VIDAL ENERGY PROJECT

DRAFT ENVIRONMENTAL IMPACT REPORT

SCH# 2022030713

Lead Agency:

San Bernardino County, Land Use Services Department
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DECEMBER 9, 2022

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EXECUTIVE SUMMARY

ES.1 INTRODUCTION

This Draft Environmental Impact Report (Draft EIR), prepared in accordance with the California Environmental Quality Act (CEQA), Public Resources Code (PRC) Sections 21000 et. seq. This Draft EIR addresses potential environmental effects associated with the development of a 1,090-acre photovoltaic (PV) and battery energy storage system (BESS) in San Bernardino County, California. The Draft EIR provides an overview of the Project and considered alternatives, identifies the anticipated environmental impacts from the Project and the alternatives, and identifies mitigation measures designed to reduce the level of significance of any impact.

ES.2 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The primary purpose of the CEQA process is to inform the public and decision makers as to the potential impacts of a project and to allow an opportunity for public input to ensure informed decision-making by the Lead Agency. CEQA requires all State and local government agencies to consider the environmental effects of projects over which they have discretionary authority. CEQA also requires each public agency to mitigate or avoid the significant environmental impacts resulting from proposed projects, when feasible, and to identify a range of feasible alternatives to the proposed project that could reduce those environmental effects.

Under CEQA, an EIR analyzes the impacts of an individual activity or specific project and focuses primarily on changes in the environment that would result from that activity or project. The Draft EIR must include the contents required by CEQA and the CEQA Guidelines and examine all phases of the Project, including planning, construction, operation, and any reasonably foreseeable future phases.

ES.3 PROJECT DESCRIPTION

CDH Vidal LLC (CORE) plans to construct and operate an approximately 1,090-acre photovoltaic (PV) and battery energy storage system (BESS) facility to generate renewable energy in Vidal, San Bernardino County (the Project). The Project will provide 160 megawatts of alternating current (MW-AC) of renewable energy and would be supported by the existing, adjacent Western Area Power Administration (WAPA) 161 kilovolt (kV) overhead transmission corridor. The facility would include the construction of one onsite substation facility that would collect and convert the power generated onsite for transmission via an overhead or underground line to the WAPA transmission system and interconnection location. Upgrades associated with WAPA interconnection include replacement of existing fiber optic cable along the 52-mile Headgate Rock-Blythe 161 kV transmission line. The Project's permanent facilities would include PV panels, BESS, fencing, service roads, a power collection system, communication cables, overhead and underground transmission lines, electrical switchyards, a Project substation, and operations and maintenance facilities.

Project construction would begin when all necessary permits are obtained, expected to be 2023. Construction is expected to be complete with 14 months. Approximately 220 workers are anticipated per day with 495 workers during peak periods. Construction workers will commute to the site, and no workers will be housed on site.

ES.4 PROJECT OBJECTIVES

The Project has the following objectives:

- Utilize property within the County to site PV solar power-generating facilities and energy storage near existing utility infrastructure.
- Support California's efforts to reduce greenhouse gas (GHG) emissions consistent with the timeline established by the California Global Warming Solutions Act under California Assembly Bill 32, as amended by Senate Bill 32, which requires that Statewide GHG emissions are reduced to at least 40 percent below the Statewide GHG emissions limit by 2030.
- Support California's aggressive Renewables Portfolio Standard (RPS) Program consistent with the timeline established by Senate Bill 100, which requires that by December 31, 2030, 60 percent of all electricity sold in the State shall be generated from renewable energy sources.
- Develop an economically feasible and commercially financeable power-generating facility and energy storage system.
- Provide solar-generated electricity to the California Independent System Operator (CAISO) grid and WAPA.
- Promote the County's role as the state's leading producer of renewable energy.
- Provide green jobs to the County and the state of California.
- Site and design the Project in an environmentally responsible manner consistent with current County guidelines.

