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Filer:	Hannah Gbeh				
Organization:	Resolution Environmental				
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CHAPTER 3. ENVIRONMENTAL IMPACTS ANALYSIS

3.1 IMPACT OVERVIEW

This chapter addresses the physical environmental effects of the Soda Mountain Solar Project (project or proposed project). It presents the general format of the environmental analysis in each environmental topic section and provides a general description of the approach to the project's analysis of environmental impacts, including cumulative projects that are considered in the cumulative impact analyses.

This environmental impact report (EIR) analyzes the physical environmental impacts associated with implementation of the proposed project. The analysis includes consideration of environmental impacts associated with construction, operation and maintenance, and decommissioning of the proposed project, as appropriate for the resource topic.

3.2 SCOPE OF ANALYSIS

3.3 FORMAT OF ENVIRONMENTAL TOPIC SECTIONS

Each environmental topic considered in this chapter includes a discussion of the following:

3.3.1 Environmental Setting

This subsection describes the existing conditions at the project site and in the project site vicinity. As provided in the California Environmental Quality Act (CEQA) Guidelines Section 15125(a), the environmental setting is generally defined as the physical environmental conditions that exist at the time an NOP is published, or if no NOP is published, at the time the environmental analysis is commenced. Thus, the existing conditions for the project are the conditions present at the time the NOP was published on January 18, 2023. Existing conditions serve as the baseline physical setting for the project site and its surroundings at the beginning of the environmental review process (e.g., existing traffic conditions and noise environment). The analysis of environmental impacts is focused on adverse physical changes that could result from implementation of the proposed project, which is described in the Impacts and Mitigation Measures subsection for each topic.

3.3.2 Regulatory Setting

This subsection describes the relevant federal, state, and local regulatory requirements that are directly applicable to the environmental topic being analyzed. The overview of regulations for each environmental topic is organized by agency including applicable federal, state, regional, and local (county) policies. The San Bernadino County General Plan policies, goals, and actions relevant to each environmental topic are detailed in this subsection.

3.3.3 Thresholds of Significance

This subsection begins with a description of the significance criteria. The thresholds used to evaluate each environmental topic are based on Appendix G of the State CEQA Guidelines. All impacts in the EIR have been classified according to the following criteria:

No Impact: No adverse physical changes (or impacts) to the environment are expected.

Less than Significant: Impact that would not exceed the defined significance criteria or would be eliminated or reduced to a less-than-significant level through compliance with existing local, state, and federal laws and regulations.

Less than Significant with Mitigation: Impact that is significant but reduced to a less-than-significant level through implementation of the identified mitigation measure(s).

Significant and Unavoidable: Impact that exceeds the defined significance criteria and cannot be eliminated or reduced to a less-than-significant level through compliance with existing local, state, and federal laws and regulations and for which there are no feasible mitigation measures.

The term *significance* is used throughout the EIR to characterize the magnitude of the projected impact. For this EIR, a significant impact is a substantial or potentially substantial change to resources in the project site or the area adjacent to the project. In the discussions of each issue area, thresholds are identified that are used to distinguish between significant, less than significant with mitigation, less than significant, and no impacts.

3.3.4 Impacts and Mitigation Measures

Impacts are numbered and shown in bold, italics type; the corresponding mitigation measures are also numbered; and the significance after mitigation is identified for each significant impact. The Impact Assessment and Methodology subsection explains the parameters, assumptions, and data used in the analysis.

This subsection describes the physical environmental impacts (i.e., the changes to baseline physical environmental conditions) that could result from implementation of the proposed project, as well as any mitigation measures that could avoid, eliminate, or reduce identified significant impacts. Where applicable, both construction and operational impacts are analyzed, as well as project-specific and cumulative impacts. This section begins with a listing of the significance criteria as "Thresholds of Significance" used to determine whether an impact is significant.

Under the Impacts and Mitigation Measures subsection, each project-level impact begins with an impact statement that reflects one or more of the applicable significance criteria. Some significance criteria may be combined in a single impact statement, if appropriate. Each impact statement is identified by a subject area abbreviation (e.g., NO for Noise and Vibration) and an impact number (e.g., 1, 2, 3) for a combined alpha-numeric code (e.g., Impact NO-1, Impact NO-2).

