or mudflow?

Similar to Alternative 1, Alternative 5 would not be sited in a location that could be affected by a tsunami or seiche. Alternative 5 would be sited in an area characterized by well-drained soils and low precipitation, which is not within a State of California Earthquake Fault Zone for known active faults, and no known or potentially active faults are mapped within the vicinity of the Project area. Alternative 5 would not be affected by or result in a mudflow; no impact would occur.

HYD-11) Would Alternative 5 include new or retrofitted Stormwater Treatment Control BMPs (e.g., water quality treatment basins, constructed treatment wetlands), the operation of which could result in significant environmental effects (i.e., increased vectors and/or odors)?

The majority of the original grades and natural drainage features at the Alternative 5 site would be maintained and, therefore, no added storm drainage control would be required. The HYD-11 Alternative 1 analysis would apply.

HYD-12) Would Alternative 5 cause changes in absorption rates or the rate and amount of surface runoff?

See HYD-3 and HYD-4 above.

HYD-13) Would Alternative 5 cause changes in the amount of surface water in any water body?

See HYD-2 above.

Cumulative Impacts

Geographic Scope

Cumulative effects would result from incremental impacts of the proposed Project when added to other past, present, and reasonably foreseeable future actions within the designated region of influence. The term “cumulative effects” means those effects on water resources and water quality caused by other projects and activities unrelated to the proposed Project.

The proposed Project would be within an undefined Hydrologic Sub-Area (HSA 715.40) of the Palo Verde Hydrologic Area. Since the BMSP has the potential to affect the entire hydrologic sub-area, rather than merely the immediate Project vicinity, this Hydrologic Sub-Area defines the impact area for this cumulative impact analysis.

Temporal Scope

The temporal scope refers to the duration over which an impact would occur, either short-term or long-term; for example, a short-term impact would occur only during the months of construction, and a long-term impact would occur during operation and maintenance, or during all phases. This limits the projects whose water resource impacts are included in the cumulative effects analysis to those that would cause impacts to water resources concurrently with the proposed Project. Determining the temporal scope of impacts requires an estimation of the temporality of the individual or cumulative effects. The temporal scope of cumulative impacts to water resources would be during the development of projects through the end of Project decommissioning, as any direct or indirect effects of the Project would occur only during the life of the Project.

Analysis of Direct and Indirect Impacts

Alternative 1: Proposed Project

Construction, Operation, Maintenance, and Decommissioning

Construction and operation of the proposed Project could potentially impact water quality of unnamed ephemeral streams downslope of the Project area as stormwater leaves the Project area as sheet flow. These impacts could occur as a result of ground-disturbing activities, including clearing and grading for structure installation work areas and access road construction. Disturbed soils accelerate erosion and increase delivery of sediment in stormwater runoff to receiving waters, causing increased turbidity and sedimentation. Additionally, fuel, oil, and other fluids used in construction vehicles, equipment, and heavy machinery could enter streams and contaminate water. Project-related ground disturbance could potentially alter drainage patterns within the work areas and result in soil erosion, leading to increased sedimentation or an increase in the rate or amount of surface water runoff. Grading activities could also potentially create additional sources of runoff, including polluted runoff. Many of the present and reasonably foreseeable projects involve grading activities, including those on a large-scale basis. These projects could also have potential to affect the impact area by altering drainage patterns, accelerating erosion, and adding additional sediment to local drainages. Compacted or new paved areas could potentially increase the rate or amount of stormwater runoff, or create additional sources of stormwater runoff. Polluted runoff could be introduced to the impact area as oil products, which collect on new paved or compacted surfaces and are washed into the system with stormwater runoff.

Impacts that are individually less than significant are cumulatively significant if they contribute incrementally to a cumulative impact that is already significant. For example, if a project results in sedimentation impacts that are less than significant on a project-level basis, the cumulative impact from sedimentation can be significant if the sediment is released into a stream that has not yet recovered from previous sedimentation impacts. However, potential impacts to water resources resulting from construction and operation of the proposed Project when combined with the cumulative effects on the Hydrologic Sub-Area would be less than significant with the implementation of the above-referenced BMPs, applicable local, State, and federal requirements, and mitigation measures. As previously explained, for the purposes of this Draft EIR/EA, BMPs are: 1) requirements of existing policies, practices, and measures required by law, regulation, or local policy; and 2) ongoing, regularly occurring practices. As such, the BMPs identified in this Draft EIR/EA are inherently part of the proposed Project and Alternatives. In addition, all of the cumulative scenario projects would be regulated under the same applicable local, State, and federal requirements, as discussed above. To ensure potential impacts are minimized, the projects under the cumulative scenario could also require additional mitigation, as required under the environmental review for each project. Adherence to these requirements and additional mitigation measures would ensure that impacts to water resources resulting from construction and

operation of the proposed Project when combined with the cumulative effects on the Hydrologic Sub-Area would be less than significant.

Therefore, during construction and operation of each of the projects under the cumulative scenario, the previously mentioned potential water quality pollutants would be regulated under applicable local, State, and federal requirements. Cumulative projects could require additional mitigation to minimize any potential impacts. Any remaining effects to water quality would be discreet in nature, associated with isolated incidents, and generally of low occurrence due to the nature of projects anticipated under the cumulative scenario. The projects listed under the cumulative scenario, which represent primarily renewable energy and other infrastructure projects, are not representative of major users of hazardous materials. Overall contributions to erosion and sedimentation within the Hydrologic Sub-Area would be minimized by mitigation measures that have been required of projects under the cumulative scenario and other applicable environmental regulations. These mitigation measures would minimize overall contributions to erosion and sedimentation within the watershed by establishing thresholds in the context of cumulative conditions through the inclusion of construction and operation period controls on stormwater management. These mitigation measures would also suffice in minimizing residual impacts that could occur for each project under the cumulative scenario by requiring avoidance and mitigation of components and actions that could cause erosion and sedimentation. The nature of the projects under the cumulative scenario would not involve extensive development of new impervious surfaces. Complying with proposed mitigation would also ensure that potential direct impacts to flood-related hazards would be avoided for the proposed Project and Alternatives. Individual projects under the cumulative scenario would utilize measures for drainage control and flood management and would implement mitigation measures to minimize potential harm to workers and on-site facilities.

Alternative 2: No Project Alternative

Under the No Project Alternative, the majority of the Project area would continue to be used for agricultural purposes. Public lands in the Project area would continue to be managed by the BLM in accordance with existing land use designations in the CDCA Plan and private lands would continue to be managed for agricultural production.

The No Project Alternative would eliminate the cumulative effects that would be contributed to the Hydrologic Sub-Area by construction, operation, maintenance, and decommissioning of the proposed Project or action Alternatives. The No Project Alternative would not prevent the present or reasonably foreseeable projects from being constructed, however, and those projects would continue to contribute cumulative impacts to the Hydrologic Sub-Area.

Alternative 3: Northern 230 kV Gen-tie Location

Construction, Operation, Maintenance, and Decommissioning

Alternative 3 is similar to Alternative 1 (the proposed Project), with the exception of the location of the gen-tie alignment, which would be approximately 700 feet north of the Alternative 1 gen-tie alignment. Cumulative effects to water resources associated with construction, operation, maintenance, and decommissioning of Alternative 3 would be the same as those of Alternative 1.

Alternative 4: Southern 230 kV Gen-tie Location

Construction, Operation, Maintenance, and Decommissioning

Alternative 4 is similar to Alternative 1 (proposed Project), with the exception of the location of the 230 kV gen-tie alignment. Although Alternative 4 would cross an ephemeral stream, the cumulative impacts associated with construction, operation, maintenance, and decommissioning of Alternative 4 would be the same as those of Alternative 1.

Alternative 5: Reduced Acreage Alternative

Construction, Operation, Maintenance, and Decommissioning

Potential impacts under Alternative 5 would be similar those described under Alternative 1, outside of the footprint reduction to development only occurring south of I-10. The potential impacts to water resources resulting from construction and operation of Alternative 5 when combined with the cumulative effects on the Hydrologic Sub-Area would be less than significant with the implementation of the above-referenced BMPs and applicable local, State, and federal requirements, and incorporation of mitigation measures. Refer to the cumulative analysis under Alternative 1.

Mitigation Measures

Where it was determined that a potential significant impact may occur, mitigation measures listed below would reduce potential impacts. Following application of BMPs and mitigation measures, potential impacts would be reduced to a level considered less than significant.

Hydrology-1 Existing drainage crossings shall be utilized at streams, washes, and irrigation channels to the extent feasible. New access roads not required for ongoing operation and maintenance shall be permanently closed after construction using the most effective and least environmentally damaging methods appropriate to that specific area, with concurrence of the land manager (e.g., stockpiling and replacing topsoil, rock replacement) in a manner that most closely matches undisturbed conditions of the area.

Hydrology-2 Roads would be built as near as possible to right angles to streams and washes, if feasible. Culverts would be installed where necessary and sized in accordance with local county regulations. All construction and maintenance activities shall be conducted in a manner that would minimize disturbance to vegetation and drainage channels, including ephemeral stream banks. In addition, road construction would include dust-control measures during construction especially in sensitive areas. All existing roads would be left in a condition equal to or better than their condition prior to the construction of the gen-tie line and other Project components.

Hydrology-3 New impervious areas associated with temporary construction would be restored to existing conditions, including but not limited to revegetation and decompaction, to the extent possible after completion of Project construction.

Hydrology-4 Stormwater drainage inside substations would be designed to minimize erosion and increase sediment control. Internal runoff would be released from the switching station by means of surface drainage structures designed to filter contaminants from water flow. Drainage from Project area, but not the gen-tie line, would be collected and controlled by surface improvements, as detailed in the SWPPP.

Hydrology-5 All new buildings (e.g., substation) shall be flood-proofed by constructing the finished floor a minimum of 24 inches above the highest adjacent ground or 100 year water surface elevation, whichever is greater. Slope protection may be required for buildings on fill. Additionally, the solar panels shall have a minimum clearance of 24 inches above the highest adjacent ground when upright to ensure flows are not obstructed.

Hydrology-6 No flow obstructing fences (chain link, block wall, etc.) shall be constructed along the north and west property lines, since these types of fences obstruct flows causing damage to adjacent properties. Fencing used in these areas shall contain openings of three inches high by six inches wide for first the 18 inches from the bottom, and openings of four inches high by six inches wide for the next eight inches and so forth. This fencing or equivalent shall be provided to allow the free flow of storm or flood runoff. No setback is

required with the use of this fencing. A detail of this fencing shall be provided to the County of Riverside.

Residual Impacts After Mitigation

With implementation of Project BMPs and mitigation measures, potential Project-specific and cumulative water quality and hydrology impacts would be less than significant.

NEPA Conclusions

The No Project Alternative would not have impacts, as the existing circumstances and operations would continue essentially unchanged. The Project and the action Alternatives would result in the direct and indirect impacts and contribution toward cumulative impacts that are described above. Impacts would be reduced with implementation of Mitigation Measures Hydrology-1 through Hydrology-6. The Project and the action Alternatives would additionally comply with all federal, State, and local laws and regulations. Taking all these measures into account, the Project and the action Alternatives would not have a significant impact on hydrological resources.

4.2.10 Land Use and Planning

This section describes the impact analysis relating to land use planning for the proposed Project and Alternatives. This section focuses on consistency with existing land use plans, ordinances, regulations, and policies. The Project's compatibility with existing or reasonably foreseeable land uses is also evaluated.

Methodology for Analysis

Evaluation of potential land use conflicts of the proposed Project and Alternatives was based on a review of relevant documents, including the Riverside County General Plan, Riverside County Zoning Ordinance, City of Blythe General Plan 2025, City of Blythe Zoning Code, the Federal Land Policy and Management Act (FLPMA), CDCA Plan, Land & Mineral Legacy Rehost 2000 System of automated records (LR2000), and a field review of the proposed solar facility site and surrounding area. The focus of the land use analysis is on land use conflicts that would result from implementation of the proposed Project and Alternatives. Land use conflicts are identified and evaluated based on existing or authorized land uses, land uses proposed as part of the Project, land use designations, and standards and policies related to land use. Land use compatibility is based on the intensity and patterns of land use to determine whether the Project would result in incompatible uses or nuisance issues. Potential land use conflicts or incompatibility (specifically during construction activities) are usually the result of other environmental effects, such as generation of noise or air quality issues resulting from grading activities. Land use conflicts that would result from the Project's construction, operation, maintenance, and decommissioning are evaluated in this section.

CEQA Significance Criteria

The criteria listed below were used to determine if the proposed Project would result in impacts to land use. These criteria were obtained from the CEQA Environmental Checklist, Appendix G of the 2012 CEQA Guidelines. Under CEQA, the proposed Project and Alternatives would have a significant impact on land use if they would:

LU-1) Physically divide an established community.

LU-2) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect.

LU-3) Conflict with any applicable habitat conservation plan or natural community conservation plan.

LU-4) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

LU-5) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

The following additional significance criteria from the County of Riverside CEQA Environmental Assessment form are used in the analysis. A project could have potentially significant impacts if it would:

LU-6) Result in a substantial alteration of the present or planned land use of an area.

LU-7) Affect land use within a city sphere of influence and/or within adjacent city or county boundaries.

LU-8) Be inconsistent with the site's existing or proposed zoning.

LU-9) Be incompatible with existing surrounding zoning.

LU-10) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community).

NEPA Requirements

The term *significantly* as used in NEPA requires considerations of both context and intensity (40 CFR Part 1508.27). Therefore, thresholds serve as a benchmark for determining if a project action would result in a significant adverse environmental impact when evaluated against the baseline. The environmental effects analysis of the proposed Project on land uses includes an assessment of the context and intensity of the impacts as defined in the NEPA implementing regulations at 40 CFR Part 1508.27.

Applicable Best Management Practices

Land Use and Planning would not require the implementation of BMPs.

Alternative 1: Proposed Project

Analysis of Direct and Indirect Impacts

Existing Land Use, Planning and Zoning Designations

The solar facility would occupy 3,587 acres on privately-owned land under the jurisdiction of the County, approximately 334 acres of which are within the City of Blythe. The above-ground 230 kV gen-tie line would connect all three proposed on-site substations, extending a distance of approximately 3.6 miles within the solar facility. From the southernmost on-site substation to the Colorado River Substation, the gen-tie line would extend another 4.8 miles within a 125-foot-wide ROW, or 73 acres (traversing 3.8 miles [58 acres] of BLM-managed lands and one mile of private land [15 acres]).

The Project would be on lands under the jurisdiction of the County of Riverside, the BLM, and the City of Blythe. A majority of the Project would be within the County of Riverside and governed by the County of Riverside's General Plan and the Palo Verde Valley Area Plan. A portion of the solar array field would be in the City of Blythe General Plan. A portion of the 230 kV gen-tie line would traverse BLM-managed lands.

Figure 1-4 illustrates the portion of the gen-tie line that would traverse BLM-managed lands within the CDCA. These lands are designated Multiple-Use Class M (Moderate). Within the CDCA, the gen-tie line would be within BLM's Utility Corridor K, which is also designated as Section 368 Federal Energy Corridor 30-52 (BLM 2009). A majority of the Project would also be within BLM's Utility Corridor J. The gen-tie line would also be within the SEZ.

Federal

Lands traversed by the proposed Project and Alternatives under the jurisdiction of the BLM would be subject to the following plans and policies.

Federal Land Policy and Management Act of 1976

Construction of the proposed gen-tie line would be consistent with the FLPMA (43 U.S.C. § 1701 et seq.), which encourages the utilization of rights-of-way in common to the extent practical and the designation of right-of-way corridors (§ 1763). The gen-tie line and access roads proposed under the Project would be consistent with this provision, because the proposed gen-tie line would be within a designated utility corridor. The solar facility would be on privately owned land and not subject to the FLPMA.

California Desert Conservation Area (CDCA) Plan, 1980 as Amended

The CDCA Plan is a comprehensive, long-range plan covering 25 million acres. Approximately 12 million acres of this total are public lands administered by the BLM on behalf of the CDCA Plan, including the portion of the proposed gen-tie line on federal lands. The proposed gen-tie line is included in the "Land Use Activities" category of Transmission Lines as identified in Table 1, Multiple-Use Class Guidelines, of

the CDCA Plan. As noted in Table 1, under Multiple-Use Classes L, M, and I, "New…electric transmission facilities…may be allowed only within designated corridors" (BLM 1980). The gen-tie line would be within Multiple-Use Class M. As explained below, because the Western Solar Plan amended the CDCA Plan to identify this area as associated with power generation or transmission, the gen-tie line would be consistent with the CDCA Plan.

Northern and Eastern Colorado Desert (NECO) Coordinated Management Plan

The NECO Plan primarily addresses recovery of the desert tortoise and conservation of a variety of other species, modifies management of wild burro herds in the planning area, and updates policies regarding off-highway vehicle use and public lands access and use. The gen-tie line would be constructed primarily within Utility Corridor K. Construction activities would comply with the NECO Plan. Please refer to Section 4.2.4, *Biological Resources*, and Section 4.3.13, *Recreation*, for discussion regarding impacts to the NECO Plan.

Approved Resource Management Plan Amendments/Record of Decision for Solar Energy Development in Six Southwestern States (Western Solar Plan) (BLM 2012)

The Western Solar Plan's purpose was "to implement a comprehensive Solar Energy Program to administer development of utility-scale solar energy resources on BLM-administered lands in the six states," including California. The Western Solar Plan identified exclusion areas for utility-scale solar energy ROWs, priority areas for utility-scale energy development ROWs (i.e. SEZs), and areas potentially available for utility-scale solar energy outside of exclusion areas and SEZs (i.e., variance areas) (page 3). The Western Solar Plan amended the CDCA Plan to "identify all SEZ lands within the CDCA as sites associated with power generation or transmission" (Appendix A, Land Use Plan Amendments, page 36). The gen-tie line would be constructed within the SEZ, and therefore is consistent with the Western Solar Plan and the CDCA Plan, as amended.

Local

Lands that would be traversed by the proposed Project and Alternatives would be subject to the following local plans and policies.

Riverside County General Plan

The solar facility portion and a portion of the gen-tie line would be on private lands within an unincorporated area of Riverside County and would be subject to the goals and policies of the RCGP. The proposed Project would within the "Agriculture" and "Rural Community: Estate Density Residential" land use designations and the Project would be consistent with these land use designations.

Riverside County Zoning Ordinance

The proposed Project would be a conditionally permitted use under the W-2-10, W-2-5, and A-1-10 zones. It would be authorized pursuant to the approval of a CUP by the Riverside County Board of Supervisors and in compliance with Riverside County Board of Supervisor's Policy B-29. Pending this approval, no conflicts with the Riverside County Zoning Ordinance would occur. Therefore, impacts would be considered less than significant.

City of Blythe General Plan 2025

The solar facility portion of the proposed Project would be in the City of Blythe and would be subject to the goals and policies of the City of Blythe General Plan 2025. The proposed Project would be a permitted use within the "Agriculture" and "Service Industrial" land use designations with approval of a CUP and completion of an environmental review. Approximately 334 acres of the 3,597 acre solar facility component are located within the City of Blythe. A majority of the Project would be within the County of Riverside and within the PVVAP. A portion of the solar facility would be in the City of Blythe General Plan.

As described in Chapter 1, the County is the "lead agency" responsible for preparation of the EIR in compliance with CEQA. As the CEQA lead agency, the County is responsible for conducting the CEQA review and has final approval of the Project. The County is responsible for coordinating with the Applicant, public and associated agencies during the CEQA process. When more than one agency is involved in a project, the agency with primary responsibility for approving a project is the lead agency, for purposes of following the CEQA protocol. Other agencies with discretionary approval power over the project are called "responsible agencies." The City of Blythe is a responsible agency that has actively participated in the NEPA/CEQA process and review of the Draft EIR/EA.

City of Blythe Zoning Code

The proposed Project would be a conditionally permitted use under the Agriculture and Service Industrial zones. No conflicts with the City of Blythe Zoning code would occur. Therefore, impacts would be considered less than significant.

Riverside County Airport Land Use Compatibility Plan (RCALUCP) and Federal Aviation Administration

In April 2012, the Riverside County ALUC found the Project to be consistent with the RCALUCP. In addition, the FAA provided "No Hazard to Air Navigation" determinations for the 230 kV gen-tie line structures. Refer to Section 4.2.8, *Hazards and Hazardous Waste*, for a more detailed discussion regarding impacts to the RCALUCP.

Compatibility with Local Plans and Policies

The Project is generally consistent with policies and goals set forth in the RCGP, PVVAP, and City of Blythe General Plan 2025. The Project would be consistent with the Riverside County Zoning Ordinance (Ordinance 348) and City of Blythe Zoning Code. The Project's conformity with these local policies and goals is summarized in Table 4.2.10-1 below.

Construction, Operation, and Maintenance

The discussion above regarding compatibility with applicable land use plans and policies applies to construction, operation, and maintenance of the proposed Project and Alternatives. Following construction, the gen-tie line would be accessed using only roadways that are necessary to maintain it. The gen-tie line would be operated and maintained primarily within Corridor K, and fully within the Riverside East SEZ. Maintenance activities would be confined to existing roadways and disturbed areas. Therefore, operation and maintenance of the proposed Project would be consistent with the CDCA Plan and NECO Plan.

Table 4.2.10-1 Consistency with Regional/Local Land Use Plans, Policies, and Regulations

POLICY/REGULATIONS/GOALS	DESCRIPTION	CONFLICT ANALYSIS
Riverside County General Plan 2008		
Land Use Element Policy LU 1.8	Requires submittal of certain proposed actions to the Riverside County Airport Land Use Commission for review. Such actions include proposed amendments to the general plan, area plans, or specific plans, as well as proposed revisions to the zoning ordinance and building codes.	NO: The Riverside County Airport Land Use Commission found the Project consistent with the Riverside County Airport Land Use Compatibility Plan. (See Section 4.2.8 Hazards and Hazardous Materials).
Land Use Element Policy LU 2.1.c	Requires a broad range of land uses, including a range of residential, commercial, business, industry, open space, recreation and public facility uses (General Plan pg. LU-20).	

POLICY/REGULATIONS/GOALS	DESCRIPTION	CONFLICT ANALYSIS
Land Use Element Policy LU 5.1	Requires development does not exceed the ability to adequately provide supporting infrastructure and services (General Plan LU-24).	NO: The Project would no create a permanent increase in population; therefore, existing infrastructure and services would be adequate.
Land Use Element Policy LU 6.1	Require land uses to develop in accordance with the Riverside County General Plan (RCGP) and area plans to ensure compatibility and minimize impacts.	NO: With the approval of a CUP, the Project would be compatible with the RCGP and the PVVAP.
Land Use Element Policy LU 6.2	Public facilities shall also be allowed in any other land use designation except for the Open Space-Conservation and Open Space-Conservation Habitat land use designations. For purposes of this policy, a public facility shall include all facilities operated by the federal government, the State of California, the County of Riverside, any special district governed by the County of Riverside or any city, and all facilities operated by any combination of these agencies.	NO: The solar facility and gen-tie line would not preclude construction of public facilities in unoccupied areas of the solar facility site.
Land Use Element Policy LU 7.1	Accommodate the development of a balance of land uses that maintain and enhance the County's fiscal viability, economic diversity and environmental integrity (General Plan LU-26).	NO: The Project would allow the generation of renewable energy. Additionally, it would increase revenue for the County of Riverside.
Land Use Element Policy LU 8.1	Provide for the permanent preservation of open space lands that contain important natural resources and scenic and recreational values (General Plan LU-28).	NO: The Project is not located in an area with natural resources or scenic and recreational values.
Land Use Element Policy LU 8.2	Require that development protect environmental resources by compliance with the Multipurpose Open Space Element of the RCGP and federal and state regulations such as CEQA, NEPA, the Clean Air Act, and the Clean Water Act.	NO: The Project would comply with NEPA and CEQA and all necessary compliance measures.
Land Use Element Policy LU 9.1	Require that new development contribute their fair share to fund infrastructure and public facilities such as police and fire facilities.	NO: The Project is not anticipated to cause additional impacts to public facilities. See Section 4.2.13, Socioeconomics, for further analysis.
Land Use Element Policy LU 13.1	Preserve and protect outstanding scenic vistas and visual features for the enjoyment of the traveling public (General Plan LU-31).	No: The Project would be located on disturbed lands that are adjacent to existing electrical facilities.
Land Use Element Policy LU 13.5	Require new or relocated electric or communication distribution lines, which would be visible from Designated and Eligible State and County Scenic Highways, to be placed underground.	YES: The Project proposes the use of above ground distribution lines within view of an Eligible Scenic Highway; however, they would be parallel to existing transmission and distribution lines.
Land Use Element Policy LU 15.15	Permit and encourage, in an environmentally and fiscally responsible manner, the development of renewable energy resources and related infrastructure, including but not limited to, the development of solar power plants in the County of Riverside (General Plan LU-37).	NO: The Project would provide 485 MW of renewable solar energy.

POLICY/REGULATIONS/GOALS	DESCRIPTION	CONFLICT ANALYSIS
Multi-Purpose Open Space Element Policy OS 11.3	Permit and encourage the use of passive solar devices and other state-of-the-art energy resources.	NO: The Project would provide renewable solar energy.
Land Use Element Policy LU 14.7	Ensures that no structures or activities encroach upon or adversely affect the use of navigable airspace.	NO: The Project has obtained Federal Aviation Administration and ALUC review and approval.
Land Use Element Policy LU 16.4	Encourages conservation of productive agricultural lands. Preserve prime agricultural lands for high-value crop production.	NO: The Project would impact Farmlands, but would not substantially interfere with the County's plans and goals to encourage conservation of Farmland county-wide.
Palo Verde Valley Area Plan 2008		
Agricultural Preservation Policy Palo Verde Valley Area Plan (PVVAP) 4.1	Protects farmland and agricultural resources in the Palo Verde Valley through adherence to the Agriculture sections of the RCGP Multipurpose Open Space and Land Use Elements.	NO: The Project would impact Farmland and agricultural resources in the Palo Verde Valley (as defined by the PVVAP); however, a mitigation measure was developed to Palo Verde Valley area.
Recreational Vehicle Development Policy PVVAP 5.4	Allows remote recreational vehicle developments within the following land use designations: Very Low Density Residential, Estate Density Residential, Rural Residential, Rural Mountainous, Rural Desert, Open Space-Recreation, and Open Space-Rural.	NO: The Project would not close open recreational vehicle routes of travel nor would the Project preclude recreational vehicle developments in these land use designations
Trials and Bikeway System Policy PVVAP 9.1	Develops a system of multi-purpose trails that enhances the Colorado River's recreational values and connects with the adopted trails system of Riverside County.	NO: The Project would not close or remove trails, nor would it impact trails near the Colorado River.
Scenic Highways Policy PVVAP 10.1	Protects the scenic highways in the Palo Verde Valley planning area from change that would diminish the aesthetic value of adjacent properties in accordance with the Scenic Corridors sections of the RCGP Land Use, Multipurpose Open Space, and Circulation Elements.	NO: The Project may have views from County eligible scenic highways 95 and I-10, but the Project and Alternatives would be within an area with existing electrical facilities.
Scenic Highways Policy PVVAP 10.2	Encourages the designation of I-10 and U.S. Highway 95 as eligible and subsequently Official Scenic Highways in accordance with the California State Scenic Highway Program.	NO. The Project may have views from County eligible scenic highways 95 and I-10; however, the Project would not significantly impact these views (refer to Section 4.2.1, Aesthetics).
Riverside County Zoning Ordinance (Ordinance 348)		
Section 15.1.d. (32) Uses Permitted in W-2 Zone (Controlled Development Areas)	This zone permits a solar power plant on lot 10 acres or larger upon issuance of a CUP.	NO: With approval of a CUP, the Project would be an allowable use under this zone.
Section 13.1.c. (12) Uses Permitted in A-1 Zone (Light Agriculture)	This zone permits a solar power plant on a lot 10 acres or larger. upon issuance of a CUP.	NO: With approval of a CUP, the Project would be an allowable use under this zone.
City of Blythe General Plan 2025/City of Blythe Zoning Code		
Open Space Guiding Policy 1	Maintain hillsides and viable agricultural lands as open space for resource conservation and preservation of views.	NO: The Project would impact viable agricultural lands on the Palo Verde Mesa, but would not interfere substantially with the City's goal of preserving hillside and viable agricultural lands city-wide.

POLICY/REGULATIONS/GOALS	DESCRIPTION	CONFLICT ANALYSIS
Open Space Guiding Policy 9	Promote continued agricultural use of important farmland outside the urban area.	NO: The Project would impact Important Farmland on the Palo Verde Mesa. While the City, if it approved this Project, would be favoring environmentally friendly power generation over retention of on-site agricultural uses, approval of the Project would not preclude the City from continuing to support agricultural uses city-wide.
Agriculture (A)	This zone permits, upon issuance of a CUP, "utility operations facilities."	NO: With approval of a CUP, the Project would be an allowable use under this zone.
Service Industrial (I-S)	This zone permits "utility operations facilities."	NO: The Project would be an allowable use under this zone.

Sources: Riverside County General Plan 2003; Palo Verde Valley Area Plan 2008; Riverside County Zoning Ordinance (Ordinance 348); City of Blythe General Plan 2025/Blythe Zoning Code.

Decommissioning

At the end of the proposed Project's operational life, all equipment and components would be decommissioned and deconstructed. Structures used to support above-ground wires would be removed. A ROW grant from the BLM and CUPs from Riverside County and the City of Blythe would no longer be required.

Application of CEQA Significance Thresholds

LU-1) Would the Project physically divide an established community?

The proposed Project would not physically divide an established community. The Project area would be east and south of an existing community (Nicholls Warm Springs/Mesa Verde). The gen-tie line, access roads, and 34.5 kV distribution line would not be located through an established community. No impacts would occur.

LU-2) Would the Project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

The Project would be subject to the RCGP, PVVAP, City of Blythe General Plan 2025, CDCA Plan, and NECO Plan. As summarized in Table 4.2.10-1, *Conflicts with Regional/Local Land Use Plans, Policies, and Regulations*, the Project would not conflict with applicable local land use plans, policies, or regulations (with the exception of Land Use Element Policy LU 13). The Project would be consistent with goals and policies related to agriculture (Riverside County Land Use Element Policy LU 16.4; PVVAP Agricultural Preservation Policy 4.1; and City of Blythe's Open Space Guiding Policies 1 and 9). With approval of a CUP and Public Use Permit (PUP), the Project would be a permitted use on private land. The gen-tie line structures proposed on BLM land would be within or adjacent to Utility Corridor K, and fully within the Riverside East SEZ and therefore consistent with the CDCA Plan and NECO Plan. Impacts to existing plans, policies, and regulations would be considered less than significant.

LU-3) Would the Project conflict with any applicable habitat conservation plan or natural community conservation plan?

As discussed in Section 4.2.4, *Biological Resources*, the Project would not be within the jurisdiction of any adopted habitat conservation plan or natural community conservation plan; therefore, no impacts would occur.

LU-4) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Increases in demand for recreational facilities are typically associated with substantial increases in population or employment. As described in Section 4.2.13, the proposed Project would not contain a residential component that would result in long-term increased use of existing recreational facilities. During the three-year construction period, construction workers and their families may temporarily increase the use of recreational facilities; however, the Project is not expected to draw a substantial number of new employees to the area over the long term. Therefore, implementation of the proposed Project is not expected to result in any substantial physical deterioration of existing facilities. Impacts would be less than significant.

LU-5) Would the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The Project would not include any plans for the addition of any recreational facilities, nor would it require the construction or expansion of recreational facilities. Therefore, the proposed Project would not result in any adverse physical effects on the environment from construction or expansion of additional recreational facilities; a less than significant impact would occur.

LU-6) Would the Project result in a substantial alteration of the present or planned land use of an area?

The Project would be on private lands that would be conditionally consistent (with approval of the CUP) with the RCGP and the PVVAP, as well as the City of Blythe General Plan 2025. The gen-tie line within BLM-managed lands would be consistent with the CDCA Plan and NECO Plan, because it would be within the Riverside East SEZ. Therefore, the Project would be consistent with present or planned land use of the area; impacts would be less than significant.

LU-7) Would the Project affect land use within a city sphere of influence and/or within adjacent city or county boundaries?

A portion of the Project's solar facility site would be within the City of Blythe Sphere of Influence; the gen-tie line that would extend outside of the solar facility would not. As discussed above, the Project would be conditionally consistent with the City of Blythe General Plan, RCGP, and PVVAP. Therefore, no impacts would occur to the City's sphere of influence.

LU-8) Would the Project be inconsistent with the site's existing or proposed zoning?

As described in LU-6 above, the solar facility for the Project would be conditionally consistent with existing zoning for the RCGP pursuant to the approval of a CUP and PUP, and compliance with Board of Supervisors Policy B-29, PVVAP, and City of Blythe General Plan. The gen-tie line would be consistent with the CDCA Plan and NECO Plan. The Project would not require a zone change or general plan amendment; therefore, the Project would be consistent with the site's existing zoning. No impacts would occur.

LU-9) Would the Project be incompatible with existing surrounding zoning?

The zoning surrounding the Project is similar to that of the Project area; therefore, the Project would be compatible with existing surrounding zoning; less than significant impact.

LU-10) Would the Project disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?

The Project would not be located through an established community (see LU-1). No impacts would occur.

Alternative 2: No Project Alternative

Under the No Project Alternative, the BLM would not grant a ROW, and Riverside County and the City of Blythe would not approve a CUP, PUP, and a Development Agreement for the proposed Project. As a result, no solar energy project would be constructed on county and city lands, and the solar facility would remain in agricultural production. No structures to support a gen-tie line in association with the proposed Project would occur on BLM-managed land. Under the No Project Alternative, the proposed Project would not be constructed and no operations, maintenance, or decommissioning activities would occur. Agricultural operations would continue on the solar facility, and no impacts to land use would occur.

Alternative 3: Northern Alternative 230 kV Gen-tie Line Location

Alternative 3 is similar to Alternative 1 (proposed Project), with the exception of the location of the Northern 230 kV gen-tie line, which is approximately 700 feet north of Alternative 1's proposed 230 kV gen-tie line. The solar facility would be within private lands under the jurisdiction of the County of Riverside and City of Blythe. The 230 kV gen-tie line that extends outside of the solar facility would be within or adjacent to the same utility corridor as Alternative 1 and within the same SEZ, but within BLM-managed lands only (no private lands). The direct and indirect impacts associated with the construction, operation, maintenance, and decommissioning of the solar facility would be essentially the same as Alternative 1.

Application of CEQA Significance Thresholds

LU-1) Would Alternative 3 physically divide an established community?

Alternative 3 would not be located through an established community. Therefore, no impacts would occur.

LU-2) Would Alternative 3 conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over Alternative 3 (including but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Alternative 3 would not conflict with applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. No impacts would occur.

LU-3) Would Alternative 3 conflict with any applicable habitat conservation plan or natural community conservation plan?

Alternative 3 would not be within the jurisdiction of any adopted habitat conservation plan or natural community conservation plan; therefore, no impacts would occur.

LU-4) Would Alternative 3 increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Alternative 3 would not contain a residential component that would result in an increased use of existing recreational facilities, and would not bring a substantial number of new employees to the area over the long term. Therefore, implementation of Alternative 3 is not expected to result in any substantial physical deterioration of existing facilities. Impacts would be less than significant.

LU-5) Would Alternative 3 include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Alternative 3 would not include any plans for the addition of any recreational facilities, nor would it require the construction or expansion of recreational facilities. Therefore, Alternative 3 would not result in any adverse physical effects on the environment from construction or expansion of additional recreational facilities; a less than significant impact would occur.

LU-6) Would Alternative 3 result in a substantial alteration of the present or planned land use of an area?

Similar to Alternative 1, portions of Alternative 3 within private lands would be conditionally consistent (with approval of the CUP) with the RCGP, PVVAP, and City of Blythe General Plan 2025. The gen-tie line within BLM-managed lands would be consistent with the CDCA Plan and NECO Plan, because it would be within the Riverside East SEZ. Therefore, Alternative 3 would be consistent with present or planned land use of the area.

LU-7) Would Alternative 3 affect land use within a city sphere of influence and/or within adjacent city or county boundaries?

A portion of Alternative 3's solar facility site would be within the City of Blythe Sphere of Influence; the gen-tie line that extends outside of the solar facility would not. Alternative 3 would be conditionally consistent with the City of Blythe General Plan, RCGP, and PVVAP. Therefore; no impacts would occur to the City's sphere of influence.

LU-8) Would Alternative 3 be inconsistent with the site's existing or proposed zoning?

As described in LU-6 above, the solar facility would be conditionally consistent with existing zoning for the RCGP, PVVAP, and City of Blythe General Plan. The gen-tie line would be consistent with the CDCA Plan and NECO Plan. Alternative 3 would not require a zone change or general plan amendment; therefore, it would be consistent with the site's existing zoning. No impacts would occur.

LU-9) Would Alternative 3 be incompatible with existing surrounding zoning?

Alternative 3 would have the same existing surrounding zoning as Alternative 1; therefore, Alternative 3 would be compatible with existing surrounding zoning. No impacts would occur.

LU-10) Would Alternative 3 disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?

Alternative 3 would not be located through an established community (see LU-1 above). No impacts would occur.

Alternative 4: Southern Alternative 230 kV Gen-tie Line Location

Alternative 4 would be similar to Alternative 1, as the solar facility would be within private lands under the jurisdiction of the County of Riverside and City of Blythe; however, Alternative 4's 230 kV gen-tie line that extends outside of the solar facility would be several hundred feet south of the proposed alignment. Approximately three miles of Alternative 4's gen-tie line would not parallel existing transmission lines and would require construction of new access roads.

Application of CEQA Significance Thresholds

LU-1) Would Alternative 4 physically divide an established community?

Alternative 4 would not be located through an established community. Therefore, no impacts would occur.

LU-2) Would Alternative 4 conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over Alternative 4 (including but not limited to the general plan, specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect ?

Alternative 4 would not conflict with applicable land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect. No impacts would occur.

LU-3) Would Alternative 4 conflict with any applicable habitat conservation plan or natural community conservation plan?

Alternative 4 would not be within the jurisdiction of any adopted habitat conservation plan or natural community conservation plan; therefore, no impacts would occur.

LU-4) Would Alternative 4 increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Increases in demand for recreational facilities are typically associated with substantial increases in population or employment. Alternative 4 would not contain a residential component that would result in an increased use of existing recreational facilities, and would not bring a substantial number of employees to the area over the long term. Therefore, implementation of Alternative 4 is not expected to result in any substantial physical deterioration of existing facilities. Impacts would be less than significant.

LU-5) Would Alternative 4 include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Alternative 4 would not include any plans for the addition of any recreational facilities, nor would it require the construction or expansion of recreational facilities. Therefore, Alternative 4 would not result in any adverse physical effects on the environment from construction or expansion of additional recreational facilities; a less than significant impact would occur.

LU-6) Would Alternative 4 result in a substantial alteration of the present or planned land use of an area?

Similar to Alternatives 1 and 3, portions of Alternative 4 within private lands would be conditionally consistent (with approval of the CUP) with the RCGP, PVVAP, and City of Blythe General Plan 2025. The gen-tie line within BLM-managed lands would be consistent with the CDCA Plan and NECO Plan, because it would be within the Riverside East SEZ. Therefore, Alternative 4 would be consistent with present or planned land use of the area.

LU-7) Would Alternative 4 affect land use within a city sphere of influence and/or within adjacent city or county boundaries?

A portion of Alternative 4's solar facility site would be within the City of Blythe Sphere of Influence; the gen-tie line that would extend outside of the solar facility would not. Alternative 4 would be conditionally consistent with the City of Blythe General Plan, RCGP, and PVVAP. Therefore; no impacts would occur to the City's sphere of influence.

LU-8) Would Alternative 4 be inconsistent with the site's existing or proposed zoning?

As described in LU-6 above, the solar facility would be conditionally consistent (with approval of the CUP) with existing zoning for the RCGP, PVVAP, and City of Blythe General Plan. The gen-tie line would be consistent with the CDCA Plan and NECO Plan. Alternative 4 would not require a zone change or general plan amendment; therefore, it would be consistent with the site's existing zoning. No impacts would occur.

LU-9) Would Alternative 4 be incompatible with existing surrounding zoning?

Alternative 4 would have the same existing surrounding zoning as Alternatives 1 and 3; therefore, Alternative 4 would be compatible with existing surrounding zoning. No impacts would occur.

LU-10) Would Alternative 4 disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?

Alternative 4 would not be located through an established community (see LU-1 above). No impacts would occur.

Alternative 5: Reduced Acreage Alternative

Similar to Alternative 1, Alternative 5 would include the construction, operation, maintenance, and decommissioning of a solar facility and associated infrastructure. The primary difference between Alternatives 1 and 5 is the absence of solar facility development north of I-10, which would reduce electrical output from a 485 MW down to a 315 MW alternating current solar PV facility. The Reduced Acreage Alternative would be on a reduced footprint of approximately 2,476 acres (from 3,660 acres for the proposed Project). Alternative 5 would include approximately 2,403 acres for the solar field. Similar to the proposed Project, 73 acres would be utilized for the 230 kV gen-tie line. In comparison to Alternative 1, Alternative 5 would eliminate one on-site substation and one O&M building and would have one access point (planned on Seeley Avenue). The Reduced Acreage Alternative would also no longer extend a 230 kV overhead gen-tie line from an on-site substation north of I-10, as this Alternative would not be developed on land north of I-10. Instead, this Alternative would construct an approximately 7.8-mile-long, 230 kV overhead gen-tie line from the proposed on-site substation south of I-10 to the approved Colorado River Substation. Approximately three miles of the gen-tie line would be within the solar facility. Alternative 5 would avoid impacts that would result from the construction, operation, maintenance, and decommissioning of a solar development north of I-10; however, the land on which Alternative 1 is proposed would continue with existing uses. Under Alternative 5, the City of Blythe would not approve a CUP, PUP, and a Development Agreement for Alternative 5. As a result, no solar energy project would be constructed within the City's limits, and the site would remain in agricultural uses north of I-10. Under Alternative 5, no impacts to land use would occur in the area north of I-10.

The Reduced Acreage Alternative solar facility and a portion of the gen-tie line would be within the jurisdiction of the County of Riverside but only within the Sphere of Influence of the City of Blythe in comparison to the proposed Project; therefore, Alternative 5 would need to comply with the RCGP (2003) and PVVAP (2008). The remaining portion of the gen-tie line would traverse lands managed by the BLM and would need to comply with the CDCA Plan. The construction, operation, maintenance, and decommissioning of Alternative 5 would not exceed those land use impacts identified under the Alternative 1 analysis. Therefore, the Alternative 1 analysis would be applicable to Alternative 5, outside of those differences identified in the discussion below.

Analysis of Direct and Indirect Impacts

Existing Land Use, Planning and Zoning Designations

The Alternative 5 solar facility would occupy 2,403 acres on privately owned land under the jurisdiction of the County, and would be within the PVVAP. As no development would occur north of I-10, there would be no portion of Alternative 5 within the City of Blythe limits (only City of Blythe sphere of influence), as compared to Alternative 1. The above-ground 230 kV gen-tie line would connect two rather than three proposed on-site substations, extending a distance of approximately three miles within the solar facility. From the southernmost on-site substation to the Colorado River Substation, the gen-tie line would extend another 4.8 miles within a 125-foot-wide ROW, or 73 acres (traversing 3.8 miles [58 acres] of BLM-managed lands and one mile of private land [15 acres]), similar to Alternative 1.

Federal

Lands traversed by the proposed Project and Alternatives under the jurisdiction of the BLM would be subject to the same plans and policies as detailed under Alternative 1. The Alternative 1 analysis would apply.

Local

Lands that would be traversed by Alternative 5 would be subject to the local plans and policies detailed in the Alternative 1 analysis. No development of Alternative 5 would occur north of I-10 and in the City of Blythe limits; the City of Blythe Zoning Code would not apply.

Riverside County Airport Land Use Compatibility Plan (RCALUCP) and Federal Aviation Administration

In April 2012, the Riverside County ALUC found the Alternative 1 Project to be consistent with the RCALUCP. In addition, the FAA provided "No Hazard to Air Navigation" determinations for the 230 kV gen-tie line structures. Alternative 5 would develop a reduced footprint within the same area as Alternative 1; as such, the same determinations would apply to Alternative 5.

Compatibility with Local Plans and Policies

Alternative 1 would be generally consistent with policies and goals set forth in the RCGP, PVVAP, and City of Blythe General Plan 2025. In addition, Alternative 1 would be consistent with the Riverside County Zoning Ordinance (Ordinance 348) and City of Blythe Zoning Code. As Alternative 5 would develop within the same footprint as Alternative 1, the same compatibility with local plans and policies would apply, as detailed in Table 4.2.10-1 within the Alternative 1 analysis. Under Alternative 5, solar facility development would not occur north of I-10 and within the City limits of Blythe; however, the Reduced Acreage Alternative would occur within the City's Sphere of Influence.

Construction, Operation, and Maintenance

The discussion above regarding compatibility with applicable land use plans and policies applies to construction, operation, and maintenance of the proposed Project and Alternatives. Following construction, the gen-tie line would be accessed using only roadways that are necessary to maintain it. The gen-tie line would be operated and maintained primarily within Corridor K, and fully within the Riverside East SEZ. Maintenance activities would be confined to existing roadways and disturbed areas. Therefore, operation and maintenance of Alternative 5 would be consistent with the CDCA Plan and NECO Plan.

Decommissioning

At the end of the operational life of Alternative 5, all equipment and components would be decommissioned and deconstructed. Structures used to support above-ground wires would be removed. A ROW grant from the BLM and CUP from Riverside County would no longer be required.

Application of CEQA Significance Thresholds

LU-1) Would Alternative 5 physically divide an established community?

Similar to Alternative 1, Alternative 5 would not physically divide an established community. Alternative 5 would be east and south of an existing community (Nicholls Warm Springs/Mesa Verde), south of I-10. The gen-tie line, access roads, and 34.5 kV distribution line would not be located through an established community. No impacts would occur.