ES.5 SUMMARY OF ALTERNATIVES AND ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that an EIR describe a range of reasonable alternatives to the Proposed Project, or to the location of the Proposed Project, which could feasibly avoid or lessen any significant environmental impacts while substantially attaining the basic objectives of the project. An EIR should also evaluate the comparative merits of the alternatives.

Three alternatives are analyzed in Chapter 5, *Alternatives Analysis,* of this Draft EIR. A comparison of the Project's impacts and the No Project Alternative impacts is shown in **Table 5-3**, *Comparison of Environmental Issues*. Under the No Project Alternative, CORE would not construct a PV and BESS facility. Under the Reduced Acreage Alternative, the Project Site would be reduced by 177 acres, and the Project's renewable energy generation capacity would be reduced by approximately 25 percent due to the installation of fewer PV panels. Under the Offsite Alternative, the Offsite Alternative would be redesigned and relocated to a different 1,100 acre site which is designated as a Development Focus Area (DFA) for renewable energy in the Desert Renewable Energy Conservation Plan (DRECP).

The No Project Alternative would be considered the environmentally superior alternative, as it would avoid or reduce all of the potential impacts associated with construction and operation of the Project. However, in accordance with CEQA Guidelines Section 15126.6(e)(2), a secondary alternative must be chosen since the No Project Alternative is environmentally superior. Alternative 2, the Reduced Acreage Alternative, is conservatively considered as the environmentally superior alternative because it would

incrementally reduce certain impacts associated with the Project due to the reduced footprint (e.g., air quality, biological resources, cultural resources, and GHG emissions). However, the Project would not result in any significant and unavoidable impacts, so environmental impacts would be less than significant for all resource areas under either the Project or Alternative 2. Further, Alternative 2 would not realize certain environmental benefits and would not meet the Project objectives to the same extent as the Project. Alternative 2 would leave undeveloped underutilized land that has been planned for a solar energy facility, within an existing fenced area surrounded by similar renewable energy development. Alternative 2 would also contribute less than the Project in assisting California reach its renewable energy generation goals under SB 100. Alternative 2 would attain most of the Project Objectives, although it would not do so to the same extent as the Project.

ES.6 TABLE OF SIGNIFICANT IMPACTS AND MITIGATION MEASURES

A summary of the potential environmental impacts of the Proposed Project is provided below for each topic addressed in this Draft EIR. **Table ES-1,** *Summary of Significant Impacts and Mitigation Measures,* summarizes the significance of the impacts of the Project based on the information and analysis in Chapter 4, Environmental Impact Analysis, of this Draft EIR.

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Table ES-1: Summary of Significant Impacts and Mitigation Measures

Project Impacts	Level of Significance Before Mitigation	Mitigation	Level of Significance After Mitigation
Aesthetics			
Threshold (c): Would the Project substantially degrade the existing visual character or quality of public views of the site and its surroundings?	Less than Significant	No Mitigation Required.	Less than Significant
Threshold (d): Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Less than Significant	No Mitigation Required.	Less than Significant
Air Quality			
Threshold (a): Would the Project conflict with or obstruct implementation of the applicable air quality plan?	Less than Significant	No Mitigation Required.	Less than Significant
Threshold (b): Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard?	Less than Significant	No Mitigation Required.	Less than Significant
Threshold (c): Would the Project expose sensitive receptors to substantial pollutant concentrations?	Potentially Significant	Mitigation Measure AQ-1	Less than Significant
Biological Resources			
Threshold (a): 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 or U.S. Fish and Wildlife Service?	Potentially Significant	Mitigation Measure BIO-1 Mitigation Measure BIO-3 Mitigation Measure BIO-4 Mitigation Measure BIO-6 Mitigation Measure BIO-7	Less than Significant
Threshold (b): Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	Potentially Significant	Mitigation Measure BIO-8 Mitigation Measure BIO-9 Mitigation Measure BIO-10 Mitigation Measure BIO-11	Less than Significant
Threshold (d): 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?	Potentially Significant	Mitigation Measure BIO-2 Mitigation Measure BIO-3 Mitigation Measure BIO-4 Mitigation Measure BIO-5 Mitigation Measure BIO-6 Mitigation Measure BIO-7	Less than Significant
Threshold (e): Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	Potentially Significant	Mitigation Measure BIO-1 Mitigation Measure BIO-2	Less than Significant