CEQA Guidelines Section 15126.4 directs preparers of an EIR to describe feasible measures that could minimize significant adverse impacts. Mitigation measures are developed to avoid, minimize, rectify, reduce, or eliminate an impact or compensate for an impact resulting from project implementation. CEQA Guidelines Section 15041 grants authority to the lead agency to require feasible changes in any or all activities involved in a project to substantially lessen or avoid significant effects on the environment. Feasible mitigation measures have been included in this chapter for specific environmental impacts where applicable.

When potentially significant impacts are identified, mitigation measures are presented that would avoid, eliminate, or reduce significant adverse impacts of the project. All mitigation measures are required as conditions of project approval. When identified mitigation measures do not reduce the impact to a less-than-significant level, CEQA requires the development of a range of feasible project alternatives to address the significant and unavoidable impact.

3.4 APPROACH TO CUMULATIVE IMPACT ANALYSIS

The CEQA Guidelines require that an EIR discuss the cumulative impacts of a project. CEQA Guidelines Section 15355 defines cumulative impacts as follows:

"Cumulative Impacts" refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. The individual effects may be changes resulting from a single project or number of separate projects. The cumulative impact from several projects is 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 probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

The discussion of cumulative impacts should reflect the severity of impact and their likelihood of occurrence, but the discussion need not provide as much detail as provided for effects attributable to the project alone (CEQA Guidelines Section 15130 (b)). The discussion should be guided by the standards of practicality and reasonableness and should focus on the cumulative impacts to which the identified other projects contribute, rather than the attributes of other projects which do not contribute to the cumulative impact.

This EIR discusses the cumulative impacts analyzed for each environmental resource topic and the proposed project's contribution to these cumulative impacts, if any. Two approaches to a cumulative impact analysis are provided in CEQA Guidelines Section 15130(b)(1): (a) "the analysis can be based on a list of cumulative projects producing closely related impacts that could combine with those of a project;" or (b) "a summary of projections contained in a general plan or related planning document can be used to determine cumulative impacts." A list-based approach refers to "a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside of the control of the agency" (CEQA Guidelines Section 15130(b)(1)(A)). A projections-based approach refers to "a summary of projections contained in an adopted local, regional or statewide plan, or related planning document, that describes or evaluates conditions contributing to the cumulative effect. Such plans may include: a general plan, regional transportation plan, or plans for the reduction of greenhouse gas emissions" (CEQA Guidelines Section 15130(b)(1)(B)).

The analysis of cumulative impacts by environmental resource topic involves:

- 1. determining the cumulative context or geographic scope and location of the cumulative projects relative to the affected resource's setting;
- 2. assessing the potential for project impacts to combine with those of other projects, including the consideration of the nature of the impacts and the timing and duration of implementation of the proposed and cumulative projects;
- 3. determining the significance of the cumulative impact; and
- 4. assessing whether the project's contribution to a significant cumulative effect is considerable.

CEQA does not prescribe the use of one specific approach to analyzing cumulative impacts. The rationale used to determine an appropriate list of projects considered in an individual project's cumulative analysis is explained in the discussion of cumulative impacts for each environmental topic in this EIR.

Cumulative impacts are presented in a separate subsection following each topic's project-level impact analysis. Cumulative impact statements are numbered consecutively with a combined alpha-numeric code

that starts with "C" to signify it as a cumulative impact. For example, C-TR-1 refers to the first cumulative impact for Transportation and Circulation.

3.4.1 Projects Included in Cumulative Conditions Scenario

Table 3-1 presents a list of cumulative projects located within a 50-mile radius of the project site. These projects are considered in the various cumulative analyses for environmental resource topics that use a list-based approach to determine, for example, the potential for impacts to combine based on the distance from the project site and construction timelines, as available. These projects' locations are shown in Figure 3.4-1.

Other active projects in the project region consist of minor modifications to roadways and existing buildings and residences. Given their minor scope, they would not combine with the proposed project in a way that could result in any cumulative impacts; therefore, they are not included in the cumulative context for any topic in the EIR.