LU-2) Would Alternative 5 conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including but not limited to the general plan,

specific plan, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

Alternative 5 would be subject to the RCGP, PVVAP, CDCA Plan, and NECO Plan. As summarized in Table 4.2.10-1 under the analysis for Alternative 1, the Project would not conflict with applicable local land use plans, policies, or regulations (with the exception of Land Use Element Policy LU 13). Similar to Alternative 1, Alternative 5 would be consistent with goals and policies related to agriculture (Riverside County Land Use Element Policy LU 16.4, PVVAP Agricultural Preservation Policy 4.1). With approval of a CUP, Alternative 5 would be a permitted use on private land. The gen-tie line structures proposed on BLM land would be within the Riverside East SEZ and therefore consistent with the CDCA Plan and NECO Plan. Impacts to existing plans, policies, and regulations would be considered less than significant.

LU-3) Would Alternative 5 conflict with any applicable habitat conservation plan or natural community conservation plan?

As discussed in Section 4.2.4, *Biological Resources*, Alternative 5 would not be within the jurisdiction of any adopted habitat conservation plan or natural community conservation plan; therefore, no impacts would occur.

LU-4) Would Alternative 5 increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Similar to Alternative 1, Alternative 5 would not contain a residential component that would result in long-term increased use of existing recreational facilities. During the three-year construction period, construction workers and their families may temporarily increase the use of recreational facilities; however, Alternative 5 is not expected to draw a substantial number of new employees to the area over the long term. Therefore, implementation of Alternative 5 is not expected to result in any substantial physical deterioration of existing facilities. Impacts would be less than significant.

LU-5) Would Alternative 5 include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Similar to Alternative 1, Alternative 5 would not include any plans for the addition of any recreational facilities, nor would it require the construction or expansion of recreational facilities. The LU-5 analysis for Alternative 1 would apply.

LU-6) Would Alternative 5 result in a substantial alteration of the present or planned land use of an area?

Alternative 5 would be on private lands south of I-10 that would be conditionally consistent (with approval of the CUP) with the RCGP and the PVVAP. The gen-tie line within BLM-managed lands would be consistent with the CDCA Plan and NECO Plan, because it would be within the Riverside East SEZ. Therefore, Alternative 5 would be consistent with present or planned land use of the area.

LU-7) Would Alternative 5 affect land use within a city sphere of influence and/or within adjacent city or county boundaries?

Unlike Alternative 1, Alternative 5 would not develop solar facilities within the City of Blythe limits, only within the City's Sphere of Influence; the gen-tie line that would extend outside of the solar facility would not be within the City's Sphere of Influence. As discussed above, and similar to Alternative 1, Alternative 5 would be conditionally consistent with the RCGP and PVVAP. Therefore, no impacts would occur.

LU-8) Would Alternative 5 be inconsistent with the site's existing or proposed zoning?

As described in LU-6 above, the solar facility for Alternative 5 would be conditionally consistent with existing zoning for the RCGP and PVVAP. The gen-tie line would be consistent with the CDCA Plan and NECO Plan. Development of Alternative 5 would not require a zone change or general plan amendment; therefore, Alternative 5 would be consistent with the site's existing zoning. No impacts would occur.

LU-9) Would Alternative 5 be incompatible with existing surrounding zoning?

Alternative 5 would not develop within the City of Blythe limits. The zoning surrounding Alternative 5 is similar to that of the Alternative 1 site; therefore, Alternative 5 would be compatible with existing surrounding zoning.

LU-10) Would Alternative 5 disrupt or divide the physical arrangement of an established community (including a low-income or minority community)?

Similar to Alternative 1, Alternative 5 would not be located through an established community (see LU-1). No impacts would occur.

Cumulative Impacts

Geographic Scope

Impacts resulting from construction, operation, maintenance, and decommissioning of the Project could result in a cumulative effect on land use with other past, present, or reasonably foreseeable future actions. Cumulative impacts to agriculture are addressed in Section 4.2.2, *Agriculture*. The geographic scope of the cumulative effects analysis for land use consists of eastern Riverside County. This is based on the jurisdictional boundaries within which the impacts of land use decisions of the BMSP and other projects described in Table 4.1-1 could be additive or synergistic.

Temporal Scope

The timeframe refers to the duration over which impacts associated with land use and special designations would occur: short-term or long-term. Short-term impacts to land use and special designations would occur during the construction and decommissioning period. Long-term impacts associated with land use and special designations would occur as a result of developing a solar facility on the Project area and the resulting change in land use to accommodate the Project over its operational life (approximately 25 years).

Analysis of Direct and Indirect Impacts

Alternative 1: Proposed Project

Construction, Operation, Maintenance, and Decommissioning

Impacts resulting from construction, operation, maintenance, and decommissioning of the proposed Project could contribute to a cumulative effect on land use with other past, present, or reasonably foreseeable future actions. Cumulative impacts to agriculture are addressed in Section 4.2.2, *Agriculture*. The geographic scope of the cumulative effects analysis for land use consists of eastern Riverside County. This is based on the jurisdictional boundaries within which the impacts of land use decisions of the proposed Project and other projects described in Table 4.1-1 could be additive or synergistic.

Past development has increased human use of land in the Project area. However, because of the limited availability of water, human development in the Project area has been limited to small scattered communities and cities among large tracts of undeveloped land. Past and present projects occurring in the vicinity of the proposed Project area on private lands primarily include agricultural operations. Overall,

the Project area consists of undeveloped land used for agriculture, open space land, and desert. In addition, a large number of renewable projects (solar) have been proposed on both BLM-administered land and private land. However, not all projects listed would complete the environmental review process, and not all projects would be funded and constructed. Therefore, it is unlikely that all of the projects would be constructed.

Cumulative land use conflicts could arise as a result of the proposed Project's or an Alternative's short-term construction period in combination with multiple projects being under construction, creating nuisances such as dust, exhaust, and noise. The Project area is in a rural portion of the county devoted predominantly to agriculture with few sensitive receptors. However, there are a few small residential communities that could be impacted by increased traffic volumes on roadways. Impacts associated with dust, exhaust, and noise would be addressed through mitigation measures discussed in Section 4.2.3, *Air Quality*, and Section 4.2.11, *Noise*, which would likely be imposed on the other cumulative projects (impact LU-2). The gen-tie line traverses BLM-managed lands. Please refer to Section 4.2.12, *Recreation* for a discussion regarding temporary impacts to BLM-managed lands from the construction of the gen-tie line. Once construction is completed, temporary land use conflicts would cease. Therefore, temporary cumulative impacts to land use during construction would not be considered significant.

Some, if not all, of the cumulative projects described in Table 4.1-1 are anticipated to be operational during the operational life of the proposed Project or an Alternative. As part of the acreage of land is proposed for solar development in eastern Riverside County, the proposed Project or an Alternative could contribute to these cumulative impacts to land use during operations and maintenance. The conversion of rural agricultural and desert lands to solar facilities would preclude existing land uses including agriculture, rangeland, and open space from continuing on these sites during the operational life of the projects. Existing surrounding land uses such as agricultural fields are considered compatible with solar projects. Although solar projects can be affected by dust as well as particles from periodic spraying being carried by the wind and depositing on PV panels, these would not be considered incompatibilities or conflicts. With approval of a CUP for the proposed Project or an Alternative, there would be no conflicts with the RCGP, City of Blythe General Plan 2025, or zoning (impact LU-2). Therefore, the proposed Project or an Alternative would not contribute to any adverse direct or indirect cumulative impact to land use during operations and maintenance.

The decommissioning of the proposed Project or an Alternative is expected to result in temporary impacts similar to construction impacts, but lasting for a shorter period. Decommissioning of other solar energy projects would have the potential to combine with the proposed Project or an Alternative to result in temporary land use conflicts similar to construction (e.g., increases in traffic, disruptions in accessibility to surrounding lands). However, due to the short-term nature of decommissioning activities, and the unlikelihood that all such projects would go through the decommissioning process at exactly the same time, the cumulative land use impacts (i.e., temporary conflicts or incompatibilities) would occur for a limited duration and are therefore not expected to be significant.

Alternative 2: No Project Alternative

Under the No Project Alternative, gen-tie facilities would not be constructed on BLM-managed lands and solar facilities would not be constructed on private lands. The public lands in the Project area would continue to be managed by BLM in accordance with existing land use designations in the CDCA Plan, whereas the private lands would continue to be managed for agricultural production. Alternative 2 would not contribute to cumulative impacts on land use and planning.

Alternative 3: Northern 230 kV Gen-tie Line Location

Alternative 3 is similar to Alternative 1 (proposed Project), with the exception of the location of the Northern 230 kV gen-tie line, which would be approximately 700 feet north of Alternative 1's proposed 230 kV gen-tie line. The cumulative impacts associated with the construction, operation, maintenance, and decommissioning of the solar facility would be the same as Alternative 1. Similar to Alternative 1, impacts resulting from construction, operation, maintenance, and decommissioning of Alternative 3 could result in a cumulative effect on land use with other past, present, or reasonably foreseeable future

actions. Cumulative impacts to agriculture are addressed in Section 4.2.2, *Agriculture*. The geographic scope of the cumulative effects analysis for land use consists of eastern Riverside County. This is based on the jurisdictional boundaries within which the impacts of land use decisions of Alternative 3 and other projects described in Table 4.1-1 could be additive or synergistic.

Past development has increased human use of land in the area of Alternative 3. However, because of the limited availability of water, human development in the Alternative 3 area has been limited to small scattered communities and cities among large tracts of undeveloped land. Past and present projects occurring in the vicinity of the Alternative 3 site on private lands primarily include agricultural operations. Overall, the Project area consists of undeveloped land used for agriculture, open space land, and desert. In addition, a large number of renewable projects (solar) have been proposed on both BLM-administered land and private land. However, not all projects listed would complete the environmental review process, and not all projects would be funded and constructed. Therefore, it is unlikely that all of the projects would be constructed.

As with the proposed Project, cumulative land use conflicts could arise as a result of this Alternative's short-term construction period in combination with multiple projects being under construction creating nuisances such as dust, exhaust, and noise. Alternative 3 would also be in a rural portion of the county devoted predominantly to agriculture with few sensitive receptors. However, there are a few small residential communities that could be impacted by increased traffic volumes on roadways. Impacts associated with dust, exhaust, and noise would be addressed through mitigation measures discussed in Section 4.2.3, *Air Quality*, and Section 4.2.11, *Noise*, which would likely be imposed on the other cumulative projects (impact LU-2). Once construction is completed, temporary land use conflicts would cease. Therefore, temporary cumulative impacts to land use during construction are not considered significant.

Some, if not all, of the cumulative projects described in Table 4.1-1 are anticipated to be operational during the operational life of Alternative 3. As part of the acreage of land is proposed for solar development in eastern Riverside County, Alternative 3 could contribute to these cumulative impacts to land use during operations and maintenance. The conversion of rural agricultural and desert lands to solar facilities would preclude existing land uses including agriculture, rangeland, and open space from continuing on these sites. Existing surrounding land uses such as agricultural fields are considered compatible with solar projects. Although solar projects can be affected by dust as well as particles from periodic spraying being carried by the wind and depositing on PV panels, these would not be considered incompatibilities or conflicts. With approval of a CUP and compliance with Board of Supervisor's Policy B-29 for Alternative 3, there would be no conflicts with the RCGP, City of Blythe General Plan 2025, or zoning (impact LU-2). Therefore, Alternative 3 would not contribute to any adverse direct or indirect cumulative impact to land use during operations and maintenance.

The decommissioning of Alternative 3 is expected also to result in temporary impacts similar to construction impacts, but lasting for a shorter period. Decommissioning of other solar energy projects would have the potential to combine with this Alternative to result in temporary land use conflicts similar to construction (e.g., increases in traffic, disruptions in accessibility to surrounding lands). However, due to the short-term nature of decommissioning activities, and the unlikelihood that all such projects would go through the decommissioning process at exactly the same time, the cumulative land use impacts (i.e., temporary conflicts or incompatibilities) would occur for a limited duration and are therefore not expected to be significant.

Alternative 4: Southern 230 kV Gen-tie Line Location

Alternative 4 is similar to Alternative 1 (proposed Project), with the exception of the location of the Southern 230 kV gen-tie line, which would be approximately 0.8 mile south of Alternative 1's proposed 230 kV gen-tie line. The cumulative impacts associated with the construction, operation, maintenance, and decommissioning of the solar facility would be the same as Alternative 1. Similar to Alternative 1, impacts resulting from construction, operation, maintenance, and decommissioning of Alternative 4 could result in a cumulative effect on land use with other past, present, or reasonably foreseeable future actions. Cumulative impacts to agriculture are addressed in Section 4.2.2, *Agriculture*. The geographic

scope of the cumulative effects analysis for land use consists of eastern Riverside County. This is based on the jurisdictional boundaries within which the impacts of land use decisions of Alternative 4 and other projects described in Table 4.1-1 could be additive or synergistic.

Past development has increased human use of land in the area of Alternative 4. However, because of the limited availability of water, human development in the Alternative 4 area has been limited to small scattered communities and cities among large tracts of undeveloped land. Past and present projects occurring in the vicinity of the Alternative 4 site on private lands primarily include agricultural operations. Overall, the Project area consists of undeveloped land used for agriculture, open space land, and desert. In addition, a large number of renewable projects (solar) have been proposed on both BLM-administered land and private land. However, not all projects listed would complete the environmental review process, and not all projects would be funded and constructed. Therefore, it is unlikely that all of the projects would be constructed.

As with the proposed Project, cumulative land use conflicts could arise as a result of this Alternative's short-term construction period in combination with multiple projects being under construction creating nuisances such as dust, exhaust, and noise. Alternative 4 would also be in a rural portion of the county devoted predominantly to agriculture with few sensitive receptors. However, there are a few small residential communities that could be impacted by increased traffic volumes on roadways. Impacts associated with dust, exhaust, and noise would be addressed through mitigation measures discussed in Section 4.2.3, *Air Quality*, and Section 4.2.11, *Noise*, which would likely be imposed on the other cumulative projects (impact LU-2). Once construction is completed, temporary land use conflicts would cease. Therefore, temporary cumulative impacts to land use during construction are not considered significant.

Some, if not all, of the cumulative projects described in Table 4.1-1 are anticipated to be operational during the operational life of Alternative 4. As part of the acreage of land is proposed for solar development in eastern Riverside County, Alternative 4 could contribute to these cumulative impacts to land use during operations and maintenance. The conversion of rural agricultural and desert lands to solar facilities would preclude existing land uses including agriculture, rangeland, and open space from continuing on these sites. Existing surrounding land uses such as agricultural fields are considered compatible with solar projects. Although solar projects can be affected by dust as well as particles from periodic spraying being carried by the wind and depositing on PV panels, these would not be considered incompatibilities or conflicts. With approval of a CUP and compliance with Board of Supervisor's Policy B-29 for Alternative 4, there would be no conflicts with the RCGP, City of Blythe General Plan 2025, or zoning (impact LU-2). Therefore, Alternative 4 would not contribute to any adverse direct or indirect cumulative impact to land use during operations and maintenance.

The decommissioning of Alternative 4 is expected also to result in temporary impacts similar to construction impacts, but lasting for a shorter period. Decommissioning of other solar energy projects would have the potential to combine with this Alternative to result in temporary land use conflicts similar to construction (e.g., increases in traffic, disruptions in accessibility to surrounding lands). However, due to the short-term nature of decommissioning activities, and the unlikelihood that all such projects would go through the decommissioning process at exactly the same time, the cumulative land use impacts (i.e., temporary conflicts or incompatibilities) would occur for a limited duration and are therefore not expected to be significant.

Alternative 5: Reduced Acreage Alternative

Construction, Operation, Maintenance, and Decommissioning

Similar to Alternative 1, impacts resulting from construction, operation, maintenance, and decommissioning of Alternative 5 could result in a cumulative effect on land use with other past, present, or reasonably foreseeable future actions. Cumulative impacts to agriculture are addressed in Section 4.2.2, *Agriculture*; however, unlike Alternative 1, no agricultural lands would be developed north of I-10 under Alternative 5. The cumulative land use analysis under Alternative 1 would apply. Overall, and

similar to Alternative 1, the Alternative 5 area consists of undeveloped land used for agriculture, open space land, and desert.

Once construction is completed, temporary land use conflicts would cease. Therefore, temporary cumulative impacts to land use during construction are not considered significant.

Some, if not all, of the cumulative projects described in Table 4.1-1 are anticipated to be operational during the operational life of Alternative 5. Similar to Alternative 1, Alternative 5 could contribute to cumulative impacts to land use during operations and maintenance. The conversion of rural agricultural and desert lands to solar facilities would preclude existing land uses including agriculture, rangeland, and open space from continuing on these sites; however, under Alternative 5 there would be no agricultural lands impacted north of I-10 and current agricultural uses could continue. There would be no additional contribution towards cumulative impacts or conflicts during operations and maintenance outside of those previously discussed in the cumulative land use analysis under Alternative 1.

Similar to Alternative 1, the decommissioning of Alternative 5 is expected to result in temporary impacts similar to construction impacts, but lasting for a shorter period. Under Alternative 5, decommissioning efforts would be reduced in comparison to Alternative 1 due to less solar facility development. No additional impacts outside of those identified in the Alternative 1 cumulative analysis for decommissioning would result.

Mitigation Measures

The design features of the Project, as well as its compliance with applicable laws, ordinances, regulations, and standards, and the use of industry standard operating procedures (e.g., WECC) would avoid or reduce impacts related to construction and operation of the Project. Moreover, utility corridors have been designated by the BLM to accommodate such uses and to reduce overall environmental impacts that would result from the construction and operation of multiple linear facilities in multiple locations. In addition, the location of the Project in the Riverside East SEZ facilitates utility-scale production of solar energy and associated transmission infrastructure development. Accordingly, additional mitigation measures are not recommended.

Residual Impacts

There would be less-than-significant impacts to existing authorized uses as a result of development under the proposed Project, the action Alternatives, and the cumulative scenario. Existing conditions would continue under Alternative 2 and would not result in cumulative impacts to land use and planning.

NEPA Conclusions

The No Project Alternative would not have impacts, as the existing circumstances and operations would continue essentially unchanged. The Project and each of the action Alternatives would result in the direct and indirect impacts and contribution toward cumulative impacts that are described above, which would not be substantial. The Project and each of the action Alternatives would comply with all federal, State and local land use plans.

4.2.11 Noise

This section describes the impact analysis relating to noise for the proposed Project and Alternatives.

Methodology for Analysis

Noise and vibration impacts associated with the proposed Project and Alternatives would be created by short-term construction activities and by normal long-term operation of the solar facility, including noise from the tracker motors, electrical collection system, substation, and operation and maintenance activities.

Construction noise from the Project and Alternatives would include both on- and off-site noise sources. On-site noise sources would be generated by equipment associated with construction activities described in the proposed Project and Alternatives (see Chapter 2). Off-site construction noise would be generated by trucks delivering equipment and materials, as well as workers commuting to and from the proposed solar facility.

Operational noise associated with the Project would include off-site worker traffic; noise generated by the tracker motors, transformers, substation, and gen-tie line; and panel washing.

Noise associated with decommissioning would be similar to that of construction; however, it would be less intense and require a shorter duration.

For vibration impacts, human reactions and building damage potential have different thresholds depending on whether the vibration events are isolated discrete events or frequent/continuous events. Based on Caltrans' Transportation- and Construction-Induced Vibration Guidance Manual, building damage potential is based on cosmetic (not structural) damage to buildings or structures of various types and ages. Building damage categories are:

- Extremely Low: exceeds cosmetic damage threshold for extremely fragile historic buildings, ruins, or monuments
- Very Low: exceeds cosmetic damage threshold for fragile buildings
- Low: exceeds cosmetic damage threshold for historic buildings
- Moderate: exceeds cosmetic damage threshold for older residential buildings
- High: exceeds cosmetic damage threshold for newer residential buildings
- Very High: exceeds cosmetic damage thresholds for modern commercial and industrial buildings

A peak particle velocity (PPV) threshold of 0.20 inch per second (in/sec) was identified as the level of vibration impacts related to adverse human reaction and risk of architectural damage to normal buildings[7] (Caltrans 2004). This PPV threshold was used in this analysis to determine significant impacts associated with the proposed Project and Alternatives.

The purpose of this analysis is to identify and examine likely noise and vibration impacts from construction, operation and maintenance, and decommissioning of the Project and to recommend mitigation measures to minimize adverse affects. Though not an impact of the Project and thus not a subject encompassed under CEQA or NEPA, this section also discusses whether the Project (including its employees) would be exposed to substantial noise levels.

[7]Architectural damage could be structural damage, such as cracking of floor slabs, foundations, columns, beams, or wells, or cosmetic architectural damage, such as cracked plaster, stucco, or tile.

CEQA Significance Criteria

CEQA does not define what noise level increase would be considered substantial. Typically, an increase in noise level of at least 5 A-weighted decibels (dBA) is noticeable by most people and in a residential setting would not be a substantial adverse impact. An increase in noise level of 10 dBA is judged by most people as a doubling of the sound level, which would be considered a substantial adverse impact. Other factors that are considered in determining adverse noise impacts include: (1) the resulting combined noise level; (2) the duration and frequency of the noise; (3) the number of people affected; and (4) the land use designation of the affected receptor sites. Mitigation measures must be considered if potential adverse impacts to noise would occur from the construction, operation and maintenance, and decommissioning of the Project.

Typically, noise impacts due to construction activities are not considered substantial as long as construction activities are temporary, intermittently affect any one location, limit the use of heavy equipment and noise activities to daytime hours, implement all industry standard noise abatement measures for noise-producing equipment, and comply with any local construction noise ordinances.

Vibration-sensitive land uses would include high-precision manufacturing facilities or research facilities with optical and electron microscopes. None of these occur in the Project area. Therefore, a substantial impact resulting from excessive ground-borne vibration would depend on whether a nuisance, annoyance, or physical damage to any structure could occur.

The following was used to determine CEQA significance of impacts to noise and were derived from Appendix G of the CEQA Guidelines. Impacts of the proposed Project would be considered significant and would require mitigation if they result in:

NOI-1) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.

NOI-2) Substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

NOI-3) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

NOI-4) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, the exposure of people residing or working in the project area to excessive noise levels.

NOI-5) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

The following additional significance criterion from the County of Riverside Environmental Assessment form is used in the analysis. A project could have potentially significant impacts if it results in:

NOI-6) Impacts from railroad or highway noise.

CEQA significance conclusions are based on thresholds defined by local rules, standards, and/or ordinances. During operation of the Project, it is anticipated that noise levels would operate at or below the existing ambient noise levels.

NEPA Requirements

The federal role in regulating noise is mostly limited to transportation, workplace activities, and certain types of machinery. State and local governments determine the extent to which other sources of noise are controlled.

BLM does not have regulations specific to noise and the Riverside County noise ordinances are not applicable on public lands. However, the County General Plan and noise ordinance establishes sound-level limits applicable to residential properties that could be adversely affected by the Project. The noise ordinance is furthermore applicable to the non-federal connected action (the solar facility). The standards established in the County noise control measures accordingly provide applicable noise thresholds for evaluating the Project.

Applicable Best Management Practices

As part of the Project and Alternatives, the following applicable BMP would minimize the environmental impacts associated with noise. The full BMP has been detailed below (see also Table 2-4 in Chapter 2) and is further referenced (by number) within the impact discussion.

NUMBER	BMP DESCRIPTION
BMP-18	**Noise.** The Project would minimize construction- and operation-related noise levels to minimize impacts to wildlife and nearby residents.

Alternative 1: Proposed Project

Analysis of Direct and Indirect Impacts

Construction

Construction of the proposed Project would occur over a three-year period and construction workers would typically work Monday through Friday from 7:00 a.m. to 6:00 p.m. The peak of construction (construction of the solar field, O&M buildings, substations, and gen-tie line) would occur over a two-year period and require approximately 300 to 500 workers. Up to 400 workers would be at the site during array installation and assembly. The solar facility would be developed in six-month phases with six blocks constructed at a time (each block would be 100 acres, for a total of 600 acres at a time). Construction noises associated with each phase would accordingly move when construction activities move to the next phase.

Construction noise would be created from sources at the work sites and around staging areas or access routes. On-site noise generated during construction would occur primarily from heavy-duty diesel-powered construction equipment and other construction equipment. Off-site noise would be generated by trucks delivering materials and equipment to construction sites, as well as trucks hauling soil and vehicles used by workers commuting to and from the sites.

Noise from On-site Construction Activities

Construction equipment would include graders, bulldozers, backhoes, cranes, water trucks, generators, and delivery trucks. Table 4.2.11-1 provides the estimated noise that would be generated by each of the individual pieces of equipment, similar to what would be required to construct the Project, based on the Federal Highway Administration (FHWA) Roadway Construction Noise Model. Equipment and operation noise levels are expressed in terms of L_{max} (maximum sound level) noise levels. The acoustical usage factor estimates the fraction of time each piece of construction equipment is operating at full power (i.e., its loudest condition) during construction. Noise levels for each of the individual pieces of equipment would generate a maximum noise level ranging from 74 to 85 dBA L_{max} at 50 feet from the source, as shown in Table 4.2.11-1. With implementation of a Hearing Conservation Program and Personal Protective Equipment Program (Mitigation Measure Noise-3), impacts to construction workers would be reduced.

Table 4.2.11-1 Construction Equipment Noise Emission Levels

EQUIPMENT	ACOUSTICAL USAGE FACTOR (%)	MEASURED L_{max} (at 50 feet)
Backhoe	40	78
Compactor (ground)	20	83
Compressor (air)	40	78
Concrete Mixer Truck	40	79
Concrete Pump Truck	20	81
Dozer	40	82
Dump Truck	40	76
Excavator	40	81
Flat Bed Truck/Water Truck	40	74
Front End Loader	40	79
Truck-mounted crane	16	81
Generator	50	81
Grader	40	83
Paver	50	77
Pickup Truck	40	75
Pneumatic Tools	50	85
Pumps	50	81
Roller	20	80
Scraper	40	84
Welder/Torch	40	74

Source: FHWA 2006.

Based on similar solar projects, it is anticipated that the operation of heavy equipment for the construction of the Project would generate a combined maximum noise level of up to approximately 84 dBA L_{eq} (equivalent continuous noise level) at 75 feet from the construction activity (Aspen 2009). This noise level would diminish approximately 6 dBA per doubling of distance. At approximately 105 feet from the construction activity, noise levels would be approximately 78 dBA L_{eq} and at 300 feet, noise levels would be approximately 72 dBA L_{eq}. At approximately 1,200 feet from construction activity, it is anticipated that noise levels would be 60 dBA L_{eq}. Implementation of the Project would include BMP-18, which would minimize construction noise impacts to sensitive receptors and wildlife.

For the residents adjacent to the Project area, north of I-10 and west of the Project boundary, the assumed ambient noise level is 40 dBA L_{eq}. Projected ambient noise levels during construction are estimated to be 65 dBA L_{eq}. Within the County of Riverside, private construction projects located one-quarter of a mile or more from an inhabited dwelling or

The construction of the 230 kV gen-tie line, which is a long linear facility, would move along the length at a rapid pace and therefore would not subject any one sensitive noise receptor to noise impacts for more than a week. Furthermore, construction activities would be limited to daytime hours.

Off-site Noise

It is anticipated that most workers would be drawn from the Blythe/Palo Verde Valley region and the Desert Center region, with a smaller portion drawn from the Imperial Valley or Eastern Riverside County region. Anticipated average material deliveries would consist of about 20 truck deliveries per day for 24 months. Workers and delivery trucks would utilize the Neighbours Boulevard off ramp from I-10 and gain primary access to the site using Seeley Avenue and Riverside Drive. Typical on-site work hours would be from 7:00 a.m. to 6:00 p.m. During the installation period, construction workers are projected to be on-site five days per week, year-round. Due to weather or other major-type delays, times may shift to start as early as 5:00 a.m. and end as late as 8:00 p.m., as well as continue into the weekends. To minimize impacts to residents within 1,200 feet of construction activity to the maximum extent possible, non-typical construction hours would occur at a minimum of a quarter-mile (1,320 feet) from residents. Security would be on-site 24 hours per day.

Construction of the Project would cause off-site noise, primarily from commuting construction workers and materials and equipment deliveries to the construction sites. As shown in Table 4.2.11-1, the maximum pass-by noise levels from trucks would be 74 to 76 dBA L_{max} at 50 feet.

Vibration

Temporary sources of groundborne vibration and noise during construction would result from operation of conventional heavy construction equipment such as pile drivers, graders, bulldozers, and loaded haul trucks. Based on information from Caltrans' Transportation- and Construction-Induced Vibration Guidance Manual, Table 4.2.11-2 lists the anticipated ground vibration from typical construction equipment used to construct a solar facility. These pieces of equipment can generate vibration levels of up to 0.17 in/sec at a distance of 25 feet (Caltrans 2004).

Table 4.2.11-2 Ground Vibration Levels for Typical Construction Equipment

EQUIPMENT TYPE	VIBRATORY TYPE	PARAMETER	DISTANCE FROM OPERATING EQUIPMENT			
			25 feet	100 feet	200 feet	300 feet
Vibratory Pile Driver, Typical	Frequent or Continuous	PPV, in/sec	0.170	0.028	0.011	0.007
		Human Response	Mildly annoying	Barely perceptible	Barely perceptible	Not perceptible
		Building Damage Potential	Very low	None	None	None
Self-Loading Scraper	Frequent or Continuous	PPV, in/sec	0.089	0.015	0.006	0.004
		Human Response	Distinctly perceptible	Barely perceptible	Not perceptible	Not perceptible
		Building Damage Potential	Extremely low	None	None	None
Static Roller-Compactor	Frequent or Continuous	PPV, in/sec	0.089	0.015	0.006	0.004
		Human Response	Distinctly perceptible	Distinctly perceptible	Not perceptible	Not perceptible
		Building Damage Potential	Extremely low	None	None	none
Loaded Truck	Single Event	PPV, in/sec	0.076	0.013	0.005	0.003
		Human Response	Barely perceptible	Not perceptible	Not perceptible	Not perceptible
		Building Damage Potential	None	None	None	None
Small Bulldozer	Frequent or Continuous	PPV, in/sec	0.003	0.000	0.000	0.000
		Human Response	Not perceptible	Not perceptible	Not perceptible	Not perceptible
		Building Damage Potential	None	None	None	None
Excavator or Backhoe	Frequent or Continuous	PPV, in/sec	0.003	0.000	0.000	0.000
		Human Response	Not perceptible	Not perceptible	Not perceptible	Not perceptible
		Building Damage Potential	None	None	None	None
Wheeled Loader	Frequent or Continuous	PPV, in/sec	0.003	0.000	0.000	0.000
		Human Response	Not perceptible	Not perceptible	Not perceptible	Not perceptible
		Building Damage Potential	None	None	None	None

Source: BLM 2011.

For the construction of a solar facility, the vibratory pile driver would produce the highest PPV level of 0.17 in/sec at 50 feet, which would not exceed Caltrans' PPV threshold of 0.20 in/sec. The closest building, which is a residence, is approximately 260 feet from the proposed solar facility boundary and approximately 350 feet away from the closest solar panel. At a distance of 300 feet, ground vibration from a vibratory pile driver would not be perceptible by humans and would have no potential for damage to

buildings. Ground vibration from other construction equipment at 300 feet would not be perceptible to humans and would pose no risk of cosmetic damage to any existing buildings in the vicinity of the solar facility.

Operation and Maintenance

The primary noise sources associated with the operation and maintenance of the Project would be the tracker unit motors, substation transformers, modular power block inverters and medium voltage transformers, gen-tie line corona discharge, and maintenance activities.

Modular Power Blocks

The modular power blocks would each comprise four to six individual tracker units. Each tracker unit would include a drive unit that would consist of a 0.5-horsepower motor that would rotate the drive strut so that the solar PV panels would have the ability to maximize exposure to sunlight throughout the day. Based on specification of tracking motors for a similar PV project, the noise level of each proposed tracking motor is expected to be approximately 48 dBA at 50 feet (ICF 2010). Assuming that each of the six motors of a power block would operate simultaneously, the combined noise level would be as high as 50 dBA at 50 feet, which would equate to 44 dBA at 100 feet and 38 dBA at 200 feet.

The modular power blocks also include an inverter and medium voltage transformer. Inverters would be housed in containers that would attenuate any inverter noise to negligible levels. It is anticipated that the medium-voltage transformers would result in noise levels substantially less than the high-voltage transformers within the proposed substation (i.e., less than 53 dBA at 50 feet; see substation transformer discussion under *230 kV Gen-tie Line* below).

At 200 feet, the maximum power block combined motors and transformer noise would be less than 45 dBA. Although not typical, during the summer months, there may be days when the power block motors and medium transformers would operate slightly before 6:00 a.m. The closest residence is 260 feet from the Project boundary; noise attenuates with distance and would be less than 45 dBA, which is the County of Riverside's maximum decibel level limit allowed in rural residential areas for daytime and nighttime, as well as within the City of Blythe's acceptable noise levels.

O&M Buildings

After the construction phase, the O&M buildings would serve the Project's approximately 12 permanent full-time employees, which would include one plant manager, five engineers/technicians, and six security staff. Project facilities would be monitored during operating (daylight) hours, even though the Project facilities would be capable of automatic start up, shutdown, self-diagnosis, and fault detection. No heavy equipment would be used during normal operation.

Noise from the operation and maintenance of the Project would be created by security patrols, maintenance crews, wash crews, and the sound of electrical equipment, such as inverters and transformers. Security and maintenance staff would traverse the solar array field by utilizing lightweight vehicles along interior access roads. Panel washing crews would clean the panels up to twice a year with a lightweight to medium-duty truck. The truck would be fitted with a water tank and air compressor to operate a high-pressure sprayer and cleaning brush system.

230 kV Gen-tie Line

It is anticipated that the 230 kV gen-tie line would create a noise of approximately 20 dBA L_{eq} at 50 feet, and the transformers (within the substations) would create noise levels of approximately 40 dBA L_{eq} at 200 feet. The inverters would be housed in steel and concrete enclosures and are anticipated to create noise levels of approximately 58 dBA L_{eq} at the source.

Decommissioning

Equipment used during decommissioning activities would be similar to those used during construction, including cranes, excavators, and air hammers. Decommissioning activities would generate a temporary, localized increase in ambient noise levels that would be similar, but less than, noise generated during construction. Decommissioning activities would be less intense and for a shorter duration.

Application of CEQA Significance Thresholds

NOI-1) Would the Project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction of the Project would occur over a three-year period, and the solar facility would be developed in six-month phases with six blocks (100 acres each) constructed at a time (approximately 600 acres at a time). Construction noises associated with each phase would accordingly move when construction activities move to the next phase. Construction activities would be temporary and only intermittently affect any one location. Typical construction hours would occur between 7:00 a.m. and 6:00 p.m., which would meet the criteria for exemption under provisions of Riverside County's Ordinance No. 847. Anticipated construction noise levels for the closest sensitive receptor, a residence approximately 260 feet away from the Project boundary, would not exceed the County of Riverside's and City of Blythe's noise policy thresholds (60 dB L_{dn}). However, noise levels for residents within 0.25 mile would increase greater than 10 dBA L_{eq} from the existing ambient noise level, which would result in an adverse impact. To minimize impacts to sensitive receptors, implementation of Mitigation Measure Noise-1 would restrict construction hours to comply with the County of Riverside's Noise Ordinance No. 847. In addition, implementation of BMP-18, as part of the Project, and Mitigation Measure Noise-2 to notify residents within 2,400 feet of the Project area would further minimize noise impacts. With implementation of Mitigation Measure Noise-3, impacts to workers that may be exposed to excessive noise levels would be reduced to less than significant levels. Impacts during operation and decommissioning would be less than significant. There are no sensitive receptors close to the proposed gen-tie line; therefore, no impacts would occur.

NOI-2) Would the Project result in substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Project construction would temporarily increase ambient noise levels in the Project vicinity above existing levels. However, construction would move along at a rapid pace throughout the Project area and would only intermittently affect any one location. Therefore, impacts would be considered less than significant.

NOI-3) Would the Project result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Project construction activities would require the use of heavy construction equipment that would result in ground-borne vibration. The vibratory post driver used for installation of the solar array piles would result in the highest vibration levels; however, it would be below PPV thresholds and would not result in adverse impacts to humans or physical damage to buildings in the vicinity of the Project area. Therefore, construction-related vibration impacts would be less than significant. Impacts related to decommissioning would be similar to construction, but the construction equipment utilized for decommissioning would result in lower levels of ground vibration. Project operation would not introduce any new sources of perceivable ground-borne vibration to sensitive receptors surrounding the Project area. Therefore, there would be no operation-related vibration levels.

NOI-4) Would the Project result in for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use

airport, the exposure of people residing or working in the project area to excessive noise levels?

The Project would be approximately 0.5 mile from the Blythe Airport, and the Project area also experiences considerable ambient noise from I-10. Construction activities from the Project would potentially exceed ambient levels for residents to the north of I-10 and east of the solar facility. Also, construction personnel working close to the Blythe Airport may be exposed to elevated noise levels from aircraft. With the implementation of Mitigation Measures Noise-1 and Noise-2, impacts would be reduced to a less than significant level. Noise impacts during operation and decommissioning would be less than significant.

NOI-5) Would the Project result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

The Project would generate noise associated with the operation and maintenance of the tracker unit motors, substation transformers, modular power block inverters and medium voltage transformers, gen-tie line corona discharge, and maintenance activities. However, noise attenuates with distance and the Project would not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project. Impacts would be less than significant.

NOI-6) Would the Project result in impacts from railroad or highway noise?

The Project would not utilize railroad service for delivery of materials or workers; therefore, no impacts related to railroad noise would occur. During construction, workers commuting to the Project area and delivery of materials would result in a slight increase in traffic along I-10. However, the Project's construction traffic would result in a nominal increase in highway noise. Therefore, impacts related to highway noise would be less than significant. No impacts related to highway noise during operation of the Project would occur.

Alternative 2: No Project

Under the No Project Alternative, no Project-related action involving short-term construction activities and long-term operation of the Project would occur and the associated noise levels would not be generated. The No Project Alternative would result in the continuation of agricultural use-related noise levels at the site. No significant impacts would occur with the implementation of the No Project Alternative.

Alternative 3: Northern Alternative 230 KV Gen-tie Line Location

Alternative 3 would be very similar to the proposed Project, with the exception of the location of the proposed 230 kV gen-tie line. Although the gen-tie line would be shifted to the north relative to the proposed Project, it would impact the same noise-sensitive receptors. Therefore, noise-related impacts would be similar for Alternative 3 and the proposed Project.

Application of CEQA Significance Thresholds

NOI-1) Would Alternative 3 result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Alternative 3 would meet the criteria under which the noise would be considered acceptable under Riverside County's Ordinance No. 847 and the City of Blythe's noise policies. However, noise levels for residents within 0.25 mile of the solar facility site would increase greater than 10 dBA L_{eq} from the existing ambient noise level, which would result in an adverse impact. Construction activities would be temporary and only intermittently affect any one location. To minimize impacts to sensitive receptors, implementation of Mitigation Measure Noise-1 would restrict construction hours. In addition, implementation of BMP-18, as part of Alternative 3, and Mitigation Measure Noise-2 to notify residents within 2,400 feet of the solar facility area would

further minimize noise impacts. With implementation of Mitigation Measure Noise-3, impacts to workers that may be exposed to excessive noise levels would be reduced to less than significant levels. Therefore, impacts during operation and decommissioning would be less than significant. There are no sensitive receptors within 0.25 mile of Alternative 3's gen-tie line that would extend outside the solar facility site; therefore, no impacts would occur.

NOI-2) Would Alternative 3 result in substantial temporary or periodic increase in ambient noise levels in the Alternative 3 vicinity above levels existing without Alternative 4?

Alternative 3 construction would temporarily increase ambient noise levels in the Alternative 3 vicinity above existing levels. However, construction would move along at a rapid pace throughout the Alternative 3 site and would only intermittently affect any one location. Therefore, impacts would be considered less than significant.

NOI-3) Would Alternative 3 result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Construction activities for Alternative 3 would require the use of heavy construction equipment that would result in ground-borne vibration. The vibratory post driver used for installation of the solar array piles would result in the highest vibration levels; however, it would be below PPV thresholds and would not result in adverse impacts to humans or physical damage to buildings in the vicinity of the Alternative 3. Therefore, construction-related vibration impacts would be less than significant. Impacts related to decommissioning would be similar to construction, but the construction equipment utilized for decommissioning would result in lower levels of ground vibration. Project operation would not introduce any new sources of perceivable ground-borne vibration to sensitive receptors within 0.25 mile of Alternative 3. Therefore, there would be no operation-related vibration levels.

NOI-4) Would Alternative 3 result in for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, the exposure of people residing or working in Alternative 3 area to excessive noise levels?

Alternative 3 would be approximately 0.5 mile from the Blythe Airport, and the Alternative 3 area also experiences considerable ambient noise from I-10. Construction activities from Alternative 3 would potentially exceed ambient levels for residents to the north of I-10 and east of the Solar facility. With the implementation of Mitigation Measures Noise-1 and Noise-2, impacts would be reduced to a less than significant level. Noise impacts during operation and decommissioning would be less than significant.

NOI-5) Would Alternative 3 result in a substantial permanent increase in ambient noise levels in the Alternative 3 vicinity above levels existing without Alternative 3?

Alternative 3 would generate noise associated with the operation and maintenance of the tracker unit motors, substation transformers, modular power block inverters and medium voltage transformers, gen-tie line corona discharge, and maintenance activities. However, noise attenuates with distance and Alternative 3 would not result in a substantial permanent increase in ambient noise levels in the Alternative 3 vicinity above levels existing without Alternative 3. Impacts would be less than significant.

NOI-6) Would Alternative 3 result in impacts from railroad or highway noise?

Similar to Alternative 1, Alternative 3 would not result in impacts related to railroad noise. During construction, Alternative 3 would result in a nominal increase in highway noise, but operation of Alternative 3 would not increase highway noise. Impacts related to highway noise would be less than significant.

Alternative 4: Southern Alternative 230 KV Gen-tie Line Location

Alternative 4 would be similar to the proposed Project, with the exception of the location of the proposed 230 kV gen-tie line. Alternative 4 would be shifted to the south of the proposed Project's gen-tie line. Alternative 4's gen-tie line would be slightly shorter than the proposed Project's gen-tie line and farther from sensitive receptors. However, the closest residents that may be impacted by the Project would be close to the solar facility, not the gen-tie line. Therefore, there would be no substantial difference between the Alternative 4 gen-tie line and the proposed Project's gen-tie line, and the same noise-sensitive receptors would be impacted.

Application of CEQA Significance Thresholds

NOI-1) Would Alternative 4 result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Alternative 4 would meet the criteria under which the noise would be considered acceptable under Riverside County's Ordinance No. 847 and the City of Blythe's noise policies. However, noise levels for residents within 0.25 mile of the solar facility site would increase greater than 10 dBA L_{eq} from the existing ambient noise level, which would result in an adverse impact. Construction activities would be temporary and only intermittently affect any one location. To minimize impacts to sensitive receptors, implementation of Mitigation Measure Noise-1 would restrict construction hours. In addition, implementation of BMP-18, as part of Alternative 4, and Mitigation Measure Noise-2 to notify residents within 2,400 feet of the solar facility area would further minimize noise impacts. With implementation of Mitigation Measure Noise-3, impacts to workers that may be exposed to excessive noise levels would be reduced to less than significant levels. Therefore, impacts during operation and decommissioning would be less than significant. There are no sensitive receptors within 0.25 mile of Alternative 4's gen-tie line that would extend outside the solar facility site; therefore, no impacts would occur.

NOI-2) Would Alternative 4 result in substantial temporary or periodic increase in ambient noise levels in the Alternative 4 vicinity above levels existing without Alternative 4?

Alternative 4 construction would temporarily increase ambient noise levels in the Project vicinity above existing levels. However, construction would move along at a rapid pace throughout the Alternative 4 site and would only intermittently affect any one location. Therefore, impacts would be considered less than significant.

NOI-3) Would Alternative 4 result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Construction activities for Alternative 4 would require the use of heavy construction equipment that would result in ground-borne vibration. The vibratory post driver used for installation of the solar array piles would result in the highest vibration levels; however, it would be below PPV thresholds and would not result in adverse impacts to humans or physical damage to buildings in the vicinity of the Alternative 4. Therefore, construction-related vibration impacts would be less than significant. Impacts related to decommissioning would be similar to construction, but the construction equipment utilized for decommissioning would result in lower levels of ground vibration. Project operation would not introduce any new sources of perceivable ground-borne vibration to sensitive receptors within 0.25 mile of Alternative 4. Therefore, there would be no operation-related vibration levels.

NOI-4) Would Alternative 4 result in for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, the exposure of people residing or working in Alternative 4 area to excessive noise levels?

Alternative 4 would be approximately 0.5 mile from the Blythe Airport, and the Project area also experiences considerable ambient noise from I-10. Construction activities from the Project would potentially exceed ambient levels for residents to the north of I-10 and east of the solar facility. With the implementation of Mitigation Measures Noise-1 and Noise-2, impacts would be reduced to a less than significant level. Noise impacts during operation and decommissioning would be less than significant.

NOI-5) Would Alternative 4 result in a substantial permanent increase in ambient noise levels in the Alternative 4 vicinity above levels existing without Alternative 4?

Alternative 4 would generate noise associated with the operation and maintenance of the tracker unit motors, substation transformers, modular power block inverters and medium voltage transformers, gen-tie line corona discharge, and maintenance activities. However, noise attenuates with distance, and the Project would not result in a substantial permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project. Impacts would be less than significant.

NOI-6) Would Alternative 4 result in impacts from railroad or highway noise?