Table ES-1: Summary of Significant Impacts and Mitigation Measures

Project Impacts	Level of Significance Before Mitigation	Mitigation	Level of Significance After Mitigation
		Mitigation Measure BIO-3 Mitigation Measure BIO-4 Mitigation Measure BIO-5 Mitigation Measure BIO-6 Mitigation Measure BIO-7	
Cultural Resources			
Threshold (a): Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5? **Threshold (b):** Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	Potentially Significant	Mitigation Measure CUL-1 Mitigation Measure CUL-2	Less than Significant
Threshold (c): Would the Project disturb any human remains, including those interred outside of formal cemeteries?	Less than Significant	No Mitigation Required.	Less than Significant
Geology and Soils			
Threshold (b): Would the Project result in substantial soil erosion or the loss of topsoil?	Potentially Significant	Mitigation Measure GEO-1	Less than Significant
Threshold (f): Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?	Potentially Significant	Mitigation Measure GEO-2 Mitigation Measure GEO-3	Less than Significant
Greenhouse Gas Emissions			
Threshold (a): Would the Project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less than Significant	No Mitigation Required.	Less than Significant
Threshold b): Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	Less than Significant	No Mitigation Required.	Less than Significant
Hazards and Hazardous Materials			
Threshold (b): 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?	Less than Significant	No Mitigation Required.	Less than Significant
Threshold (c): 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?	Less than Significant	No Mitigation Required.	Less than Significant
Threshold (f): Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	Less than Significant	No Mitigation Required.	Less than Significant

Table ES-1: Summary of Significant Impacts and Mitigation Measures

Project Impacts	Level of Significance Before Mitigation	Mitigation	Level of Significance After Mitigation
Threshold (g): Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	Less than Significant	No Mitigation Required.	Less than Significant
Noise			
Threshold (a): Would the Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	Less than Significant	No Mitigation Required.	Less than Significant
Threshold (b): Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?	Less than Significant	No Mitigation Required.	Less than Significant
Transportation			
Threshold a): Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?	Less than Significant	No Mitigation Required.	Less than Significant
Threshold (b): Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	Less than Significant	No Mitigation Required.	Less than Significant
Tribal Cultural Resources			
Threshold (a): Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place or object with cultural value to a California Native American tribe, and that is: **(i)** Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as define in Public Resources Code Section 5020.1(k), or **(ii)** A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth is subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	Potentially Significant	Mitigation Measure TCR-1 Mitigation Measure TCR-2	Less than Significant

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CHAPTER 1 – INTRODUCTION

CDH Vidal LLC (CORE) plans to construct and operate a 1,090-acre photovoltaic (PV) and battery energy storage system (BESS) facility (Project) to generate renewable energy in Vidal, San Bernardino County (County).

This chapter of the Draft Environmental Impact Report (EIR) will discuss the purpose of the Draft EIR, scope, content, and environmental review process. The Project is described in further detail in Chapter 2, *Project Description*.

1.1 PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

This EIR addresses the environmental effects of the proposed Project. The California Environmental Quality Act (CEQA) requires that government agencies consider the environmental consequences of projects over which they have discretionary approval authority. The County is the Lead Agency under CEQA and has determined that an EIR is required for the Project. An EIR is an informational document that provides both government decision-makers and the public with an analysis of the potential environmental consequences of a proposed project in their jurisdiction. This EIR has been prepared in accordance with the requirements of CEQA as set forth in Public Resources Code (PRC) Section 21000 et seq., and 14 California Code of Regulations (CCR) Section 15000 et seq. (CEQA Guidelines).