Table 3-1. Cumulative Projects

Map No. (Figure)	Project Name	Project Location	Project Acreage	Distance from Project Site	Proposed Land Uses/Description	Project Status
1	Barstow International Gateway (BIG) Specific Plan	Barstow West of I-15 and I-40. ¹	5,000 acres	50 miles southwest	This project includes annexation of the proposed BIG Specific Plan Area from the County of San Bernadino into the City of Barstow. The BIG Specific Plan consists of a rail yard, a transload warehouse center, and a solar facility.	Notice of Preparation comment period closed March 26, 2024. Undergoing Environmental Review.
2	Daggett Solar Power Facility	East of Sunray Lane, South of Valley Center, North of Chloride Street, Santa Fe. San Bernardino County, CA. ²	3,805 acres	38 miles southwest	This project includes a 650 megawatts (MW) solar facility and 450 MW battery energy storage facility y on approximately 3,805 acres of land. The project would use existing electrical transmission infrastructure adjacent to the Coolwater Generating Station to deliver renewable energy to the electric grid.	Environmental Review approved in 2020. Commercial operation initiated in 2023.
3	Reido Farms LLC ³	Daggett	24.5 acres	37 miles southwest	This project proposes to subdivide a parcel into two parcels and develop a 3MW solar facility on approximately 24.5 acres in Daggett.	Undergoing Environmental Review March 2024.
4	Pristine Sun LLC- Site 1 ⁴	Newberry Springs	853 acres	30 miles southwest	This project proposes to construct and operate a 150 MW solar facility on approximately 853 acres in Newberry Springs.	Undergoing Environmental Review March 2024.
5	Pristine Sun LLC- Site 2 ⁵	Harvard	223 acres	30 miles southwest	This project proposes to construct and operate a 39 MW solar facility on approximately 223.56 acres across two parcels in the communities of Newberry Springs, Harvard, and Yermo.	Undergoing Environmental Review March 2024.
6	Pristine Sun LLC- Site 3 ⁶	Harvard	83 acres	30 miles southwest	Pristine Sun Corp proposes to construct and operate a 15.25 MW solar power generating facility on approximately 83 acres in the community of Harvard.	Undergoing Environmental Review March 2024.

¹ City of Barstow. 2024. City of Barstow General Plan Update and Barstow International Gateway Specific Plan Notice of Preparation of Draft Environmental Impact Report (DEIR). Available at: https://www.barstowca.org/home/showpublisheddocument/8491/638434192375770000. Accessed April 1, 2024.

² County of San Bernardino. 2024. County of San Bernardino Land Use Services/Planning Division Renewable Energy Projects as of May 2024. Available at: https://www.sbcounty.gov/uploads/LUS/Renewable/SolarProjectListMAY2024.pdf. Accessed May 2024.

³ County of San Bernardino. 2024. County of San Bernardino Land Use Services/Planning Division Renewable Energy Projects as of May 2024.

⁴ Ibid.

⁵ Ibid.

⁶ Ibid.