Similar to Alternatives 1 and 3, Alternative 4 would not result in impacts related to railroad noise. During construction, Alternative 4 would result in a nominal increase in highway noise, but operation of Alternative 4 would not increase highway noise. Impacts related to highway noise would be less than significant.

Alternative 5: Reduced Acreage Alternative

Similar to Alternative 1, Alternative 5 would include the construction, operation, maintenance, and decommissioning of a solar facility and associated infrastructure. The primary difference between Alternatives 1 and 5 is the absence of solar facility development north of I-10, which would reduce electrical output from a 485 MW down to a 315 MW alternating current solar PV facility. The Reduced Acreage Alternative would be on a reduced footprint of approximately 2,476 acres (from 3,660 acres for the proposed Project). Alternative 5 would include approximately 2,403 acres for the solar field. Similar to the proposed Project, 73 acres would be utilized for the 230 kV gen-tie line. In comparison to Alternative 1, Alternative 5 would eliminate one on-site substation and one O&M building and would have one access point (planned on Seeley Avenue). The Reduced Acreage Alternative would also no longer extend a 230 kV overhead gen-tie line from an on-site substation north of I-10, as this Alternative would not be developed on land north of I-10. Instead, this Alternative would construct an approximately 7.8-mile-long, 230 kV overhead gen-tie line from the proposed on-site substation south of I-10 to the approved Colorado River Substation. Approximately three miles of the gen-tie line would be within the solar facility. Alternative 5 would avoid impacts that would result from the construction, operation, maintenance, and decommissioning of a solar development north of I-10; however, the land on which Alternative 1 is proposed would continue with existing uses. Under Alternative 5, the work-related action involving short-term construction activities and long-term operation of a solar facility north of I-10 would not occur and the associated noise levels would not be generated. As a result, there would be a continuation of agricultural use-related noise levels north of I-10.

The Reduced Acreage Alternative solar facility and a portion of the gen-tie line would be within the jurisdiction of the County of Riverside but not within the City limits of Blythe in comparison to the proposed Project. Alternative 5 would need to comply with the RCGP (2003) and PVVAP (2008). The remaining portion of the gen-tie line would traverse lands managed by the BLM and would need to comply with the CDCA Plan. The construction, operation, maintenance, and decommissioning of Alternative 5 would not exceed those noise impacts identified under the Alternative 1 analysis. Therefore,

the Alternative 1 analysis would be applicable to Alternative 5, outside of those differences identified in the discussion below.

Analysis of Direct and Indirect Impacts

Construction

Construction of Alternative 5 would occur over a three-year period, similar to Alternative 1, and construction workers would typically work Monday through Friday from 7:00 a.m. to 6:00 p.m. The peak of construction (construction of the solar field, O&M building, substation, and gen-tie line) would occur over a two-year period and require a slightly reduced amount of workers (approximately 200 to 400 workers) due to a smaller development footprint. As no construction would occur north of I-10, the analysis under Alternative 1 would apply.

Noise from On-site Construction Activities

Alternative 5 would utilize the same construction equipment as Alternative 1. The analysis under Alternative 1 would apply. Unlike Alternative 1, there would be no residents adjacent to the solar facility footprint area, north of I-10 and west of the Project boundary, which would be impacted by ambient noise levels under Alternative 5.

Off-site Noise

Construction of Alternative 5 would be similar to Alternative 1, with the difference of no construction occurring north of I-10. Off-site noise to receptors north of I-10 would be reduced. Similar to Alternative 1, it is anticipated that most workers would be drawn from the Blythe/Palo Verde Valley region and the Desert Center region, with a smaller portion drawn from the Imperial Valley or Eastern Riverside County region. Anticipated average material deliveries would consist of about 20 truck deliveries per day for 24 months. However, under Alternative 5, workers and delivery trucks would utilize the Neighbours Boulevard off ramp from I-10 and gain primary access to the site using Seeley Avenue. Similar to Alternative 1, construction of Alternative 5 would cause off-site noise, primarily from commuting construction workers and materials and equipment deliveries to the construction sites. As shown in Table 4.2.11-1 in the Alternative 1 analysis, the maximum pass-by noise levels from trucks would be 74 to 76 dBA L_{max} at 50 feet.

Vibration

As construction of Alternative 5 would be similar to Alternative 1, the analysis under Alternative 1 for vibration would apply. Alternative 5 would not exceed Caltrans' PPV threshold of 0.20 in/sec, similar to Alternative 1. As no development would occur north of I-10 under Alternative 5, no construction activities would occur in proximity to a residence that would be approximately 260 feet from the Alternative 1 solar facility boundary. At a distance of 300 feet, however, ground vibration from a vibratory pile driver would not be perceptible by humans and would have no potential for damage to buildings. As such, similar to Alternative 1, ground vibration from other construction equipment at 300 feet would not be perceptible to humans and would pose no risk of cosmetic damage to any existing buildings in the vicinity of the Alternative 5 solar facility.

Operation and Maintenance

Similar to Alternative 1, the primary noise sources associated with the operation and maintenance of Alternative 5 would be the tracker unit motors, substation transformers, modular power block inverters and medium voltage transformers, gen-tie line corona discharge, and maintenance activities.

Modular Power Blocks

The closest residence to the Alternative 1 boundary would not experience solar development within 260 feet under Alternative 5, as the project limits would not extend north of I-10. However, even under Alternative 1, noise would be less than 45 dBA, which is the County of Riverside's maximum decibel level limit allowed in rural residential areas for daytime and nighttime. As such, Alternative 5 operation would also be within these acceptable limits.

O&M Buildings

After the construction phase of Alternative 5, the O&M building would serve the Project's approximately seven permanent full-time employees. Similar to Alternative 1, Alternative 5 facilities would be monitored during operating (daylight) hours, even though the facilities would be capable of automatic start up, shutdown, self-diagnosis, and fault detection. No heavy equipment would be used during normal operation. As no solar facilities (no O&M building) would be developed north of I-10, there would be no associated activity in this area. The impacts south of I-10 would be similar to those described under Alternative 1.

230 kV Gen-tie Line

The Reduced Acreage Alternative would no longer extend a 230 kV overhead gen-tie line from an on-site substation north of I-10, as this Alternative would eliminate all development north of I-10. Therefore, the approximately 8.4-mile-long line associated with the proposed Project would be reduced under this alternative. The Reduced Acreage Alternative would construct an approximately 7.8-mile-long, 230 kV overhead gen-tie line from the proposed on-site substation south of I-10 to the approved Colorado River Substation. Approximately three miles of the gen-tie line would be within the solar facility. The impacts described under the Alternative 1 analysis would apply to the 230 kV gen-tie line in the areas previously described.

Decommissioning

The analysis under Alternative 1 would apply to the area south of I-10 regarding decommissioning efforts.

Application of CEQA Significance Thresholds

NOI-1) Would Alternative 5 result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

The NOI-1 analysis for Alternative 1 would apply to Alternative 5 and the Reduced Acreage Alternative would not exceed the noise generation levels under the proposed Project. As no development would occur north of I-10 under Alternative 5, there would be no significant temporary or intermittent construction noise level effects on the closest sensitive receptor, a residence approximately 260 feet away from the Alternative 1 Project boundary. Impacts to workers that may be exposed to excessive noise levels would be less than significant impacts. Impacts during operation and decommissioning would be less than significant. There are no sensitive receptors close to the proposed gen-tie line; therefore, no significant impacts would occur.

NOI-2) Would Alternative 5 result in substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

The NOI-2 analysis for Alternative 1 would apply to Alternative 5.

NOI-3) Would Alternative 5 result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

The NOI-3 analysis for Alternative 1 would apply to Alternative 5. Alternative 5 would not exceed Caltrans' PPV threshold of 0.20 in/sec, similar to Alternative 1. As no development would occur north of I-10 under Alternative 5, no construction activities would occur in proximity to a residence that would be approximately 260 feet from the Alternative 1 solar facility boundary. At a distance of 300 feet, however, ground vibration from a vibratory pile driver would not be perceptible by humans and would have no potential for damage to buildings. As such, similar to Alternative 1, ground vibration from other construction equipment at 300 feet would not be perceptible to humans and would pose no risk of cosmetic damage to any existing buildings in the vicinity of the Alternative 5 solar facility. Construction-related vibration impacts would be less than significant. Impacts related to decommissioning would be similar to construction, but the construction equipment utilized for decommissioning would result in lower levels of ground vibration. Alternative 5 operations would not introduce any new sources of perceivable ground-borne vibration to sensitive receptors surrounding the Alternative 5 area. Therefore, there would be no operation-related vibration levels.

NOI-4) Would Alternative 5 result in for a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, the exposure of people residing or working in the project area to excessive noise levels?

The NOI-4 analysis for Alternative 1 would apply to Alternative 5. However, Alternative 5 would be south of I-10 and farther from the Blythe Airport in comparison to Alternative 1. Construction activities from Alternative 5 would not have the potential to exceed ambient levels for residents to the north of I-10 and east of the solar facility, as no development would occur north of the freeway. Noise impacts during operation and decommissioning would be less than significant.

NOI-5) Would Alternative 5 result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

The NOI-5 analysis for Alternative 1 would apply to Alternative 5. Alternative 5 would not result in a substantial permanent increase in ambient noise levels in the vicinity above levels existing without the development. Impacts would be less than significant.

NOI-6) Would Alternative 5 result in impacts from railroad or highway noise?

The NOI-6 analysis for Alternative 1 would apply to Alternative 5.

Cumulative Impacts

Geographic Scope

Noise levels generally diminish quickly with distance from a source; therefore, the geographic scope for cumulative impacts associated with noise would be limited to projects within approximately 0.5 mile of the Project. The following projects were identified as reasonably foreseeable projects within 0.5 mile of the Project and Alternatives, and could be constructed and operated simultaneously with the Project: Palo Verde Mesa Solar Project, Blythe Airport Solar I Project, Blythe Energy Project II, Desert Quartzite, Sonoran West SEGS, Desert Southwest 500 kV Transmission Line, and Devers-Palo Verde #2 500 kV Transmission Line.

Temporal Scope

The temporal scope of the cumulative impacts associated with noise would include construction, operation and maintenance, and decommissioning phases of the Project. The timeframe refers to the duration over which an impact would occur: short-term or long-term. Short-term noise impacts would

occur during the construction and decommissioning periods in association with the addition of construction equipment.

Analysis of Direct and Indirect Impacts

Alternative 1: Proposed Project

Construction, Operation, Maintenance, and Decommissioning

The primary noise sources in the vicinity of the proposed Project and Alternatives area are traffic from I-10 and nearby roadways, airplane noise from the Blythe Airport, steam blowing from the Blythe Energy Center, and sounds from agricultural operations. The existing noise levels in the immediate Project vicinity are generally low, with the highest noise levels closest to I-10. I-10 bisects the proposed Project, and other proposed cumulative projects listed above would be farther away from the freeway. Project construction and decommissioning activities would result in short-term noise impacts at the nearest residence locations (impacts NOI-1 and NOI-2). Long-term operation- and maintenance-related impacts associated with the Project would not result in permanent impacts to noise (impact NOI-5). The Project would not have vibration- or ground-borne noise-related impacts.

Although unlikely, it is possible that construction and operation of the solar projects and electrical facilities listed above could occur at the same time as construction of the Project. However, the other cumulative projects would be at a greater distance from the existing sensitive receptors that would experience negligible noise levels from construction, operation, maintenance, and decommissioning of the Project. Additionally, the primary noise sources in the Project area are traffic from I-10 and airplane noise from the Blythe Airport.

Noise levels during decommissioning would be similar to those projected during Project construction since it is anticipated that the equipment used during decommissioning would be similar to that used during construction. The noise levels would be temporary and, similar to construction-related noise levels, would be expected to attenuate to a level of insignificance prior to reaching any sensitive noise receptors. In addition, decommissioning activities would be required to comply with local, State, and federal laws, regulations, and standards at the time of decommissioning. Thus, decommissioning activities would not be expected make a cumulative contribution to existing noise levels.

Therefore, it is unlikely that Project-related noise levels and other Project noise levels would result in a combined noise level that would cause an adverse effect.

Alternative 2: No Project Alternative

Under the No Project Alternative, gen-tie facilities would not be constructed on BLM-managed lands and solar facilities would not be constructed on private lands. The public lands in the Project area would continue to be managed by BLM in accordance with existing land use designations in the CDCA Plan, whereas the private lands would continue to be managed for agricultural production. Alternative 2 would not contribute to cumulative noise impacts.

Alternative 3: Northern Alternative 230 kV Gen-tie Line Location

Alternative 3 is similar to Alternative 1 (proposed Project), with the exception of the location of the Northern 230 kV gen-tie line, which would be approximately 700 feet north of Alternative 1's proposed 230 kV gen-tie line. The cumulative impacts associated with the construction, operation, maintenance, and decommissioning of the solar facility would be the same as Alternative 1.

As with the proposed Project, the primary noise sources in the vicinity of the Alternative 3 area are traffic from I-10 and nearby roadways, airplane noise from the Blythe Airport, steam blowing from the Blythe Energy Center, and sounds from agricultural operations. The existing noise levels in the immediate Project vicinity are generally low, with the highest noise levels closest to I-10. I-10 bisects the Alternative

development area, and other proposed cumulative projects listed above would be farther away from the freeway. Alternative 3 construction and decommissioning activities would result in short-term noise impacts at the nearest residence locations (impacts NOI-1 and NOI-2). Long-term operation- and maintenance-related impacts associated with Alternative 3 would not result in permanent impacts to noise (impact NOI-5). Alternative 3 would not have vibration- or ground-borne noise-related impacts.

Although unlikely, it is possible that construction and operation of the solar projects and electrical facilities listed above could occur at the same time as construction of Alternative 3. However, the other cumulative projects would be at a greater distance from the existing sensitive receptors that would experience negligible noise levels from construction, operation, maintenance, and decommissioning of Alternative 3. Additionally, the primary noise sources in the Alternative 3 area are traffic from I-10 and airplane noise from the Blythe Airport.

Noise levels during decommissioning would be similar to those projected during Alternative 3 construction since it is anticipated that the equipment used during decommissioning would be similar to that used during construction. The noise levels would be temporary and, similar to construction-related noise levels, would be expected to attenuate to a level of insignificance prior to reaching any sensitive noise receptors. In addition, decommissioning activities would be required to comply with local, State, and federal laws, regulations, and standards at the time of decommissioning. Thus, decommissioning activities would not be expected make a cumulative contribution to existing noise levels.

Alternative 4: Southern 230 kV Gen-tie Line Location

Alternative 4 is similar to Alternative 1 (proposed Project), with the exception of the location of the Southern 230 kV gen-tie line, which would be approximately 0.8 mile south of Alternative 1's proposed 230 kV gen-tie line. The cumulative impacts associated with the construction, operation, maintenance, and decommissioning of the solar facility would be the same as Alternative 1.

As with the proposed Project, the primary noise sources in the vicinity of the Alternative 4 area are traffic from I-10 and nearby roadways, airplane noise from the Blythe Airport, steam blowing from the Blythe Energy Center, and sounds from agricultural operations. The existing noise levels in the immediate Project vicinity are generally low, with the highest noise levels closest to I-10. I-10 bisects the Alternative development area, and other proposed cumulative projects listed above would be farther away from the freeway. Alternative 4 construction and decommissioning activities would result in short-term noise impacts at the nearest residence locations (impacts NOI-1 and NOI-2). Long-term operation- and maintenance-related impacts associated with Alternative 4 would not result in permanent impacts to noise (impact NOI-5). Alternative 4 would not have vibration- or ground-borne noise-related impacts.

Although unlikely, it is possible that construction and operation of the solar projects and electrical facilities listed above could occur at the same time as construction of Alternative 4. However, the other cumulative projects would be at a greater distance from the existing sensitive receptors that would experience negligible noise levels from construction, operation, maintenance, and decommissioning of Alternative 4. Additionally, the primary noise sources in the Alternative 4 area are traffic from I-10 and airplane noise from the Blythe Airport.

Noise levels during decommissioning would be similar to those projected during Alternative 4 construction since it is anticipated that the equipment used during decommissioning would be similar to that used during construction. The noise levels would be temporary and, similar to construction-related noise levels, would be expected to attenuate to a level of insignificance prior to reaching any sensitive noise receptors. In addition, decommissioning activities would be required to comply with local, State, and federal laws, regulations, and standards at the time of decommissioning. Thus, decommissioning activities would not be expected make a cumulative contribution to existing noise levels.

Alternative 5: Reduced Acreage Alternative

Construction, Operation, Maintenance, and Decommissioning

As development of Alternative 5 would occur within the same footprint as Alternative 1, the primary noise sources in the vicinity of the proposed Project and Alternatives area are traffic from I-10 and nearby roadways, airplane noise from the Blythe Airport, steam blowing from the Blythe Energy Center, and sounds from agricultural operations. The cumulative analysis under Alternative 1 would be applicable to Alternative 5; however, would have a smaller footprint in comparison to Alternative 1 and no development north of I-10 would result in a slightly reduced contribution towards noise impacts. Decommissioning activities would not be expected make a cumulative contribution to existing noise levels. It is unlikely that Alternative 5-related noise levels and other project noise levels would result in a combined noise level that would cause a significant adverse effect.

Mitigation Measures

Noise-1 Construction shall be prohibited in areas within 0.25 mile (1,320 feet) of residents, between the hours of 6:00 p.m. and 6:00 a.m. during the months of June through September, and the hours of 6:00 p.m. and 7:00 a.m. during the months of October through May. During construction, best efforts should be made to locate stockpiling and/or vehicle staging areas as far as practicable from existing noise sensitive receptors (residential dwellings) nearest the Project area.

Noise-2 Prior to and during construction, decommissioning, and ground disturbing activities, the Applicant shall provide at least two weeks advance notice of construction and decommissioning. Notices shall be mailed directly to land owners and residents within 2,400 feet of all portions of the Project boundary, and signs shall be posted at the solar facility in areas accessible to the public. Notices shall announce when and where construction would occur; provide tips on reducing noise intrusion (e.g., closing windows facing the planned construction); and provide contact information for the local public liaison for any noise complaints.

Noise-3 The Applicant would implement a Hearing Conservation Program and Personal Protective Equipment Program that would provide personal protective devices for specific jobs that would produce excessive noise levels. The Applicant shall comply with the OSHA regulations on occupational noise exposure.

Residual Impacts After Mitigation

With implementation of the Project BMPs and mitigation measures, noise-related impacts would be reduced to less than significant levels.

NEPA Conclusions

The No Project Alternative would not have impacts, as the existing circumstances and operations would continue essentially unchanged. The Project and each of the action Alternatives would result in the direct and indirect impacts and contribution toward cumulative impacts described above. Noise impacts, particularly those due to construction activities, are usually not considered to be significant as long as the activities are temporary and only intermittently affect any one location; the use of heavy equipment is limited to daytime hours; and all industry-standard noise abatement measures are implemented. The Project and any of the action Alternatives would comply with all federal, State, and local requirements in addition to the BMP and mitigation measures relating to noise and identified above. The Project and each of the action Alternatives would consequently not have significant noise impacts.

4.2.12 Paleontological Resources

This section describes the impact analysis relating to cultural and paleontological resources for the proposed Project and Alternatives.

Methodology for Analysis

As described in Chapter 3, the Project's paleontological investigation included: (1) review of available geologic and paleontologic literature pertinent to the site, including existing lists of fossils and fossil localities; (2) review of available environmental impact and/or geotechnical reports pertinent to development of the site; and (3) review of records at the San Bernardino County Museum and databases from the University of California, Berkeley Museum of Paleontology. The information in this section is based on the *Blythe Mesa Solar Project Paleontological Resources Survey Report*, prepared by John Minch and Associates, Inc. 2012 (provided in Appendix I of this Draft EIR/EA). The information was assigned a sensitivity classification (Society of Vertebrate Paleontology classification for private land, and Potential Fossil Yield Classification [PFYC] for BLM administered-lands). Based on those classifications, and in accordance with BLM protocol, potential impacts to paleontological resources by the proposed Project and Alternatives were determined.

CEQA Significance Criteria

The application of CEQA Significance Thresholds section describes the criteria used to determine which impacts should be considered potentially significant. Significance thresholds are based on criteria identified in Appendix G of the CEQA Guidelines (CCR, Title 14, Division 6, Chapter 3, Sections 1500-15387). A cultural resources impact is considered significant if implementation of the proposed Project would do any of the following:

- cause a substantial adverse change in the significance of a historical resource as defined in §15064.5;
- cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5;
- directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- disturb any human remains, including those interred outside of formal cemeteries.

As defined, significant paleontological resources are determined to be fossils or assemblages of fossils that are unique, unusual, rare, uncommon, or diagnostically important.

CEQA criteria indicate that a project could have potentially significant impacts to paleontological resources if it would:

PALEO-1) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

NEPA Requirements

As discussed in Chapter 3, the BLM adopted a paleontological resource assessment system known as the PFYC System. The PFYC system classifies geologic units based on the relative abundance of vertebrate fossils or scientifically significant invertebrate or plant fossils and their sensitivity to adverse impacts, with a higher class number indicating a higher potential. The requirements of NEPA are addressed under the direct and indirect impacts discussions below for the proposed Project and each Action Alternative.

Applicable Best Management Practices

As part of the Project and Alternatives, the following applicable BMPs would minimize the environmental impacts to cultural resources. The full BMPs have been detailed below (see also Table 2-4 in Chapter 2) and are further referenced (by number) within the impact discussion.

NUMBER	BMP DESCRIPTION
BMP-14	**Travel and traffic.** Vehicular traffic on-site shall be confined to existing or designated travel routes and designated work areas. Access to the construction site and staging areas shall be limited to authorized vehicles and only through the designated roads. The extent of habitat disturbance during construction shall be reduced by keeping vehicles on access roads and minimizing foot and vehicle traffic through undisturbed areas. To the extent practical, travel shall be limited to stabilized roads. Road maintenance activities shall avoid blading existing forbs and grasses in ditches and adjacent to roads. Abandoned roads and roads no longer needed shall be subsoiled to increase infiltration and reduce soil compaction, then recontoured and revegetated. Construction traffic shall avoid unpaved surfaces to the extent practical (to reduce the risk of compaction) and reduce speed to lessen fugitive dust emissions. On unpaved or unstabilized surfaces within the construction site, speed limits (e.g., 20 mph) shall be posted with visible signs and enforced to minimize airborne fugitive dust. Project vehicle speeds shall be limited in areas occupied by special-status animal species. Traffic shall stop to allow wildlife to cross roads. Shuttle vans or carpooling shall be used to reduce the amount of traffic on access roads. Workers shall be trained to comply with the speed limit, use good engineering practices, minimize the drop height of materials, and minimize the number and extent of disturbed areas. The Project developer shall enforce these requirements.
BMP-13	**Ground and surface disturbance.** Construction boundaries would be clearly delineated to minimize areas of ground and surface disturbance. Ground-disturbing activities shall be minimized, especially during the rainy season. To the maximum extent possible, construction-related activities (such as vehicle and foot traffic) would avoid areas with intact biological soil crusts. For cases in which impacts cannot be avoided, soil crusts would be salvaged and restored on the basis of recommendations by the County of Riverside and BLM once construction has been completed. Existing rocks, vegetation, and drainage patterns shall be preserved to the maximum extent possible. No paint or permanent discoloring agents shall be applied to rocks or vegetation (to indicate surveyor construction activity limits or for any other purpose). All stakes and flagging shall be removed from the construction area and disposed of in an approved facility. Where feasible, brush-beating, mowing, or use of protective surface matting rather than removing vegetation shall be employed. Clearing and disturbing of sensitive areas (e.g., steep slopes and natural drainages) and other areas shall be avoided outside the construction zone. Surface disturbance would be minimized by utilizing undulating surface disturbance edges; stripping, salvaging, and replacing topsoil; using contoured grading; controlling erosion; using dust suppression techniques; and restoring exposed soils to their original contour and vegetation.

Alternative 1: Proposed Project

Analysis of Direct and Indirect Impacts

Construction

Construction activities that may affect paleontological resources include excavation, heavy equipment usage and movement, drilling, and trenching for utilities. Grading for access roads could also directly impact paleontological resources. Known sedimentary units of Late Pleistocene to Recent age are exposed at the solar facility. Older alluvium (geologic unit Qpv), is known to contain significant paleontological resources in other parts of Southern California, and underlies the majority of the solar facility. Geologic unit Qpv is considered to be of high paleontological sensitivity under the Society of Vertebrate Paleontology classification, and has a PFYC of 3a (moderate). There is a high potential for significant paleontological resources on the portion of the site underlain by this geologic unit. Any grading and excavation during site preparation and construction would have high potential to impact significant nonrenewable paleontological resources that may be present within the boundaries of the solar facility.

Excavation activities associated with construction of the Project's proposed 230 kV gen-tie line on previously undisturbed lands managed by the BLM could directly impact paleontologically sensitive geologic rock units with moderate fossil yield potential (PFYC 3a). Excavations of 20 to 30 feet in depth would be required in association with gen-tie structure construction and could also result in direct impacts to paleontological sensitive geologic rock units with a high fossil yield potential (only those portions of the ROW overlying Qpv).

Further, unauthorized collection of fossil materials, dislodging of fossils from their preserved environment, and/or physical damage of fossil specimens could also adversely affect paleontological resources. Implementation of mitigation measures Paleontology-1, Paleontology-2, and Paleontology-3 would reduce the potential for impacts to paleontological resources.

Operation and Maintenance

During operation and maintenance of the solar facility, no major ground disturbing activities or excavations would occur as part of routine maintenance, and impacts to paleontological resources would not occur.

Decommissioning

When the Project reaches the end of its operational life, the Project components could be decommissioned and dismantled. Since decommissioning activities would require the removal of existing structures, the ground disturbance associated with decommissioning would occur in areas previously disturbed during construction. Therefore, decommissioning would not impact additional paleontological resources.

Application of CEQA Significance Thresholds

PALEO-1) Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Grading and excavation during site preparation would have the potential to adversely impact significant nonrenewable paleontological resources that may be present within the boundaries of the solar facility. Known and unknown sensitivity of some of the formations and paleontological resources on the solar facility necessitates a conclusion that the impact is potentially significant. The potential for discovery of unknown significant paleontological resources exists throughout the Project area and therefore could not be avoided by reconfiguring the Project. The implementation of a Paleontological Mitigation Program/Plan (PMP) would minimize the impact of construction-related activities. With implementation of paleontological mitigation measures for known fossil sites and unknown subsurface fossil sites, potential adverse impacts on paleontological resources within the Project area during construction would be reduced to less than significant (refer to Mitigation Measure Paleontology-1).

Excavation activities associated with construction of the 230 kV gen-tie line on previously undisturbed lands managed by the BLM could result in direct impacts to paleontological resources, which would be considered potentially significant. These resources cannot feasibly be avoided because the potential is essentially the same throughout all proposed transmission corridors. Mitigation Measures Paleontology-1 through Paleontology-3 provide recommendations to reduce impacts to paleontological resources associated with the gen-tie line to a less than significant level.

Unauthorized collection of fossil materials, dislodging of fossils from their preserved environment, and/or physical damage of fossil specimens could also adversely affect paleontological resources. A pre-construction meeting to be held with key construction personnel to provide worker training regarding paleontological resource significance, visual

identification, and fossil discovery notification procedures is recommended (refer to Mitigation Measures Paleontology-2 and Paleontology-3).

No impacts to paleontological resources are anticipated during operation and maintenance activities; however, should discoveries of paleontological resources be made during the operation of the proposed Project, Mitigation Measures Paleontology-2 and Paleontology-3 would ensure that paleontological resources would be handled appropriately. Accordingly, the impact would be less than significant.

Decommissioning and restoration activities at the end of the Project life would be less likely to impact paleontological resources or unique geologic features since it is anticipated that any such resources or features would be identified during construction. Nevertheless, in order to avoid impacts to any resources that may not have been identified during construction and operation, decommissioning activities would be subject to a selected monitoring program (as specified in Mitigation Measure Paleontology-1), consistent with local, State, and federal laws and regulations applicable at the time of decommissioning.

Alternative 2: No Project Alternative

The No Project Alternative would avoid paleontological resources by eliminating all proposed construction, operations and maintenance, and decommissioning activities associated with the proposed Project, and no new direct or indirect impacts would occur.

Under the No Project Alternative, there would be no impacts to paleontological resources, since no construction or operations would occur. However, continued agricultural operations could result in disturbance to paleontological resources. Also, in the absence of this Project, other renewable energy projects may be constructed to meet State mandates at other locations, and those projects would likely have similar impacts as the proposed Project in those locations.

Alternative 3: Northern Alternative 230 kV Gen-tie Line Location

Alternative 3 is similar to Alternative 1, with the exception of the proposed location of the 230 kV gen-tie line. The Alternative 3 gen-tie line would be a few hundred feet north of the proposed 230 kV alignment and would have the same impact to paleontological resources as Alternative 1 with respect to construction in the Qpv geologic units. Implementation of mitigation measures Paleontology-1, Paleontology-2, and Paleontology-3 would reduce the potential for impacts to paleontological resources.

Application of CEQA Significance Thresholds

PALEO-1) Would Alternative 3 directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Alternative 3 is not expected to directly or indirectly destroy a unique paleontological resource or site or unique geologic feature, but the possibility of uncovering previously unknown resources presents a potentially significant impact. Implementation of Mitigation Measures Paleontology-1 through Paleontology-3 would reduce impacts to paleontological resources to a less than significant level.

Alternative 4: Southern Alternative 230 kV Gen-tie Line Location

Alternative 4 is similar to Alternative 1, with the exception of the location of the proposed 230 kV gen-tie line. It would be approximately 0.8 mile south of the proposed 230 kV alignment and would have the same impact as Alternative 1 with respect to construction in the Qpv geologic units.

Application of CEQA Significance Thresholds

PALEO-1) Would Alternative 4 directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Alternative 4 would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. Implementation of Mitigation Measures Paleontology-1 through Paleontology-3 would reduce impacts to paleontological resources to less than significant.

Alternative 5: Reduced Acreage Alternative

Similar to Alternative 1, Alternative 5 would include the construction, operation, maintenance, and decommissioning of a solar facility and associated infrastructure. The primary difference between Alternatives 1 and 5 is the absence of solar facility development north of I-10, which would reduce electrical output from a 485 MW down to a 315 MW alternating current solar PV facility. The Reduced Acreage Alternative would be on a reduced footprint of approximately 2,476 acres (from 3,660 acres for the proposed Project). Similar to the proposed Project, 73 acres would be utilized for the 230 kV gen-tie line. In comparison to Alternative 1, Alternative 5 would eliminate one on-site substation and one O&M building north of the I-10 freeway. Alternative 5 would have one access point (planned on Seeley Avenue); no access proposed for Riverside Drive. This Alternative would not be developed on land north of I-10. Instead, this Alternative would construct an approximately 7.8-mile-long, 230 kV overhead gen-tie line from the proposed on-site substation south of I-10 to the approved Colorado River Substation. Approximately three miles of the gen-tie line would be within the solar facility. Alternative 5 would avoid solar development north of I-10 and the existing agricultural operations would continue in this area (approximately 1,184 acres); therefore, no impacts would occur to the existing cultural resources located in this area.

The Reduced Acreage Alternative solar facility and a portion of the gen-tie line would be within the jurisdiction of the County of Riverside but not within the City limits of Blythe in comparison to the proposed Project. Alternative 5 would need to comply with the RCGP (2003) and PVVAP (2008). The remaining portion of the gen-tie line would traverse lands managed by the BLM and would need to comply with the CDCA Plan. The construction, operation, maintenance, and decommissioning of Alternative 5 would not exceed impacts to paleontological resources identified under the Alternative 1 analysis. Therefore, the Alternative 1 analysis would be applicable to Alternative 5, outside of those differences identified in the discussion below.

Analysis of Direct and Indirect Impacts

Construction

Refer to the analysis under Alternative 1. The Reduced Acreage Alternative would occur within the same limits as Alternative 1, with the exception of development north of I-10. However, there is a moderate potential for significant paleontological resources on the portions of the site underlain by the geologic unit Qpv. Any grading and excavation during site preparation and construction would have high potential to adversely affect significant nonrenewable paleontological resources that may be present within the boundaries of the solar facility.

Excavation activities associated with construction of the proposed 230 kV gen-tie line on previously undisturbed lands managed by the BLM could directly impact significant paleontological resources within the geologic rock unit Qpv, which has a moderate fossil yield potential (PFYC 3a). Excavations of 20 to 30 feet in depth would be required in association with gen-tie structure construction and could also result in direct impacts to paleontological resources within the sensitive geologic rock unit with a moderate fossil yield potential (PFYC 3a) on only those portions of the ROW overlying geologic unit Qpv.

Further, unauthorized collection of fossil materials, dislodging of fossils from their preserved environment, and/or physical damage of fossil specimens could also adversely affect paleontological resources.

Implementation of mitigation measures Paleontology-1, Paleontology-2, and Paleontology-3 would reduce the potential for impacts to paleontological resources.

Operation and Maintenance

During operation and maintenance of the solar facility, no major ground-disturbing activities or excavations would occur as part of routine maintenance, and impacts to paleontological resources would not occur.

Decommissioning

When Alternative 5 reaches the end of its operational life, the Alternative 5 components could be decommissioned and dismantled. Since decommissioning activities would require the removal of existing structures, the ground disturbance associated with decommissioning would occur in areas previously disturbed during construction. Therefore, decommissioning would not impact additional paleontological resources.

Application of CEQA Significance Thresholds

PALEO-1) Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Similar to Alternative 1, the potential for discovery of unknown significant paleontological resources exists throughout the Project area and therefore could not be avoided by reconfiguring Alternative 5. The implementation of a PMP would minimize the impact of construction-related activities. As such, the PALEO-1 analysis for Alternative 1 would apply.

Cumulative Impacts

Geographic Scope

Cultural and Paleontological Resources

The past, present, and reasonably foreseeable projects considered to be the cumulative scenario for this Project are listed in Table 4.1-1. The geographic extent of these projects in relation to the BMSP is shown in Figure 4.1-1, which includes a number of the large-scale renewable energy projects and related transmission lines in the Riverside SEZ and also includes some small-scale land development projects. Each of these projects would result in ground disturbance, primarily during Project construction; however, ground-disturbing activities during operation and maintenance and decommissioning could also affect paleontological resources.

Temporal Scope

Paleontological resources are non-renewable, any loss or physical damage to these resources is permanent. They would be subject to direct impacts primarily during Project construction; however, impacts could occur during any ground-disturbing activities during operation and maintenance and decommissioning. For purposes of the cumulative analysis, the temporal impact scope is the life of the Project.

Analysis of Direct and Indirect Impacts

Alternative 1: Proposed Project

Cumulative development in eastern Riverside County in the Palo Verde Mesa region of Southern California within paleontologically-sensitive geologic units such as older alluvial formation Qpv, have the potential to directly or indirectly impact paleontological resources. As discussed above, there is a potential

for paleontological resources on the Project solar facility site and gen-tie ROW to be impacted during construction of the proposed Project. However, with the implementation of mitigation measures Paleontology-1 through Paleontology-3, paleontological resource impacts (impact PALEO-1) would be reduced to less than significant. The proposed Project, as well as other development projects, would be evaluated for paleontological impacts and would necessarily include mitigation to protect resource values. Cumulative projects would also comply with regulations of the County of Riverside and the proposed guidelines of the Society of Vertebrate Paleontology. Therefore, the proposed Project would not adversely affect paleontological resources under NEPA or contribute to significant cumulative paleontological resource impacts under CEQA.

Alternative 2: No Project Alternative

The No Project Alternative would not contribute to any new paleontological resource effects; however, continuation of the status quo would include continued use of a majority of the Project area for agricultural purposes and continued potential for inadvertent effects on known resources. The public lands in the Project area would continue to be managed by BLM in accordance with existing land use designations in the CDCA Plan, whereas the private lands would continue to be managed for agricultural production. Alternative 2 would not contribute to cumulative paleontological resource impacts.

Alternative 3: Northern 230 kV Gen-tie Line Location

Construction, Operation and Maintenance, and Decommissioning

Cumulative development in eastern Riverside County in the Palo Verde Mesa region of Southern California that occur within paleo-sensitive geologic units such as older alluvial formations Qpv has the potential to directly or indirectly destroy paleontological resources. As discussed above, there is a potential for Alternative 3 to impact paleontological resources on the solar facility site and the gen-tie ROW. However, with the implementation of Mitigation Measures Paleontology-1 through Paleontology-3, paleontological resource impacts (impact PALEO-1) would be reduced to less than significant. Cumulative projects would be evaluated for paleontological impacts and would necessarily include mitigation to protect resource values. Cumulative projects would also comply with regulations of BLM, the County of Riverside, and the proposed guidelines of the Society of Vertebrate Paleontology. Therefore, the proposed Project would not adversely affect paleontological resources under NEPA or contribute to significant cumulative paleontological resource impacts under CEQA.

Alternative 4: Southern 230 kV Gen-tie Line Location

Paleontological Resources

Construction, Operation and Maintenance, and Decommissioning

Cumulative development in eastern Riverside County in the Palo Verde Mesa region of Southern California that occur within paleo-sensitive geologic units such as older alluvial formation Qpv has the potential to directly or indirectly destroy paleontological resources. As discussed above, Alternative 4 has the potential for paleontological resources on the solar facility site and the gen-tie ROW to be impacted during construction. However, with the implementation of Mitigation Measures Paleontology-1 through Paleontology-3, paleontological resource impacts (impact PALEO-1) would be reduced to less than significant. The cumulative projects would be evaluated for paleontological impacts and would necessarily include mitigation to protect resource values. Cumulative projects would also comply with regulations of BLM, the County of Riverside, and the proposed guidelines of the Society of Vertebrate Paleontology. Therefore, the proposed Project would not adversely affect paleontological resources under NEPA or contribute to significant cumulative paleontological resource impacts under CEQA.

Alternative 5: Reduced Acreage Alternative

Cumulative development in eastern Riverside County in the Palo Verde Mesa region of Southern California within paleo-sensitive geologic units such as older alluvial formation Qpv has the potential to

directly or indirectly destroy paleontological resources. As discussed above, there is a potential for paleontological resources on the Alternative 5 solar facility site and gen-tie ROW to be impacted during construction of Alternative 5. However, Similar to Alternative 1, with the implementation of Mitigation Measures Paleontology-1 through Paleontology-3, paleontological resource impacts (impact PALEO-1) would be reduced to less than significant. Other development projects would be evaluated for paleontological impacts and if potentially significant impacts are identified, would necessarily include mitigation to protect resource values. Cumulative projects would also comply with regulations of the County of Riverside and the proposed guidelines of the Society of Vertebrate Paleontology. Therefore, Alternative 5 would not adversely affect paleontological resources or contribute considerably to significant cumulative paleontological resource impacts.

Mitigation Measures

Paleontology-1 Prior to issuing any grading or excavation permits for activities within any area of the Project area, and prior to any Project-related ground-disturbing activities of that area, the Applicant shall implement procedures to monitor, avoid, and/or recover unique paleontological resources discovered during ground-disturbing activities. These procedures, the Paleontological Resources Monitoring and Mitigation Plan (PRMMP), shall be developed by a qualified vertebrate paleontologist and submitted for approval by the County of Riverside for private lands, and the BLM for BLM-managed lands. The PRMMP shall specify how mitigation measures Paleontology-1, Paleontology-2, and Paleontology-3 shall be implemented. This PRMMP shall be consistent with the provisions of CEQA, as well as with regulations currently implemented by the County of Riverside, the BLM and the proposed guidelines of the Society of Vertebrate Paleontology. The PMP shall include, but not be limited to:

1) A requirement that, during excavations in areas underlain by geologic units identified as having a high paleontologic sensitivity under Society of Vertebrate Paleontology guidelines (or a PFYC rating of 3b or higher) and likely to contain paleontologic resources, a qualified vertebrate paleontologist, who is a Registered Professional Geologist, shall direct the paleontologic monitoring by a qualified paleontologic monitor. Areas of concern include all previously undisturbed paleontologic sensitive sediments of the fossiliferous Pleistocene Palo Verde Mesa Alluvium.
2) A requirement that paleontologic monitors be equipped to salvage fossils as unearthed to avoid construction delays and to remove samples of sediments likely to contain the remains of small fossil invertebrates and vertebrates. Monitors shall be empowered to temporarily halt or divert equipment to allow removal of abundant or large specimens.
3) Identification of the processes for preparation of recovered specimens to a point of identification. If the paleontologic monitor determines that the resource is unique, it shall be prepared for permanent preservation, including washing of sediments to recover small invertebrates and vertebrates.
4) A requirement that a report be prepared documenting all finds with permanent retrievable paleontologic storage for curation of specimens. The paleontologist should have a written repository agreement in hand prior to the initiation of mitigation activities. Mitigation of adverse impacts to unique paleontologic resources is not complete until such curation into an established museum repository has been fully completed and documented.
5) A requirement that a report be prepared documenting all finds with an appended itemized inventory of specimens. The report and inventory, when submitted to the County with respect to private lands, and to the BLM with respect to BLM-managed lands, along with confirmation of the curation of recovered unique paleontological specimens into an established, accredited museum repository, would signify completion of the PMP to mitigate impacts to paleontologic resources.

Paleontology-2 Prior to issuance of the first grading permit, a worker training program shall be prepared and include information on the recognition of the types of paleontological resources that could be encountered within the Project area and referral of finds to the paleontologic monitor if they are found. This information shall be presented to Project construction personnel and Project operation and maintenance personnel by a qualified professional paleontologist.

Paleontology-3 If construction or other Project personnel discover any potential fossils during construction, operation and maintenance, or decommissioning, the fossils shall be left undisturbed and the paleontological monitor shall be notified immediately and shall then take appropriate actions to evaluate the find in accordance with the PMP.

Residual Impacts After Mitigation

Implementation of BMPs and Mitigation Measures Paleontology-1 through Paleontology-3 would, under both NEPA and CEQA, minimize potential impacts to paleontological resources and would reduce the impacts, including cumulative impacts, to less than significant.

NEPA Conclusions

The No Project Alternative would not have impacts, as the existing circumstances and operations would continue essentially unchanged. The Project and each of the action Alternatives would have the direct and indirect impacts and contribution toward cumulative impacts that are described above. Each would comply with applicable plans and laws, and the BMPs and Mitigation Measures described above, and would not result in significant adverse impacts.

4.2.13 Population, Housing, Public Services, Utilities, and Socioeconomics

This section analyzes the effects of the proposed Project and Alternatives related to population, housing, public services, utilities and socioeconomics, and describes the methods used to determine the effects of the proposed Project and Alternatives.

Methodology for Analysis

To determine how the proposed Project would induce population growth, the availability of the local workforce and population in the region was analyzed.

Physical impacts to public services are usually associated with population in-migration and growth in an area, which increase the demand for a particular service, leading to the need for expanded or new facilities. Public service providers serving the solar facility would be within Riverside County and the City of Blythe only and represent the local study area. Therefore, the study area for the public services analysis is limited to Riverside County and the City of Blythe. Construction is anticipated to occur over a three-year period, of which peak construction would occur over two years and require a workforce of approximately 300 to 500 daily workers present throughout the Project area.

The analysis of the impacts of the Project and Alternatives on environmental justice issues follows guidelines described in the CEQ's Environmental Justice Guidance under NEPA (CEQ 1997). To determine whether an adverse and significant impact has issues in environmental justice, the approach to the analysis considers two factors: 1) assessment of whether impacts associated with construction and operation of the proposed Project would result in a high potential for adverse environmental impacts; and 2) for impacts that are high and adverse, determination as to whether these impacts would disproportionately affect minority and low-income populations.

The purpose of this analysis, pursuant to Executive Order 12898, is to identify and address whether high and adverse human health or environmental effects are likely to fall disproportionately on minority and/or low-income populations of the community. Pursuant to the directive, the EPA issued guidelines that require all federal and state agencies receiving federal funds to develop strategies to address this issue. This analysis uses the federal guidelines to analyze potential environmental justice impacts. Federal guidelines for addressing environmental justice include a two-step screening process to determine whether a project could result in disproportionate impacts on low-income and minority populations. The first step is to evaluate whether the potentially affected community or area includes minority and low-income populations. If it contains these population groups, the second step is to determine whether the environmental impacts fall disproportionately on minority and low-income members of the community. The CEQ and the EPA use a 50 percent concentration of minorities or people with low-income as a cutoff to indicate that there is a potential issue in a given area.

CEQA Significance Criteria

The criteria used to determine the significance of the Project-related socioeconomic impacts are based on the criteria identified in the CEQA Guidelines, Appendix G. Project-related impacts would be considered significant if they:

SOC-1) Induce substantial population growth in an area, either directly or indirectly.

SOC-2) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.

SOC-3) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

PS-1) Result in substantial adverse physical impacts associated with the provision of new or physically altered facilities to provide public services.

USS-1) Result in substantial adverse environmental impacts associated with the provision of utility services. Substantial adverse environmental impacts may occur if the Project would:

a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.

b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

d. Have insufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements.

e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

f. Be served by a landfill within insufficient permitted capacity to accommodate the project's solid waste disposal needs.

g. Fail to comply with federal, state, and local statutes and regulations related to solid waste.

The following additional significance criteria from the County of Riverside Environmental Assessment form are used in the analysis. A project could have potentially significant impacts if it would:

SOC-4) Create a demand for additional housing, particularly housing affordable to households earning 80% or less of the County's median income.

SOC-5) Affect a County Redevelopment Project Area.

SOC-6) Cumulatively exceed official regional or local population projections.

USS-2) Impact the following facilities requiring or resulting in the construction of new facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects.

a. Electricity

b. Natural gas

c. Communications systems

d. Storm water drainage

e. Street lighting

f. Maintenance of public facilities, including roads

g. Other government services

USS-3) Conflict with any adopted energy conservation plans.

NEPA Requirements

According to NEPA, an EA must evaluate social and economic effects of a project if they are related to effects on the natural or physical environment.