This EIR addresses the Project's potential environmental impacts, in accordance with CEQA Guidelines Section 15161. As referenced in CEQA Guidelines Section 15121(a), the primary purpose of an EIR is to inform decision makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects of a project, and describe reasonable alternatives to a project. This document analyzes the Project's potential environmental effects to the degree of specificity appropriate, as required by CEQA Guidelines Section 15146. The analysis considers the activities associated with the Project to determine potential short- and long-term impacts associated with Project implementation. This EIR also considers the Project's potential direct and indirect impacts, and the cumulative impacts associated with other past, present, and reasonably foreseeable future projects.

Where potentially significant impacts are identified, the EIR specifies mitigation measures that are required to be adopted as conditions of approval or may be incorporated into the Project to avoid or minimize the significance of impacts resulting from the Project. In addition, this EIR is the primary reference document in the formulation and implementation of the Project's Mitigation Monitoring and Reporting Program (MMRP).

The Final EIR will be considered for certification and approval by the County. A decision to approve the Project would be accompanied by specific, written findings, in accordance with CEQA Guidelines Section 15091, and a specific, written Statement of Overriding Considerations, in accordance with CEQA Guidelines Section 15093, if potentially significant impacts remain significant and unavoidable.

1.2 ENVIRONMENTAL REVIEW PROCESS

1.2.1 Scoping Process

In compliance with CEQA Guidelines Section 15201, the County has taken steps to provide opportunities for public participation in the environmental process. In accordance with CEQA Guidelines Section 15082, a Notice of Preparation (NOP) was distributed to initiate the County's CEQA review process for the Project, identify and seek public input for the Project's potential environmental effects, and identify a date for the Project's public scoping meeting. The NOP was distributed on March 29, 2022 to State, regional, local government agencies, and interested parties and identified a public review period for the NOP through April 27, 2022 in compliance with the State's mandatory 30-day public review period.

A virtual scoping meeting was held to discuss the Project on April 12, 2022, from 6:00 p.m. to 8:00 p.m. via Zoom. A presentation was provided, including an overview of the Project and the CEQA process. Following the presentation, participants were encouraged to provide oral or written comments to aid the County in refining the scope of issues to be addressed in the EIR. No individuals from the public attended the scoping meeting. One comment letter was received during the public review period from the Colorado River Indian Tribes. Three comment letters were received after the public review period from the Desert Tortoise Council, Morongo Band of Mission Indians, and the California Department of Fish and Wildlife (Region 6). Key issues of environmental concern expressed by commenters include:

- Impacts to the desert tortoise
- Impacts to cultural and tribal cultural resources

The NOP, Scoping Meeting materials, and received comments are contained in Appendix A of this Draft EIR.

Topics evaluated in this Draft EIR have been identified based on the County's initial review of the Project, and responses to the NOP. The County determined that the following environmental topics are potentially significant and require an assessment in this Draft EIR:

1. Aesthetics
2. Air Quality
3. Biological Resources
4. Cultural Resources
5. Geology and Soils
6. Greenhouse Gas Emissions
7. Hazards and Hazardous Materials
8. Noise
9. Transportation
10. Tribal Cultural Resources

Table 1-1, *Required EIR Contents,* contains this list of sections required under CEQA Guidelines, along with reference to the chapter where these items can be found.