Daggett Solar 33 ⁷	Daggett	34 acres	40 miles southwest	This project proposes to construct and operate a 4.8 MW solar power generating facility on approximately 35 acres.	Conditionally Approved November 18, 2021. No permits issued.
Daggett Solar 66 ⁸	Daggett	134 acres	45 miles southwest	This project proposes to construct and operate a 7 MW solar power generating facility on approximately 133 acres.	Conditionally Approved November 4, 2021. No permits issued.
Glacier Power and Gas, LLC ⁹	Yermo	24.12 acres	37 miles southwest	This project proposes to construct and operate a 10 MW solar power generating facility.	Undergoing Environmental Review March 2024.
I-15 Mojave Wildlife Crossings Restoration Project ¹⁰	Baker		<1 mile	This project proposes to construct wildlife crossings and directional fencing in the Mojave Desert at three locations along I-15 near Cave Mountain (PM R116.70), Soda Mountain (PM R129.75), and Clark Mountain (PM 168.05).	CDFW concurrence October 13, 2023. Anticipated construction start date May 2024, anticipated completion date April 2026.
Brightline West - Las Vegas to Victor Valley ¹¹	Baker	218 miles	<1 mile	This project proposes to construct a 218-mile, electric rail service from Las Vegas to Victor Valley. Segment 3 of this project would travel within the 100-foot I-15 freeway median immediately adjacent to the project site.	Environmental review concluded in September 2023. Pre-construction field work initiated in January 2023.
	Daggett Solar 66 ⁸ Glacier Power and Gas, LLC ⁹ I-15 Mojave Wildlife Crossings Restoration Project ¹⁰ Brightline West - Las Vegas to	Daggett Solar 66 ⁸ Daggett Glacier Power And Gas, LLC 9 I-15 Mojave Baker Wildlife Crossings Restoration Project 10 Brightline West - Las Vegas to	Daggett Solar 66 ⁸ Daggett 134 acres Glacier Power And Gas, LLC 9 24.12 acres I-15 Mojave Wildlife Crossings Restoration Project 10 Brightline West - Las Vegas to 218 miles	Daggett Solar 66 ⁸ Daggett Daggett Solar 66 ⁸ Daggett Glacier Power and Gas, LLC 9 I-15 Mojave Wildlife Crossings Restoration Project 10 Brightline West - Las Vegas to Southwest 134 acres 45 miles southwest 24.12 37 miles acres southwest <1 mile	Daggett Solar 66 ⁸ Daggett 134 acres 45 miles southwest Daggett Solar 66 ⁸ Daggett 134 acres 45 miles southwest Finis project proposes to construct and operate a 7 MW solar power generating facility on approximately 133 acres. Glacier Power yermo 24.12 37 miles acres southwest Power generating facility on approximately 133 acres. This project proposes to construct and operate a 10 MW solar power generating facility. I-15 Mojave Wildlife Crossings Restoration Project 10 Brightline West - Las Vegas to Victor Valley 11 This project proposes to construct wildlife crossings and directional fencing in the Mojave Desert at three locations along I-15 near Cave Mountain (PM R116.70), Soda Mountain (PM R129.75), and Clark Mountain (PM 168.05). This project proposes to construct a 218-mile, electric rail service from Las Vegas to Victor Valley. Segment 3 of this project would travel within the 100-foot I-15 freeway median

⁷ Ibid.

⁸ Ibid.

⁹ Ibid.

¹⁰ California Department of Transportation. 2024. I-15 Mojave Wildlife Crossing Restoration Project. Available at: https://dot.ca.gov/caltrans-near-me/district-8/district-8-current-projects/i-15-wildlife-crossings_ Accessed April 2024.

¹¹ https://railroads.dot.gov/elibrary/xpresswest-nepa-decision-memo-final-attachment-summary-project-modifications

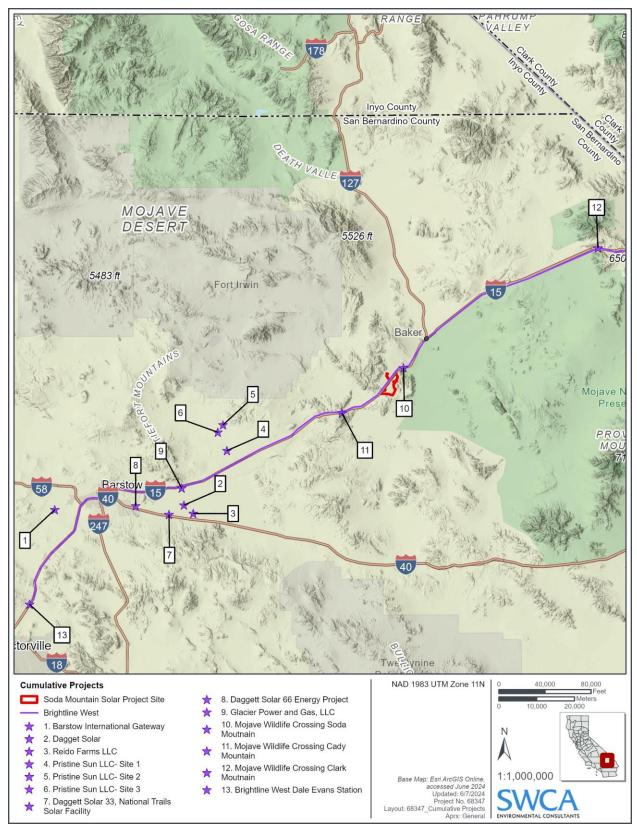


Figure 3.4-1. Cumulative projects.

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