Executive Order 12898 requires a proposed project's impacts on Environmental Justice be considered as part of the NEPA Process if a project would:

- Result in adverse effects or impacts that are appreciably more severe in magnitude or are predominantly borne by any segment of the population, for example, household population with low income or a minority population in comparison with a population that is not low income or minority.

Pursuant to NEPA, this analysis is intended to compare the Alternatives and identify any adverse effects to socioeconomic and environmental justice that cannot be avoided. Adverse effects may be direct, indirect, or cumulative. Potential direct and indirect effects of the proposed Project and Alternatives are analyzed below and discussed as construction-related, operation- and maintenance-related, and decommissioning effects.

Applicable Best Management Practices

As part of the Project and Alternatives, the following applicable BMPs would minimize the environmental impacts to public services and utilities. The full BMPs have been detailed below (see also Table 2-4 in Chapter 2) and are further referenced (by number) within the impact discussion.

NUMBER	BMP DESCRIPTION
BMP-1	**Drainage, Erosion, and Sedimentation Control Plan**. As part of the County of Riverside's Conditional Use Permit (CUP) requirements, a Drainage, Erosion, and Sedimentation Control Plan would be developed for the Project. The plan would address the drainage, erosion, and sediment control requirements to support all activities associated with construction, operation, maintenance, and decommissioning of the Project. For example, any stockpiles created would be kept on-site, with an upslope barrier in place to divert runoff. Stockpiles would be sprayed with water, covered with tarpaulins, and/or treated with appropriate dust suppressants, especially in preparation for high wind or storm conditions. Certified weed-free straw bale barriers would be installed to control sediment in runoff water; straw bale barriers would be installed only where sediment-laden water can pond, thus allowing the sediment to settle out. Topsoil from the site would be stripped, stockpiled, and stabilized before excavating earth for facility construction. Topsoil would be segregated and spread on freshly disturbed areas to reduce color contrast and aid rapid revegetation.
BMP-2	**Stormwater Pollution Prevention Plan.** In compliance with requirements of the National Pollutant Discharge Elimination System (NPDES) permit, a Stormwater Pollution Prevention Plan (SWPPP) would be developed and prepared for the Project to ensure that protection of water quality and soil resources is consistent with County and State regulations. The plan would identify site surface water runoff patterns and include measures that prevent excessive and unnatural soil deposition and erosion throughout and downslope of the Project area and Project-related construction areas, and would also include measures for non-stormwater discharge and waste management. The SWPPP would cover all activities associated with the construction of the Project, including clearing, grading, and other ground disturbance such as stockpiling or excavation erosion control. The plan would prevent off-site migration of contaminated stormwater, changes in pre-Project storm hydrographs, or increased soil erosion.
BMP-4	**Fire Management and Protection Plan.** As required by existing law (Title 8 California Code of Regulations [CCR] Section 3221), a Fire Management and Protection Plan would be developed in consultation with the Riverside County Fire Department to identify potential hazards and accident scenarios that would exist at the facility during construction, operation, maintenance, and decommissioning of the Project. The Plan would include the identification of the following: potential fire hazards and ignition sources; proper handling and storage of potential fire hazards; control of potential ignition sources; persons responsible for equipment and systems maintenance; location of portable fire extinguishers; automatic sprinkler fire suppression system; water-spray fire system; coordination with local fire department; and recordkeeping requirements.
BMP-11	**Project structures, gen tie line, and building surfaces.** Project facilities would be sited to ensure that there is adequate space (i.e., setbacks of no less than 100 feet) between solar facilities and natural washes. These setbacks would preserve and maintain the natural washes' hydrological functions. The color and finish of Project structure and building surfaces that are visible to the public will be designed to ensure minimal visual intrusion, contrast, and glare. Grouped structures will be painted the same color to reduce visual complexity and color contrast. Solar panel backs will be color-treated to reduce visual contrast with the landscape setting. Materials, coatings, or paints having little or no reflectivity will be used wherever possible. The visual color contrast of graveled surfaces will be reduced with approved color treatment practices.

NUMBER	BMP DESCRIPTION
BMP-13	**Ground and surface disturbance.** Construction boundaries would be clearly delineated to minimize areas of ground and surface disturbance. Ground-disturbing activities shall be minimized, especially during the rainy season. To the maximum extent possible, construction-related activities (such as vehicle and foot traffic) would avoid areas with intact biological soil crusts. For cases in which impacts cannot be avoided, soil crusts would be salvaged and restored on the basis of recommendations by the County of Riverside and BLM once construction has been completed. Existing rocks, vegetation, and drainage patterns shall be preserved to the maximum extent possible. No paint or permanent discoloring agents shall be applied to rocks or vegetation (to indicate surveyor construction activity limits or for any other purpose). All stakes and flagging shall be removed from the construction area and disposed of in an approved facility. Where feasible, brush-beating, mowing, or use of protective surface matting rather than removing vegetation shall be employed. Clearing and disturbing of sensitive areas (e.g., steep slopes and natural drainages) and other areas shall be avoided outside the construction zone. Surface disturbance would be minimized by utilizing undulating surface disturbance edges; stripping, salvaging, and replacing topsoil; using contoured grading; controlling erosion; using dust suppression techniques; and restoring exposed soils to their original contour and vegetation.
BMP-14	**Travel and traffic.** Vehicular traffic on-site shall be confined to existing or designated travel routes and designated work areas. Access to the construction site and staging areas shall be limited to authorized vehicles and only through the designated roads. The extent of habitat disturbance during construction shall be reduced by keeping vehicles on access roads and minimizing foot and vehicle traffic through undisturbed areas. To the extent practical, travel shall be limited to stabilized roads. Road maintenance activities shall avoid blading existing forbs and grasses in ditches and adjacent to roads. Abandoned roads and roads no longer needed shall be subsoiled to increase infiltration and reduce soil compaction, then recontoured and revegetated. Construction traffic shall avoid unpaved surfaces to the extent practical (to reduce the risk of compaction) and reduce speed to lessen fugitive dust emissions. On unpaved or unstabilized surfaces within the construction site, speed limits (e.g., 20 mph) shall be posted with visible signs and enforced to minimize airborne fugitive dust. Project vehicle speeds shall be limited in areas occupied by special-status animal species. Traffic shall stop to allow wildlife to cross roads. Shuttle vans or carpooling shall be used to reduce the amount of traffic on access roads. Workers shall be trained to comply with the speed limit, use good engineering practices, minimize the drop height of materials, and minimize the number and extent of disturbed areas. The Project developer shall enforce these requirements.
BMP-15	**New access roads and parking lots.** New access roads shall be designed and constructed to the appropriate road design standards, such as those described in BLM Manual 9113 or County standards, whichever is applicable. New access roads shall be designed to follow natural land contours in the Project area and avoid existing desert washes. The specifications and codes developed by the U.S. Department of Transportation (DOT) and County of Riverside Transportation Department are also to be taken into account. Primary access roads and parking lots shall be surfaced with aggregate that is hard enough that vehicles cannot crush it and thus cause dust or compacted soil conditions. Paving may also be used on access roads and parking lots. Alternatively, chemical dust suppressants or durable polymeric soil stabilizers would be used on these locations.
BMP-20	**Waste Recycling Plan**. Prior to issuance of a grading and building permit, A Waster Recycling Plan shall be submitted to the Riverside County Water Management Department for approval. The plan shall identify: materials (i.e., cardboard, concrete, asphalt, wood) that will be generated by construction and development; projected amounts of materials; measures/methods that will be taken to recycle, reuse, and/or reduce the amount of materials; the facilities and/or haulers; and the target recycling or reduction rate. During Project construction, the construction site shall have, at a minimum, two bins: one for waste disposal and the other for recycling of construction and demolition materials. An accurate record keeping system of recycling construction and demolition recyclable materials and solid waste disposal shall also be established.

Alternative 1: Proposed Project

Analysis of Direct and Indirect Impacts

Construction

Population and Housing

Implementation of the Project would require the removal of three residences within the Project area that are associated with the existing agricultural operations. These residents would likely relocate to vacant housing in the Blythe/Palo Verde Valley region.

Given the location of the Project area in eastern Riverside County, it is likely that most of the construction workforce would be derived from communities located within Riverside County, which has the largest concentration of construction workers in proximity to the Project area (refer to Table 3.2.12-4 and 3.2.14-5). The majority of the projected construction workforce would likely seek housing closer to the Project area (within an hour driving distance) or seek temporary housing (such as seasonal, recreational, or occasional use housing; long-term visitor areas; and hotel and motels) during the week and commute home over the weekend. During construction, the Project would temporarily increase the local population.

If construction workers stay in the Project area temporarily, it could affect the supply of temporary accommodations and rental housing nearest the local area, especially during the two-year peak construction period. As indicated in Table 3.2.13-3, *Study Area Housing Characteristics,* vacancy rates for housing throughout the study area are high, which range from 12 to 60 percent. The vacancy rates for Blythe Census County Division, Riverside County, Imperial County, and La Paz County are: 17 percent, 14 percent, and 12 percent respectively. There is sufficient housing to accommodate the Project's construction workforce.

Should construction workers drawn from beyond an hour commute require temporary housing accommodations closer to the Project area during the course of the construction period, or portion thereof, 14 hotels and motels with a total of 789 rooms were identified within an hour commute to the Project area. In addition, as described in Section 3.2.14, *Recreation,* the Midland LTVA and Mule Mountains LTVA provide long-term camping opportunities in the vicinity of the Project area. There are a sufficient number of hotels, motels, and long-term camping options to accommodate the Project's construction workforce. The Project would not induce substantial permanent growth to the regional population levels.

During construction, and for a shorter period of time during decommissioning, there would be a temporary increase in population that may utilize existing neighborhood or regional parks or other recreational facilities in the Project vicinity. Long-term camping areas in particular may experience physical deterioration of the facilities. However, the long-term camping areas are designed with minimal facilities given that campers must use self-contained RVs and there are no assigned or designated sites.

Economy and Employment

While Project construction has the potential to increase demand on local housing, it would alternatively have beneficial effects on the local economy, especially to hotels, motels, and rental housing, as vacant rooms would likely be filled.

Fiscal Resources

The construction phase of the Project is expected to have positive financial impacts through increased sales tax revenue.

Environmental Justice

The Project could potentially affect minority populations in census tracts 461.02 and 462, as the proportion of minority residents in those tracts exceeds 50 percent. Consequently, it is conservatively judged that Census tracts 461.02 and 462 represent two communities of concern for environmental justice effects. Census tracts 461.02 and 462 have a higher proportion of minority residents than that of the general population of the nearest community (Blythe).

Table 3.2.13-13 lists the census tracts within a six-mile radius of the solar facility living below the poverty line; there are no populations that exceed the 50 percent threshold. While the proportion of low-income residents does not exceed 50 percent, 23 percent of tract 459, 26 percent of tract 461.02, and 21 percent of tract 469 were living below the poverty line, according to the 2010 census. These represent percentages that are meaningfully greater than the nearby City of Blythe; 16 percent of tract 462 was also living below the poverty line, which is meaningfully greater than Riverside County. Census tracts 459, 461.02, and 469 could represent communities of concern for environmental justice effects based on persons living below the poverty line, as their percentages are meaningfully greater than the percentage of the population living below the poverty line in the City of Blythe, along with tract 462, compared to the County of Riverside.

In the context of constructing a solar facility, the primary environmental justice issues typically would be potential air or water issues that could adversely affect the health of nearby populations. Other issues could be any potential residential or business displacements and noise effects on populations near the solar facility or ancillary facilities. However, the Project would not result in significant air quality effects or effects to surrounding communities from emissions of toxic air contaminants. The Project would not involve wastewater discharges that could affect drinking water supplies or other water bodies.

As shown in Chapter 3, Figure 3.2.1-1, *Residences within One Mile of the Proposed Project*, three residences associated with the existing agricultural operation would be removed as part of this Project. However, the Project would not be within an existing residential community, and would not displace nearby residences.

Public Services

The construction workforce would temporarily increase the local population, but would not require construction or alteration of physical facilities to provide adequate education, law enforcement, parks and recreation, and hospital facilities and emergency response services.

The proposed Project would represent a land use change for the area from agricultural fields and vacant lands to a solar facility site and gen-tie lines. The operational capabilities to handle technical rescues at electrical facilities, such as confined space/trench rescue/high angle rescue, may require increased staffing, training, and equipment. New or upgraded fire facilities may be required in order to accommodate additional staffing and fire rescue apparatus for solar facilities. Specialized rescue equipment may also be required in order to service the proposed gen-tie lines, which will require proper storage and maintenance to ensure optimal performance in the event of an emergency.

Education

The majority of the projected construction workforce would likely seek housing closer to the Project area (within an hour-hour driving distance) or seek temporary housing during the week and commute home over the weekend. It would be unlikely that construction workers would relocate close to the Project area with their families due to the temporary nature of the construction period. Therefore, the temporary addition of construction workers to the Project area's population is not anticipated to increase school enrollment. No impact would occur and no mitigation recommended.

Law Enforcement

The temporary increase of construction workers could increase demands on police services. However, during construction, on-site security would include trained, uniformed, and unarmed personnel whose primary responsibility would be to control ingress and egress of personnel and vehicles, perform fire and security watch during off hours, and perform security badge administration, all of which would minimize the potential need for the City of Blythe Police Department's and the Riverside County Sheriff's Department assistance. The construction workforce is expected to be hired generally from within the available regional workforce.

Because Project construction is not anticipated to increase the local population, no new or expanded law enforcement facilities or increased staff levels within the Project regional or local study area would be required. Construction of the BMSP would generate truck and employee traffic along haul routes and at the Project area, which could temporarily increase the accident potential in these areas over the short-term construction period. However, the additional volume of traffic associated with workers commuting to the sites during construction would be temporary and it is anticipated that personnel and equipment from the City and the California Highway Patrol (CHP) would be sufficient to respond to incidents in the Project area. Project construction is not expected to adversely affect the CHP's ability to patrol the highways.

Fire Protection

During construction, there is the potential for both small fires and major structural fires. Electrical sparks, combustion of fuel oil, hydraulic fluid, mineral oil, or insulating fluid at substations, or flammable liquids, explosions, and over-heated equipment may cause small fires. The Project would result in an increase in demand for fire protection services over existing levels during construction. The proposed Project would represent a land use change for the area from agricultural fields and vacant lands to a solar facility site and gen-tie lines. The operational capabilities to handle technical rescues at electrical facilities, such as confined space/trench rescue/high angle rescue, may require increased staffing, training, and equipment. New or upgraded fire facilities may be required in order to accommodate additional staffing and fire rescue apparatus for solar facilities. Specialized rescue equipment may also be required in order to service the proposed gen-tie lines, which will require proper storage and maintenance to ensure optimal performance in the event of an emergency.

The Project area is located within the service area of the RCFD and City of Blythe Volunteer Fire Department. Based on the proposed Project's proximity to the nearest station (Station #45, Blythe Air Base, 17280 W. Hobson Way, Blythe, CA 92225), it falls within acceptable Total Response Time policy standards for an 'outlying' land use area and meets the seventeen minute and 30 second response time standard. Additionally, the solar facility site is approximately five miles away from the City of Blythe Volunteer Fire Department (210 North Commercial Street, Blythe, CA 92225).

Pursuant to Riverside County Ordinance 659, the Applicant would be required to pay a development impact fee for fire services "in order for the County to construction or acquire the needed facilities" (Riverside County 2006). If facilities are constructed or acquired using funds provided by the Project or if new or physically altered fire protection facilities are paid for with the money, the construction of such facilities could cause significant environmental impacts indirectly attributable to the Project. However, the location, size, nature, and other details of such facilities, if needed, or the environmental effects of their construction or alternation are not yet known. Because too little is known about whether, and if so what, facilities would be constructed with Project-related fees, any impact analysis and attempt to reach conclusions about the environmental effects they could cause would be speculative.

Parks and Recreation

As discussed above, the required construction workforce of the Project is expected to be hired generally from the available regional workforce. There would be temporary in-migration that would increase the local population during construction; however, it would not warrant the need for new or expanded parks and recreational facilities or staff levels within the Project regional or local study area.

Hospital Facilities and Emergency Response

In the event of an on-site accident during Project construction, the RCFD would provide first responder emergency medical care. The nearest RCFD fire stations are staffed full-time, 24 hours, 7 days a week, with a minimum three-person crew, including paramedics. Once a patient is transported, a number of local area hospitals are available to provide emergency medical care. While a high number of construction employees would be located on-site, local area emergency medical facilities are expected to adequately handle any worksite accidents requiring their attention. Minor injuries could be treated at Palo Verde Hospital in Blythe, California or La Paz Medical Services in Quartzsite, Arizona. Injuries resulting in significant trauma would be treated at the Desert Regional Medical Center (Cox 2011) in Palm Springs, California. Project construction would not require new or expanded hospital facilities or personnel or result in the increase in emergency responder staff levels within the Project regional or local study area.

Utilities

Project construction would not result in significant adverse demands on natural gas, electricity, water, sewer, or solid waste facilities.

Electricity and Natural Gas

Electricity within the vicinity of the Project area is provided by SCE. The Project would temporarily increase the population during construction. However, it is anticipated that construction workers would utilize existing housing (permanent and temporary) that is available in the study area; therefore, no new or expanded electrical and natural gas systems would be required. The Project would not induce substantial growth to the regional population levels; as such, demands on the electrical and natural gas systems would be nominal and there would be no need to alter these existing facilities in response.

The power produced by the Project would be conveyed to the local power grid via interconnection to the SCE Colorado River Substation, an approved new substation south of I-10 and west of the Project area boundary. The BMSP would use generators during the initial construction phase to supply electrical needs. The Project would not involve use of natural gas service. The Project would not involve communication systems, nor would it require new or expanded communication facilities. As such, current electrical and natural gas facilities could handle the demands of Project development and operation; thus, no new or altered facilities would be needed.

Water and Wastewater

Project development would not require construction or expansion of public water treatment and/or service systems or additional entitlements or resources. The Project would have limited water needs during construction (i.e., for dust suppression and other construction needs) and operation (for maintenance needs). While water would be utilized during Project construction activities, the construction of new or expansion of existing, public water facilities would not be required. Restroom facilities during Project construction would be provided by portable units to be serviced by licensed providers. The Project would not exceed wastewater treatment requirements during construction because the Project would not be connected to a public sewer system.

Solid Waste

Restroom facilities during Project construction would be provided by portable units to be serviced by licensed providers. Solid waste would include recyclable materials such as metals and plastics, as well as various construction materials and worker-generated waste that would include a combination of recyclable and non-recyclable materials. To the extent practicable, waste generated during construction and operation would be recycled. The non-recyclable, non-hazardous solid waste materials would be land filled in accordance with State and local regulations.

The Blythe landfill, which is closest to the Project area, has sufficient capacity to continue to provide solid waste disposal through 2047. Therefore, sufficient capacity is anticipated to be available for waste

disposal. The Project would comply with applicable federal, State, and local regulations related to solid waste.

Operation and Maintenance

Operation of the solar facility is expected to require approximately 12 permanent full-time employees, which would not be considered a substantial demand on the Project area's workforce.

Population and Housing

As shown in Figure 3.2.1-1, *Residences within One Mile of the Proposed Project* in Chapter 3, three residences exist within the solar facility Project boundary and would be removed as a result of Project implementation. While removal of these residences during construction of the proposed Project would result in the displacement of residential households, displacement and the removal of the three residences would not be substantial enough to warrant replacement housing.

Economy and Employment

Operation of the proposed Project would have positive impacts on the local economy through the creation of local employment opportunities and through local expenditures for supplies and services. In addition to the jobs directly related to operation of the Project, additional indirect and induced jobs would be provided by operation of the Project. These impacts would occur in Riverside County on an annual basis for the duration of Project operation.

Fiscal Resources

The Riverside County Assessor's Office would have jurisdiction over the valuation of the Project for property tax purposes. The Project would qualify for the exclusion of certain parts from valuation per the Revenue and Taxation Code, Section 73. Riverside County would start realizing annual property tax revenue once construction of the Project is complete.

The BLM has issued a policy by which it would determine the value of the lease for the gen-tie portion of the Project on its lands following approval of the Project.

Environmental Justice

Operation and maintenance activities would not adversely affect any particular population, including minority or low-income populations. The Project would not result in significant air quality impacts or impacts to surrounding communities from emissions of toxic air contaminants. The Project would not involve wastewater discharges that could affect drinking water supplies or other water bodies during operation and maintenance activities. As such, there would be no direct or indirect adverse health or environmental effects associated with operations and maintenance activities.

Public Services

Due to the temporary nature of Project construction activities, it is unlikely that construction workers would permanently relocate closer to the solar facility with their families. Additionally, operation of the Project would require a nominal workforce and is not anticipated to increase the local population. Therefore, the Project would not make significant demands on education, law enforcement, fire protection, parks and recreation, and hospital facilities and emergency response.

Fire Protection

During operations, the O&M buildings would include their own emergency power, fire suppression, and potable water systems. As part of the Project, implementation of BMP-4, Fire Management and Protection Plan, would ensure that emergency fire precautions are employed during Project construction.

The proposed Project would represent a land use change for the area from agricultural fields and vacant lands to a solar facility site and gen-tie lines. The operational capabilities to handle technical rescues at electrical facilities, such as confined space/trench rescue/high angle rescue, may require increased staffing, training, and equipment. New or upgraded fire facilities may be required in order to accommodate additional staffing and fire rescue apparatus for solar facilities. Specialized rescue equipment may also be required in order to service the proposed gen-tie lines, which will require proper storage and maintenance to ensure optimal performance in the event of an emergency.

Utilities

Operation of the Project would not result in substantial adverse demands on natural gas, electricity, water, and sewer facilities.

Electricity and Natural Gas

The power produced by the Project would be conveyed to the local power grid via interconnection to the SCE Colorado River Substation, an approved new substation south of I-10 and approximately 6.5 miles west of the Project area boundary. During operation, the solar facility's electrical needs would be supplied internally. The Project would not involve use of natural gas service. The Project would not involve communication systems, nor would it require new or expanded communication facilities. As such, current electrical and natural gas facilities could handle the demands of Project development and operation; thus, no new or altered facilities would be needed.

Water and Wastewater

The Project would have limited water needs during operation (for maintenance needs). During operation and maintenance, drinking water and process water would be supplied by the PVID. While water would be utilized during operation, construction of new or expansion of existing public water facilities would not be required. The O&M buildings would generate a minimum volume of wastewater as result of daily activities. Wastewater would be treated via a septic system permitted through the Riverside County Department of Environmental Health Services, and would be in compliance with Department requirements. The Project would not exceed wastewater treatment requirements during construction, operation, maintenance, and decommissioning because the Project would not be connected to a public sewer system.

Solid Waste

Restroom facilities would be provided in the O&M buildings and would be served by a private septic system to be developed on-site. The Project would generate solid waste during operation and maintenance. Solid waste would include recyclable materials such as metals and plastics, as well as various construction materials and worker-generated waste that would include a combination of recyclable and non-recyclable materials. To the extent practicable, waste generated during operation would be recycled. The non-recyclable, non-hazardous solid waste materials would be land filled in accordance with State and local regulations.

The Blythe landfill, which is closest to the Project area, has sufficient capacity to continue to provide solid waste disposal through 2047. Therefore, sufficient capacity is anticipated to be available for waste disposal. The Project would comply with applicable federal, State, and local regulations related to solid waste.

Decommissioning

Decommissioning of the proposed Project would require removal of the solar equipment and facilities and transportation of all components off-site. Equipment used for decommissioning would generally be similar to that used for construction; however, it is anticipated that the overall activity necessary during decommissioning would be much less than that of construction, and would not result in an increased need for fire and police protection services or other public services. As discussed above, temporary in-

migration would occur; however, it would not warrant the need for new or physically altered governmental facilities, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services. Decommissioning activities would not adversely affect any particular population, including minority or low-income populations. The Project would not result in significant air quality impacts or impacts to surrounding communities from emissions of toxic air contaminants. The Project would not involve wastewater discharges that could affect drinking water supplies or other water bodies during decommissioning activities. As such, there would be no direct or indirect adverse health or environmental or effects associated with decommissioning activities.

Application of CEQA Significance Thresholds

SOC-1) Would the Project induce substantial population growth in an area, either directly or indirectly?

Proposed Project construction would temporarily increase population growth in the area; however, it would not be substantial. As discussed above, the required construction and operational workforce is not projected to trigger the need for new housing. As illustrated in Table 3.2.13-3, vacancy rates in the population and housing study area are high (12 to 60 percent), which include seasonal, recreational, and occasional use units. Additionally, within an hour commute, there are a high number of seasonal, recreational, or occasional use housing units (vacancy rates one to 43 percent) and transient lodging opportunities to serve construction employees. Furthermore, vacancy rates within the study area offer ample available housing to operational employees wishing to relocate within the local study area. Therefore, no significant construction- or operation-related impacts are expected for the study area housing supply, availability, or demand. The Project would not displace populations or existing housing, and it would not necessitate construction of replacement housing elsewhere; impacts would be less than significant.

SOC-2) Would the Project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

While the proposed Project would displace three existing residences (two residences on APN 863060015 and one residence on APN 863100016) within the Project area, there is available housing within the Project area to relocate these residents elsewhere in the vicinity of the Project. Implementation of the proposed Project would not require the construction of replacement housing elsewhere. Impacts to existing housing as a result of Project implementation would be less than significant; no mitigation is recommended.

SOC-3) Would the Project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

The proposed Project would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. No impacts would occur.

SOC-4) Would the Project create a demand for additional housing, particularly housing affordable to households earning 80% or less of the County's median income?

The proposed Project would not contain a residential component that would result in a permanent increase in the population. The proposed Project would temporarily increase demand for housing; however, vacancy rates are high for local communities in close proximity to the Project area. Due to the temporary nature of Project construction activities, it is unlikely that construction workers would permanently relocate closer to the Project area with their families. Operation of the Project would require a nominal workforce and is not anticipated to increase the local population. Therefore, the Project would not create a demand for additional housing. Less than significant impacts would occur; no mitigation measure recommended.

SOC-5) Would the Project affect a County Redevelopment Project Area?

The Project area and immediate vicinity would not be within a former County Redevelopment Project Area. No impact would occur and no mitigation is recommended.

SOC-6) Would the Project cumulatively exceed official regional or local population projections?

See SOC-4 above. The proposed Project would temporarily increase the population during construction; however, it would not include housing and would require a nominal operational workforce. The proposed Project would not permanently increase the local population, nor would it cumulatively exceed regional or local population projections. Impacts would be less than significant.

PS-1) Would the Project result in substantial adverse physical impacts associated with the provision of public services?

The Project's construction workforce would increase the local population temporarily, but would not result in significant demands on public services, such as education, law enforcement, fire protection, parks and recreation, and hospital facilities and emergency response. The Project would not result in substantial adverse physical impacts associated with the provision of public services.

As previously described, the majority of the projected construction workforce would likely seek housing closer to the Project area (within an hour driving distance) or seek temporary housing (such as seasonal, recreational, or occasional use housing; long-term visitor areas; and hotel and motels) during the week and commute home over the weekend. It would be unlikely that construction workers would relocate close to the Project area with their families due to the temporary nature of the construction period. Therefore, the temporary addition of construction workers to the Project area's population is not anticipated to increase school enrollment that could result in adverse physical impacts associated with the provision of school facilities. No impact would occur and no mitigation recommended.

As previously noted, construction of the Project could increase demands on police services. However, during construction, on-site security would be present, which would minimize the potential need for the City of Blythe Police Department's and the Riverside County Sheriff's Department's assistance. Because Project construction is not anticipated to permanently increase the local population, no new or expanded law enforcement facilities or increased staff levels within the Project regional or local study area would be required, nor would Project development result in substantial adverse physical impacts on law enforcement facilities.

During construction, there is the potential for both small fires and major structural fires. The Project would result in an increase in demand for fire protection services over existing levels during construction. However, it is anticipated that personnel and equipment from the City of Blythe Volunteer Fire Department, the RCFD, and the California Department of Forestry and Fire Protection (CAL FIRE) would be sufficient to respond to a fire at the Project area because the O&M buildings would include their own emergency power, fire suppression, and potable water systems. After the construction phase, the proposed Project would include emergency access and other safety features and plans for fire protection. The access roads within the solar facility site would be constructed in accordance with current adopted codes and standards by the RCFD. The fire suppression system will be installed in the O&M buildings and shall be in accordance with current adopted codes and standards established by the RCFD. Therefore, adverse physical impacts to fire protection services during construction and operation are considered to be less than significant and no mitigation is recommended.

There would be temporary in-migration that would increase the local population; however, it would not warrant the need for new or expanded parks and recreational facilities or staff levels within the Project regional or local study area. No physical adverse impacts would result to parks and recreational facilities and no mitigation is recommended.

While a high number of construction employees would be located on-site, local area emergency medical facilities are expected to adequately handle any worksite accidents requiring their attention. Minor injuries could be treated at Palo Verde Hospital in Blythe, California or La Paz Medical Services in Quartzsite, Arizona. Injuries resulting in significant trauma would be treated at the Desert Regional Medical Center (Cox 2011) in Palm Springs, California. Project construction would not result in adverse physical impacts to hospital facilities within the Project regional or local study area. No impact would occur and no mitigation recommended.

The Project would not make significant physical demands on education, law enforcement, fire protection, parks and recreation, and hospital facilities. The proposed Project would not eliminate any lands designated for recreational use. No physical impacts associated with the provision of parks and recreational facilities would occur and no mitigation is recommended. Operation of the Project would not result in physical adverse impacts on medical facilities in the area because minor injuries could be treated at Palo Verde Hospital in Blythe, California or La Paz Medical Services in Quartzsite, Arizona. Injuries resulting in significant trauma would be treated at the Desert Regional Medical Center in Palm Springs, California, which is approximately one hour and twenty minutes by Medevac (Cox 2011). No impact would occur and no mitigation is recommended.

USS-1) Would the Project result in substantial adverse environmental impacts associated with the provision of utility services?

The Project would not result in substantial adverse environmental impacts associated with the provision of utility services. The majority of the projected construction workforce would likely seek housing closer to the Project area (within an hour-hour driving distance) or seek temporary housing (such as seasonal, recreational, or occasional use housing; long-term visitor areas; and hotel and motels) during the week and commute home over the weekend. The Project would not induce substantial growth to the regional population levels. As such, there would be nominal demands on the existing facilities related to: electrical and natural gas systems; water and wastewater systems: solid waste; and drainage facilities. There would be no need to alter these existing facilities.

Electricity and Natural Gas

The BMSP would use generators during the initial construction phase to supply electrical needs. The Project would not involve use of natural gas service. The Project would not involve communication systems, nor would it require new or expanded communication facilities. As such, current electrical and natural gas facilities could handle the demands of Project development and operation; thus, no new or altered facilities would be needed, which could result in associated adverse environmental impacts. No impacts regarding these respective issues would occur.

Water and Wastewater

Project development would not require construction or expansion of public water treatment and/or service systems or additional entitlements or resources response, which could cause significant environmental effects. The Project would have limited water needs during construction (i.e., for dust suppression and other construction needs) and operation (for maintenance needs). While water would be utilized during Project construction activities, the construction of new or expansion of existing, public water facilities would not be required. Restroom facilities during Project construction would be provided by portable units to be serviced by licensed providers. The Project would not exceed wastewater treatment requirements during construction because the Project would not be connected to a public sewer system. In addition, the Project would not exceed wastewater treatment requirements of the applicable RWQCB.

Solid Waste

Restroom facilities during Project construction would be provided by portable units to be serviced by licensed providers. Solid waste would include recyclable materials such as metals and plastics, as well as various construction materials and worker-generated waste that would include a combination of recyclable and non-recyclable materials. To the extent practicable, waste generated during construction and operation would be recycled. The non-recyclable, non-hazardous solid waste materials would be land filled in accordance with State and local regulations.

The Blythe landfill, which is closest to the Project area, has sufficient capacity to continue to provide solid waste disposal through 2047. Therefore, sufficient capacity is anticipated to be available for waste disposal. The Project would comply with applicable federal, State, and local regulations related to solid waste. No impact would occur and no mitigation is recommended.

Drainage Facilities

Project facilities would be sited to provide adequate setbacks between solar facility components (solar panels, gen-tie lines, substations, access roads, and O&M buildings) and natural washes (BMP-11). These setbacks would preserve and maintain the natural washes' hydrological functions. Construction of the Project would require ground-disturbing activities, including solar array installation, substation and O&M building construction, and construction of access roads. Grading could potentially alter naturally occurring drainage patterns and result in soil erosion, sedimentation, long-term siltation, and increased stormwater runoff, which increases the potential for flooding off-site or downstream of the construction areas. However, the Project area is relatively flat and would not require mass grading for construction purposes. The majority of the original grades and natural drainage features at the Project area would be maintained and, therefore, no added storm drainage control would be required. Blading and other methods of vegetation removal for clearance of roads and construction areas decrease the ability of the soil to absorb water, which also increases stormwater runoff from such disturbed areas. As part of the Project, BMP-1 (Drainage, Erosion, and Sedimentation Control Plan) and BMP-2 (Stormwater Pollution Prevention Plan) would be implemented to ensure minimization of impacts from storm water runoff and existing drainage patterns. In addition, the minimization of ground and surface disturbance (BMP-13), limitation of vehicle travel and traffic (BMP-14), and construction of new access roads and parking lots (BMP-15) would minimize impacts to the existing drainage patterns. Therefore, the Project would not require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

USS-2) Would the Project impact the following facilities requiring or resulting in the construction of new facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects?

a) Electricity
b) Natural gas
c) Communications systems
d) Storm water drainage
e) Street lighting
f) Maintenance of public facilities, including roads
g) Other government services

Project construction, operation and maintenance, and decommissioning activities would not require construction of new utility facilities or the expansion of existing facilities. Please refer to the previous discussions above under PS-1, USS-1, and Section 4.2.9 with regards to electricity, natural gas, and storm water drainage. As previously explained, electricity within the vicinity of the Project area is provided by SCE. The power produced by the Project would be conveyed to the local power grid via interconnection to the SCE Colorado River Substation, an approved new

substation south of I-10 and west of the Project area. The Project has secured a CAISO interconnection queue position sufficient for the size of the Project. The Project would produce enough energy to power approximately 180,000 households and progress the goals of the California RPS and other similar renewable programs in the state, which are designed to serve existing and already-projected population growth. Implementation of the proposed Project would support the goals of the RPS and other renewable energy programs and would not conflict with any adopted energy conservation plans.

With regards to the maintenance of public facilities, including public roads, portions of Seeley Avenue and Riverside Drive would be improved to ensure safe emergency access to the site and surrounding residential areas. However, Project development would not require or result in the construction of new street lighting or additional maintenance to public facilities or roads, as construction traffic would occur during daytime hours and only last short-term. The minimal amount of permanent employee vehicle trips on local roadways during Project operations would not necessitate the expansions or construction of street lighting or cause additional burdens on local roadways resulting in increased maintenance.

USS-3) Would the Project conflict with any adopted energy conservation plans?

As discussed in USS-2, the power produced by the Project would produce renewable energy and support the goals of the RPS and would not conflict with adopted energy conservation plans. No impact.

Alternative 2: No Project

Under Alternative 2, the solar facility and gen-tie line would not be constructed and the site would retain its current land uses. Therefore, no direct or indirect impacts would occur to population, housing, public services, utilities, and socioeconomics, nor would the Project result in direct or indirect effects to minority or low-income populations related to construction, operation, or decommissioning activities.

Alternative 3: Northern Alternative 230 kV Gen-tie Line Location

Alternative 3 would be similar to Alternative 1, with the exception of the location of the proposed 230 kV gen-tie line. Therefore, Alternative 3 would result in the same socioeconomic impacts, and it would not result in direct or indirect effects to minority or low-income populations related to construction, operation and maintenance, and decommissioning activities, similar to Alternative 1.

Application of CEQA Significance Thresholds

SOC-1) Would Alternative 3 induce substantial population growth in an area, either directly or indirectly?

Alternative 3 would temporarily increase the local population; however, it would not induce substantial permanent population growth in the area, either directly or indirectly. Less than significant impacts would occur.

SOC-2) Would Alternative 3 displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

Alternative 3 would not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. Less than significant impacts would occur.

SOC-3) Would Alternative 3 displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Alternative 3 would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. No impacts would occur.

SOC-4) Would Alternative 3 create a demand for additional housing, particularly housing affordable to households earning 80% or less of the County's median income?

As described in SOC-1, Alternative 3 would temporarily increase the local population; however, it would not contain a residential component that would result in a permanent increase in the population. Due to the temporary nature of Alternative 3 construction activities, it is unlikely that construction workers would permanently relocate closer to the Alternative 3 site with their families. Operation of Alternative 3 would require a nominal workforce and is not anticipated to increase the local population. Therefore, Alternative 3 would not create a demand for additional housing. Less than significant impact would occur and no mitigation is recommended.

SOC-5) Would Alternative 3 affect a County Redevelopment Project Area?

The Alternative 3 site and immediate vicinity would not be within a former County Redevelopment Project Area. No impact would occur and no mitigation is recommended.

SOC-6) Would Alternative 3 cumulatively exceed official regional or local population projections?

See SOC-4 above. Alternative 3 would temporarily increase the local population during construction; however, it would not include housing and would require a nominal operational workforce. Alternative 3 would not permanently increase the local population, nor would it cumulatively exceed regional or local population projections. Less than significant impact would occur.

PS-1) Would Alternative 3 result in substantial adverse physical impacts associated with the provision of public services?

Please refer to the discussion under Alternative 1, PS-1. Alternative 3's construction workforce would increase the local population temporarily, but would not result in significant demands on public services, such as education, law enforcement, fire protection, parks and recreation, and hospital facilities and emergency response. Alternative 3 would result in less than significant impacts to public services.

USS-1) Would Alternative 3 result in substantial adverse environmental impacts associated with the provision of utility services?

Please refer to the discussion under Alternative 1, USS-1. Alternative 3 would not result in substantial adverse environmental impacts associated with the provision of utility services. Impacts to utility services would be less than significant.

USS-2) Would Alternative 3 impact the following facilities requiring or resulting in the construction of new facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects?

a) Electricity
b) Natural gas
c) Communications systems
d) Storm water drainage
e) Street lighting
f) Maintenance of public facilities, including roads
g) Other government services

Please refer to the discussion under Alternative 1, USS-2. Alternative 3 construction, operation and maintenance, and decommissioning activities would not require construction of new utility facilities or require the expansion of existing facilities. However, portions of Seeley Avenue and Riverside Drive would be improved to ensure safe emergency access to the site and surrounding residential areas.

Electricity within the vicinity of the Alternative 3 site is provided by SCE. The power produced by Alternative 3 would be conveyed to the local power grid via interconnection to the SCE Colorado River Substation, an approved new substation south of I-10 and approximately four miles west of the Alternative 3 site. Alternative 3 has secured a CAISO interconnection queue position sufficient for the size of Alternative 3. Alternative 3 would produce enough energy to power approximately 180,000 households and progress the goals of the RPS and other similar renewable programs in the state, which are designed to serve existing and already-projected population growth. Implementation of Alternative 3 would support the goals of the RPS and other renewable energy programs and would not conflict with any adopted energy conservation plans. No impact.

USS-3) Would Alternative 3 conflict with any adopted energy conservation plans?

As discussed in USS-2 above, Alternative 3 would not conflict with any adopted energy conservation plan. No impact and no mitigation recommended.

Alternative 4: Northern Alternative 230 kV Gen-tie Line Location

Alternative 4 would be similar to Alternative 1, with the exception of the location of the proposed 230 kV gen-tie line. Therefore, Alternative 4 would result in the same impacts to population, housing, public services, utilities, and socioeconomics; it would not result in direct or indirect effects to minority or low-income populations related to construction, operation and maintenance, or decommissioning activities.

Application of CEQA Significance Thresholds

SOC-1) Would Alternative 4 induce substantial population growth in an area, either directly or indirectly?

Alternative 4 would not induce substantial population growth in the area, either directly or indirectly. No impacts would occur.

SOC-2) Would Alternative 4 displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

Alternative 4 would not displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere. Less than significant impacts would occur.

SOC-3) Would Alternative 4 displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Alternative 4 would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. No impacts would occur.

SOC-4) Would Alternative 4 create a demand for additional housing, particularly housing affordable to households earning 80% or less of the County's median income?

Alternative 4 would not contain a residential component that would result in an increase in the population. Due to the temporary nature of Project construction activities, it is unlikely that construction workers would permanently relocate closer to Alternative 4 site with their families. Operation of Alternative 4 would require a nominal workforce and is not anticipated to increase the local population. Therefore, Alternative 4 would not create a demand for additional housing. No impact would occur and no mitigation is recommended.

SOC-5) Would Alternative 4 affect a County Redevelopment Project Area?

The Alternative 4 site and immediate vicinity would not be within a former County Redevelopment Project Area. No impact would occur and no mitigation is recommended.

SOC-6) Would Alternative 4 cumulatively exceed official regional or local population projections?

See SOC-4 above. Alternative 4 would not include housing and would require a nominal operational workforce. Alternative 4 would not increase the local population, nor would it cumulatively exceed regional or local population projections.

PS-1) Would Alternative 4 result in substantial adverse physical impacts associated with the provision of public services?

Please refer to the discussion under Alternative 1, PS-1. Alternative 4's construction workforce would increase the local population temporarily, but would not result in significant demands on public services, such as education, law enforcement, fire protection, parks and recreation, and hospital facilities and emergency response. Alternative 4 would result in less than significant impacts to public services.

USS-1) Would Alternative 4 result in substantial adverse environmental impacts associated with the provision of utility services?

Please refer to the discussion under Alternative 1, USS-1. Alternative 4 would not result in substantial adverse environmental impacts associated with the provision of utility services. Impacts to utility services would be less than significant.

USS-2) Would Alternative 4 impact the following facilities requiring or resulting in the construction of new facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects?

a) Electricity
b) Natural gas
c) Communications systems
d) Storm water drainage
e) Street lighting
f) Maintenance of public facilities, including roads
g) Other government services

Please refer to the discussion under Alternative 1, USS-2. Alternative 4 construction, operation and maintenance, and decommissioning activities would not require construction of new utility facilities or require the expansion of existing facilities. However, portions of Seeley Avenue and Riverside Drive would be improved to ensure safe emergency access to the site and surrounding residential areas.

Electricity within the vicinity of the Alternative 4 site is provided by SCE. The power produced by Alternative 4 would be conveyed to the local power grid via interconnection to the SCE Colorado River Substation, an approved new substation south of I-10 and approximately four miles west of the Alternative 4 site. Alternative 4 has secured a CAISO interconnection queue position sufficient for the size of Alternative 4. Alternative 4 would produce enough energy to power approximately 180,000 households and progress the goals of the RPS and other similar renewable programs in the state, which are designed to serve existing and already-projected population growth. Implementation of Alternative 4 would support the goals of the RPS and other renewable energy programs and would not conflict with any adopted energy conservation plans.

USS-3) Would Alternative 4 conflict with any adopted energy conservation plans?

See USS-2 above.

Alternative 5: Reduced Acreage Alternative

Similar to Alternative 1, Alternative 5 would include the construction, operation, maintenance, and decommissioning of a solar facility and associated infrastructure. The primary difference between

Alternatives 1 and 5 is the absence of solar facility development north of I-10, which would reduce electrical output from a 485 MW down to a 315 MW alternating current solar PV facility. The Reduced Acreage Alternative would be on a reduced footprint of approximately 2,476 acres (from 3,660 acres for the proposed Project). Alternative 5 would have one on-site substation and one O&M building and would have one access point (planned on Seeley Avenue). The Reduced Acreage Alternative would construct an approximately 7.8-mile-long, 230 kV overhead gen-tie line from the proposed on-site substation south of I-10 to the approved Colorado River Substation. Approximately three miles of the gen-tie line would be within the solar facility. Approximately 400 daily workers (compared to 500 under the proposed Project) would be present on-site during peak construction. The O&M building would serve the Project's approximately seven permanent full-time employees.

The Reduced Acreage Alternative solar facility and a portion of the gen-tie line would be within the jurisdiction of the County of Riverside but not within the City limits of Blythe in comparison to the proposed Project. Alternative 5 would need to comply with the RCGP (2003) and PVVAP (2008). The remaining portion of the gen-tie line would traverse lands managed by the BLM and would need to comply with the CDCA Plan. The construction, operation, maintenance, and decommissioning of Alternative 5 would not exceed those population, housing, public services, utilities, and socioeconomic impacts identified under the Alternative 1 analysis. Therefore, the Alternative 1 analysis would be applicable to Alternative 5, outside of those differences identified in the discussion below.

Alternative 5 would have a reduced workforce in comparison to Alternative 1. However, this reduction is not substantial relative to population, housing, public services, utilities, and socioeconomics. Therefore, impacts from Alternative 5 are anticipated to be similar to that of Alternative 1 for population, housing, public services, utilities, and socioeconomics; it would not result in direct or indirect effects to minority or low-income populations related to construction, operation and maintenance, or decommissioning activities.

Application of CEQA Significance Thresholds

SOC-1) Would Alternative 5 induce substantial population growth in an area, either directly or indirectly?

Similar to Alternative 1, Alternative 5 construction would temporarily increase population growth in the area; however, it would not be substantial. The SOC-1 Alternative1 analysis would apply to Alternative 5. No significant construction- or operation-related impacts are expected for the regional and local study area housing supply, availability, or demand. Alternative 5 would not displace populations or existing housing, and it would not necessitate construction of replacement housing elsewhere.

SOC-2) Would Alternative 5 displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

While Alternative 5 would displace three existing residences within the Alternative 5 development area south of I-10, there is available housing within the Alternative 5 area to relocate the residents of these residential units elsewhere. Similar to Alternative 1, implementation of Alternative 5 would not require the construction of replacement housing elsewhere. Impacts to existing housing as a result of Alternative 5 implementation would not be significant and no mitigation is recommended.

SOC-3) Would Alternative 5 displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

Similar to Alternative 1, Alternative 5 would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. No impacts would occur.