Table 1-1: Required EIR Contents

Chapter Title (CEQA Guidelines)	Location
Table of Contents (Section 15122)	Table of Contents
Summary (Section 15123)	Executive Summary
Introduction (Section 15122)	Chapter 1
Project Description (Section 15124)	Chapter 2
Environmental Setting (Section 15125)	Chapter 3
Consideration and Discussion of Environmental Impacts (Section 15126)	Chapter 4
Mitigation Measures (Section 15126.4)	Chapter 4.1-4.10
Cumulative Impacts (Section 15130)	Chapter 4.1-4.10
Alternatives to the Proposed Project (Section 15126.6)	Chapter 5
Growth-inducing Impacts (Section 15126.2)	Chapter 6
Effects Found Not to Be Significant (Section 15128)	Chapter 6
Organizations and Persons Consulted (Section 15129)	Chapter 8
Acronyms/Abbreviations	Chapter 9

1.2.2 Review and Comment on the Draft Environmental Impact Report

The Draft EIR, with an accompanying Notice of Completion (NOC), is being circulated to the State Clearinghouse, trustee agencies, responsible agencies, other government agencies, and interested members of the public for a 45-day review period in accordance with CEQA Guidelines Section 15087 and 15105. The review period will begin the day the Draft EIR is released for public review and will end 45 calendar days thereafter.

During this period, interested individuals, organizations, responsible agencies, and other agencies can provide written comments about the Draft EIR addressed to:

County of San Bernardino, Land Use Services Department
Attn: Jim Morrissey, Planner
385 North Arrowhead Avenue, First Floor
San Bernardino, CA 92415
Email: Jim.Morrissey@lus.sbcounty.gov

Agency responses to the Draft EIR should include the name of a contact person within the commenting agency. Due to the time limits mandated by State law (CEQA Guidelines Section 15205[d]), comments must be sent to the County at the earliest possible date but not later than January 23, 2023, which is 46 days after publication of the Draft EIR.

Following the close of the public review period, a Final EIR will be prepared to respond to all substantive comments related to environmental issues. The Final EIR will be completed and made available prior to any public hearings on the Project.

1.3 ORGANIZATION OF THE DRAFT EIR

The Draft EIR is organized into the following chapters so the reader can easily obtain information about the Proposed Project and related environmental issues:

Executive Summary – Presents a summary of the Project and alternatives, potential impacts and mitigation measures, and impact conclusions regarding growth inducement and cumulative impacts.

Chapter 1: Introduction – Describes the purpose and use of the Draft EIR, provides a brief overview of the Project, and outlines the organization of the Draft EIR.

Chapter 2: Project Description – Describes the Project location, Project details, and the County's overall objectives for the Project.

Chapter 3: Environmental Setting – Describes the baseline environmental setting and existing physical conditions, including related projects in the area.

Chapter 4: Environmental Impact Analysis – Describes the existing conditions, or setting, before Project implementation; methods and assumptions used in impact analysis; thresholds of significance; impacts that would result from the Project; and applicable mitigation measures that would eliminate or reduce significant impacts for each environmental issue.

- **Section 4.1:** Aesthetics
- **Section 4.2:** Air Quality
- **Section 4.3:** Biological Resources
- **Section 4.4:** Cultural Resources
- **Section 4.5:** Geology and Soils
- **Section 4.6:** Greenhouse Gas Emissions
- **Section 4.7:** Hazards and Hazardous Materials
- **Section 4.8:** Noise
- **Section 4.9:** Transportation
- **Section 4.10:** Tribal Cultural Resources

Chapter 5: Alternatives Analysis – Evaluates the environmental effects of Project alternatives, including the No Project Alternative and Environmentally Superior Project Alternative.

Chapter 6: Other CEQA Considerations – Includes a discussion of issues required by CEQA that are not covered in other chapters. This includes unavoidable adverse impacts, impacts found not to be significant, irreversible environmental changes, and growth-inducing impacts.

Chapter 7: References – Identifies the documents and individuals consulted in preparing the Draft EIR.

Chapter 8: Report Preparation – Lists the individuals involved in preparing the Draft EIR and organizations and persons consulted.

Chapter 9: Acronyms/Abbreviations – Presents a list of the acronyms and abbreviations.