SOC-4) Would Alternative 5 create a demand for additional housing, particularly housing affordable to households earning 80% or less of the County's median income?

The SOC-4 analysis for Alternative 1 would apply to Alternative 5.

SOC-5) Would Alternative 5 affect a County Redevelopment Project Area?

The SOC-5 analysis for Alternative 1 would apply to Alternative 5.

SOC-6) Would Alternative 5 cumulatively exceed official regional or local population projections?

Alternative 5 would not include housing and would require a nominal operational workforce. Alternative 5 would not increase the local population, nor would it cumulatively exceed regional or local population projections.

PS-1) Would Alternative 5 result in substantial adverse physical impacts associated with the provision of public services?

The PS-1 analysis under Alternative 1 would apply to Alternative 5, as Alternative 5 development construction workforce would increase the local population temporarily, but would not result in significant demands on public services, such as education, law enforcement, fire protection, parks and recreation, and hospital facilities and emergency response. A reduced footprint would result in impacts no greater than those described under the Alternative 1 analysis. Alternative 5 would not result in substantial adverse physical impacts associated with the provision of public services. The temporary addition of construction workers to the area's population is not anticipated to increase school enrollment that could result in adverse physical impacts associated with the provision of school facilities. No impact would occur and no mitigation recommended. Because Alternative 5 construction is not anticipated to increase the local population, no new or expanded law enforcement facilities or increased staff levels within the Alternative 5 regional or local study area would be required, nor would Alternative 5 development result in substantial adverse physical impacts on law enforcement facilities. Adverse physical impacts to fire protection services during construction and operation are considered to be less than significant and no mitigation is recommended. No physical adverse impacts would result to parks and recreational facilities. Alternative 5 construction would not result in adverse physical impacts to hospital facilities within the Alternative 5 regional or local study area.

Similar to Alternative 1, due to the temporary nature of Alternative 5 construction activities, it is unlikely that construction workers would permanently relocate closer to the solar facility with their families. Additionally, operation of Alternative 5 would require a nominal workforce and is not anticipated to increase the local population. Therefore, Alternative 5 would not make significant physical demands on education, law enforcement, fire protection, parks and recreation, and hospital facilities. Alternative 5 would not eliminate any lands designated for recreational use. No physical impacts associated with the provision of parks and recreational facilities would occur and no mitigation is recommended. Operation of Alternative 5 would not result in physical adverse impacts on medical facilities in the area because minor injuries could be treated at Palo Verde Hospital in Blythe, California or La Paz Medical Services in Quartzsite, Arizona. Injuries resulting in significant trauma would be treated at the Desert Regional Medical Center in Palm Springs, California, which is approximately one hour and twenty minutes by Medevac (Cox 2011). No significant impact would occur and no mitigation is recommended.

USS-1) Would Alternative 5 result in substantial adverse environmental impacts associated with the provision of utility services?

Similar to Alternative 1, the Reduced Acreage Alternative would not result in substantial adverse environmental impacts associated with the provision of utility services. The USS-1 analysis for Alternative 1 would apply to Alternative 5.

Electricity and Natural Gas

As the Reduced Acreage Alternative would involve a reduced amount of development in comparison to what was considered under Alternative 1, Alternative 5 would not induce substantial growth to the regional population levels. Therefore, demands on the electrical and

natural gas systems would be nominal and there would be no need to alter these existing facilities in response, which could result in associated adverse environmental impacts.

Water and Wastewater

Similar to Alternative 1, Alternative 5 would not induce substantial growth to the regional population levels; as such, demands on water and wastewater systems would be nominal and there would be no need to alter these existing facilities in response, which could cause significant environmental effects.

Solid Waste

Similar to Alternative 1, Alternative 5 would not induce substantial growth to the regional population levels; as such, the associated generation of solid waste would be nominal and there would be no need to alter these existing solid waste facilities in response, which could result in associated adverse environmental impacts.

Drainage Facilities

The development of Alternative 5 would be identical to Alternative 1 south of I-10. As such, Project facilities would be sited to provide adequate setbacks between solar facility components (solar panels, gen-tie lines, substation, access roads, and O&M building) and natural washes. The Alternative 1 analysis would apply. As no development would occur north of the freeway, these lands would exist in their current state.

USS-2) Would Alternative 5 impact the following facilities requiring or resulting in the construction of new facilities or the expansion of existing facilities, the construction of which could cause significant environmental effects?

a) Electricity
b) Natural gas
c) Communications systems
d) Storm water drainage
e) Street lighting
f) Maintenance of public facilities, including roads
g) Other government services

The USS-2 analysis for Alternative 1 would apply to Alternative 5. Alternative 5 construction, operation and maintenance, and decommissioning activities would not require construction of new utility facilities or the expansion of existing facilities.

USS-3) Would Alternative 5 conflict with any adopted energy conservation plans?

See USS-2.

Cumulative Impacts

Geographic Scope

Temporary cumulative population and housing impacts could occur when overlapping construction schedules of multiple projects create a demand for workers that cannot be met by the local labor force, thereby inducing in-migration of non-local labor and their households. Operational cumulative population and housing impacts could occur when multiple projects cause a substantial increase in population in an area that leads to demand for housing that exceeds available capacity.

The BMSP would have substantial beneficial socioeconomic impacts during construction and operations in terms of job creation, expenditures, and tax revenues. In fact, the positive incremental impacts of the

Project, including job creation, expenditures, and tax revenues, would combine with the similar positive socioeconomic impacts from other present and reasonably foreseeable future projects in the Project vicinity (Table 4.1-1) to create even greater positive cumulative impacts to the local economy.

Temporal Scope

The timeframe refers to the duration over which an impact would occur: short-term or long-term. Short-term impacts to population and housing would occur during the construction and decommissioning periods when overlapping construction schedules of multiple projects create a demand for workers that cannot be met by the local labor force.

Analysis of Direct and Indirect Impacts

Alternative 1: Proposed Project

Construction, Operation, Maintenance, and Decommissioning

Temporary cumulative population and housing impacts could occur when overlapping construction schedules of multiple projects create a demand for workers that cannot be met by the local labor force, thereby inducing in-migration of non-local labor and their households. Operational cumulative population and housing impacts could occur when multiple projects cause a substantial increase in population in an area that leads to demand for housing that exceeds available capacity (Impact SOC-1).

The proposed Project would have substantial beneficial socioeconomic impacts during construction and operation in terms of job creation, expenditures, and tax revenues. In fact, the positive incremental impacts of the Project, including job creation, expenditures, and tax revenues, would combine with the similar positive socioeconomic impacts from other present and reasonably foreseeable future projects in the Project vicinity (Table 4.1-1) to create even greater positive cumulative impacts to the local economy.

Construction of the present and reasonably foreseeable future projects may overlap with construction of the proposed Project. Construction of the Devers-Palo Verde No. 2 transmission line, including the new SCE Colorado River Substation, is expected to be complete and in service by the third quarter of 2013, prior to anticipated commencement of Project construction in the fourth quarter of 2013. The CEC Decision for BSPP analyzed average and peak construction labor needs by construction craft for the BSPP, Palen Solar Power Project, Genesis Solar Energy Project, and Desert Sunlight Solar Farm and compared them to the available labor force for these projects. This analysis determined that these projects would have total peak monthly labor needs of 4,189 workers and total peak monthly local housing needs of 562 housing units. The proposed Project would have peak monthly labor needs of 500 workers.

Under the conservative assumption that peak construction periods overlap for all reasonably foreseeable projects, there would be an increased demand for temporary housing units in the cumulative area. As discussed in Section 4.2.13, *Population, Housing, Public Services, Utilities, and Socioeconomics*, the vacancy rates for housing units are high and there are number of temporary housing options available as well. Available housing supply in the study area far exceeds conservative estimates of cumulative demand. There is an ample supply of housing units to accommodate workers drawn from the study area. Therefore, the incremental effects of the Project, when considered together with other past, present, and reasonably foreseeable future projects, would not result in cumulatively significant, adverse impacts to housing supply during construction.

Operational labor needs of the reasonably foreseeable future projects and the Project are substantially smaller than construction labor needs and would not contribute to a cumulatively significant increase in demand for housing that exceeds available supply (impacts SOC-1 through SOC-4).

The proposed Project would not result in significant adverse environmental or public health impacts that could impact any human populations. Due to their nature as solar energy projects and their location in

relation to the proposed Project, reasonably foreseeable future projects would not compound or increase proposed Project effects in a manner that would result in significant adverse environmental or public health impacts (impact USS-1).

Environmental Justice

The Project would have no impacts related to environmental justice; therefore, it would not cause or contribute to any cumulative impacts in this regard.

Public Services and Utilities

Operational cumulative impacts to public service and utility providers could occur when multiple projects cause a substantial increase in population in an area that leads to demand for schools, public services, or utilities that exceeds available capacity (impacts PS-1 USS-1 and USS-2).

Construction of the present and reasonably foreseeable future projects (Table 4.1-1) may overlap with construction of the Project. The temporary placement of construction workers within existing housing units, motel and hotel rooms, RV parks, and campsites would not result in adverse impacts to schools, public services, or utilities, since these facilities have already been accounted for in existing plans for public services and utilities.

It is anticipated that the construction workforce for the proposed Project, in conjunction with those under the cumulative scenario, would be drawn from Riverside County, with a smaller portion drawn from the Imperial County and La Paz County. It would be unlikely that construction workers would relocate close to the various Project areas with their families due to the temporary nature of the construction periods associated with these projects. Therefore, the temporary addition of construction workers to the proposed Project area's population, along with those noted in Table 4.1-1, is not anticipated to increase school enrollment. In addition, the Palo Verde Unified School District is currently below enrollment capacity; enrollment capacity has been declining, and this trend is expected to continue. Therefore, any increased temporary demand within this district would potentially have beneficial effects.

Cumulative operational impacts to public services including police, fire, hazardous materials handling, and medical resources and facilities would not be cumulatively considerable due to compliance with existing agency regulations, including preparation of worker safety and fire prevention programs. Reasonably foreseeable future projects and the proposed Project would comply with agency regulations addressing operational impacts to public services. Construction of the proposed Project in conjunction with those under the cumulative scenario could increase demands on police services. However, during construction, on-site security would include trained, uniformed, and unarmed personnel whose primary responsibility would be to control ingress and egress of personnel and vehicles, perform fire and security watch during off hours, and perform security badge administration, all of which would minimize the potential need for the City of Blythe Police Department's and the Riverside County Sheriff's Department's assistance. As discussed above, the construction workforce for the Project would be hired generally from within the available regional workforce. Because proposed Project construction is not anticipated to increase the local population, no new or expanded law enforcement facilities or increased staff levels within the proposed Project regional or local study area would be required. Construction of the proposed Project would generate truck and employee traffic along haul routes and at the Project area, which could temporarily increase the accident potential in these areas over the short-term construction period. However, the additional volume of traffic associated with workers commuting to the sites during construction would be temporary and it is anticipated that personnel and equipment from the City and the CHP would be sufficient to respond to incidents in the Project area. Therefore, the proposed Project's direct and indirect contribution towards cumulative effects to law enforcement facilities or increased staff levels, including short-term effects during construction and long-term operation, would not be considerable (impact PS-1).

There are three existing residences within the Project area (see Figure 3.2.1-1, *Residences within One Mile of the Proposed Project*) that are associated with the existing agricultural operations. The proposed Project would displace those three residences; however, there is available housing within the vicinity of

the Project area to relocate these residents. Implementation of the proposed Project would not require the construction of replacement housing elsewhere. After the construction phase, the O&M buildings would serve as the proposed Project's facilities for a limited number of permanent full-time employees. The proposed Project would include emergency access and other safety features and plans for fire protection. Portions of Seeley Avenue and Riverside Drive would be improved to ensure safe emergency access to the site and surrounding residential areas.

The Project area is not within an area of very high or high fire hazard, as determined by CAL FIRE. During construction, there is the potential for both small fires and major structural fires. Electrical sparks, combustion of fuel oil, hydraulic fluid, mineral oil, or insulating fluid at substations, or flammable liquids, explosions, and over-heated equipment may cause small fires. The Project and cumulative projects listed on Table 4.1-1 would result in an increase in demand for fire protection services over existing levels during construction. However, it is anticipated that personnel and equipment from the City of Blythe Volunteer Fire Department, the RCFD, and CAL FIRE would be sufficient to respond to a fire at the Project area because the O&M buildings would include their own emergency power, fire suppression, and potable water systems. Implementation of BMP-4, Fire Management and Protection Plan, would ensure that emergency fire precautions are employed during Project construction. The construction of cumulative projects listed in Table 4.1-1 may result in cumulative impacts to fire protection services and may require upgrades to existing facilities and equipment. Similar to Alternative 1, all of the related projects in Riverside County listed in Table 4.1-1 would be required to pay development impact fees and property taxes that would assist the County of Riverside and City of Blythe with any potential facility upgrades for fire protection services (Impacts PS-1 and USS-1). Therefore, the proposed Project's direct and indirect contribution towards cumulative effects on fire protection, including short-term effects during construction and long-term effects during operation, would not be considerable regarding fire protection services.

The Project would produce enough energy to power approximately 180,000 households and progress the goals of the California RPS and other similar renewable programs in the state, which are designed to serve existing and already-projected population growth. Implementation of the proposed Project would support the goals of the RPS and other renewable energy programs and would not conflict with any adopted energy conservation plans. Therefore, the proposed Project's direct and indirect contribution towards cumulative effects on electricity would not be considerable.

In addition, cumulative operational impacts to utilities would not be cumulatively considerable (impacts USS-1 and USS-2). The Project would utilize on-site groundwater and treat wastewater on-site. There is no potential for the Project to contribute to cumulative impacts to water or wastewater systems. Cumulative impacts to groundwater are discussed in Section 4.2.9. The Project would not utilize natural gas, and the Project would not exceed existing capacity and require the construction of new facilities or infrastructure to meet demand. Cumulative impacts to electrical infrastructure would not occur.

Alternative 2: No Project Alternative

Under the No Project Alternative, gen-tie facilities would not be constructed on BLM-managed lands and solar facilities would not be constructed on private lands. The public lands in the Project area would continue to be managed by BLM in accordance with existing land use designations in the CDCA Plan, whereas the private lands would continue to be managed for agricultural production. Alternative 2 would not contribute to cumulative impacts on population, housing, public services, and utilities. This Alternative would also not contribute cumulatively towards growth-inducing and socioeconomics impacts.

Alternative 3: Northern 230 kV Gen-tie Line Location

Alternative 3 is similar to Alternative 1 (proposed Project), with the exception of the location of the Northern 230 kV gen-tie line, which would be approximately 700 feet north of Alternative 1's proposed 230 kV gen-tie line. The cumulative impacts associated with the construction, operation, maintenance, and decommissioning of the solar facility would be the same as Alternative 1. Therefore, the impacts associated with Alternative 3 would the same as those from Alternative 1.

Development of Alternative 3 would also result in substantial beneficial socioeconomic impacts during construction and operations in terms of job creation, expenditures, and tax revenues. There is an ample supply of housing units to accommodate workers within the Study area. Therefore, the incremental effects of Alternative 3, when considered together with other past, present, and reasonably foreseeable future projects, would not result in cumulatively significant, adverse impacts to housing supply during construction, operation, maintenance, and decommissioning (impacts SOC-1 through SOC-4).

Alternative 3 would also not result in significant adverse environmental or public health impacts that could impact any human populations. Due to their nature as solar energy projects and their location in relation to Alternative 3, reasonably foreseeable future projects would not compound or increase Alternative 3 effects in a manner that would result in significant adverse environmental or public health impacts (impact USS-1).

It would be unlikely that construction workers would relocate close to the various Project areas with their families due to the temporary nature of the construction periods associated with these projects. Therefore, the temporary addition of construction workers for the cumulative projects and Alternative 3 are not anticipated to increase school enrollment. In addition, the Palo Verde Unified School District is currently below enrollment capacity; enrollment capacity has been declining, and this trend is expected to continue. Therefore, any increased temporary demand within this district would potentially have beneficial effects.

The workforce required for operation would be similar or less than that of current agricultural operations; therefore, the Alternative 5 is not a cumulatively considerable contributor to cumulative impacts to public services including police, hazardous materials handling, and medical resources and facilities. Additionally, all cumulative projects, including Alternative 5, would be required to comply with existing agency regulations, including preparation of worker safety and fire prevention programs. Because Alternative 3 construction is not anticipated to permanently increase the local population, no new or expanded law enforcement facilities or increased staff levels within the proposed Project regional or local study area would be required. The additional truck and employee traffic along haul routes form construction of Alternative could temporarily increase the accident potential in these areas over the short-term construction period. However, the additional volume of traffic associated with workers commuting to the sites during construction would be temporary and it is anticipated that personnel and equipment from the City and the CHP would be sufficient to respond to incidents in the Alternative 3 area. Therefore, this alternatives direct and indirect contribution towards cumulative effects to law enforcement facilities or increased staff levels, including short-term effects during construction and long-term operation, would not be considerable (impact PS-1).

Alternative 3 would include emergency access and other safety features and plans for fire protection. Portions of Seeley Avenue and Riverside Drive would be improved to ensure safe emergency access to the site and surrounding residential areas.

It is anticipated that personnel and equipment from the RCFD and CAL FIRE would be sufficient to respond to a fire at the Alternative 3 site because the O&M buildings would include their own emergency power, fire suppression, and potable water systems. Implementation of BMP-4, Fire Management and Protection Plan, would ensure that emergency fire precautions are employed during Alternative 3 construction. The construction of cumulative projects listed in Table 4.1-1 may result in cumulative impacts to fire protection services and may required upgrades to existing facilities and equipment. Similar to Alternative 1, all of the related projects in Riverside County listed in Table 4.1-1 would be required to pay development impact fees and property taxes that would assist the County of Riverside and City of Blythe with any potential facility upgrades for fire protection services and equipment (Impacts PS-1 and USS-1). Therefore, this alternative's direct and indirect contribution towards cumulative effects on fire protection, including short-term effects during construction and long-term effects during operation, would not be considerable regarding fire protection services.

Cumulative operational impacts to utilities would not be cumulatively considerable (impacts USS-1 and USS-2). Alternative 3 would also utilize on-site groundwater and treat wastewater on-site. As with Alternative 1, there is no potential for Alternative 3 to contribute to cumulative impacts to water or

wastewater systems. Cumulative impacts to groundwater are discussed in Section 4.2.9. Alternative 3 would not utilize natural gas, and Alternative 3 would not exceed existing capacity and require the construction of new facilities or infrastructure to meet demand. Cumulative impacts to electrical infrastructure would not occur.

Alternative 4: Southern 230 kV Gen-tie Line Location

Alternative 4 is similar to Alternative 1 (proposed Project), with the exception of the location of the Southern 230 kV gen-tie line, which would be approximately 0.8 mile south of Alternative 1's proposed 230 kV gen-tie line. The cumulative impacts associated with the construction, operation, maintenance, and decommissioning of the solar facility would be the same as Alternative 1.

Development of Alternative 4 would also result in substantial beneficial socioeconomic impacts during construction and operations in terms of job creation, expenditures, and tax revenues. This could combine with the similar positive socioeconomic impacts from other present and reasonably foreseeable future cumulative projects in the Alternative 4 vicinity to create even greater positive cumulative impacts to the local economy.

Construction of the present and reasonably foreseeable future projects may overlap with construction of this Alternative as well, comparative to Alternative 1. There is an ample supply of housing units to accommodate workers drawn from outside the one-hour commute area. Therefore, the incremental effects of Alternative 4, when considered together with other past, present, and reasonably foreseeable future projects, would not result in cumulatively significant, adverse impacts to housing supply during construction (impacts SOC-1 through SOC-4).

Operational labor needs of the reasonably foreseeable future projects and Alternative 4 are substantially smaller than construction labor needs and would not contribute to a cumulatively significant increase in demand for housing that exceeds available supply (impacts SOC-1 through SOC-4).

Alternative 4 would also not result in significant adverse environmental or public health impacts that could impact any human populations. Due to their nature as solar energy projects and their location in relation to Alternative 4, reasonably foreseeable future projects would not compound or increase Alternative 4 effects in a manner that would result in significant adverse environmental or public health impacts (impact USS-1).

It would be unlikely that construction workers would relocate close to the various Project areas with their families due to the temporary nature of the construction periods associated with these projects. Therefore, the temporary addition of construction workers to the Alternative 4 area's population, along with those noted in Table 4.1-1, are not anticipated to increase school enrollment.

Cumulative operational impacts to public services including police, fire, hazardous materials handling, and medical resources and facilities would not be cumulatively considerable due to compliance with existing agency regulations, including preparation of worker safety and fire prevention programs. Construction of Alternative 4 in conjunction with those under the cumulative scenario could increase demands on police services. However, during construction, on-site security would remain on-site to minimize demands potential need for the City of Blythe Police Department's and the Riverside County Sheriff's Department's assistance. Because Alternative 4 construction is not anticipated to increase the local population, no new or expanded law enforcement facilities or increased staff levels within the proposed Project regional or local study area would be required. The additional volume of traffic associated with workers commuting to the sites during construction would be temporary and it is anticipated that personnel and equipment from the City and the CHP would be sufficient to respond to incidents in the Alternative 4 area. Therefore, this Alternative's direct and indirect contribution towards cumulative effects to law enforcement facilities or increased staff levels, including short-term effects during construction and long-term operation, would not be considerable (Impact PS-1).

Alternative 4 would include emergency access and other safety features and plans for fire protection. Portions of Seeley Avenue and Riverside Drive would be improved to ensure safe emergency access to the site and surrounding residential areas.

Alternative 4 would result in an increase in demand for fire protection services over existing levels during construction. To reduce the Project impacts to fire protection services, the O&M buildings would include their own emergency power, fire suppression, and potable water systems. Implementation of BMP-4, Fire Management and Protection Plan, would ensure that emergency fire precautions are employed during Alternative 4 construction. The construction of cumulative projects listed in Table 4.1-1 may result in cumulative impacts to fire protection services and may required upgrades to existing facilities and equipment. Alternative 4 and all of the related projects in Riverside County listed in Table 4.1-1 would be required to pay development impact fees and property taxes that would assist the County of Riverside and City of Blythe with any potential facility upgrades for fire protection services and equipment (Impacts PS-1 and USS-1).

Similar to Alternative 1, Alternative 4's cumulative operational impacts to utilities would not be cumulatively considerable (impacts USS-1 and USS-2). Alternative 4 would also utilize on-site groundwater and treat wastewater on-site. As with Alternative 1, there is no potential for Alternative 4 to contribute to cumulative impacts to water or wastewater systems. Cumulative impacts to groundwater are discussed in Section 4.2.9. Alternative 4 would not utilize natural gas, and Alternative 4 would not exceed existing capacity and require the construction of new facilities or infrastructure to meet demand. Cumulative impacts to electrical infrastructure would not occur.

Alternative 5: Reduced Acreage Alternative

The Reduced Acreage Alternative would also create beneficial socioeconomic impacts during construction and operation in terms of job creation, expenditures, and tax revenues. As development under this Alternative would be reduced relative to the footprint associated with Alternative 1, there would be a reduced slightly reduced workforce during construction and operations. However, the positive incremental impacts of Alternative 5, including job creation, expenditures, and tax revenues, would combine with the similar positive socioeconomic impacts from other present and reasonably foreseeable future projects in the Project vicinity to create even greater positive cumulative impacts to the local economy.

As determined in the cumulative analysis for Alternative 1, the available housing supply in the study area far exceeds conservative estimates of cumulative demand. There is an ample supply of housing units to accommodate workers drawn from outside the study area. Therefore, the incremental effects of Alternative 5, when considered together with other past, present, and reasonably foreseeable future projects, would not result in cumulatively significant, adverse impacts to housing supply during construction (impacts SOC-1 through SOC-4).

Operational labor needs of the reasonably foreseeable future projects and Alternative 5 are substantially smaller than construction labor needs and would not contribute to a cumulatively significant increase in demand for housing that exceeds available supply.

Alternative 5 would not result in significant adverse environmental or public health impacts that could impact any human populations. Due to their nature as solar energy projects and their location in relation to Alternative 5, reasonably foreseeable future projects would not compound or increase Alternative 5 effects in a manner that would result in significant adverse environmental or public health impacts (impact USS-1).

Operational cumulative impacts to public service and utility providers could occur when multiple projects cause a substantial increase in population in an area that leads to demand for schools, public services, or utilities that exceeds available capacity (impacts PS-1 USS-1 and USS-2).

Construction of the present and reasonably foreseeable future projects (Table 4.1-1) may overlap with construction of Alternative 5. Similar to Alternative 1, Alternative 5's temporary placement of construction

workers within existing housing units, motel and hotel rooms, RV parks, and campsites would not result in adverse impacts to schools, public services, or utilities.

It would be unlikely that construction workers would relocate close to the various Project areas with their families due to the temporary nature of the construction periods associated with these projects. Therefore, not anticipated increase school enrollment would occur.

Cumulative operational impacts to public services including police, fire, hazardous materials handling, and medical resources and facilities would not be cumulatively considerable due to compliance with existing agency regulations, including preparation of worker safety and fire prevention programs. Reasonably foreseeable future projects and Alternative 5 would comply with agency regulations addressing operational impacts to public services. The discussion under Alternative 1 would apply as no additional impacts to public services would occur under Alternative 5.

Alternative 5 would include emergency access and other safety features and plans for fire protection. Portions of Seeley Avenue would be improved to ensure safe emergency access to the site and surrounding residential areas.

Alternative 5 would result in an increase in demand for fire protection services over existing levels during construction. To reduce the Project impacts to fire protection services, the O&M buildings would include their own emergency power, fire suppression, and potable water systems. Implementation of BMP-4, Fire Management and Protection Plan, would ensure that emergency fire precautions are employed during Alternative 5 construction. The construction of cumulative projects listed in Table 4.1-1 may result in cumulative impacts to fire protection services and may required upgrades to existing facilities and equipment. Alternative 5 and all of the related projects in Riverside County listed in Table 4.1-1 would be required to pay development impact fees and property taxes that would assist the County of Riverside and City of Blythe with any potential facility upgrades for fire protection services and equipment (Impacts PS-1 and USS-1).

Similar to Alternative 1, Alternative 5's cumulative operational impacts to utilities would not be cumulatively considerable (impacts USS-1 and USS-2). Alternative 4 would also utilize on-site groundwater and treat wastewater on-site. As with Alternative 1, there is no potential for Alternative 5 to contribute to cumulative impacts to water or wastewater systems. Cumulative impacts to groundwater are discussed in Section 4.2.9. Alternative 5 would not utilize natural gas, and Alternative 5 would not exceed existing capacity and require the construction of new facilities or infrastructure to meet demand. Cumulative impacts to electrical infrastructure would not occur.

Mitigation Measures

All impacts would be less than significant; no mitigation measures are recommended.

Residual Impacts

With implementation of the above-listed BMPs as part of the Project, the Project would result in less than significant impacts to Population, Housing, Public Services, Utilities, and Socioeconomics.

NEPA Conclusions

The Project and each of the action Alternatives would involve the direct and indirect impacts and contribution toward cumulative impacts that are described above. The Project and the action Alternatives would not have an adverse environmental justice impact, would not create a new demand for housing, and could be adequately served by existing utilities and services without the need for new or altered facilities. The No Project Alternative would not have impacts, as the existing circumstances and operations would continue essentially unchanged.

4.2.14 Recreation

This section describes the impact analysis relating to recreation for the proposed Project and Alternatives.

Methodology for Analysis

This section analyzes potential effects of the proposed Project and Alternatives related to recreation and assesses the impacts to known recreational facilities and uses. The Riverside County Regional Park and Open-Space District also provides several recreational facilities in the Project vicinity. The City of Blythe has several parks that provide sporting opportunities in the area. The CDCA Plan recognizes that the California Desert is "a reservoir of open space and…a place for outdoor recreation" (BLM 1980, p. 69). The CDCA Plan notes that the diverse landscape of the California desert provides for a variety of physical settings. Further, the CDCA Plan identifies the wide variety of desert recreation uses, ranging from off-road vehicles to outdoor preservationists, and the increasing challenge to accommodate these varied and sometimes competing uses. The CDCA Plan and NECO Plan Amendment, which includes a detailed inventory and designation of open routes for motorized-vehicle use, were reviewed to determine impacts to open routes.

CEQA Significance Criteria

The criteria listed below were used to determine if the proposed Project would result in impacts to recreation. These criteria were obtained from the CEQA Environmental Checklist, Appendix G of the 2012 CEQA Guidelines. Under CEQA, the proposed Project and Alternatives would have a significant impact on recreation if they would:

REC-1) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated.

REC-2) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

The following additional significance criterion from the County of Riverside Environmental Assessment form is used in the analysis. A project could have potentially significant impacts if it would be:

REC-3) Located within a Community Service Area (CSA) or recreation and park district with a Community Parks and Recreation Plan (Quimby fees).

NEPA Requirements

Pursuant to NEPA, this analysis is intended to compare the Alternatives and identify any adverse effects to recreational resources that cannot be avoided. Adverse effects may be direct, indirect, or cumulative. Potential direct and indirect effects of the proposed Project and Alternatives are analyzed below and discussed as construction-related, operation- and maintenance-related, and decommissioning effects.

Applicable Best Management Practices

No BMPs are recommended for Recreation.

Alternative 1: Proposed Project

Analysis of Direct and Indirect Impacts

Construction and Decommissioning

According to the Recreation Element of the CDCA Plan, "lands managed by the BLM are especially significant to recreationists. Therefore, actions which restrict vehicular access may affect opportunities for recreation depending on the specific activity pursued and/or the specific location at which such restrictions are imposed." As an indirect effect of the Project, recreationists could compensate for the loss of Class M public lands by utilizing other desert lands in the vicinity of the Project for their recreational experiences and benefits. This could result in more concentrated use of those areas, leading to loss of some native vegetation, wildlife habitat fragmentation or loss, elevated soil loss, increases in noise, and possible temporary declines in air quality from more concentrated vehicle use in a smaller available area. However, this impact would be minimal because, as discussed above, the land is privately owned and not available to the public, and high recreational use has not been observed within the Project area. As illustrated in Chapter 3, Figure 3.2.14-2, *NECO Plan Route Designations,* the proposed Project's gen-tie line that would extend outside the solar facility site would traverse NECO Plan Designated Open Routes 0660703, 660863 and 660862. During construction, these routes would closed and re-routed around construction zones; however, the NECO Plan Designated Open Routes would be open for use after construction.

Regional BLM recreational facilities described in Section 3.2.12 include long-term camping facilities (LTVAs) and supporting recreational uses. The Midland and Mule Mountains LTVA can each accommodate several hundred units, and current use is much lower than capacity. Some construction workers could reside in RV campers at the LTVAs, or possibly camp on public lands in the vicinity of the Project area during the construction phase of the Project; The Midland and Mule Mountains LTVAs allow camping up to seven months (September 14 to April 16) with a special use permit. Outside of these dates, the camping is limited to 14 days. Depending on the number of workers using the LTVAs, use could affect the social setting or the physical infrastructure of the LTVAs. However, the LTVAs are designed with minimal facilities given that campers must use self-contained RVs and there are no assigned or designated sites. Except for the designated campsites at Wiley's Well and Coon Hollow, each LTVA can accommodate several hundred RV units with a minimum distance of 15 feet between units. However, there are limitations to the campsites, such as seasonal availability, length of stay, and types of on-site facilities available. In addition, as discussed in Section 4.2.13, *Population, Housing, Public Services, Utilities, and Socioeconomics*, there are other temporary, affordable housing alternatives, such as seasonal or vacation home rentals, that are available in the vicinity of the Project area that don't have as many limitations and offer more facilities. Therefore, although some construction workers might decide to reside in LTVAs, it is anticipated that most workers intending to camp will select long-term camping facilities nearby that are sufficient to support the proposed Project. It is anticipated that the authorized use of LTVAs by temporary construction workers would result in a minimal increase. Therefore, minimal impacts would result to the social and recreational experience of winter users of the LTVAs; no increase in law enforcement patrols at the LTVAs is anticipated.

Although it is possible that unauthorized use of these LTVAs could occur when they are closed from April 16 to September 14, it is unlikely because this area experiences extremely hot weather during the closed season.

In addition to BLM recreational facilities, there are regional and local recreational resources in the Project vicinity. Because the regional and local recreational facilities described in Section 3.2.12, *Recreation*, consist primarily of long-term camping facilities and supporting recreational uses, impacts to these resources would be similar to impacts to LTVAs described above. Depending on the number of authorized workers using the long-term camping facilities, use could affect the social setting or the physical infrastructure of these sites and/or the availability of short-term recreational uses due to increased demand.

Operations

Operation of the solar facility site and gen-tie line would require 12 full-time employees; therefore, it is anticipated that use of recreational facilities would be similar to the existing conditions.

Application of CEQA Significance Thresholds

REC-1) Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The proposed Project would not involve the use of existing neighborhood or regional parks, or other recreational facilities. During construction, and for a shorter period of time during decommissioning, there would be a temporary increase in population that may utilize existing neighborhood or regional parks or other recreational facilities in the Project vicinity. The temporary (duration of construction) use of LTVAs may result in physical deterioration of the facilities. However, the LTVAs are designed with minimal facilities given that campers must use self-contained RVs and there are no assigned or designated sites. In addition, as described in Section 4.2.13, *Population, Housing, Public Services, Utilities, Growth-Inducing Impacts, and Socioeconomics*, it is assumed that most construction workers would utilize seasonal and vacation home rentals, which have high vacancy rates within the local study. Therefore, impacts to recreational facilities would be less than significant. During operation, the number of employees would be minimal and any potential impact on recreational facilities would be negligible; no impact would occur.

REC-2) Would the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

The proposed Project would result in negligible long-term increases in population. As a result, the Project would not require the construction or expansion of recreational facilities; no impact would occur.

REC-3) Would the Project be located within a Community Service Area[8] or recreation and park district with a Community Parks and Recreation Plan (Quimby fees)?

The proposed Project would not be within a Community Service Area and would not include recreational facilities. The Project would not add significantly to the local population necessitating the construction or expansion of recreational facilities, nor would it cause or accelerate physical deterioration of recreational facilities. No impact would occur.

Alternative 2: No Project Alternative

The No Project Alternative would result in no recreation-related or public access impacts because the Project would not be implemented; therefore, there would be no change to the existing use and no impacts would result.

Alternative 3: Northern Alternative 230 kV Gen-tie Line Location

Alternative 3 would result in the same requirements for temporary and permanent workforce, which would temporarily increase the utilization of recreational facilities in the Project vicinity, as well as require temporary rerouting of BLM open routes during construction. Therefore, Alternative 3 would have the same direct and indirect impacts on recreation and public access as Alternative 1.

[8] The Community Service Area described in Section 4.2.9, *Hydrology and Water Quality,* has a different definition than described in Section 4.2.14, *Recreation,* and is unrelated.

Application of CEQA Significance Thresholds

REC-1) Would Alternative 3 increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Alternative 3 would not involve the use of existing neighborhood or regional parks, or other recreational facilities. During construction, and for a shorter period of time during decommissioning, there would be a temporary increase in population that may utilize existing neighborhood or regional parks or other recreational facilities in the Project vicinity. LTVAs in particular may experience physical deterioration of the facilities. However, the LTVAs are designed with minimal facilities given that campers must use self-contained RVs and there are no assigned or designated sites. In addition, the use of these recreational facilities would be a temporary (duration of construction) impact. Furthermore, as described in Section 4.2.13, *Population, Housing, Public Services, Utilities, Growth-Inducing Impacts, and Socioeconomics,* vacancy rates within the local study area offer ample available housing to operational employees wishing to relocate to within the local study area. Therefore, impacts to recreational facilities would be less than significant. During operation, the number of employees would be minimal and any potential impact on recreational facilities would be negligible; no impact would occur.

REC-2) Would Alternative 3 include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Alternative 3 would result in negligible long-term increases in population. As a result, Alternative 3 would not require the construction or expansion of recreational facilities; no impact would occur.

REC-3) Would Alternative 3 be located within a Community Service Area or recreation and park district with a Community Parks and Recreation Plan (Quimby fees)?

Alternative 3 would not be within a Community Service Area and would not include recreational facilities. Alternative 3 would not add significantly to the local population necessitating the construction or expansion of recreational facilities, nor would it cause or accelerate physical deterioration of recreational facilities. No impact would occur.

Alternative 4: Southern Alternative 230 kV Gen-tie Line Location

Alternative 4 would result in the same requirements for temporary and permanent workforce, which would temporarily increase utilization of recreational facilities in the Project vicinity, as well as require temporary rerouting of BLM open routes during construction. Alternative 4 would have the same direct and indirect impacts on recreation and public access as Alternative 1.

Application of CEQA Significance Thresholds

REC-1) Would Alternative 4 increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Alternative 4 would not involve the use of existing neighborhood or regional parks, or other recreational facilities. During construction, and for a shorter period of time during decommissioning, there would be a temporary increase in population that may utilize existing neighborhood or regional parks or other recreational facilities in the Project vicinity. LTVAs in particular may experience physical deterioration of the facilities. However, the LTVAs are designed with minimal facilities given that campers must use self-contained RVs and there are no assigned or designated sites. In addition, the use of these recreational facilities would be a temporary (duration of construction) impact. Furthermore, as described in Section 4.2.13,

Population, Housing, Public Services, Utilities, Growth-Inducing Impacts, and Socioeconomics, vacancy rates within the local study area offer ample available housing to operational employees wishing to relocate to within the local study area. Therefore, impacts to recreational facilities would be less than significant. During operation, the number of employees would be minimal and any potential impact on recreational facilities would be negligible; no impact would occur.

REC-2) Would Alternative 4 include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Alternative 4 would result in negligible long-term increases in population. As a result, Alternative 4 would not require the construction or expansion of recreational facilities; no impact would occur.

REC-3) Would Alternative 4 be located within a Community Service Area or recreation and park district with a Community Parks and Recreation Plan (Quimby fees)?

Alternative 4 would not be within a Community Service Area and would not include recreational facilities. Alternative 4 would not add significantly to the local population necessitating the construction or expansion of recreational facilities, nor would it cause or accelerate physical deterioration of recreational facilities. No impact would occur.

Alternative 5: Reduced Acreage Alternative

Similar to Alternative 1, Alternative 5 would include the construction, operation, maintenance, and decommissioning of a solar facility and associated infrastructure. The primary difference between Alternatives 1 and 5 is the absence of solar facility development north of I-10, which would reduce electrical output from a 485 MW down to a 315 MW alternating current solar PV facility. The Reduced Acreage Alternative would be on a reduced footprint of approximately 2,476 acres (from 3,660 acres for the proposed Project). Alternative 5 would include approximately 2,403 acres for the solar field. Similar to the proposed Project, 73 acres would be utilized for the 230 kV gen-tie line. In comparison to Alternative 1, Alternative 5 would eliminate one on-site substation and one O&M building and would have one access point (planned on Seeley Avenue). The Reduced Acreage Alternative would also no longer extend a 230 kV overhead gen-tie line from an on-site substation north of I-10, as this Alternative would not be developed on land north of I-10. Instead, this Alternative would construct an approximately 7.8-mile-long, 230 kV overhead gen-tie line from the proposed on-site substation south of I-10 to the approved Colorado River Substation. Approximately three miles of the gen-tie line would be within the solar facility. Alternative 5 would avoid impacts that would result from the construction, operation, maintenance, and decommissioning of a solar development north of I-10; however, the land on which Alternative 1 is proposed would continue with existing uses. Alternative 5 would not result in recreation-related or public access impacts caused by developments north of I-10 because Alternative 5 would not be implemented in this area; therefore, there would be no change to the existing use and no impacts would result north of I-10.

The Reduced Acreage Alternative solar facility and a portion of the gen-tie line would be within the jurisdiction of the County of Riverside but not within the City limits of Blythe in comparison to the proposed Project. Alternative 5 would need to comply with the RCGP (2003) and PVVAP (2008). The remaining portion of the gen-tie line would traverse lands managed by the BLM and would need to comply with the CDCA Plan. The construction, operation and decommissioning of Alternative 5 would not exceed those recreation impacts identified under the Alternative 1 analysis. Therefore, the Alternative 1 analysis would be applicable to Alternative 5, outside of those differences identified in the discussion below.

Analysis of Direct and Indirect Impacts

Construction and Decommissioning

The Alternative 1 analysis for direct and indirect construction and decommissioning impacts would apply to Alternative 5. Similar to Alternative 1, the Alternative 5 gen-tie line that would extend outside the solar facility site would traverse NECO Plan Designated Open Routes 0660703, 660863, and 660862 and require temporary rerouting of BLM open routes during construction, but would not be fenced in during operation and maintenance. As the anticipated construction labor force would be slightly reduced under Alternative 5, there would be no additional impacts to regional BLM recreational facilities outside of those previously described under Alternative 1; as such, it is anticipated that there are sufficient long-term camping facilities nearby that could support the Alternative 5 workforce.

Operation and Maintenance

Operation and maintenance of the solar facility site and gen-tie line would require seven full-time employees; therefore, it is anticipated that use of recreational facilities would be similar to the existing conditions.

Application of CEQA Significance Thresholds

REC-1) Would Alternative 5 increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The REC-1 analysis for Alternative 1 would apply to Alternative 5. As the anticipated construction labor force would be slightly reduced under Alternative 5, there would be no additional impacts to regional BLM recreational facilities outside of those previously described under Alternative 1; as such, it is anticipated that there are sufficient long-term camping facilities nearby that could support the Alternative 5 workforce. Furthermore, as described in Section 4.2.13, *Population, Housing, Public Services, Utilities, Growth-Inducing Impacts, and Socioeconomics*, vacancy rates within the local study area offer ample available housing to operational employees wishing to relocate to within the local study area. Therefore, impacts to recreational facilities would be less than significant. During operation, the number of employees would be minimal and any potential impact on recreational facilities would be negligible; no impact would occur.

REC-2) Would Alternative 5 include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

Alternative 5 would result in negligible long-term increases in population. As a result, the Project would not require the construction or expansion of recreational facilities; no impact would occur.

REC-3) Would Alternative 5 be located within a Community Service Area or recreation and park district with a Community Parks and Recreation Plan (Quimby fees)?

Similar to Alternative 1, Alternative 5 would not be within a Community Service Area and would not include recreational facilities. Alternative 5 would not add significantly to the local population necessitating the construction or expansion of recreational facilities, nor would it cause or accelerate physical deterioration of recreational facilities. No impact would occur.

Cumulative Impacts

Geographic Scope

The geographic scope for recreational facilities includes other projects in the cumulative scenario, and in particular the other renewable energy projects listed in Table 4.1-1. These projects could result in similar demand for and use of long-term camping and other recreational facilities. In combination, the increased use of these resources due to the presence of authorized workers for the Project and cumulative projects could affect the social setting or the physical infrastructure of these sites.

Temporal Scope

The Project's authorized workers could use long-term camping facilities and their associated recreational amenities, primarily during construction and decommissioning activities.

Analysis of Direct and Indirect Impacts

Alternative 1 (Proposed Project)

Construction and Decommissioning

Construction of the present and reasonably foreseeable future projects may overlap with construction of the BMSP. Construction of the Devers-Palo Verde No. 2 transmission line, including the new SCE Colorado River Substation, is expected to be complete and in service by the third quarter of 2013, prior to anticipated commencement of Project construction in the fourth quarter of 2013. Construction of the BSPP, McCoy Solar Project, Palen Solar Power Project, Genesis Solar Energy Project, and Desert Sunlight Solar Farm may contribute to cumulative recreation impacts.

During construction and decommissioning activities, the cumulative project mentioned above and the proposed Project would temporarily increase the population that may utilize existing neighborhood or regional parks or other recreational facilities in the Project vicinity. Additionally, increased demand for other types of recreation resources and the displacement of dispersed recreation from the other projects' development footprints could reduce the availability of short-term recreational uses for other visitors to the area. However, the effects related to displacing dispersed recreation would be minor due to the low observed recreation on the Project area and at other projects' locations (impacts REC-1 through REC-3).

As discussed in Section 4.2.13, *Population, Housing, Public Services, Utilities, and Socioeconomics*, the communities closest to the proposed solar facility had very high residential vacancy rates in 2010. RV parks and campsites also are available as temporary housing. Available housing supply in the study area far exceeds conservative estimates of cumulative demand. It is anticipated that only a portion of the construction workforce from all cumulative projects mentioned above would utilize LTVA; therefore, impacts to LTVAs would be less than significant. It is anticipated that cumulative impacts from decommissioning would be similar to construction.

Operation and Maintenance

Operational labor needs of the reasonably foreseeable future projects and the Project are substantially smaller than construction labor needs and would not contribute to a cumulatively significant increase in demand for housing that exceeds available supply.

Alternative 2: No Project Alternative

Under the No Project Alternative, gen-tie facilities would not be constructed on BLM-managed lands and solar facilities would not be constructed on private lands. The public lands on the Project area would continue to be managed by BLM in accordance with existing land use designations in the CDCA Plan,

whereas the private lands would continue to be managed for agricultural production. Alternative 2 would not contribute to cumulative recreational impacts.

Alternative 3: Northern Alternative 230 kV Gen-tie Line Location

Construction and Decommissioning

Alternative 3 is similar to Alternative 1 (proposed Project), with the exception of the location of the Northern 230 kV gen-tie line, which would be approximately 700 feet north of Alternative 1's proposed 230 kV gen-tie line. The cumulative impacts associated with the construction, operation, maintenance, and decommissioning of the solar facility would be the same as Alternative 1.

During construction and decommissioning activities, the cumulative project mentioned above and the Alternative 3 would temporarily increase the population that may utilize existing neighborhood or regional parks or other recreational facilities in the Project vicinity. Additionally, increased demand for other types of recreation resources and the displacement of dispersed recreation from the other projects' development footprints could reduce the availability of short-term recreational uses for other visitors to the area. However, the effects related to displacing dispersed recreation would be minor due to the low observed recreation on the Project area and at other projects' locations (impacts REC-1 through REC-3).

As discussed in Section 4.2.13, *Population, Housing, Public Services, Utilities, and Socioeconomics*, the communities closest to the proposed solar facility had very high residential vacancy rates in 2010. It is anticipated that only a portion of the construction workforce from all cumulative projects mentioned above would utilize LTVA; therefore, impacts to LTVAs would be less than significant. The anticipated incremental effects of the construction of Alternative 3, when considered together with other past, present, and reasonably foreseeable future projects, would result in less than significant cumulative impacts to recreation. It is anticipated that cumulative impacts from decommissioning would be similar to construction.

Operation and Maintenance

Operational labor needs of the reasonably foreseeable future projects and Alternative 3 are substantially smaller than construction labor needs and would not contribute to a cumulatively significant increase in demand for housing that exceeds available supply or population. Therefore, impacts to recreation would be less than significant.

Alternative 4: Southern Alternative 230 kV Gen-tie Line Location

Construction and Decommissioning

Alternative 4 is similar to Alternative 1 (proposed Project), with the exception of the location of the Southern 230 kV gen-tie line, which would be approximately 0.8 mile south of Alternative 1's proposed 230 kV gen-tie line. The cumulative impacts associated with the construction, operation, maintenance, and decommissioning of the solar facility would be the same as Alternative 1.

During construction and decommissioning activities, the cumulative project mentioned above and Alternative 4 would temporarily increase the population that may utilize existing neighborhood or regional parks or other recreational facilities in the Project vicinity. Additionally, increased demand for other types of recreation resources and the displacement of dispersed recreation from the other projects' development footprints could reduce the availability of short-term recreational uses for other visitors to the area. However, the effects related to displacing dispersed recreation would be minor due to the low observed recreation on the Project area and at other projects' locations (impacts REC-1 through REC-3).

The communities closest to the proposed solar facility had very high residential vacancy rates in 2010. It is anticipated that only a portion of the construction workforce from all cumulative projects mentioned above would utilize LTVA; therefore, impacts to LTVAs would be less than significant. It is anticipated that cumulative impacts from decommissioning would be similar to construction.

The anticipated incremental effects of the construction of Alternative 4, when considered together with other past, present, and reasonably foreseeable future projects, would result in less than significant cumulative impacts to recreation. It is anticipated that cumulative impacts from decommissioning would be similar to construction.

Operation and Maintenance

Operational labor needs of the reasonably foreseeable future projects and Alternative 4 are substantially smaller than construction labor needs and would not contribute to a cumulatively significant increase in demand for housing that exceeds available supply.

Alternative 5: Reduced Acreage Alternative

Construction and Decommissioning

The cumulative recreation analysis for Alternative 1 would apply to Alternative 5. In comparison to Alternative 1, Alternative 5 would have peak monthly labor needs of 400 workers. The effects related to displacing dispersed recreation would be minor due to the low observed recreation on the Alternative 5 site and at other projects' locations, and the fact that the Project area is private property not available to public recreational uses. Available housing supply in the study area far exceeds conservative estimates of cumulative demand. There is an ample supply of housing units to accommodate temporary construction workers drawn from outside the study area. Therefore, it is anticipated that only a portion of the construction workforce from all cumulative projects mentioned above would utilize LTVA. Impacts to LTVAs would be less than significant. It is anticipated that cumulative impacts from decommissioning would be similar to construction.

Operation and Maintenance

Operational labor needs of the reasonably foreseeable future projects and Alternative 5 are substantially smaller than construction labor needs and would not contribute to a cumulatively significant increase in demand for housing that exceeds available supply.

Mitigation Measures

No mitigation measures are recommended.

Residual Impacts

No BMPs or mitigation measures are recommended. Impacts to Recreation would be less than significant.

NEPA Conclusions

The No Project Alternative would not have impacts, as the existing circumstances and operations would continue essentially unchanged. The Project and each of the action Alternatives would involve only temporary impacts in terms of workers using recreational facilities during the three-year construction term and one-year decommissioning phase. Construction of the Project and Alternatives would include the use of LTVAs and may cause deterioration; however, they are designed with minimal facilities given that campers must use self-contained RVs and there are no assigned or designated sites. With minimal employees needed during the operational periods, impacts during operation would be negligible. The impacts, and contribution toward cumulative impacts, would be as described above (i.e., less than significant). The recreational uses would be subject to all laws, regulations, and policies covering desert recreation. Construction of utility-scale solar plants is anticipated in the CDCA Plan, and would also be consistent with the NECO Plan.

4.2.15 Traffic and Transportation

This section describes conditions related to transportation and traffic and potential traffic impacts that would result from the construction, operation, maintenance, and decommissioning of the Project and Alternatives, as well as mitigation measures that would reduce or avoid adverse transportation and traffic effects. The analysis is based on the *Traffic Impact Study Report for the Blythe Mesa Solar Project* (KOA Corporation 2013) found in Appendix J.

Methodology for Analysis

The primary traffic and transportation impacts from the proposed Project and Alternatives are expected to occur during the short-term construction phase, as this phase would generate the greatest number of vehicle trips to the road network. Workers are expected to commute to work over local roads and I-10. Deliveries to and from the solar energy facilities are expected to be by truck; there are no intermodal facilities close to the Project area that would allow transport of materials by rail. This analysis focuses on potential impacts related to the construction, operation, maintenance, and decommissioning of the Project on the surrounding transportation systems and roadways. Impacts to local transportation systems were evaluated based on the level of service (LOS) determinations.

This assessment of transportation-related impacts is based on evaluations and technical analyses designed to compare the conditions without the Project and construction of the Project and Alternatives, as well as cumulative effects. Operation of the proposed Project would require 12 permanent full-time employees, which would not a substantial or considerable number of trips above those already generated by the exiting agricultural operations on the Project area. However, the construction phase of the Project would include trips generated by construction workers and supplies delivered by trucks to the Project area. Decommissioning activities are anticipated to be similar to construction, but less intense.

Project Construction Trip Generation Forecast

The Project is expected to generate a maximum of 20 truck deliveries per day for the 24-month peak construction period. Transport truck deliveries would include material deliveries and equipment. The calculations below account for heavier vehicle types (trucks) by converting truck trips to passenger car equivalents (PCEs), which are used in roadway capacity analysis to convert a mixed vehicle flow into an equivalent passenger car flow. This calculation is relevant to capacity and LOS determination, lane requirements, and determination of the effect of traffic on roadway operations.

In addition, the Project would employ a construction workforce of approximately 300 to 500 workers. Construction of the Project would take approximately 36 months, with peak construction occurring over a 24-month period. The Project would require an average construction workforce of 40 workers at the beginning of construction and a peak of 500 workers during the 24-month peak construction period of the solar array, substations, O&M buildings, and the 230 kV gen-tie line and fiber optic cable, with a tapering of fewer employees thereafter.

This Draft EIR/EA analysis considers that possibility that workers could travel about one hour in each direction to the Project area. It is likely that most of the construction workforce would be derived from communities located within Riverside County, which has the largest concentration of construction workers in proximity to the Project area. The majority of the projected construction workforce would likely seek housing closer to the Project area (within an hour driving distance) or seek temporary housing (such as seasonal, recreational, or occasional use housing; long-term visitor areas; and hotel and motels) during the week and commute home over the weekend. Therefore, based on the origin-location of construction workers commuting to and from the Project area, it is anticipated that 30 percent of the workers would originate from the west and 70 percent from the east. Although construction work hours would occur from 7:00 a.m. to 6:00 p.m., construction workers would commute to and from the Project area outside of the typical peak commute periods (7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m.). This analysis conservatively assumes all construction workers would commute during the aforementioned peak traffic periods.

Heavy equipment would be delivered via trucks, using Neighbours Boulevard from I-10 to the north and Riverside Drive and Seeley Avenue from the south. Based on the configuration of Project components within the solar facility site, it is anticipated that 60 percent of the traffic would use the Seeley Avenue access point and 40 percent of the traffic would use the Riverside Drive access point.

The Project would generate a total of 1,164 trips daily, including 429 trips during the a.m. peak hour and 429 trips during the p.m. peak hour. Table 4.2.14-1 lists the daily inbound and outbound trips that would result from peak construction during the a.m. and p.m. peak hours.

Table 4.2.14-1 Daily and Peak-Hour Trips During Peak Construction

	DAILY PCE	AM PEAK HOUR	PM PEAK HOUR
Employee Trips	884	400 inbound	400 outbound
Truck Trips	103	6 inbound	6 inbound
		5 outbound	5 outbound
Ancillary Trips	177	9 inbound	9 inbound
		9 outbound	9 outbound
Net Project Trips (PCEs)	**1,164**	**429 PCE**	**429 PCE**

Source: KOA 2013.
Note: peak hours do not coincide with the departure time of employees but, to be conservative, were included in the analysis

The identification of probable routes that would be utilized by the Project's construction traffic considered the originating location of the construction workforce, proposed land use, and surrounding regional access routes. The Project's regional construction traffic distribution on I-10 approaching Neighbours Boulevard is anticipated to include 70 percent approaching from the west and 30 percent approaching from the east. The Project's local traffic distribution would be approximately 60 percent of the construction traffic using the Seeley Avenue access point and 40 percent using the Riverside Avenue access point. As part of the proposed Project, the primary access routes (Seeley Avenue and Riverside Drive) would be improved for emergency vehicle access.

2015 Conditions

The Project's construction phase would produce the highest amount of traffic; the Project's operational traffic would be similar to existing conditions. Construction is anticipated to occur between 2013 and 2016, with the highest-intensity period occurring in 2014 and 2015. To ensure a conservative analysis that captures the Project's most intense traffic phase, and to ensure that the analysis does not understate the amount of traffic that would already be using the roadways at the time of that most intense phase, the year 2015 was selected as the traffic analysis year for purposes of measuring Project impacts.

In order to acknowledge regional traffic growth for the 2015 conditions, an ambient/background traffic growth rate was applied to the existing 2011 traffic volumes. Please refer to Chapter 3, Section 3.2.14, *Traffic and Transportation*, for a discussion regarding the existing (2011) traffic volumes. The ambient growth in the Project area is anticipated to increase at a rate of about two percent per year (see the County of Riverside's Scoping Agreement for the *Traffic Impact Study* found in Appendix J). Assuming a completion date within four years, these traffic counts were adjusted upward by eight percent to reflect area-wide growth expected to occur by 2015. Accordingly, the without-Project traffic referenced in the tables below includes the traffic measured in traffic counts, traffic generated by projects that are projected to be completed by 2015, and projects projected to be in construction by 2015. Traffic volumes may fluctuate from minute to minute within the peak periods. Therefore, a peak hour factor was added to the hourly traffic volumes and ambient growth, which simulates the higher 15-minute peak period volume for the entire peak period. The existing peak hour factor (ranging from 0.0 to 1.0) was obtained from existing traffic count information and applied to all intersections for the existing and 2015 Conditions.

CEQA Significance Criteria

The criteria used to determine the significance of the Project-related traffic and transportation impacts are based on the criteria identified in the CEQA Guidelines, Appendix G. Project-related impacts would be considered significant if they would:

TRA-1) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit.

TRA-2) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways; conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways.

TRA-3) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks; result in a change in air traffic levels or a change in location and result in substantial safety risks.

TRA-4) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).

TRA-5) Result in inadequate emergency access.

TRA-6) Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities.

The following additional significance criteria from the County of Riverside Environmental Assessment form are used in the analysis. A project could have potentially significant impacts if it would:

TRA-7) Alter waterborne, rail or air traffic.

TRA-8) Cause an effect, or a need for new or altered maintenance of roads.

TRA-9) Cause an effect upon circulation during the project's construction.

TRA-10) Affect bike trails.

Level of Service Criteria

In addition to the CEQA Thresholds, an intersection LOS analysis was conducted to assess operational performance of the traffic study area (defined in Chapter 3, Section 3.2.14, *Transportation and Traffic*) during construction. For LOS, the applicable significance thresholds were based on Caltrans requirements, Riverside County Transportation Commission's (RCTC) 2011 Congestion Management Program (CMP), County of Riverside requirements, and City of Blythe requirements.

Caltrans has identified a target LOS at the transition between LOS C and LOS D on State highway facilities; however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS.

Riverside County's CMP specifies that all CMP roadways operate at an LOS threshold of E. Within the traffic study area, which includes four intersections (described in Chapter 3, Section 3.2.14, *Traffic and Transportation*), Neighbours Boulevard (State Route 78) has been identified as a key element of the CMP system. Based on the CMP, a significant traffic impact occurs: (1) when existing pre-Project LOS A, B, C, and D become LOS E or F with the Project; or (2) when the existing pre-Project LOS E becomes LOS F with the Project.

The Riverside County Circulation Element Policy C2.1 states that the County must maintain a target LOS C along County-maintained roads and conventional state highways. Therefore, a significant local impact to the County would occur if the pre-Project (base) LOS A, B, or C roadway became LOS D, E, or F. LOS E may be allowed in designated community centers to the extent that it would support transit-oriented development and walkable communities.

The City of Blythe strives to maintain LOS B on residential streets and LOS C or better on arterial and collector streets, at all intersections, and on principal arterials in the CMP during peak hours.

NEPA Requirements

The NEPA evaluation herein provides an analysis of potential direct and indirect effects on traffic and transportation provided within the same context of the CEQA significance criteria described above.

Applicable Best Management Practices

As part of the Project and Alternatives, the following applicable BMPs would minimize the environmental impacts to traffic and transportation. The full BMPs have been detailed below (see also Table 2-4 in Chapter 2) and are further referenced (by number) within the impact discussion.

NUMBER	BMP DESCRIPTION
BMP-4	**Fire Management and Protection Plan.** As required by existing law (Title 8 California Code of Regulations [CCR] Section 3221), a Fire Management and Protection Plan would be developed in consultation with the Riverside County Fire Department to identify potential hazards and accident scenarios that would exist at the facility during construction, operation, maintenance, and decommissioning of the Project. The Plan would include the identification of the following: potential fire hazards and ignition sources; proper handling and storage of potential fire hazards; control of potential ignition sources; persons responsible for equipment and systems maintenance; location of portable fire extinguishers; automatic sprinkler fire suppression system; water-spray fire system; coordination with local fire department; and recordkeeping requirements.
BMP-5	**Emergency Action Plan.** As required by Title 8 CCR Section 3220, the Project would develop a site-specific operations phase Emergency Action Plan. The operations Emergency Action Plan would address potential emergency situations requiring emergency response and/or planned evacuation. The plan would describe accident scenarios, evacuation routes, alarm systems, points of contact, assembly areas, responsibilities, and other actions to be taken in the event of an emergency. In particular, the plan would describe arrangements with local emergency response agencies.
BMP-14	**Travel and traffic.** Vehicular traffic on-site shall be confined to existing or designated travel routes and designated work areas. Access to the construction site and staging areas shall be limited to authorized vehicles and only through the designated roads. The extent of habitat disturbance during construction shall be reduced by keeping vehicles on access roads and minimizing foot and vehicle traffic through undisturbed areas. To the extent practical, travel shall be limited to stabilized roads. Road maintenance activities shall avoid blading existing forbs and grasses in ditches and adjacent to roads. Abandoned roads and roads no longer needed shall be subsoiled to increase infiltration and reduce soil compaction, then recontoured and revegetated. Construction traffic shall avoid unpaved surfaces to the extent practical (to reduce the risk of compaction) and reduce speed to lessen fugitive dust emissions. On unpaved or unstabilized surfaces within the construction site, speed limits (e.g., 20 mph) shall be posted with visible signs and enforced to minimize airborne fugitive dust. Project vehicle speeds shall be limited in areas occupied by special-status animal species. Traffic shall stop to allow wildlife to cross roads. Shuttle vans or carpooling shall be used to reduce the amount of traffic on access roads. Workers shall be trained to comply with the speed limit, use good engineering practices, minimize the drop height of materials, and minimize the number and extent of disturbed areas. The Project developer shall enforce these requirements.

NUMBER	BMP DESCRIPTION
BMP-15	**New access roads and parking lots.** New access roads shall be designed and constructed to the appropriate road design standards, such as those described in BLM Manual 9113 or County standards, whichever is applicable. New access roads shall be designed to follow natural land contours in the Project area and avoid existing desert washes. The specifications and codes developed by the U.S. Department of Transportation (DOT) and County of Riverside Transportation Department are also to be taken into account. Primary access roads and parking lots shall be surfaced with aggregate that is hard enough that vehicles cannot crush it and thus cause dust or compacted soil conditions. Paving may also be used on access roads and parking lots. Alternatively, chemical dust suppressants or durable polymeric soil stabilizers would be used on these locations.

Alternative 1: Proposed Project

Direct and Indirect Effects

Construction

The primary transportation impacts anticipated from the proposed Project would occur from commuting worker traffic along I-10, a regional traffic corridor, and local roads within the Project vicinity. I-10 is a four-lane highway in the vicinity of the proposed Project with a capacity of 8,000 vehicles per hour (Caltrans 2012). I-10 currently operates at LOS C east and west of Neighbours Blvd, also referred to as State Route 78 (BrightSource 2011). In 2015, with and without Project construction, it is anticipated that the same segment of I-10 would operate at LOS C (BrightSource 2011).

The traffic study area includes four intersections that were identified as having the potential for impacts to occur from the construction, operation, maintenance, and decommissioning of the proposed Project. Table 4.2.14-2 documents the 2015 Conditions and anticipated delays and LOS at each of the intersections with and without Project construction. All four intersections during the 2015 without Project scenario during the a.m. and p.m. peak hours would operate at LOS A. With the exception of Intersection 1 (Riverside Drive and Neighbours Boulevard), during the 2015 Conditions with Project construction all intersections would operate at LOS B during the a.m. and p.m. peak hours. LOS B represents reasonably free-flow operation where the ability to maneuver within the traffic stream is slightly restricted but still an acceptable condition. Intersection 1 (Riverside Drive and Neighbours Boulevard) during the a.m. peak hour would operate at LOS C, which represents a traffic flow near or at free-flow speed where the ability to maneuver through lanes is noticeably restricted and lane changes require more driver awareness; during the p.m. peak hour it would operate at LOS B. The County of Riverside has identified LOS C as acceptable along County-maintained roads and conventional state highways. The City of Blythe strives to maintain LOS B on residential streets and LOS C or better on arterial and collector streets, at all intersections, and on principal arterials in the CMP during peak hours. Therefore, all four intersections within the study area would operate at an acceptable LOS without or with the Project.

Construction of the proposed Project would generate additional traffic on regional and local roadways. Construction worker commute trips and equipment and materials deliveries would increase existing traffic volumes in the Project area.

As described above, Riverside County Circulation Element Policy C2.1 states that the County must maintain a Countywide Target LOS C along County-maintained roads and conventional state highways, except that:

- LOS D may be allowed in Community Development area, only at intersections of any combination of Secondary Highways, Major Highways, Arterials, Urban Arterials, Expressways, conventional state highways or freeway ramp intersections.
- LOS E may be allowed in designated community centers to the extent that it would support transit-oriented development and walkable communities.

As such, impacts to roadways would occur when the addition of Project traffic causes roadway operations to degrade from an acceptable level (LOS C or better) to an unacceptable level (LOS D or worse). Intersections under joint jurisdiction with Caltrans may operate at an LOS of E.

As shown below in Table 4.2.14-2, the addition of Project construction-related traffic to the regional roadway network is expected to increase the delay at all intersections by 1.1 to 7.4 seconds and the LOS of these intersections would remain within the County target of LOS C or better. Drivers along these roadways would not be expected to experience substantial noticeable delays with the addition of Project-related construction traffic.

Table 4.2.14-2 2015 Conditions

INTERSECTION	WITHOUT PROJECT CONSTRUCTION		WITH PROJECT CONSTRUCTION		DELAY (SECONDS)	SIGNIFICANT UNDER CEQA
	Delay (seconds)	LOS	Delay (seconds)	LOS		
AM Peak Hour						
1. Riverside Dr & Neighbours Blvd*	9.0	A	16.4	C	7.4	No
2. I-10 WB Ramp & Neighbours Blvd*	9.0	A	11.1	B	2.1	No
3. I-10 EB Ramp & Neighbours Blvd*	9.2	A	11.2	B	2.0	No
4. Seeley Ave & Neighbours Blvd*	9.5	A	10.6	B	1.1	No
PM Peak Hour						
1. Riverside Dr & Neighbours Blvd*	8.6	A	10.2	B	1.6	No
2. I-10 WB Ramp & Neighbours Blvd*	9.5	A	12.5	B	3.0	No
3. I-10 EB Ramp & Neighbours Blvd*	9.6	A	13.8	B	4.2	No
4. Seeley Ave & Neighbours Blvd*	9.9	A	12.9	B	3.0	No

Source: KOA 2013.
Note: *Unsignalized Intersection; WB – westbound; EB – eastbound.

Project-generated traffic, especially heavy truck traffic, would accelerate the rate of deterioration of public roads traveled. The contribution of the proposed Project to road deterioration would be negligible on I-10 because Project-generated traffic would be a small portion of total traffic. However, effects on local roads could be more pronounced. Effects would be reduced with implementation of Mitigation Measure Traffic-2, which would require the Project owner to restore roads to pre-construction conditions. Levels of congestion (delay) at on- and off-ramps along I-10 could be adversely affected due to the temporary influx of construction-related traffic; however, even a worst-case scenario would not likely exceed the capacity of I-10, which in this area has two lanes in both directions to accommodate the anticipated increase in traffic while maintaining adequate traffic flow along the freeway.

Pedestrian and Bicycles

As described in Chapter 3, Section 3.2.14, *Traffic and Transportation,* pedestrian facilities and bicycle lanes do not exist throughout the proposed Project study area. The existing pedestrian network does not provide sidewalks connecting adjoining land uses along Neighbours Boulevard, Riverside Drive, and Seeley Avenue.

Transit and Rail

The Palo Verde Valley Transit Agency (PVVTA) operates Routes 3, 4, and 5 along Neighbours Boulevard north and south of I-10. Routes 3, 4, and 5 travel along Hobson Way, which passes through the Project location and heads west towards Mesa Verde. There is a stop adjacent to the Project at the intersection of Hobson Way and Buck Boulevard. Routes 3 and 5 run along Neighbours Boulevard towards Ripley, with stops on the corner of Hobson Way and 14th Avenue along Neighbours Boulevard. The Project would

not directly affect the ability of the PVVTA to use any of their existing routes or stops since road closures and detours are not anticipated for this Project.

The Arizona and California Railroad is approximately five miles from the Project area; however, it does not service the Blythe area. Therefore, construction of the Project would not impact rail service.

Airport Service

Blythe Airport is a public airport, approximately 0.5 mile west of the proposed Project that serves Riverside County. The Blythe Airport does not have regularly scheduled passenger service, and delivery of construction materials is expected to occur by truck; therefore, construction of the Project would not result in an increase in airport service. Additionally, the Project would not utilize equipment that would create obstructions or impact operations at the Blythe Airport. For potential impacts to Blythe Airport operations regarding reflection and glare and hazards, please refer to Section 4.2.1, *Aesthetics*, and Section 4.2.8, *Hazards and Hazardous Materials*.

Parking

Construction workers would park personal vehicles on-site, where adequate parking space would be provided. The anticipated construction activities would not eliminate any existing parking spaces and result in parking deficiencies. Heavy equipment would be parked and maintained at construction sites, and all utility trucks would park in the construction yards. There would be sufficient parking for all employees, visitors, service vehicles, and contractors on-site during the construction, operation and maintenance, and decommissioning of the Project.

School

Construction truck traffic may have some effect on school children in the area (children being picked up or dropped off on local roads near the proposed Project area). Students utilizing the I-10, Neighbours Boulevard, and Hobson Way may experience delays. However, construction hours would be 7:00 a.m. to 6:00 p.m., and workers are projected to commute generally before and after normal school hours.

Emergency Access

The Project would not require any road closures or result in impacts to emergency vehicles; however, Seeley Avenue and Riverside Drive would be improved for emergency vehicle access. Construction traffic would be confined to designated travel routes (BMP-14). Interior access roads within the solar facility site would be constructed to allow sufficient access for fire trucks and emergency responders (BMP-15). A Fire Management and Protection Plan (BMP-4) and Emergency Action Plan (BMP-5) would be prepared in cooperation with the Riverside County Fire Department and emergency responders. Access gates and internal access roads within the solar facility site would be identified. Therefore, impacts to emergency vehicles would be minimized.

With the addition of Project construction traffic, all intersections and roadways segments analyzed would operate at acceptable service levels (LOS C or better). Therefore, construction traffic would not result in adverse effects to access to the proposed Project area (including movement of emergency vehicles) or nearby land uses.

Conflict with Applicable Congestion Management Program or other Plans and Policies

The Regional Transportation Plan (RTP) is a multi-modal, long-range planning document prepared by the Southern California Association of Governments (SCAG), in coordination with federal, State, and other regional, subregional, and local agencies in Southern California. The RTP includes programs and policies for congestion management, transit, bicycles and pedestrians, roadways, freight, and finances. The Riverside County CMP was established to more directly link land use, transportation, and air quality and to prompt reasonable growth management programs that would more effectively utilize new and existing transportation funds, alleviate traffic congestion and related impacts, and improve air quality. The

proposed Project involves construction of a renewable energy generation facility that would not involve construction of new transportation facilities or substantial alteration of existing transportation facilities. There are no pedestrian or public transit facilities in the vicinity of the proposed Project. As discussed above, Project construction traffic would not reduce the LOS of area facilities below LOS C. Therefore, the Project would not conflict with the applicable RTP or CMP.

Operation

Operation of the Project would require 12 permanent full-time employees, which would not generate a significant number of trips above existing agricultural operations on the Project area. Impacts to the existing transportation network are not anticipated.

The Project would be approximately 0.5 mile from the Blythe Airport and may create potential glare impacts and obstructions from the 230 kV gen-tie line to the Blythe Airport. Although solar panels are designed to absorb the sunlight, the panels have the potential to cause glare/reflection impacts to the Blythe Airport. Please refer to Section 4.2.1, *Aesthetics, Visual Resources, and Reflection*, for a discussion regarding glare impacts to the Blythe Airport operations. For a discussion regarding potential hazards and obstructions that would result from the operation of the 230 kV gen-tie line, please refer to Section 4.2.8, *Hazards and Hazardous Materials*.

Decommissioning

At the end of the Project's useful life, it would require decommissioning. Decommissioning activities would include removal of the solar facility and dismantling of the 230 kV gen-tie. These activities would require similar types of equipment and a workforce that is similar to construction, but would be less than that of peak construction. It is anticipated that traffic and transportation impacts from decommissioning activities would be similar but less intense to that of construction.

Application of CEQA Significance Thresholds

TRA-1) Would the Project conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

The proposed Project would not conflict with the Riverside County CMP, Regional Comprehensive Plan and RTP, County of Riverside General Plan, and City of Blythe General Plan in regards to applicable plans, ordinances, or policies establishing measures of effectiveness for the performance of the circulation system. With construction of the proposed Project, I-10 would operate at LOS C and all study intersections would operate at LOS B or C, which does not exceed the thresholds established in the aforementioned plans. Implementation of BMPs -4, -5, -14, and -15 would minimize impacts to transportation and traffic. Implementation of Mitigation Measures Traffic-1 through Traffic-3 would reduce impacts to less than significant. The operational Project impacts are expected to be nominal. Project construction and decommissioning would not have long-term significant traffic impacts on the transportation network, since construction- and decommissioning-related impacts are considered temporary.

TRA-2) Would the Project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways; conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

The RCTC's adopted minimum LOS threshold is LOS E. Therefore, when a CMP street or highway segment falls to LOS F, a deficiency plan must be required. Construction of the

proposed Project would reduce the existing LOS A to LOS B or C for the four study intersections. Therefore, the Project would not conflict with an applicable congestion management program including, but not limited to, LOS standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways. Operational Project impacts to traffic would be nominal. Impacts would be less than significant.

TRA-3) Would the Project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks; result in a change in air traffic levels or a change in location and result in substantial safety risks?

The Project would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. Construction equipment that would be utilized for the Project would not obstruct the navigable air space. No impacts would occur.

TRA-4) Would the Project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The Project would not result in substantially increased hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Refer to Section 4.2.1, *Aesthetics, Visual Resources, and Reflection*, for a discussion regarding potential glare impacts related to the solar panels. For impacts related to potential hazards and obstructions to Blythe Airport operations that would result from the operation of the 230 kV gen-tie line, refer to Section 4.2.8, *Hazards and Hazardous Materials*. The Project would not result in incompatible uses with adjacent or nearby agricultural operations (refer to Section 4.2.2, *Agriculture*). Impacts would be less than significant.

TRA-5) Would the Project result in inadequate emergency access?

The Project would not result in inadequate emergency access. No road closures are anticipated for the Project; however, Seeley Avenue and Riverside Drive would be improved for emergency vehicle access. Construction traffic would be confined to designated travel routes (BMP-14). Interior access roads within the solar facility site would be constructed to allow sufficient access for fire trucks and emergency responders (BMP-15). A Fire Management and Protection Plan (BMP-4) and Emergency Action Plan (BMP-5) would be prepared in cooperation with the Riverside County Fire Department and emergency responders. Access gates and internal access roads within the solar facility site would be identified. Implementation of BMPs would minimize impacts to emergency access. Accordingly, impacts to emergency access would be less than significant.

TRA-6) Conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

The Project would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. The Project area does not contain bicycle or pedestrian facilities. Because it is in an area surrounding by agricultural uses, proposed and approved solar power plants, and the airport, which lie miles apart, bicycles and walking are not a major means of transportation and substantial bicycle or pedestrian use is not projected in the future. Accordingly, the Project would not interfere with bicycle or pedestrian safety. As shown in Table 4.2.14-2, construction traffic would increase delays at the four intersections (approximately 16.4 seconds at Intersection 1; 11.1 seconds at Intersection 2; and 11.2 seconds at Intersection 3). The PVVTA operates Routes 3, 4, and 5 along Neighbours Boulevard north and south of I-10and it is anticipated that buses would experience the delays mentioned above. Therefore, impacts to public transit would be less than significant.

TRA-7) Would the Project alter waterborne, rail or air traffic?

The Project would not alter waterborne, rail, or air traffic. The Project would not utilize waterborne, rail, or air services to transport materials or the workforce; therefore, no impacts to waterborne, rail or air traffic would occur.

TRA-8) Would the Project cause an effect, or a need for new or altered maintenance of roads?

The Project would improve Seeley Avenue and Riverside Drive; however, these roads are currently maintained by the County of Riverside and would not cause an effect or need for new or altered maintenance of roads. The construction and operation of the gen-tie line would utilize the existing transmission line access roads and maintenance of roads would be similar to existing conditions. No impacts would occur.

TRA-9) Would the Project cause an effect upon circulation during the project's construction?

The Project would adversely affect circulation during the Project's construction; however, such effects would be less than significant.

TRA-10) Would the Project affect bike trails?

The Project would not adversely affect bike trails.

Alternative 2: No Project Alternative

Under the No Project Alternative, gen-tie facilities would not be constructed on BLM-managed lands and solar facilities would not be constructed on private lands. The public lands in the Project area would continue to be managed by BLM in accordance with existing land use designations in the CDCA Plan, whereas the private lands would continue to be managed for agricultural production. Alternative 2 would not contribute to traffic and transportation impacts.

Alternative 3: Northern Alternative 230 kV Gen-tie Line Location

Alternative 3 would be similar to Alternative 1, with the exception of the location of the proposed 230 kV gen-tie line. Alternative 3 would shift the gen-tie line to the north relative to the proposed Project's gen-tie line. Although the Alternative 3 gen-tie line would be slightly longer than the proposed Project's gen-tie line, activities associated with construction, operation, maintenance, and decommissioning of this Alternative would have the same impacts as Alternative 1.

Application of CEQA Significance Thresholds

TRA-1) Would Alternative 3 conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Alternative 3 would not conflict with the Riverside County CMP, Regional Comprehensive Plan and RTP, County of Riverside General Plan, and City of Blythe General Plan in regards to applicable plans, ordinances, or policies establishing measures of effectiveness for the performance of the circulation system. With construction of Alternative 3, I-10 would operate at LOS C and all study intersections would operate at an LOS B or C, which does not exceed the thresholds established in the aforementioned plans. The operational Alternative 3 impacts are expected to be nominal. Alternative 3 construction and decommissioning would not have long-term significant traffic impacts on the transportation network, since construction- and decommissioning-related impacts are considered temporary. Implementation of BMPs would minimize impacts to traffic and transportation. With implementation of Mitigation Measures

Traffic-1 through Traffic-3, impacts to the circulation system and potential conflicts with applicable plans, ordinances, and policies would be less than significant.

TRA-2) Would Alternative 3 exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways; conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

For the four study intersections, construction of Alternative 3 would reduce the existing LOS A to LOS B or C, but would not exceed the RCTC's adopted threshold of LOS E. Therefore, Alternative 3 would not conflict with an applicable congestion management program including, but not limited to, LOS standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways. Operational Alternative 3 impacts to traffic would be nominal. Impacts would be less than significant.

TRA-3) Would Alternative 3 result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks; result in a change in air traffic levels or a change in location and result in substantial safety risks?

Alternative 3 would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. Construction equipment that would be utilized for the Project would not obstruct the navigable air space. No impacts would occur.

TRA-4) Would Alternative 3 substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Alternative 3 would not result in substantially increased hazards due to a design feature or incompatible uses. No impacts would occur.

TRA-5) Would Alternative 3 result in inadequate emergency access?

Alternative 3 would not result in inadequate emergency access. No road closures are anticipated for the Project; however, Seeley Avenue and Riverside Drive would be improved for emergency vehicle access. Construction traffic would be confined to designated travel routes (BMP-14). Interior access roads within the solar facility site would be constructed to allow sufficient access for fire trucks and emergency responders (BMP-15). A Fire Management and Protection Plan (BMP-4) and Emergency Action Plan (BMP-5) would be prepared in cooperation with the Riverside County Fire Department and emergency responders. Access gates and internal access roads within the solar facility site would be identified. Therefore, impacts to emergency access would be minimized. Impacts would be less than significant.

TRA-6) Would Alternative 3 conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Alternative 3 would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. The Project area does not contain bicycle or pedestrian facilities. Because it is in an area surrounding by agricultural uses, proposed and approved solar power plants, and the airport, which lie miles apart, bicycles and walking are not a major means of transportation and substantial bicycle or pedestrian use is not projected in the future. Accordingly, Alternative 3 would not interfere with bicycle or pedestrian safety. As shown in Table 4.2.14-2, construction traffic would increase delays at the four intersections (approximately 16.4 seconds at Intersection 1; 11.1 seconds at Intersection 2; and 11.2 seconds at Intersection 3). The PVVTA operates Routes 3, 4, and 5 along Neighbours Boulevard north and south of I-10and it is

anticipated that buses would experience the delays mentioned above. Therefore, impacts to public transit would be less than significant.

TRA-7) Would Alternative 3 alter waterborne, rail or air traffic?

Alternative 3 would not alter waterborne, rail, or air traffic. Alternative 3 would not utilize waterborne, rail, or air services to transport materials or the workforce; therefore, no impacts to waterborne, rail, or air traffic would occur.

TRA-8) Would Alternative 3 cause an effect, or a need for new or altered maintenance of roads?

Alternative 3 would not cause an effect or need for new or altered maintenance of roads. The construction and operation of the gen-tie line would utilize the existing transmission line access roads and maintenance of roads would be similar to existing conditions. No impacts would occur.

TRA-9) Would Alternative 3 cause an effect upon circulation during Alternative 3's construction?

Alternative 3 would adversely affect circulation during construction; however, impacts would be less than significant.

TRA-10) Would Alternative 3 affect bike trails?

Alternative 3 would not adversely affect bike trails.

Alternative 4: Southern Alternative 230 kV Gen-tie Line Location

Alternative 4 would be similar to Alternative 1, with the exception of the location of the proposed 230 kV gen-tie line. The Alternative 4 gen-tie line would be shifted to the south relative to the proposed Project's gen-tie line. The portion of the 230 kV gen-tie line that would extend from the solar facility to the Colorado River Substation, approximately three miles of the Southern 230 kV Alternative, would not parallel existing transmission lines and would require construction of new access roads for the construction and operation of the gen-tie line. Although the Alternative 4 gen-tie line would be slightly longer than the proposed Project's gen-tie line, activities associated with construction, operation, maintenance, and decommissioning of Alternative 4 would have similar impacts on traffic and transportation as Alternative 1 (proposed Project).

Application of CEQA Significance Thresholds

TRA-1) Would Alternative 4 conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Alternative 4 would not conflict with the Riverside County CMP, Regional Comprehensive Plan and RTP, County of Riverside General Plan, and City of Blythe General Plan in regards to applicable plans, ordinances, or policies establishing measures of effectiveness for the performance of the circulation system. With construction of Alternative 4, I-10 would operate at LOS C and all study intersections would operate at an LOS B or C, which does not exceed the thresholds established in the aforementioned plans. The operational Alternative 4 impacts are expected to be nominal. Alternative 4 construction and decommissioning would not have long-term significant traffic impacts on the transportation network, since construction- and decommissioning-related impacts are considered temporary. Implementation of BMPs would minimize impacts to traffic and transportation. Implementation of Mitigation Measures Traffic-1 through Traffic-3 would reduce impacts to less than significant levels.

TRA-2) Would Alternative 4 exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways; conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

For the four study intersections, construction of Alternative 4 would reduce the existing LOS A to LOS B or C, but would not exceed the RCTC's adopted threshold of LOS E. Therefore, Alternative 4 would not conflict with an applicable congestion management program including, but not limited to, LOS standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways. Operational Alternative 4 impacts to traffic would be nominal. Impacts would be less than significant.

TRA-3) Would Alternative 4 result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks; result in a change in air traffic levels or a change in location and result in substantial safety risks?

Alternative 4 would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. Construction equipment that would be utilized for the Project would not obstruct the navigable air space. No impacts would occur.

TRA-4) Would Alternative 4 substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

Alternative 4 would not result in substantially increased hazards due to a design feature or incompatible uses. No impacts would occur.

TRA-5) Would Alternative 4 result in inadequate emergency access?

Alternative 4 would not result in inadequate emergency access. No road closures are anticipated for the Project; however, Seeley Avenue and Riverside Drive would be improved for emergency vehicle access. Construction traffic would be confined to designated travel routes (BMP-14). Interior access roads within the solar facility site would be constructed to allow sufficient access for fire trucks and emergency responders (BMP-15). A Fire Management and Protection Plan (BMP-4) and Emergency Action Plan (BMP-5) would be prepared in cooperation with the Riverside County Fire Department and emergency responders. Access gates and internal access roads within the solar facility site would be identified. Implementation of BMPs would minimize impacts to emergency access. Impacts to emergency access would be less than significant.

TRA-6) Would Alternative 4 conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Alternative 4 would not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. The Project area does not contain bicycle or pedestrian facilities. Because it is in an area surrounding by agricultural uses, proposed and approved solar power plants, and the airport, which lie miles apart, bicycles and walking are not a major means of transportation and substantial bicycle or pedestrian use is not projected in the future. Accordingly, Alternative 4 would not interfere with bicycle or pedestrian safety. As shown in Table 4.2.14-2, construction traffic would increase delays at the four intersections (approximately 16.4 seconds at Intersection 1; 11.1 seconds at Intersection 2; and 11.2 seconds at Intersection 3). The PVVTA operates Routes 3, 4, and 5 along Neighbours Boulevard north and south of I-10and it is anticipated that buses would experience the delays mentioned above. Therefore, impacts to public transit would be less than significant.

TRA-7) Would Alternative 4 alter waterborne, rail or air traffic?

Alternative 4 would not alter waterborne, rail, or air traffic. Alternative 4 would not utilize waterborne, rail, or air services to transport materials or the workforce; therefore, no impacts to waterborne, rail, or air traffic would occur.

TRA-8) Would Alternative 4 cause an effect, or a need for new or altered maintenance of roads?

Alternative 4 would require the construction of new access roads for the construction, operation, and maintenance of approximately three miles of the gen-tie line that would extend outside of the solar facility to the Colorado River Substation. The remaining portions of the 230 kV gen-tie line would parallel existing transmission lines and would utilize the existing access roads. Maintenance of these access roads would be similar to existing conditions. Impacts would be less than significant.

TRA-9) Would Alternative 4 cause an effect upon circulation during Alternative 3's construction?

Alternative 4 would temporarily impact circulation during construction; however, impacts would be less than significant.

TRA-10) Would Alternative 4 affect bike trails?

Alternative 4 would not adversely affect bike trails.

Alternative 5: Reduced Acreage Alternative

Similar to Alternative 1, Alternative 5 would include the construction, operation, maintenance, and decommissioning of a solar facility and associated infrastructure. The primary differences between Alternatives 1 and 5 are the absence of solar facility development north of I-10 and that Alternative 5 would be on a reduced footprint of approximately 2,476 acres (from 3,660 acres for the proposed Project). In comparison to Alternative 1, Alternative 5 would eliminate one on-site substation and one O&M building and would have one access point (planned on Seeley Avenue). The Reduced Acreage Alternative would construct an approximately 7.8-mile-long, 230 kV overhead gen-tie line from the proposed on-site substation south of I-10 to the approved Colorado River Substation. Alternative 5 would avoid impacts that would result from the construction, operation, maintenance, and decommissioning of a solar development north of I-10; however, the land on which Alternative 1 is proposed would continue with existing uses.

The Reduced Acreage Alternative solar facility and a portion of the gen-tie line would be within the jurisdiction of the County of Riverside but not within the City limits of Blythe in comparison to the proposed Project. Alternative 5 would need to comply with the RCGP (2003) and PVVAP (2008). The remaining portion of the gen-tie line would traverse lands managed by the BLM and would need to comply with the CDCA Plan. The daily PCEs for Alternative 5 would 953, which is less than that of Alternative 1's (Proposed Project) daily PCEs of 1,164, However, the study intersection of Riverside Drive and Neighbours Boulevard would not be by Alternative 5; therefore, the construction traffic directed south of I-10 rather than north of I-10traffic to remaining three study intersections and would slightly increases to traffic volumes during the construction and decommissioning phase under Alternative 5 in comparison to Alternative 1. Table 4.2.14-2, 2015 Conditions, illustrates that Intersection 2 through Intersection 4, during the a.m. and p.m. peak hours for Alternative 1 are operating at an LOS B with Project construction. It is assumed that this slight increase for Alternative 5 during the construction phase would not degrade traffic volumes from an acceptable level (LOS C or better) to an unacceptable level (LOS D or worse). The operation of Alternative 5 would not exceed those traffic impacts identified under the Alternative 1 analysis.

Direct and Indirect Effects

Construction

Similar to Alternative 1, the primary transportation impacts anticipated from Alternative 5 would occur from commuting worker traffic along I-10, a regional traffic corridor, and local roads within the Alternative 5 vicinity. The Alternative 1 traffic study area included four intersections that were identified as having the potential for impacts to occur from the construction, operation, maintenance, and decommissioning of the proposed Project. Construction of the proposed Project as well as the Reduced Acreage Alternative would generate additional traffic on regional and local roadways. Construction worker commute trips and equipment and materials deliveries would increase existing traffic volumes in the area. Under Alternative 1, all intersections were anticipated to operate at LOS B or C during the a.m. peak hour (Table 4.2.14-1), which represents reasonably free-flow operation where the ability to maneuver within the traffic stream is slightly restricted but still an acceptable condition. In addition, under Alternative 1, during the p.m. peak hour, all four study intersections would operate at LOS B.

As detailed in the Alternative 1 analysis, the County of Riverside has identified LOS C as acceptable along County-maintained roads and conventional state highways. The City of Blythe strives to maintain LOS B on residential streets and LOS C or better on arterial and collector streets, at all intersections, and on principal arterials in the CMP during peak hours. As such, impacts to roadways would occur when the addition of Alternative 5 construction traffic causes roadway operations to degrade from an acceptable level (LOS C or better) to an unacceptable level (LOS D or worse). Intersections under joint jurisdiction with Caltrans may operate at an LOS of E.

Under the traffic analysis for Alternative 1, it was assumed that approximately 60 percent of construction workers would drive alone and 40 percent would carpool. Given this same assumption under Alternative 5, 240 would drive alone and 160 would carpool. Assuming truck deliveries stay same under Alternative 5 in comparison to the proposed Project, and ancillary trips are calculated the same way, the approximate temporary construction trip generation would be as follows.

Table 4.2.14-3 Alternative 5 Daily Construction Trip Generation

TYPES OF TRIPS	DAILY PCE	AM PEAK HOUR			PM PEAK HOUR		
		Total	In	Out	Total	In	Out
Employee Trips	708	320	320	0	320	0	400
Truck Trips	103	11	6	5	11	6	5
Ancillary Trips	142	15	7	8	15	7	8
Net Project Trips (PCEs)	**953**	**346**	**333**	**13**	**346**	**13**	**413**

Source: KOA 2013.

As no solar facility development would occur north of I-10 under Alternative 5, traffic would not impact study Intersection 1 (Riverside Drive and Neighbours Boulevard); however, Intersection 2 (Neighbours Boulevard and I-10 Westbound Ramp) would still be affected. The delay for the intersection would have the potential to increase under Alternative 5 development, as the increased turn volumes for left turns could increase the delay at this location. The westbound ramp would likely have a higher volume off the ramp during the a.m. peak hour at the stop, causing a higher delay as well as a higher queue build-up under Alternative 5. This would also occur for the eastbound ramp. Under Alternative 5, the intersection of Neighbours Boulevard and Seeley Avenue would have an increased delay compared to Alternative 1 due to an increase in construction traffic volume routed south. Although Alternative 5 construction-related traffic would result in comparatively increased traffic volumes and delays to the above-mentioned intersections, it is not expected to increase volumes and delay to unacceptable levels. Similar to Alternative 1, drivers along these roadways would not be expected to experience noticeable delays with the addition of Alternative 5-related construction traffic. With construction of Alternative 5, similar to the proposed Project, it is anticipated that I-10 would operate at LOS C.

Pedestrian and Bicycles

The Alternative 1 analysis would apply to Alternative 5, therefore construction activities associated with Alternative 5 would not adversely affect any pedestrian or bicycle facilities.

Transit and Rail

The PVVTA operates Routes 3, 4, and 5 along Neighbours Boulevard north and south of I-10. Although no development would occur north of I-10 under Alternative 5, the Alternative 1 analysis would apply to Alternative 5 and the Project would not directly affect the ability of the PVVTA to use any of their existing routes or stops since road closures and detours are not anticipated.

Airport Service

Although development would occur south of I-10, farther from Blythe Airport, the Alternative 1 analysis would apply to Alternative 5, and construction activities associated with Alternative 5 would have no affect on airport service.

Parking

The reduced footprint under Alternative 5 would not alter the conclusions found under Alternative 1; as such, the Alternative 1 analysis would apply to Alternative 5 and there would be sufficient parking for all employees, visitors, service vehicles, and contractors on-site during the construction, operation and maintenance, and decommissioning of Alternative 5.

School

As no development would occur north of I-10, the construction truck traffic would be diverted south under Alternative 5. Under the Reduced Acreage Alternative, students utilizing I-10, Neighbours Boulevard, and Hobson Way would not experience delays. In addition, construction hours would be 7:00 a.m. to 6:00 p.m., and workers are projected to commute generally before and after normal school hours.

Emergency Access

Similar to Alternative 1, Alternative 5 would not require any road closures or result in impacts to emergency vehicles; however, in contrast, Riverside Drive would not be improved for emergency vehicle access. Construction traffic would be confined to designated travel routes (BMP-14). Mesa Drive would not be utilized for the construction or operation of the Project, but for emergency access only. Interior access roads within the solar facility site would be constructed to allow sufficient access for fire trucks and emergency responders (BMP-15). A Fire Management and Protection Plan (BMP-4) and Emergency Action Plan (BMP-5) would be prepared in cooperation with the Riverside County Fire Department and emergency responders. Access gates and internal access roads within the solar facility site would be identified. Therefore, impacts to emergency vehicles would be minimized.

As previously concluded, although Alternative 5 construction-related traffic would result in comparatively increased traffic volumes and delays to the above-mentioned intersections, it is not expected to increase volumes and delay to unacceptable levels above those anticipated under Alternative 1. All intersections would operate at acceptable levels. Therefore, construction traffic would not result in adverse effects to access to the Alternative 5 site (including movement of emergency vehicles) or nearby land uses.

Conflict with Applicable Congestion Management Program or other Plans and Policies

The analysis under Alternative 1 would apply to Alternative 5.

Operation

Operation of Alternative 5 would require seven permanent full-time employees, which would not generate a significant number of trips above existing volumes. Impacts to the existing transportation network are not anticipated.

Alternative 5 would not create significant glare impacts and obstructions from the solar facility and the 230 kV gen-tie line to the Blythe Airport. Please refer to Section 4.2.1, *Aesthetics, Visual Resources, and Reflection*, for a discussion regarding glare impacts to the Blythe Airport operations. For a discussion regarding potential hazards and obstructions that would result from the operation of the 230 kV gen-tie line, please refer to Section 4.2.8, *Hazards and Hazardous Materials*.

Decommissioning

The analysis for Alternative 1 would apply to Alternative 5.

Application of CEQA Significance Thresholds

TRA-1) Would Alternative 5 conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Alternative 5 would not conflict with the Riverside County CMP, Regional Comprehensive Plan and RTP, or County of Riverside General Plan in regards to applicable plans, ordinances, or policies establishing measures of effectiveness for the performance of the circulation system. Since Alternative 5 would utilize a similar number of construction workers as Alternative 1, it is anticipated that I-10 would operate at LOS C, and all studied intersections would operate at acceptable levels and would not exceed the thresholds established in the aforementioned plans. Implementation of BMPs -4, -5, -14, and -15 would minimize impacts to traffic and transportation. With implementation of Mitigation Measures Traffic-1 through Traffic-3, impacts would be reduced to less than significant. Alternative 5 construction and decommissioning would not have long-term significant traffic impacts on the transportation network, since construction- and decommissioning-related impacts are considered temporary.

TRA-2) Would Alternative 5 exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways; conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?

The RCTC's adopted LOS threshold is LOS E. Therefore, when a CMP street or highway segment falls to LOS F, a deficiency plan must be required. For the impacted intersections, construction of Alternative 5 would reduce the existing LOS. However, these reductions would not fall into unacceptable levels. Therefore, Alternative 5 would not conflict with an applicable congestion management program including, but not limited to, LOS standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways. Operational impacts to traffic would be nominal. Any potential impacts would be less than significant.

TRA-3) Would Alternative 5 result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks; result in a change in air traffic levels or a change in location and result in substantial safety risks?

Similar to Alternative 1, Alternative 5 would not result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks. Construction equipment that would be utilized for Alternative 5 would not obstruct the navigable air space. No impacts would occur.

TRA-4) Would Alternative 5 substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The TRA-4 analysis for Alternative 1 would apply to Alternative 5.

TRA-5) Would Alternative 5 result in inadequate emergency access?

Similar to Alternative 1, Alternative 5 would not require any road closures or result in impacts to emergency vehicles; however, in contrast, Riverside Drive would not be improved for emergency vehicle access. Construction traffic would be confined to designated travel routes (BMP-14). The Riverside County Operational Area Emergency Operations Plan (RCFD 2006) does not designate emergency evacuation routes; therefore, construction would not impair implementation of, or physically interfere with, an adopted emergency response or evacuation plan. Local roads are unlikely to be used as emergency routes because of the remote location of the site. The main access road to the solar plant would be designed to meet the RCFD requirements. Interior access roads within the solar facility site would be constructed to allow sufficient access for fire trucks and emergency responders (BMP-15). A Fire Management and Protection Plan (BMP-4) and Emergency Action Plan (BMP-5) would be prepared in cooperation with the RCFD and emergency responders. Access gates and internal access roads within the solar facility site would be identified. With implementation of BMPs, impacts to emergency access would be minimized; impacts would be less than significant.

TRA-6) Would Alternative 5 conflict with adopted policies, plans, or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

The TRA-6 analysis for Alternative 1 would apply to Alternative 5.

TRA-7) Would Alternative 5 alter waterborne, rail or air traffic?

The TRA-7 analysis for Alternative 1 would apply to Alternative 5.

TRA-8) Would Alternative 5 cause an effect, or a need for new or altered maintenance of roads?

Alternative 5 would improve Seeley Avenue, not Riverside Drive; however, these roads are currently maintained by the County of Riverside and would not cause an effect or need for new or altered maintenance of roads. Alternative 5 would require the construction of new access roads for the construction, operation, and maintenance of approximately three miles of the gen-tie line that would extend outside of the solar facility to the Colorado River Substation. The remaining portions of the gen-tie line would utilize the existing transmission line access roads and maintenance of roads would be similar to existing conditions. Impacts would be less than significant for maintenance of roads.

TRA-9) Would Alternative 5 cause an effect upon circulation during the project's construction?

Alternative 5 would impact circulation during construction; however, impacts would be less than significant.

TRA-10) Would Alternative 5 affect bike trails?

Alternative 5 not adversely affect bike trails; no impact.

Cumulative Impacts

Geographic Scope

Table 4.1-1 lists the cumulative projects within the vicinity of the Project area that were considered in this cumulative analysis. The geographic scope of the cumulative analysis for traffic and transportation includes the roadways and intersections in the vicinity of the Project area that may be directly or indirectly impacted by construction traffic generated by the proposed Project and Alternatives, which include I-10 and four study intersections. The City of Blythe did not identify any development projects that would add traffic to the intersections analyzed in the study. In coordination with a Riverside County Transportation Department representative, potential cumulative projects within the Project vicinity were identified. Approved traffic studies in the vicinity of the Project area were reviewed to eliminate projects that would not contribute traffic to the study area. The cumulative scenario accounts for construction of multiple large energy projects along the I-10 corridor and developments in the City of Blythe. The County of Riverside identified seven projects listed below that could conceivably be constructed during the year 2015. Table 4.2.14-4 lists cumulative projects that would have the potential to contribute to cumulative impacts.

Projects that would not contribute traffic trips to the four study intersections during the construction of the proposed Project and Alternatives were not analyzed. For example, the approved McCoy Solar Energy Project would utilize the Mesa Interchange; therefore, would not affect the four study intersections. The Blythe Solar Power Project has been suspended; as such, it is very unlikely that construction of this project and the proposed Project would occur simultaneously. It is anticipated that the Desert Quartzite project, which is similar in size and scope as the proposed Project, would require the preparation of an environmental document. To date, the Desert Quartzite project has not issued a Notice of Intent or Notice of Preparation. After issuance of a notice, the preparation of an environmental document may take approximately 12 to 18 months; therefore, peak construction of Desert Quartzite and the BMSP occurring simultaneously is very unlikely.

Should the peak construction schedules of the cumulative projects listed in Table 4.2.14-4 overlap, construction traffic from these projects would result in increased traffic within several miles or more along I-10 and regional roadways. As a conservative analysis, peak construction traffic from these cumulative projects was added to 2015 projected traffic (existing plus ambient growth). This resulted in a 2015-year Cumulative without Project scenario, to which the traffic of each action Alternative was added to the following study intersections:

- Intersection 1: Neighbours Boulevard and Riverside Drive
- Intersection 2: Neighbours Boulevard and I-10 Westbound Ramps
- Intersection 3: Neighbours Boulevard and I-10 Eastbound Ramps
- Intersection 4: Neighbours Boulevard and Seeley Avenue

Temporal Scope

The Project's and Alternatives' construction phases would produce the highest amount of traffic; the operational traffic would be similar to existing conditions. Therefore, the temporal scope of the cumulative impacts for the proposed Project and Alternatives would occur during the construction phase (between 2013 and 2016), with the highest-intensity period occurring in 2014 and 2015. As a conservative cumulative traffic analysis, the Year 2015 was determined to represent the highest traffic volumes for cumulative impacts as a result of the proposed Project and Alternatives.

Although it is very unlikely that the peak construction periods of multiple projects would coincide, as a conservative approach, the cumulative conditions represented below analyze the worst-case scenario. This addresses uncertainty about the timing of construction of other cumulative projects. It is very likely that the cumulative projects would track along different schedules from the proposed Project (and Alternatives) and peak construction would likely not occur at the same time.

Table 4.2.14-4 Cumulative Projects Included in Traffic Analysis

PROJECT NAME/APPLICANT	PROJECT DESCRIPTION	STATUS
Solar/Electric Generating Projects		
Blythe Airport Solar I Project • U.S. Solar EA # 42340	100 MW photovoltaic power plan on 640 acres in five- 20 MW phases that includes a 3,200 ft long 33 kV generation tie.	Approved November 2010
Blythe Energy Project II	520 MW combined-cycle power plant located entirely within the Blythe Energy Project area boundary. Blythe Energy Project II will interconnect with the Buck Substation constructed by the Western Area Power Administration as part of the Blythe Energy Project. Project is designed on 20 acres of a 76-acre site.	Approved 2005 Request for Construction commencement 2011-2016
Palo Verde Mesa Solar Project	437 MW PV solar plant that includes a 14-mile long transmission line to the Colorado River Substation.	Planned NOP issued August 2012
County of Riverside Projects		
PM33797	Schedule H: Divide 2.14 acres into 2 single family residential parcels	Planned
PM34400	Schedule H: Divide 80 acres into 2 single family residential	Planned
PM34759	Schedule H: Divide 34 acres into 3 parcels	Planned
PP23885	Church with accessory outdoor recreation/amphitheater 8,890 square feet Church	Planned

Source: KOA 2013.

Temporal Scope

The Project's and Alternatives' construction phases would produce the highest amount of traffic; the operational traffic would be similar to existing conditions. Therefore, the temporal scope of the cumulative impacts for the proposed Project and Alternatives would occur during the construction phase (between 2013 and 2016), with the highest-intensity period occurring in 2014 and 2015. As a conservative cumulative traffic analysis, the Year 2015 was determined to represent the highest traffic volumes for cumulative impacts as a result of the proposed Project and Alternatives.

Although it is very unlikely that the peak construction periods of multiple projects would coincide, as a conservative approach, the cumulative conditions represented below analyze the worst-case scenario. This addresses uncertainty about the timing of construction of other cumulative projects. It is very likely that the cumulative projects would track along different schedules from the proposed Project (and Alternatives) and peak construction would likely not occur at the same time.

Analysis of Direct and Indirect Impacts

Alternative 1: Proposed Project

Construction

This scenario accounts for construction of multiple large energy projects along the I-10 corridor and developments in the City of Blythe. Should the unlikely condition arise where peak construction of all the cumulative projects listed in Table 4.2.14-4 overlap, construction traffic from these projects would result in increased traffic within several miles or more along I-10 and regional roadways. It is very unlikely that the peak construction periods of multiple projects would coincide, as all projects are tracking on different schedules. For example, the Blythe Energy Project II was approved in 2005, the Blythe Airport Solar I Project was approved in 2010, and the Palo Verde Mesa Solar Project is in the initial stages of planning (Notice of Preparation issued in 2012). There may be some overlap in overall construction schedules (peak and non-peak) for a few cumulative projects and the LOS may decrease, but it would be temporary.

The worst-case scenario would involve peak construction of all the cumulative projects listed above. Table 4.2.14-5, *Cumulative Intersection Conditions*, lists the anticipated delays and LOS conditions that would result with peak construction of the cumulative projects (Cumulative 2015) with and without Project construction during the a.m. and p.m. peak hours. The Cumulative Scenario without Project would result in all study intersections operating at acceptable LOS levels with delays ranging from 9.5 to 16.6 seconds, except Intersection 3 (I-10 Eastbound Ramp and Neighbours Boulevard) during the p.m. peak hour would operate at LOS D and experience delays of 29.0 seconds. The Cumulative Scenario with Project would result in two intersections during the a.m. peak hour operating at unacceptable LOS levels (LOS D and E) and one intersection during the p.m. peak hour would operate at LOS F; delays would range from 10.0 to 126.5 seconds (2.1 minutes). Detailed impacts to each study intersection with the addition of the proposed Project are described below. Table 4.2.14-6, *Cumulative Contribution*, lists each project's contribution (trips and percentage) to the total cumulative trips at the study intersections during the a.m. and p.m. peak hours. Figures 4.2.14-1 and 4.2.14-2 illustrate the peak hour traffic movements for the Cumulative with and without Project Scenarios during the a.m. and p.m. peak hours.

- Intersection 1 (Neighbours Boulevard and Riverside Drive)
  - During the a.m. peak hour would degrade from LOS B to LOS E (unacceptable level) and delays would increase from 14.2 to 40.1 seconds. The major contributors to cumulative impacts at this intersection include the proposed Project (54%) and Palo Verde Mesa Solar Project (43%).
  - During the p.m. peak hour would degrade from LOS A to LOS B and delays would increase from 10 to 13.2 seconds.

- Intersection 2 (Neighbours Boulevard and I-10 Westbound Ramps)
  - During the a.m. peak hour would degrade from LOS C to LOS D (unacceptable level) and delays would increase from 16.6 to 26.2 seconds. The major contributors to cumulative impacts at this intersection include the proposed Project (40%) and Palo Verde Mesa Solar Project (49%).
  - During the p.m. peak hours would degrade from LOS B to LOS C and delays would increase from 13.1 to 20.0 seconds.

- Intersection 3 (Neighbours Boulevard and I-10 Eastbound Ramps)
  - During the a.m. peak hour would operate at LOS B and delays would increase from 11.2 to 14.6 seconds.
  - During the p.m. peak hour would degrade from LOS D (unacceptable level) to LOS F and delays would increase from 29.0 to 126.5 seconds (2.1 minutes).The major contributors to the cumulative impacts at this intersection include the proposed Project (49%) and Palo Verde Mesa Solar Project (38%).

- Intersection 4 (Neighbours Boulevard and Seeley Avenue)
  - During the a.m. peak hour would degrade from LOS A to LOS B and delays would increase from 9.5 to 10.6 seconds.
  - During the p.m. peak hour would degrade from LOS A to LOS B and delays would increase from 9.9 to 13.1 seconds.

Table 4.2.14-5 Cumulative Intersection Conditions (Year 2015)

INTERSECTION	WITHOUT PROJECT		WITH PROJECT CONSTRUCTION		DELAY (SECONDS)	CONSIDERABLE CONTRIBUTION TO CUMULATIVE IMPACT
	Delay (seconds)	LOS	Delay (seconds)	LOS		
AM Peak Hour						
1. Riverside Dr & Neighbours Blvd*	14.2	B	40.1	**E**	25.9	**Yes**
2. I-10 WB Ramp & Neighbours Blvd*	15.6	C	26.2	**D**	10.6	**Yes**
3. I-10 EB Ramp & Neighbours Blvd*	11.2	B	14.6	B	3.4	No
4. Seeley Ave & Neighbours Blvd*	9.5	A	10.6	B	1.1	No
PM Peak Hour						
1. Riverside Dr & Neighbours Blvd*	10.0	A	13.2	B	3.2	No
2. I-10 WB Ramp & Neighbours Blvd*	13.1	B	20	C	6.9	No
3. I-10 EB Ramp & Neighbours Blvd*	29.0	**D**	126.5	**F**	97.5	**Yes**
4. Seeley Ave & Neighbours Blvd*	9.9	A	13.1	B	3.2	No

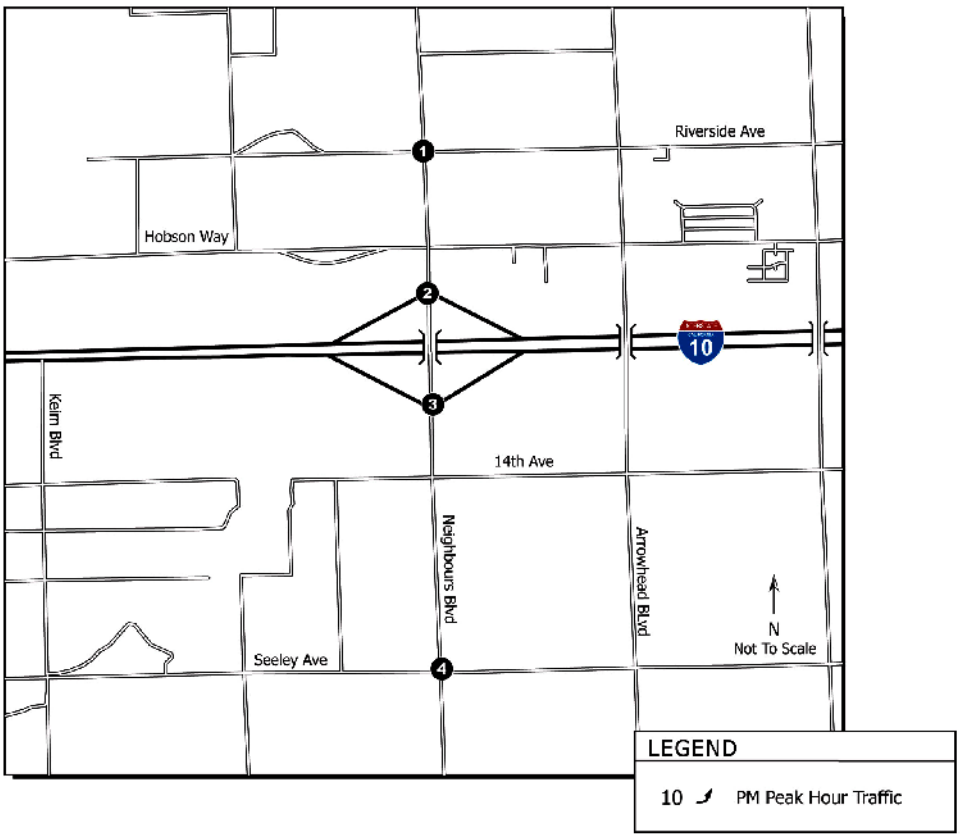
Source: KOA 2013.
Note: *Unsignalized Intersection. WB = westbound; EB = eastbound. Bold font represents unacceptable LOS levels.

Table 4.2.14-6 Cumulative Contribution (Year 2015)*

INTERSECTIONS	BLYTHE MESA		PALO VERDE		BLYTHE ENERGY		BLYTHE AIRPORT SOLAR		OTHER CUMULATIVE PROJECTS		AMBIENT GROWTH		TOTAL
	Trips	% of Total	Trips	% of Total	Trips	% of Total	Trips	% of Total	Trips	% of Total	Trips	% of Total	
AM Peak Hour													
1. Riverside Dr & Neighbours Blvd	172	54%	138	43%	0	0%	3	1%	8	2%	0	0%	321
2. I-10 WB Ramp & Neighbours Blvd	348	40%	429	49%	75	9%	2	0%	7	1%	13	1%	874
3. I-10 EB Ramp & Neighbours Blvd	312	67%	135	29%	3	1%	2	0%	5	1%	12	3%	469
4. Seeley Ave & Neighbours Blvd	257	93%	0	0%	0	0%	2	1%	5	2%	11	4%	275
PM Peak Hour													
1. Riverside Dr & Neighbours Blvd	172	53%	138	43%	0	0%	3	1%	10	3%	0	0%	323
2. I-10 WB Ramp & Neighbours Blvd	252	32%	429	55%	75	10%	3	0%	9	1%	15	2%	783
3. I-10 EB Ramp & Neighbours Blvd	376	49%	295	38%	72	9%	2	0%	5	1%	18	2%	768
4. Seeley Ave & Neighbours Blvd	257	92%	0	0%	0	0%	2	1%	5	2%	15	5%	279

Source: KOA 2013.
* The cumulative contribution percentages for the projects were rounded; therefore, the sum of the percentages may not equal 100 percent.

CUMULATIVE WITHOUT PROJECT



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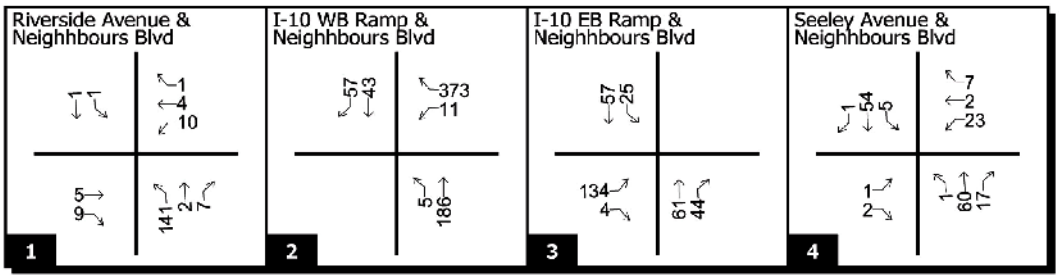

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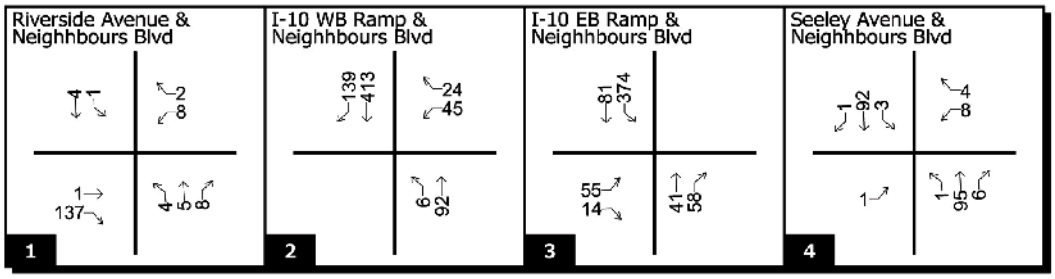

FIGURE 4.2.14-1
CUMULATIVE WITHOUT PROJECT

BLYTHE MESA SOLAR PROJECT

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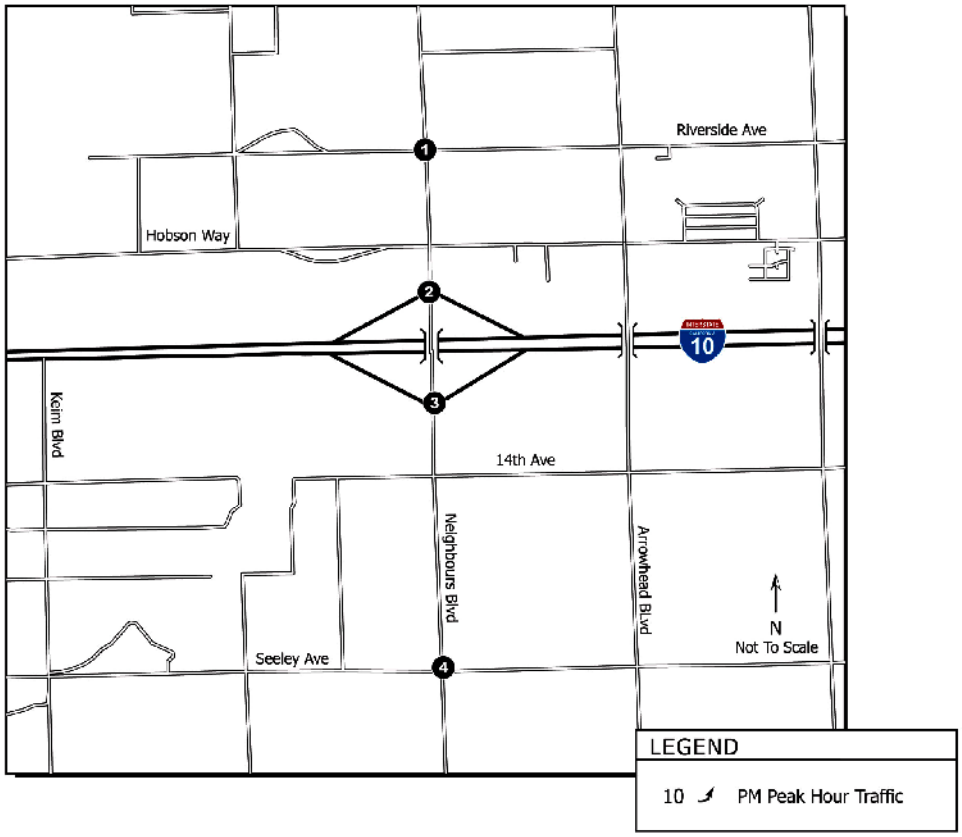
CUMULATIVE WITH PROJECT



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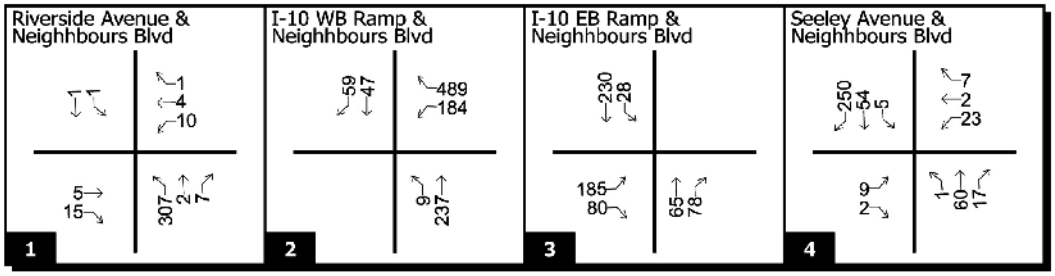

PM

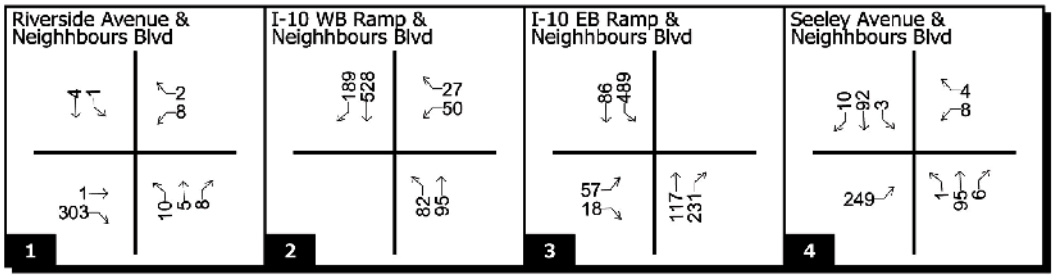

FIGURE 4.2.14-2
CUMULATIVE WITH PROJECT

BLYTHE MESA SOLAR PROJECT

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Comparison of Existing (2011), Anticipated 2015, and Cumulative (2015) Scenarios

The impacts discussed above are related to the construction of numerous solar projects, which is considered temporary; the operational trips (12 full-time employees) related to the solar projects are significantly less than construction. Therefore, it is anticipated that the LOS for all four study intersection would be restored back to preconstruction conditions once construction of these respective projects is completed.

With the addition of more cumulative Project trips, the LOS degrades further and delays increase at each of the four study intersections. Under the existing conditions (2011) scenario, all intersections are operating an LOS A, with intersection delays ranging from 8.6 seconds to 9.8 seconds. With the addition of ambient growth, the anticipated 2015 conditions without Project scenario would still operate at an LOS A and experience intersection delays raging from 8.6 to 9.9 seconds. The 2015 with Project scenario, which would add approximately 429 trips, would result in all study intersections operating at an LOS B, with the exception of the Riverside Drive and Neighbours Boulevard intersection, which would operate at an LOS C during the a.m. peak hour. The intersection delays would range from 10.2 seconds to 16.4 seconds. During the Cumulative without Project scenario (addition of up to 531 cumulative trips) all study intersections would operate at acceptable LOS levels (LOS A through C), except Intersection 3 (Neighbours Boulevard and I-10 Eastbound Ramp) during the p.m. peak hour would operate at LOS D with a delay of 29.0 seconds. During the Cumulative with Project scenario (addition of up to 531 cumulative trips), all intersections would operate at acceptable LOS (LOS B to C), with the exception of Intersection 1 (Neighbours Boulevard and Riverside Drive) and Intersection 2 (Neighbours Boulevard and I-10 Westbound Ramp) during the a.m. peak hour and Intersection 3 (Neighbours Boulevard and I-10 Eastbound Ramp) during the p.m. peak hour.

Of the four study intersections, Intersection 4 (Neighbours Boulevard and Seeley Avenue) would receive the slightest increase in cumulative traffic (275 trips during the a.m. peak hour and 279 trips during the p.m. peak hour). This intersection would also experience the least amount of cumulative impacts and delays, because the proposed Project would contribute 92 percent of the cumulative trips.

Intersection 2 (Neighbours Boulevard and I-10 Westbound Ramp) would experience the greatest increase in cumulative trips (874 trips during the a.m. peak hour and 783 trips during the p.m. peak hour). During the a.m. peak hour, traffic flow would degrade from LOS C to LOS D; delays at this intersection would increase from 16.6 to 26.2 seconds. The proposed Project would be a considerable contributor to cumulative traffic, adding approximately 40 percent of the cumulative traffic. This intersection would operate at acceptable LOS during the p.m. peak hour (degrade from LOS B to LOS C).

Of the four study intersections, Intersection 1 (Neighbours Boulevard and Riverside Drive) during the a.m. peak hour would experience the greatest decrease in LOS—it would degrade from LOS B to LOS E with peak construction of the Project. North and south movements on Neighbours Boulevard are free-flowing. Eastbound and westbound movements on Riverside Avenue are stop-controlled. It would operate at an acceptable LOS during the p.m. peak hour, because as illustrated in Figure 4.2.14-2, most of the traffic (approximately 303 vehicles) from Riverside Drive is headed southbound (right turn) onto Neighbours Boulevard. These vehicles would need to stop, but would experience minimal interruption from five northbound vehicles and four southbound vehicles on Neighbours Boulevard, and eight vehicles from Riverside Drive would head southbound (left turn) onto Neighbours Boulevard. Therefore, traffic during the p.m. peak hour would experience approximately 13.2-second delays. During the a.m. peak hour, Intersection 1 would experience greater delays, because most of the traffic (approximately 307 vehicles) from Neighbours Boulevard would make a left turn onto Riverside Drive. Westbound and eastbound vehicles on Riverside Drive are stop-controlled and need to wait for large gaps to make a movement. This results in greater delays for the ten vehicles from Riverside Drive headed southbound (left turn) onto Neighbours Boulevard and five vehicles traveling eastbound on Riverside Drive. At stop-controlled intersections, left-turn movements are considered critical movements. Neighbours Boulevard, a free-flowing street, would have a very high volume and the critical movements (vehicles from Riverside Boulevard heading southbound) would experience longer delays to find a suitable gap in the traffic to make their turns. Therefore, these vehicles would experience delays approximately 40.1 seconds long,

resulting in an LOS E (unacceptable level). The proposed Project would contribute approximately 54 percent of the cumulative traffic; it would be a considerable contributor to cumulative traffic impacts.

The cumulative scenario for Intersection 3 (I-10 Eastbound Ramp and Neighbours Boulevard) during the p.m. peak hour would experience the greatest delays of the four intersections; it would operate at acceptable LOS B during the a.m. peak hour. The 2015 Cumulative without Project scenario would add 392 trips to Intersection 3 during the p.m. peak hour and would operate at LOS D with intersection delays of 29.0 seconds. The Cumulative with Project scenario would add another 376 trips (768 total cumulative trips) and degrade to LOS F with intersection delays of 126.5 second (2.1 minutes). As illustrated in Figure 4.2.14-2, most vehicles (429) would be traveling southbound from Neighbours Boulevard and then eastbound (left turn) onto the I-10 eastbound ramp. These vehicles would yield to vehicles traveling northbound (117) on Neighbours Boulevard. In addition, 57 vehicles traveling from the I-10 ramp headed north would need to make a critical movement (left turn). These vehicles would experience the greatest delays, because they would need to find a suitable gap in the traffic to make their turns. Therefore, these vehicles would experience delays approximately 126.5 (2.1 minutes) long, resulting in LOS F (unacceptable level). The proposed Project would contribute approximately 49 percent during the p.m. peak hour and would be a considerable contributor to cumulative traffic impacts.

The proposed Project is a considerable contributor to cumulative traffic impacts at three study intersections (Intersection 1 and 2 during the a.m. peak hour and Intersection 3 during the p.m. peak hour); Intersection 4 during the a.m. and p.m. peak hours would not result in cumulatively considerable traffic impacts. I-10 west and east of Neighbours Boulevard (State Route 78) would operate at LOS C. With the construction of the cumulative projects and BMSP, it is anticipated that the freeway would operate within Caltrans' acceptable LOS level.

With implementation of BMPs and mitigation measures, impacts to traffic and transportation would be minimized. Implementation of Mitigation Measure Traffic-1 (Traffic Management Plan) would reduce impacts from the proposed Project. Temporary construction traffic impacts that are cumulatively considerable may be reduced by coordinating construction schedules and staggering the cumulative trips to non-peak hours. With implementation of Mitigation Measures Traffic-1 and Traffic-3, cumulative traffic impacts to Intersections 1 through 3 may be improved to acceptable LOS levels. Table 4.2.14-8 lists the anticipated delays and LOS levels at each of the study intersections with the implementation of staggered construction of all cumulative trips (no staggered trips, 25 percent, 30 percent, and 40 percent). If no trips are staggered, Intersections 1 and 2 would operate at unacceptable LOS during the a.m. peak hour and Intersection 3 would operate at unacceptable LOS during the p.m. peak hour. If 25 percent of the cumulative trips were staggered to off-peak hours, all study intersections would operate at acceptable LOS, except Intersection 3 (Neighbours Boulevard and I-10 Eastbound Ramp), which would operate at LOS E, but experience a reduction in delays from 126.5 to 37.2 seconds. For Intersection 3 to operate at an acceptable LOS, approximately 40 percent of the cumulative trips would need to be staggered. Therefore, the Project's contribution towards temporary, significant cumulative impacts during Project construction would be reduced to less-than-significant levels.

The proposed Project would not substantially increase hazards due to design features or incompatible uses (impact TRA-4). The solar arrays would be fenced in; however, no major arterial roads would be closed and internal access roads within the solar facility site would all have sufficient emergency access. Impacts would not be cumulatively considerable and would be less than significant (impact TRA-5).

Construction traffic would increase delays at intersections, which would impact public transit routes mentioned above during a.m. and p.m. peak hours (impact TRA-6); however, with implementation of Mitigation Measure Traffic-1, the Project's contribution to cumulative impacts would be less than significant.

Operation and Maintenance

Project operation would result in a nominal increase in traffic and would generate substantially less traffic than construction activities. Also, the cumulative projects that would utilize the same intersections would

similarly have a limited workforce for operations. Therefore, no adverse impacts would occur due to traffic generated during the operation phase.

No road closures are anticipated for the Project; however, Seeley Avenue and Riverside Drive would be improved for emergency vehicle access. Interior access roads within the solar facility site would be constructed to allow sufficient access for fire trucks and emergency responders (BMP-15). A Fire Management and Protection Plan (BMP-4) and Emergency Action Plan (BMP-5) would be prepared in cooperation with the Riverside County Fire Department and emergency responders. Access gates and internal access roads within the solar facility site would be identified. Therefore, impacts to emergency vehicles would not be cumulatively considerable significant impacts.

Decommissioning

Decommissioning impacts from the Project would be similar to construction. It is very unlikely that decommissioning of all cumulative projects would occur at the same time; however, it is assumed that decommissioning impacts from the cumulative projects would be similar to construction, but would be less intense and of a shorter duration. Therefore, the Project would not result in cumulatively considerable significant impacts.

Alternative 2: No Project Alternative

Under the No Project Alternative, gen-tie facilities would not be constructed on BLM-managed lands and solar facilities would not be constructed on private lands. The public lands in the Project area would continue to be managed by BLM in accordance with existing land use designations in the CDCA Plan, whereas the private lands would continue to be managed for agricultural production. Alternative 2 would not contribute to cumulative traffic and transportation impacts.

Alternative 3: Northern Alternative 230 kV Gen-tie Line Location

Alternative 3 is similar to Alternative 1 (proposed Project), with the exception of the location of the Northern 230 kV gen-tie line, which would be approximately 700 feet north of Alternative 1's proposed 230 kV gen-tie line. Construction of the solar facility would require the greatest workforce. Although Alternative 3's gen-tie line would be slightly longer than the proposed Project's (Alternative 1), it is anticipated that construction of both Alternatives would require the same workforce; however, Alternative 3 would require a slightly longer construction period. Therefore, the cumulative impacts associated with the construction, operation, maintenance, and decommissioning of the solar facility would be the same as Alternative 1.

Table 4.2.14-8 Cumulative Intersections and Staggered Trips

INTERSECTION	TRIPS	CUMULATIVE WITH PROJECT							
		No trips staggered		25% staggered trips		30% staggered trips		40% staggered trips	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
AM Peak Hour									
1. Riverside Dr & Neighbours Blvd	321	**E**	40.1	C	22.9	C	20.7	C	17.6
2. I-10 WB Ramp & Neighbours Blvd	874	**D**	26.2	C	15.1	B	14.1	B	12.6
3. I-10 EB Ramp & Neighbours Blvd	469	B	14.6	B	12.5	B	12.1	B	11.5
4. Seeley Ave & Neighbours Blvd	274	B	10.6	B	10.3	B	10.2	B	10.1
PM Peak Hour									
1. Riverside Dr & Neighbours Blvd	323	B	13.2	B	11.5	B	11.2	B	10.7
2. I-10 WB Ramp & Neighbours Blvd	783	C	20.0	C	15.5	C	14.9	B	13.8
3. I-10 EB Ramp & Neighbours Blvd	768	**F**	126.5	**E**	37.2	**D**	30.8	C	23.4
4. Seeley Ave & Neighbours Blvd	278	B	13.1	B	12.0	B	11.8	B	11.4

Source: KOA 2013.
Note: Bold font represents unacceptable LOS levels.

Construction

It is anticipated that Alternative 3 would experience similar traffic impacts (delays and LOS) as Alternative 1 (see Table 4.2.14-5). The cumulative scenario with Alternative 3 would result in two intersections during the a.m. peak hour operating at unacceptable LOS (LOS D and E) and one intersection during the p.m. peak hour would operate at an LOS F; delays would range from 10.0 to 126.5 seconds (2.1 minutes). Detailed discussions regarding cumulative impacts to each study intersection with the addition of Alternative 3 is described below.

- Intersection 1 (Neighbours Boulevard and Riverside Drive)
    - During the a.m. peak hour would experience the greatest decrease in LOS [degrade from LOS B to LOS E (unacceptable level)] and delays would increase from 14.2 to 40.1 seconds. The major contributors to cumulative impacts at this intersection include Alternative 3 (54%) and Palo Verde Mesa Solar Project (43%).
    - During the p.m. peak hour would degrade from and LOS A to LOS B and delays would increase from 10 to 13.2 seconds.
- Intersection 2 (Neighbours Boulevard and I-10 Westbound Ramps)
    - This intersection would experience the greatest increase in cumulative trips (874 trips during the a.m. peak hour and 783 trips during the p.m. peak hour). During the a.m. peak hour would degrade from LOS C to LOS D (unacceptable level) and delays would increase from 16.6 to 26.2 seconds. The major contributors to cumulative impacts at this intersection include Alternative 3 (40%) and Palo Verde Mesa Solar Project (49%). Alternative 3 would be a considerable contributor to cumulative traffic.
    - During the p.m. peak hours would degrade from an LOS B to LOS C and delays would increase from 13.1 to 20.0 seconds.
- Intersection 3 (Neighbours Boulevard and I-10 Eastbound Ramps)
    - Of the four study intersection, Intersection 3 would experience the greatest delays (2.1 minutes).
    - During the a.m. peak hour would operate at LOS B and delays would increase from 11.2 to 14.6 seconds.
    - During the p.m. peak hour would degrade from an LOS D (unacceptable level) to LOS F and delays would increase from 29.0 to 126.5 seconds (2.1 minutes).The major contributors to the cumulative impacts at this intersection include the Alternative 3 (49%) and Palo Verde Mesa Solar Project (38%).
- Intersection 4 (Neighbours Boulevard and Seeley Avenue)
    - This intersection would also experience the least amount of cumulative impacts and delays, because Alternative 3 would contribute 92 percent of the cumulative trips.
    - During the a.m. and p.m. peak hour would degrade from LOS A to LOS B and delays would range from 9.5 to 13.1 seconds.

As discussed in Alternative 1, it is very unlikely that the peak construction periods of all cumulative projects would occur simultaneously. There may be some overlap in overall construction schedules (peak and non-peak) for a few cumulative projects and the LOS for I-10 may decrease to LOS D, but it would be temporary and within Caltrans' acceptable LOS level. With implementation of BMPs, impacts to traffic and transportation would be minimized. Implementation of Mitigation Measure Traffic-1 (Traffic Management Plan) would reduce impacts from the proposed Project, and the implementation of Mitigation Measure Traffic-3 to coordinate the construction traffic schedules from multiple large-scale generation projects would further reduce the impacts to traffic and transportation. Therefore, Alternative 3's contribution towards temporary significant cumulative impacts during Project construction would be reduced at the three intersections to less than significant levels.

Alternative 3 would not substantially increase hazards due to design features or incompatible uses (impact TRA-4). The solar arrays would be fenced in; however, no major arterial roads would be closed and internal access roads within the solar facility site would all have sufficient emergency access. Impacts would not be cumulatively considerable and would be less than significant (impact TRA-5).

Construction traffic would increase delays at intersections, which would impact public transit routes mentioned above during a.m. and p.m. peak hours (impact TRA-6); however, the with implementation of Mitigation Measure Traffic-1, Alternative 3's contribution to cumulative impacts would be less than significant.

Operation and Maintenance

Operations under Alternative 3 would result in a nominal increase in traffic and would generate substantially less traffic than construction activities. Also, the cumulative projects that would utilize the same intersections would similarly have a limited workforce for operations. Therefore, no adverse impacts would occur due to traffic generated during the operation phase.

No road closures are anticipated for Alternative 3; however, Seeley Avenue and Riverside Drive would be improved for emergency vehicle access. Interior access roads within the solar facility site would be constructed to allow sufficient access for fire trucks and emergency responders (BMP-15). A Fire Management and Protection Plan (BMP-4) and Emergency Action Plan (BMP-5) would be prepared in cooperation with the Riverside County Fire Department and emergency responders. Access gates and internal access roads within the solar facility site would be identified. Therefore, impacts to emergency vehicles would not be cumulatively considerable significant impacts.

Decommissioning

Decommissioning impacts from the Project would be similar to construction. It is very unlikely that decommissioning of all cumulative projects would occur at the same time; however, it is assumed that decommissioning impacts from the cumulative projects would be similar to construction, but would be less intense and of a shorter duration. Therefore, Alternative 3 would not result in cumulatively considerable significant impacts.

Alternative 4: Southern Alternative 230 kV Gen-tie Line Location

Alternative 4 is similar to Alternative 1 (proposed Project), with the exception of the location of the Southern 230 kV gen-tie line, which would be approximately 0.8 mile south of Alternative 1's proposed 230 kV gen-tie line. Although Alternative 4 would be slightly shorter than Alternative 1, it is anticipated that construction of both Alternatives would require the same workforce; however, Alternative 4 would require a slightly shorter construction period. Therefore, cumulative impacts associated with the construction, operation, maintenance, and decommissioning of the solar facility would be the same as Alternative 1.

Construction

It is anticipated that Alternative 4 would experience similar traffic impacts (delays and LOS) as Alternative 1 (see Table 4.2.14-5). The cumulative scenario with Alternative 4 would result in two intersections during the a.m. peak hour operating at unacceptable LOS (LOS D and E) conditions and one intersection during the p.m. peak hour would operate at an LOS F; delays would range from 10.0 to 126.5 seconds (2.1 minutes). Detailed discussions regarding cumulative impacts to each study intersection with the addition of Alternative 4 is described below.

- Intersection 1 (Neighbours Boulevard and Riverside Drive)
    - During the a.m. peak hour would experience the greatest decrease in LOS [degrade from LOS B to LOS E (unacceptable level)] and delays would increase from 14.2 to

40.1 seconds. The major contributors to cumulative impacts at this intersection include Alternative 4 (54%) and Palo Verde Mesa Solar Project (43%).
    - During the p.m. peak hour would degrade from and LOS A to LOS B and delays would increase from 10 to 13.2 seconds.

- Intersection 2 (Neighbours Boulevard and I-10 Westbound Ramps)
    - This intersection would experience the greatest increase in cumulative trips (874 trips during the a.m. peak hour and 783 trips during the p.m. peak hour). During the a.m. peak hour would degrade from LOS C to LOS D (unacceptable level) and delays would increase from 16.6 to 26.2 seconds. The major contributors to cumulative impacts at this intersection include Alternative 4 (40%) and Palo Verde Mesa Solar Project (49%). Alternative 3 would be a considerable contributor to cumulative traffic.
    - During the p.m. peak hours would degrade from an LOS B to LOS C and delays would increase from 13.1 to 20.0 seconds.

- Intersection 3 (Neighbours Boulevard and I-10 Eastbound Ramps)
    - Of the four study intersection, Intersection 3 would experience the greatest delays (2.1 minutes).
    - During the a.m. peak hour would operate at LOS B and delays would increase from 11.2 to 14.6 seconds.
    - During the p.m. peak hour would degrade from an LOS D (unacceptable level) to LOS F and delays would increase from 29.0 to 126.5 seconds (2.1 minutes).The major contributors to the cumulative impacts at this intersection include the Alternative 4 (49%) and Palo Verde Mesa Solar Project (38%).

- Intersection 4 (Neighbours Boulevard and Seeley Avenue)
    - This intersection would also experience the least amount of cumulative impacts and delays, because Alternative 4 would contribute 92 percent of the cumulative trips.
    - During the a.m. and p.m. peak hour would degrade from LOS A to LOS B and delays would range from 9.5 to 13.1 seconds.

As discussed in Alternative 1, it is very unlikely that the peak construction periods of all cumulative projects would occur simultaneously. There may be some overlap in overall construction schedules (peak and non-peak) for a few cumulative projects and the LOS for I-10 may decrease to LOS D, but it would be temporary and within Caltrans' acceptable LOS level. With implementation of BMPs, impacts to traffic and transportation would be minimized. Implementation of Mitigation Measure Traffic-1 (Traffic Management Plan) would reduce impacts from the proposed Project, and the implementation of Mitigation Measure Traffic-3 to coordinate the construction traffic schedules from multiple large-scale generation projects would further reduce the impacts to traffic and transportation. Therefore, Alternative 4's contribution towards temporary significant cumulative impacts during Project construction would be reduced at the three intersections to less than significant levels.

Alternative 4 would not substantially increase hazards due to design features or incompatible uses (impact TRA-4). The solar arrays would be fenced in; however, no major arterial roads would be closed and internal access roads within the solar facility site would all have sufficient emergency access. Impacts would not be cumulatively considerable and would be less than significant (impact TRA-5).

Construction traffic would increase delays at intersections, which would impact public transit routes mentioned above during a.m. and p.m. peak hours (impact TRA-6); however, the with implementation of Mitigation Measure Traffic-1, Alternative 4's contribution to cumulative impacts would be less than significant.

Operation and Maintenance

Operations under Alternative 4 would result in a nominal increase in traffic and would generate substantially less traffic than construction activities. Also, the cumulative projects that would utilize the same intersections would similarly have a limited workforce for operations. Therefore, no adverse impacts would occur due to traffic generated during the operation phase.

No road closures are anticipated for Alternative 4; however, Seeley Avenue and Riverside Drive would be improved for emergency vehicle access. Interior access roads within the solar facility site would be constructed to allow sufficient access for fire trucks and emergency responders (BMP-15). A Fire Management and Protection Plan (BMP-4) and Emergency Action Plan (BMP-5) would be prepared in cooperation with the Riverside County Fire Department and emergency responders. Access gates and internal access roads within the solar facility site would be identified. Therefore, impacts to emergency vehicles would not be cumulatively considerable significant impacts.

Decommissioning

Decommissioning impacts from Alternative 4 would be similar to construction. It is very unlikely that decommissioning of all cumulative projects would occur at the same time; however, it is assumed that decommissioning impacts from the cumulative projects would be similar to construction, but would be less intense and of a shorter duration. Therefore, Alternative 4 would not result in cumulatively considerable significant impacts.

Alternative 5: Reduced Acreage Alternative

Construction

It is very unlikely that the peak construction periods of multiple projects would coincide; however, there may be some overlap in overall construction schedules (peak and non-peak) for a few cumulative projects and the LOS for the I-10 freeway may decrease to LOS D, but it would be temporary.

It is anticipated that Alternative 5 would experience similar traffic impacts (delays and LOS) as Alternative 1 (Table 4.2.14-8). However, the solar facility components north of I-10 would not be constructed; therefore, Alternative 5 would not impact Intersection 1 (Riverside Drive and Neighbours Boulevard). Even with a reduction of trips north of I-10, during the a.m. and p.m. peak hours, the addition of Alternative 5's construction traffic would increase delays at Intersections 2, 3, and 4. Intersection 2 during the a.m. peak hour and Intersection 3 during the p.m. peak hour would operate at unacceptable LOS.

In comparison to Alternative 1, development of Alternative 5 would create additional traffic contributions to Intersections 2, 3, and 4. As previously described, the increased turn volumes for left turns could increase the delay at this location for Intersection 2 under Alternative 5. The westbound ramp would likely have a higher volume off the ramp in the a.m. at the stop, causing a higher delay as well as a higher queue build-up under Alternative 5. This would also occur for the eastbound ramp. Under Alternative 5, Neighbours Boulevard and Seeley Avenue would have an increased delay compared to Alternative 1 due to an increase in construction traffic volumes diverted south. With the addition of numerous cumulative projects, the impacts at each of these intersections would be increased even further in comparison to development of Alternative 1.

Similar to the Alternative 1 cumulative scenario, under the Alternative 5 scenario, Intersection 3 during a.m. and p.m. peak hours, and Intersections 2, 3, and 4 during the p.m. peak hours, would not comply with the Riverside County CMP, RCGP, or City of Blythe General Plan (impacts TRA-1 and TRA-2).

The forecast traffic volumes plus cumulative projects plus Alternative 5 construction traffic would cause a deterioration of LOS at Intersections 2, 3, and 4. Alternative 5 would be a cumulatively considerable contributor to traffic congestion impacts at Intersections 2 and 3; Intersection 4 would operate at an acceptable LOS. However, with implementation of BMPs, impacts would be minimized and implementation of Mitigation Measures Traffic-1 and Traffic-3 would reduce Alternative 5's considerable

contribution towards temporary significant cumulative impacts during construction at the three intersections to less than significant levels; Intersection 1 would not contribute to considerable cumulative impacts under Alternative 5.

As described above, it is very unlikely that the cumulative contribution of construction traffic volumes from the Rio Mesa Solar Electric Generation Facility, Blythe Solar Power Project, and Desert Quartzite would occur during overlapping peak construction periods, as these projects are tracking along different schedules. With implementation of BMPs and Mitigation Measures Traffic-1 through Traffic-3, Alternative's 5 cumulative contributions to traffic and transportation impacts would be reduced to less than significant levels.

Alternative 5 would not substantially increase hazards due to design features or incompatible uses (impact TRA-4). The solar arrays would be fenced in; however, no major arterial roads would be closed and internal access roads within the solar facility site would all have sufficient emergency access. Impacts would not be cumulatively considerable and would be less than significant (impact TRA-5). Construction traffic would increase delays at intersections, which would impact public transit routes mentioned above during a.m. and p.m. peak hours (impact TRA-6); however, with implementation of Mitigation Measure Traffic-1, Alternative 5's contribution to cumulative impacts would be less than significant.

Operation and Maintenance

Similar to Alternative 1, Alternative 5 operation would result in a nominal increase in traffic and would generate substantially less traffic than construction activities. Also, the cumulative projects that would utilize the same intersections would similarly have a limited workforce for operations. Therefore, no adverse impacts would occur due to traffic generated during the operation phase.

No road closures are anticipated for Alternative 5; however, Seeley Avenue would be improved for emergency vehicle access. Interior access roads within the solar facility site would be constructed to allow sufficient access for fire trucks and emergency responders (BMP-15). A Fire Management and Protection Plan (BMP-4) and Emergency Action Plan (BMP-5) would be prepared in cooperation with the Riverside County Fire Department and emergency responders. Access gates and internal access roads within the solar facility site would be identified. Therefore, impacts to emergency vehicles would not be cumulatively considerable significant impacts.

Decommissioning

Decommissioning impacts from Alternative 5 would have similar impacts as construction. It is very unlikely that decommissioning of all cumulative projects would occur at the same time; however, it is assumed that decommissioning impacts from the cumulative projects would be similar to construction, but would be less intense and of a shorter duration. Therefore, Alternative 5 would not result in cumulatively considerable significant impacts.

Mitigation Measures

The following measures are proposed to minimize impacts during Project construction:

Traffic-1 A construction phase Traffic Management Plan would be prepared in consultation with Caltrans and Riverside County for the roadway network potentially affected by construction activities at the Project area and off-site gen-tie line facilities. In order to achieve acceptable LOS, the Traffic Management Plan would include a plan to split the workforce and stagger arrival times during peak construction periods along with a traffic LOS and queue monitoring program, as determined necessary by the County's Transportation Department staff. The plan would be based upon the analysis set forth in the Draft EIR/EA. Carpooling shall also be required of contractor employees during the construction phase to help achieve acceptable LOS levels. In addition to the above-mentioned measures, other approaches could be considered to reduce peak hour traffic, such as requiring contractors to arrange employee busing and/or employee participation in park and ride.

Traffic-2 The contractor would conduct construction activities in accordance with Caltrans' applicable limitations on vehicle sizes and weights, Construction Excavation Permits obtained from Riverside County, Encroachment Permits from Caltrans, and permits and licenses from the California Highway Patrol and Caltrans for the transport of hazardous substances.

Traffic-3 Construction traffic coordination shall be required to address potential cumulative traffic issues associated with concurrent construction of several large projects with large workforces, approximately from 2013 through 2015. The Applicant shall coordinate construction traffic with applicable traffic management (e.g., Caltrans, Riverside County, and City of Blythe) as well as BLM representatives, as determined appropriate and necessary by the listed agencies. The Applicant shall also coordinate construction traffic with other proponents of renewable energy projects in the I-10 corridor. Cumulatively considerable projects shall be identified and the appropriate staggered arrival times or other approaches (such as busing, park and ride, or carpooling) will be prescribed to achieve an acceptable LOS.

Residual Impacts After Mitigation

With implementation of the BMPs, impacts from the proposed Project and Alternatives would be minimized. Implementation of Mitigation Measures Traffic-1 though Traffic-3 would reduce cumulative traffic impacts to a less than significant level.

NEPA Conclusions

The Project and each of the action Alternatives would involve the direct and indirect impacts and contribution toward cumulative impacts that are described above. The Project and action Alternatives would comply with all applicable laws and regulations, and traffic generated by the Project or any of the action Alternatives would not interfere with present or planned uses on federally managed lands. With the implementation of BMPs and the traffic Mitigation Measures identified above, the Project and action Alternatives would not have a significant adverse impact on traffic conditions. The No Project Alternative would not have impacts, as the existing circumstances and operations would continue essentially unchanged.

CHAPTER 5: OTHER NEPA/CEQA CONSIDERATIONS

5.1 Significant and Unavoidable Environmental Impacts

Analysis of environmental impacts of the proposed Blythe Mesa Solar Project (Project) and Alternatives are discussed in Chapter 4 (Sections 4.2.1 through 4.2.15) of this Draft Environmental Impact Report/Environmental Assessment (Draft EIR/EA). As required by the California Environmental Quality Act (CEQA), potentially feasible mitigation measures have been proposed to reduce significant environmental impacts to a level of less than significant. As required by the National Environmental Policy Act (NEPA), where potential adverse environmental impacts have been identified, mitigation measures are proposed that, when implemented, would reduce the impact. Summaries of the impacts and mitigation measures for each subject area are provided in the Executive Summary. No unavoidable significant environmental impacts were identified for the Project or an Alternative.

5.2 Irreversible and Irretrievable Commitments of Resources

CEQA Guidelines Section 15126.2 and NEPA Regulations (40 Code of Federal Regulations [CFR] Part 1502.16, 1508.8(b)), the Bureau of Land Management (BLM) NEPA Handbook (H-1790-1 Section 9.2.9) require a discussion of irreversible or irretrievable commitments of resources that would be caused by implementation of a proposed project or alternative.

Resources irreversibly or irretrievably committed to a proposed project are those used on a long-term or permanent basis. This includes the use of nonrenewable resources such as metal, wood, fuel, paper, aggregate, and other natural resources. These resources are considered irretrievable in that they would be used for a proposed action when they could have been conserved or used for other purposes. Another irreversible or irretrievable commitment of resources is the unavoidable destruction of natural resources that could limit the range of potential uses of that particular environment.

Construction of the proposed Project or Alternatives would commit nonrenewable resources during Project construction and ongoing utility services during Project operations. During Project operations, oil, gas, and other nonrenewable resources would be consumed for maintenance purposes, although on a limited basis.

At the end of the Project's useful life (approximately 25 years), the Project could be decommissioned. The Project is a renewable energy project intended to generate solar energy to reduce reliance on fossil fuels. Over the 25-year life of the Project, this renewable energy project would contribute incrementally to the reduction in demand for fossil fuel used to generate electricity, thereby resulting in a positive effect counteracting the commitment of nonrenewable resources to the Project.

5.3 Short-term Uses and Long-term Productivity

The NEPA Guidelines (40 CFR Part 1502.16) and the BLM NEPA Handbook (H-1790-1 Section. 9.2.9) require a discussion of the relationship between short-term uses and long-term productivity of the environment from implementation of a proposed project or one of the action alternatives. "Short term" refers to the total duration of project construction, whereas "long-term" (in the case of this Project) refers to the life term of the Project beyond the construction phase. The specific impacts of the proposed Project vary in kind, intensity, and duration according to the activities occurring at any given time. The proposed Project would involve tradeoffs between long-term productivity and short-term uses of the environment.

The short-term uses of the environment as a result of the Project and its built action alternatives would include those typically found with solar energy development. Short-term impacts associated with construction activities described in Chapter 4, Environmental Consequences, include effects to the natural environment and cultural resources. These can be compared to the long-term benefits of the

proposed Project and action Alternatives, all of which would provide for the production of clean, renewable energy consistent with federal and State goals to increase production of renewable energy to help reduce dependence on fossil fuels.

The action Alternatives would all also provide a long-term benefit by generating electric power without any increase in the use of non-renewable resources, such as fossil fuels, which would result in a benefit to air quality and a reduction in carbon-based emissions.

5.4 Growth-inducing Impacts

A project is considered growth-inducing if it can foster economic or population growth or the construction of additional housing, either directly or indirectly, in the surrounding environment (CEQA Guidelines Section 15126.2(d)). This definition includes projects that would remove obstacles to population growth, such as by extending public services into areas not previously served. Growth inducement can also be defined as an action that would encourage an increase in density of development in surrounding areas or encourage adjacent development. According to CEQA Guidelines Section 15126.2(d), growth should not be assumed to be beneficial, detrimental, or of little significance to the environment.

Construction of the solar facility and 230 kilovolt (kV) gen-tie line is anticipated to occur over a three-year period, of which peak construction would occur over two years and require approximately 500 daily workers present on the site. After completion of construction, operation of the solar facility would require 12 full-time personnel. As noted in the discussion of population and housing impacts in Chapter 4, this population increase during construction would be temporary and is not projected to create a need for additional housing. The proposed Project is located mostly within an unincorporated area of Riverside County, with a small part in the City of Blythe, and does not involve the development of a residential component that would result in direct population growth in the area. Additionally, the Project would not involve the development of any new roadways, water systems, or sewer systems other than those designed specifically to serve the Project. Infrastructure improvements to serve the Project would be limited and would not be available to serve surrounding areas. As such, the proposed Project would not induce substantial population growth in the area.

Additionally, the proposed Project would not induce population growth because:

1) the additional energy would be used to ease the burdens of meeting existing energy demands within and beyond the area of the Project;
2) the energy would be used to support already-projected growth;
3) the energy produced would be used to offset the use of fossil fuels to meet California's Renewable Portfolio Standard and Executive Order S-14-08; and
4) the factors affecting growth are so multifarious that any potential connection between additional energy production and growth would necessarily be too speculative and tenuous to merit extensive analysis.

Thus, this level of analysis is sufficient to inform the public and decision-makers of the growth-inducing impacts of the Project.

CHAPTER 6: COORDINATION AND CONSULTATION

6.1 Introduction

This chapter summarizes the Bureau of Land Management's (BLM) and the County of Riverside's public and agency involvement and outreach activities related to the Blythe Mesa Solar Project (Project). California Environmental Quality Act (CEQA) Guidelines Section 15129 states that an "EIR [Environmental Impact Report] shall identify all federal, state, or local agencies, other organizations, and private individuals consulted in preparing the draft EIR." The National Environmental Policy Act (NEPA) requires that federal agencies encourage and facilitate public involvement in the NEPA process to the fullest extent possible (40 Code of Federal Regulations [CFR] Part 1500.2(d), 40 CFR Part 1506.6). In the context of the preparation an Environmental Assessment (EA), however, "while some public involvement is required, [the BLM has] the discretion to determine how much, and what kind of involvement, works best for each individual EA" (BLM NEPA Handbook, Section 8.2).

Consistent with CEQA and NEPA requirements, public participation and agency consultation for this Project have been accomplished through issuance of public notices, public scoping meetings, and formal and informal consultation with agencies, stakeholders, landowners, and Native American Tribes. The consultation and coordination process helped to determine and focus the scope of the Draft EIR/EA and identify a range of alternatives and mitigation measures. The County of Riverside is the CEQA Lead Agency and the BLM is the NEPA Lead Agency.

Section 6.2 of this document describes the scoping process for the proposed Project that was conducted by the County of Riverside. Sections 6.3 through 6.8 describe the coordination and consultation process for preparation of a joint CEQA/NEPA document by the BLM and County of Riverside.

6.2 Draft EIR/EA Scoping Process

The public, affected agencies, Native American Tribes, and other interested parties were invited to participate in the environmental review process. The following sections summarize the scoping process; details regarding the process are documented in the Scoping Report found in Appendix A.

6.2.1 Notice of Preparation

In compliance with Title 14 of the California Code of Regulations (CCR) Section 15082, the County of Riverside prepared a Notice of Preparation (NOP) of an EIR that described the proposed Project and location, environmental review process, the potential environmental effects, and contact information, as well as announced the time and location of the public scoping meeting. On November 16, 2011, the NOP was filed with the State Clearinghouse (SCH) (SCH No. 2011111056). The NOP was also filed with the County of Riverside's County Clerk on November 21, 2011, which commenced the public review period. The NOP was sent via certified mail to 51 agencies (federal, State, County, and city), 22 Native American Tribes, and two elected officials. A copy of the NOP and mailing labels may be found in Appendix A.

6.2.2 Public Scoping Meeting

In compliance with CCR Section 15082(c), Riverside County conducted a public scoping meeting to inform the public about the Project; describe the purpose and need of the Project; provide information regarding the environmental review process; and gather public input regarding the scope and content of the EIR. The public scoping meeting was held on the following date and location:

December 12, 2011; 5:30 to 7:00 pm
Blythe City Council Chambers
235 N. Broadway
Blythe, CA 92225

The scoping meeting date and location were announced in the NOP. The meeting was also advertised in the Desert Sun and Palo Verde Times on December 2, 2011. Copies of the newspaper advertisements, PowerPoint presentation, display boards, comment form, and meeting transcript are located in Appendix A.

Project team members were available to answer questions about the displays and other Project-related topics and to listen to feedback, concerns, and issues raised by the public. A total of six people signed in at the scoping meeting (December 12, 2011). Attendees were encouraged to comment by filling out a comment form.

6.2.3 Outreach

Notification of Scoping Session

A notice of a Scoping Session was mailed to 120 property owners within 2,400 feet of the Project boundary (Appendix A). The notice briefly discussed the proposed Project, and date, time, and location of the scoping meeting.

Notification to Native American Tribes

In April 2011, a letter was submitted to the Native American Heritage Commission (NAHC) requesting information regarding Native American groups that may have historic ties to, and interest in, the proposed Project area. In May 2011, 20 CEQA scoping letters were sent to the tribes identified by the NAHC. Responses were received from the Aqua Caliente Band of Cahuilla Indians Tribal Historic Preservation Officer and the Augustine Band of Cahuilla Indians.

Native American tribal consultation by the BLM is summarized in Section 6.6.2.

6.2.4 Scoping Topics of Concern

A total of 10 comments were received during the scoping period for the proposed Project, which took place from November 21, 2011 to December 21, 2011. All 10 comments were received from agencies, and copies of the original comments letters may be found in Appendix A. The issue topics raised by the commenters included:

- Air Quality
- Public Services and Utilities
- Socioeconomics
- Hazardous Materials/Soils
- Cultural Resources
- Water Resources

6.3 Draft EIR/EA Informational Meetings

On May 10, 2012, two informational meetings were conducted for the Project. In the morning, the BLM sponsored the pre-application meeting with several resource agencies who have interest in the Project. The afternoon meeting was sponsored by the Project Applicant to provide Project information to Native American groups. The purpose of these meetings was to present information about Project alternatives; describe the purpose and need of the Project; provide information regarding the environmental review process; and gather input regarding the preliminary alternatives. The meeting between the Project Applicant and Native American tribes was not part of the BLM's Section 106 and government-to-government consultation efforts, which are discussed in Section 6.6.2.

The meetings consisted of a combination of open house and formal presentations. Display boards and a large Project map were set up around the room. Project team members were available to answer

questions about the displays and other Project-related topics. A question and answer session was held after the presentation. At the conclusion of the question and answer session, the open house continued and staff members were available to answer questions and gather input.

Tables 6-1 and 6-2 list the agencies and Native American tribes that were invited to the meetings.

Table 6-1 Agency Representatives

AGENCY	REPRESENTATIVE
California Department of Fish and Game	M. Rodriguez
City of Blythe	Barbara Burrow
National Parks	Andrea Compton
Riverside County	Ken Baez
Riverside County	Jay Olivas
Riverside County Airport Land Use Commission (ALUC)	John Guerin
Riverside County ALUC	G. Neal
Riverside County ALUC	Simon Housman
U.S. Army Corps of Engineers (USACE)	Shannon Pankratz
USACE	James Mace
USACE	Crystel Doyle
U.S. Fish and Wildlife Service (USFWS)	Nisa Marks

Table 6.2 Native American Tribes and Tribal Organizations I

AFFILIATION	REPRESENTATIVE
Agua Caliente Band of Cahuilla Indians	Patricia Tuck, THPO
AhaMaKav Cultural Society, Fort Mojave Indian Tribe	Linda Otero, Director
Ah-Mut-Pipa Foundation (Quechan Kumeyaay)	Preston J. Arrow-weed
Augustine Band of Cahuilla Mission Indians (Cahuilla)	Mary Ann Green, Chairperson
Augustine Band of Cahuilla Mission Indians (Cahuilla)	Karen Kupcha
Cahuilla Band of Indians	Luther Salgado, Sr. Chairperson
Chemehuevi	Joseph R. Benitez (Mike)
Chemehuevi Reservation	Charles Wood, Chairperson
Cocopah Museum/Cultural resources Dept. (Cocopah)	Jill McCormick, Tribal Archaeologist
Colorado River Indian Tribe (Mojave, Chemehuevi)	Ginger Scott, Museum Curator; George Ray, Coordinator
Fort Mojave Indian Tribe (Mojave)	Mr. Tim Williams, Chairperson
Fort Mojave Indian Tribe (Mojave)	Nora McDowell, Cultural Resources Coordinator
Fort Yuma Quechan Indian Nation (Quechan)	Michael Jackson, President
Morongo Band of Mission Indians (Cahuilla, Serrano)	Michael Contreras, Cultural Heritage Program
Quechan Indian Nation	Bridget Nash-Chrabascz, THPO
Ramona Band of Cahuilla Mission Indians (Cahuilla)	Joseph Hamilton, Chairman
San Manuel Band of Mission Indians (Serrano)	Ann Brierty, Policy/Cultural Resources Dept.
Santa Rosa Band of Mission Indians (Cahuilla)	Mayme Estrada, Chairwoman
Torres-Martinez Desert Cahuilla Indians (Cahuilla)	Diana L. Chihuahua, Vice Chairperson, Cultural
Twenty-nine Palms Band of Mission Indians (Chemehuevi)	Darrell Mike, Chairperson

6.4 BLM Public Scoping Meeting

On October 4, 2012, the BLM conducted a scoping meeting in Blythe, California. The BLM and Applicant presented information about the Project, alternatives, environmental review process, and potential impacts. A question and answer session was held after the presentation. At the conclusion of the question and answer session, the open house continued and staff members were available to answer questions and gather input. A total of ten individuals attended the meeting.

6.4.1 Notification

A Public Meeting announcement was mailed to 139 recipients, which included agencies, Native American Tribes, organizations, and interested individuals. A newspaper advertisement in the *Palo Verde Valley Times* was published on September 28, 2012 that announced the public meeting date, time, and location.

6.4.2 BLM Scoping Meeting Topics of Concern

In addition to the oral comments received at the BLM scoping meeting on October 4, 2012, a total of three comments were received. One comment was made by a concerned citizen on a public comment card. The other two were both from the same individual from a Native American organization. All three copies of the original comments may be found in Appendix A. The issue topics raised by the commenters included:

- Public Services and Utilities
- Socioeconomics
- Cultural Resources
- Hazards

6.5 Agency Contacts

In compliance with CEQA Guidelines Section 15129 and NEPA requirements, Table 6-3 below identifies federal, State, or local agencies and other organizations contacted in preparation of this Draft EIR/EA.

6.6 Consultations

6.6.1 Informal

Endangered Species Act Section 7

The U.S. Fish and Wildlife Service (USFWS) has jurisdiction to protect threatened and endangered species under the Endangered Species Act (ESA) (16 United States Code [U.S.C.] § 1531 et seq.). Formal consultation with the USFWS under Section 7 of the ESA is required for any federal action that may adversely affect a federally listed species. On November, 19, 2012, the USFWS issued a determination letter that the Project would not likely adversely affect federally listed species (see Appendix L); therefore, an ESA Section 7 formal consultation is not required.

The California Department of Fish and Wildlife (CDFW) is the administer agency for the California Endangered Species Act (CESA). CESA includes a requirement for consultation “to ensure that any action authorized by a state lead agency is not likely to jeopardize the continued existence of any endangered or threatened species… or result in the destruction or adverse modification of habitat essential to the continued existence of the species” (§ 2090). The CDFW has been contacted and informally consulted with regarding the proposed Project. These informal consultations included several in-person meetings and email concurrence on the biological surveys and data collection.

Table 6-3 Agency Contact Summary

AFFILIATION	DEPARTMENT	NAME	TITLE
Federal Agencies			
Bureau of Land Management		Frank McMenimen	Project Manager
Bureau of Land Management		Jeff Childers	Project Manager
Bureau of Land Management		Kim Marsden	Natural Resource Specialist
Bureau of Land Management		Tiffany Thomas	Archaeologist
U.S. Fish and Wildlife Service		Nisa Marks	Biologist
Federal Aviation Administration	Western Pacific Region		
Bureau of Indian Affairs	Southern California Agency		
U.S. Army Corp of Engineers	Regulatory Branch, Carlsbad Field Office	Shanti Abichandani Santulli	Project Manager
State Agencies			
California Department of Fish & Game	Inland Deserts	Rodriguez, Magdalena	Staff Environmental Scientist
California Department of Fish & Game	Inland Deserts	Shamar, Shankar	Staff Environmental Scientist of Renewable Energy
California Department of Fish & Game	Eastern Sierra Inland Deserts Region	MacNair, Leslie	Staff Environmental Scientist
Mojave Desert Air Quality Management District			
Native American Heritage Commission		Singleton, Dave	Program Analyst
Regional Water Quality Control Board #7	Colorado River Basin		
Southern California Association of Governments		Roth, Erik H.	Manager
County Agencies			
Riverside County	Planning Department	Ross, Larry	Principal Planner
Riverside County	Planning Department	Harrison, Tamara	Urban and Regional Planner IV
Riverside County	Airport Land Use Commission	Guerin, John	Principal Planner
Riverside County	Building & Safety Department	Gonzalez, Sam	Principal Inspector - Building & Safety
Riverside County	Environmental Programs Department	Young, Chad	Senior Ecological Resource Specialist
Riverside County	Planning Department	Jones, David	Chief Engineering Geologist
Riverside County	Planning Department	Jones, David	County Archaeologist
Riverside County	Flood Control District	Tina Hanson	Associate Civil Engineer
Riverside County	Regional Parks & Open Space District	Brewer, Marc	Senior Planner
Riverside County Planning Commission		Zuppardo, Jan	Planning Commissioner
City/Local Agencies			
Palo Verde Irrigation District		Henning, Roger	Chief Engineer
Palo Verde Resource Conservation District			

6.7 Consultations

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The California Department of Fish and Wildlife (CDFW) is the administer agency for the California Endangered Species Act (CESA). CESA includes a requirement for consultation "to ensure that any action authorized by a state lead agency is not likely to jeopardize the continued existence of any endangered or threatened species… or result in the destruction or adverse modification of habitat essential to the continued existence of the species" (§ 2090). The CDFW has been contacted and informally consulted with regarding the proposed Project. These informal consultations included several in-person meetings and email concurrence on the biological surveys and data collection.

6.7.2 Formal

National Historic Preservation Act Section 106

Section 106 of the National Historic Preservation Act (NHPA), as amended, through its implementing regulations codified in "Protection of Historic Properties" (36 Code of Federal Regulations [CFR] Part 800), requires federal agencies to take into account the effects of a proposed undertaking on historic properties and to afford the Advisory Council on Historic Preservation (ACHP) a reasonable opportunity to comment. It has been determined that the proposed Project and Alternatives would constitutes an "undertaking" as defined in 36 CFR Part 800.16(y) and involves the type of activity that could affect historic properties (36 CFR Part 800.3(a)), the BLM as lead federal agency for the Project, has the statutory responsibility for compliance with provisions of Section 106 of the NHPR (36 CFR Part 800.2(a)(2)). 36 CFR Part 800.1(a) states that the purpose and goal of the Section 106 process as follows:

> The Section 106 process commences at the early stages of project planning and seeks to accommodate historic preservation concerns with the needs of federal undertakings through consultation among the agency official and other parties with an interest in the effects of the undertaking on historic properties. The goal of consultation is to identify historic properties potentially affected by the undertaking, assess the undertaking's effects, and seek ways to avoid, minimize, or mitigate any adverse effects on historic properties.

The steps in the Section 106 process are briefly described below. Following the description of the step is a summary presenting the BLM's compliance with the process to date, including government-to-government consultation with Native American Tribes.

Step 1: Initiation of the Section 106 Process. The agency official shall determine whether the proposed federal action is an undertaking per 36 CFR Part 800.16 and whether it has the potential to cause effects on historic properties. The agency official shall coordinate the steps of the Section 106 process with other concurrent reviews for the Project and plan for involving the public in the Section 106 process. The agency official shall also identify the appropriate State Historic Preservation Office (SHPO), Native American tribes, and other consulting parties to be included in the consultation process.

Step 2: Identification and Evaluation of Historic Properties (Cultural Resources). Properties within a project's Area of Potential Effects (APE) are identified with input from the SHPO, Native American tribes and other consulting parties, and evaluated for eligibility to the National Register of Historic Places (NRHP) in consultation with the SHPO. See 36 CFR Part 800.4. BLM applies NRHP criteria for eligibility for listing found at 36 CFR Part 60.4, in conformance with the Secretary of the Interior's Standards and Guidelines for Evaluation (48 Federal Register 44723-44726). In general, NRHP eligibility criteria include:

"The quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

A) That are associated with events that have made a significant contribution to the broad patterns of our history; or
B) That are associated with the lives of persons significant in our past; or
C) That embody the distinctive characteristics or a type, period, method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
D) That have yielded, or may likely yield, information important in prehistory or history."

Step 3: Assessment of Effects. BLM determines whether or not the undertaking will affect historic properties listed in or eligible for the NRHP (36 CFR Part 800.4(d)). BLM must seek concurrence from the SHPO, or Tribal Historic Preservation Officer (THPO) when appropriate, if it determines that no historic properties will be affected. When BLM determines that historic properties will be affected, BLM must assess whether such effects will be adverse by applying the criteria outline at 36 CFR Part 800.5(a)(1). "Effect" is defined in the regulations as an "alternative to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register" (36 CFR Part 800.16(i)). An effect is deemed to be adverse when the effect may "alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association" (36 CFR Part 800.5(a)(1)).

Step 4: Resolution of Adverse Effects. Through consultation with the SHPO, Native American Tribes, other consulting parties, and the ACHP, if they elect to participate in Section 106 consultation, BLM will seek to resolve potential adverse effects of the proposed undertaking through a Memorandum of Agreement (MOA) or Programmatic Agreement (PA) (36 CFR Part 800.6). The purpose of consultation at this phase of the process is to develop treatment measures to avoid, resolve, or minimize potential adverse effects to historic properties, which will be implemented through the MOA or PA. An MOA often includes a treatment plan that takes into account the effects on NRHP-eligible or listed resources, depicts the APE, discusses reporting requirements, addresses discoveries and unanticipated effects, specifies curation requirements, and provides several administrative provisions. Consulting parties, including Programmatic Agreement tribes, and other parties as appropriate, are invited to participate in this consultation and the development of the MOA, and would typically be invited to sign the MOA as concurring parties. BLM must notify the ACHP of its adverse effect determination and intention to resolve such adverse effects through an MOA or PA. The ACHP may elect to participate in consultation for the MOA or PA. Because the BLM has found that there would be no historic properties adversely affected by the undertaking, neither an MOA or a PA is required for the Blythe Mesa Solar Project. As part of its responsibilities under Section 106 of the NHPA, the BLM sent a letter on August 7, 2013 to the California SHPO regarding the proposed Project. The purpose of the letter was to notify the SHPO of the Project and to initiate formal consultation on the Blythe Mesa Solar Project. The letter also requested that the SHPO combine consultation on the identification efforts with consultation on the determinations of eligibility and findings of effects. The letter then described Identification Efforts, Evaluation Efforts, Analysis of Effects, Agency Determinations of Eligibility, and Agency Finding of Effect. The BLM found that there would be no historic properties adversely affected by the undertaking.

On October 21, 2013, the BLM received a response from the SHPO requesting more information on the BLM's determinations and findings on the Blythe Army Air Base and the remnant historic features located

within the APE (i.e., hospital facility, barracks, fire station, and warehouses). The BLM sent this additional information to the SHPO in January 2014.

The BLM sent a letter on August 7, 2013 to the ACHP regarding the proposed Project. In this letter, the BLM invited the ACHP to participate in the Section 106 process in accordance with 36 CFR Part 800.2(b)(1). On August 14, 2013, the ACHP sent a letter to the BLM electing not to participate in the Section 106 process.

Native American Tribal Consultation

The BLM consults with Native American tribes on a government-to-government basis in accordance with several authorities, including NEPA, the NHPA, the American Indian Religious Freedom Act, and Executive Order 13175. Under Section 106 of the NHPA, the BLM consults with Indian tribes as part of its responsibilities to identify, evaluate, and resolve adverse effects on historic properties affected by BLM undertakings. To date, the BLM has identified and invited 15 Indian tribes to consult on the Project, including the Aqua Caliente Band of Cahuilla Indians, Augustine Band of Cahuilla Indians, Cabazon Band of Mission Indians, Cahuilla Band of Mission Indians, Chemehuevi Indian Tribe, Cocopah Indian Tribe, Colorado River Indian Tribes, Fort Mojave Indian Tribe, Fort Yuma Quechan Tribe, Morongo Band of Mission Indians, Ramona Band of Mission Indians, San Manuel Band of Mission Indians, Soboba Band of Luiseno Indians, Torres-Martinez Desert Cahuilla Indians, and Twenty-Nine Palms Band of Mission Indians.

The BLM holds Section 106 consulting party group meetings that offer a forum for providing project updates, presenting the results of cultural resources studies, and openly discussing and sharing ideas about information and concerns about projects. Also, individual government-to-government meetings with Indian tribes provide a separate forum for tribes to share information and concerns openly and candidly in an individual context, apart from other consulting parties and about other issues not necessarily related to the Section 106 process. To supplement these activities, additional good faith efforts are made by the BLM pursuant to Section 106, as part of the government-to-government consultation process. These additional efforts are summarized in Table 6-4.

Information and concerns brought to light during the consultation process are summarized below. All written communications submitted to the BLM by tribal officials are available in their entirety as part of the formal administrative record for the Project.

The BLM invited Native American tribes to consult on the Project on a government-to-government basis. Letters from the BLM dated March 12, 2012 were sent informing them about the application submitted by Renewable Resources Group for a ROW grant, explaining the BLM's role in the environmental review process, and inviting them to consult in a government-to-government manner pursuant to Executive Order 13175, the Executive Memorandum of April 29, 1994, and other relevant laws and regulations including Section 106. The letters also requested assistance in identifying any issues or concerns about the proposed Project, including the identification of sacred sites and places of cultural significance that might be affected by the Project.

In a response letter dated March 26, 2012, the Chairperson of the Augustine Band of Cahuilla Indians reported no specific resources in the Project area, requested that tribal monitors be used during the cultural resource survey, and asked to be notified if cultural resources were identified.

The BLM sent follow up letters to Native American tribes on August 8, 2013, reiterating its invitation for them to enter into government-to-government and Section 106 consultation. This letter also: (1) provided an update on the environmental review process and cultural resources identification efforts; (2) offered to provide copies of the *Blythe Mesa Solar Project: Archaeological Resources and Built Environment Survey, Riverside County, California* and *Blythe Mesa Solar Project: Archaeological Resources and Built Environment Survey, Transmission Line Alternatives Supplemental Report, Riverside County, California*; (3) summarized the BLM's determinations of eligibility for cultural resources within the APE; and 4) summarized the BLM's findings of effect for historic properties.

Responses were received from two Native American tribes, the Aqua Caliente Band of Cahuilla Indian and the Cocopah Indian Tribe, requesting copies of the survey reports. Copies of the two reports were sent to both tribes on September 24, 2013.

The BLM also made a Project update call on October 21, 2012 with the Historic Preservation Officer of the Fort Yuma Quechan Tribe. This call was part of on-going staff coordination between the BLM and Quechan regarding all Palm Springs Field Office projects.

As part of its consultation under Section 106, American Indian Religious Freedom Act, and Executive Order 13175 the BLM acknowledges the traditional importance and value of TCPs and the surrounding landscape as an integral part of tribes' history and continuing culture. To date, the BLM has not received information about TCPs or landscapes in the Project area from the tribes. Based on the limited response, the BLM assumes there are no TCPs within the Project area eligible under Criterion A of the NRHP for their traditional and cultural significance. However, the BLM continues to seek information from tribes about TCPs, should they exist in the Project area.

Additionally, to address the concerns related to the discovery of previously unidentified cultural resources during construction, the BLM will impose a robust construction monitoring plan that provides for tribal participation and the proper treatment and protection of prehistoric human remains should any be found during construction. The BLM will also require the development and implementation of a long-term cultural resource management plan.

Table 6-4 Tribal Consultation in 2012 and 2013

DATE	TYPE	CONTENT
March 12, 2012	Initial letter from BLM.	Sent to chairpersons and other officials at 15 tribes listed in Section 6.4.4.
March 26, 2012	Response Letter from Augustine Band of Cahuilla Indians.	The letter reported that there were no specific resources of concern in the area, requested the use of tribal monitors, and asked to be notified if cultural resources were identified.
August 8, 2013	BLM Findings/ Determinations Letter.	Letter provided a Project update and summarized BLM's determinations of eligibility and findings of effect.
September 18, 2013	Response Letter from Aqua Caliente Band of Cahuilla Indians. Email from Cocopah Indian Tribe.	Both responses requested copies of the archaeological resource and built environment survey reports.
September 24, 2013	Reports sent by BLM, as requested.	Copies of the archaeological resource and built environment survey reports sent to the Agua Caliente Band of Cahuilla Indians and the Cocopah Indian Tribe.
October 13, 2013	Telephone call with Fort Yuman Quechan Tribe.	Provided Project update as part of on-going staff coordination between the BLM and Quechan regarding all Palm Springs Field Office projects.

6.8 Review and Certification Process

6.8.1 CEQA Process

Public Notice/Public Review

In accordance with CEQA Guidelines, Section 15087, the Draft EIR public review and comment period should be no less than 30 days and no longer than 60 days. In the case of the proposed Project, the review period will be 45 day minimum per CEQA.

On June 17, 2014 a Notice of Completion (NOC) was filed with the State Clearinghouse for the Draft EIR/EA, concurrently kicking off the 45-day public review period of the Draft EIR/EA document and

associated technical appendices. The public review period on the Draft EIR/EA begins on June 17, 2014 and ends on August 1, 2014 after which time all comments received will be responded to.

Concurrent with filing the NOC, the County is also required to provide notice to the public, agencies, organization and other interested parties of the availability of the Draft EIR/EA for review and comment. A Notice of Availability was published in the *Desert Sun* and *Palo Verde Times* newspapers as well as posted at the County's website and libraries. Public comment on the Draft EIR/EA will be accepted in written form.

CEQA Lead Agency:

Riverside County Planning Department
4080 Lemon Street, 12th Floor
P.O. Box 1409
Riverside, CA 92502-1409

Response to Comments/Final EIR

A Final EIR will be prepared following the public review and comment period for the Draft EIR/EA.

The Final EIR will respond to written comments received during the public review and comment period and to oral comments made at any public hearings.

Certification of the EIR

The Final EIR will be independently reviewed and considered by the County. If the Final EIR is deemed "adequate and complete," the County may certify the EIR at a public hearing. In general, the rule of adequacy holds that the EIR can be certified if it demonstrates a good faith effort at full disclosure of environmental information and provides sufficient analysis to allow decisions to be made regarding the Project in terms of its environmental consequences.

Following review and consideration of the Final EIR, the County may take action to approve, conditionally approve, revise, or reject the Project. Written findings would accompany a decision to approve or conditionally approve the Project (CCR Section 15091). Likewise a statement of overriding considerations would be prepared if necessary (CCR Section 15093). A Mitigation Monitoring and Reporting Program (MMRP), as described below, would also be adopted for mitigation measures that have been incorporated into or imposed upon the Project to reduce or avoid significant effects on the environment.

Mitigation Monitoring

The County must adopt an MMRP for mitigation measures that have been incorporated into or imposed upon the Project to reduce or avoid significant effects on the environment (CCR Section 15097). This program will be designed to ensure that these measures are carried out during Project implementation.

The specific reporting or monitoring program required by CEQA is not required to be included in the EIR. However, any mitigation measures adopted by the County as part of the certified Final EIR will be considered as conditions for approval of the Project and will be included in the MMRP to ensure and verify compliance.

6.8.2 NEPA Process

The EA with associated technical appendices will be circulated for public comment and review for 45 calendar days, which is consistent with the CEQA review period. Upon the completion of the 45-day public comment and review period, a determination from BLM will be made regarding the selected alternative in the form of either a: 1) Notice of Intent for the preparation of an Environmental Impact Statement if there are significant, unavoidable effects to the human environment; or 2) an unsigned

Finding of No Significant Impact (FONSI) will be circulated for review with the Final EIR/EA explaining the reasons why the selected action will not have a significant effect on the human environment.

NEPA Lead Agency:

Bureau of Land Management
22835 Calle San Juan De Los Lagos
Moreno Valley, CA 92553

6.9 List of Preparers

A list of persons responsible for the preparation of various sections of the Draft EIR/EA or preparation of significant background materials, or who participated to a significant degree in preparing the Draft EIR/EA, is presented below.

County of Riverside—CEQA Lead Agency

- Adam Rush, Principal Planner
- Larry Ross, Principal Planner
- Tamara Harrison, Urban Regional Planner IV
- Chad Young, Biological Sciences
- David Jones, Geology
- Ruth Rhoades, Cultural Resources

Bureau of Land Management—NEPA Lead Agency

- Frank McMenimen, Project Manager
- Tiffany Thomas, Archaeologist
- Kim Marsden, Natural Resource Specialist

Consultants responsible for the technical analysis and document production are listed below, along with their qualifications.

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Karen Cadavona	B.S., Biological Sciences; 10 years experience	Project Coordinator; Noise; Traffic and Transportation; Land Use and Planning; Population and Housing
Christopher Knopp	B.A., Environmental Science, International Relations, Political Science, 12 years experience	Deputy Project Manager, Quality Assurance/Quality Control
Kim Quinn	B.A., Environmental Studies, Emphasis Land Use Management and Planning; 13 years experience	Cultural Resources and Paleontological Resources; Geology and Soils
Gina Fegler	B.S., Landscape Architecture; 10 years experience	Aesthetics and Visual Resources
Mark Schaffer	B.S., Geography; M.S., Industrial Hygiene; 31 years experience	Agriculture; Environmental Justice; Hazards and Hazardous Materials; Land Use and Planning; Recreation; Socioeconomics;
Vanessa Santistevan	B.S., Biological Sciences, M.S., Wildlife Biology; 9 years experience	Biological Resources
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Brian Lathrop	B.S. Virtual Technology & Design; M.S. Architecture; 7 years experience	Visual Analysis, Glare Analysis, Visualization Technology
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Greg Wittman	B.A Geology; M.S. Hydrogeology; 38 years experience.	Water Supply Assessment
Subcontractors		
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KOA Corporation *Mujib Ahmed, P.E.*	M.S., Transportation Engineering 28 years of experience	Transportation
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CHAPTER 7: REFERENCES

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