Appendices – Present data supporting the analysis or contents of this Draft EIR. The Appendices include the following:

- **APPENDIX A:** NOP, Scoping Meeting Materials, and Comments Received on the NOP.
- **APPENDIX B:** Vidal Character Photos prepared by Chambers Group, Inc.

- **APPENDIX C:** Air Quality and Greenhouse Gas Emissions Impact Analysis, dated September 19, 2022, prepared by Vista Environmental.
- **APPENDIX D:** Biological Resources Report, dated December 2020, prepared by Chambers Group, Inc.
- **APPENDIX E:** Cultural Resources Survey Report, revised March 2022, prepared by Chambers Group, Inc.
- **APPENDIX F:** Preliminary Geotechnical Engineering Report, dated May 10, 2022, prepared by Terracon Consultants, Inc.
- **APPENDIX G:** Environmental Database Report, dated October 4, 2022.
- **APPENDIX H:** Noise Assessment, dated May 27, 2022, prepared by Ldn Consulting, Inc.
- **APPENDIX I:** Vidal Trip Generation Memorandum, dated April 28, 2022, prepared by Linscott, Law & Greenspan, Engineers.
- **APPENDIX J:** Tribal Cultural Resources Documentation.

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CHAPTER 2 – PROJECT DESCRIPTION

2.1 PROJECT BACKGROUND AND PURPOSE

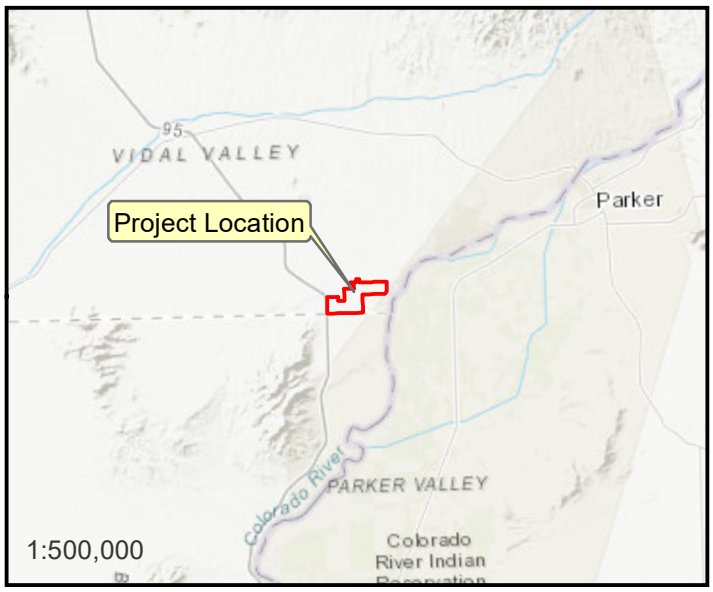
CDH Vidal LLC (CORE) plans to construct and operate the Vidal Energy Project (Project), a solar photovoltaic (PV) electricity generation and battery energy storage system (BESS) facility to generate renewable energy in Vidal, San Bernardino County (County). The Project will provide 160 megawatts (MW) of alternating current (MW-AC) of solar power and include up to 640 megawatt hours (MWh) of energy storage capacity rate in a BESS on approximately 1,090 acres of land (Project Site). The Project would be supported by the existing, adjacent Western Area Power Administration (WAPA) 161-kilovolt (kV) overhead transmission corridor. The Project would include the construction of one on-site substation facility that would collect and convert the power generated on-site for transmission via an overhead or underground line to the WAPA transmission system and interconnection location. Upgrades associated with WAPA interconnection include replacement of existing fiber optic cable along the 52-mile Headgate Rock-Blythe 161 kV transmission line. The Project's permanent facilities would include PV panels, BESS, fencing, service roads, a power collection system, communication cables, overhead and underground transmission lines, electrical switchyards, a Project substation, and operations and maintenance (O&M) facilities.

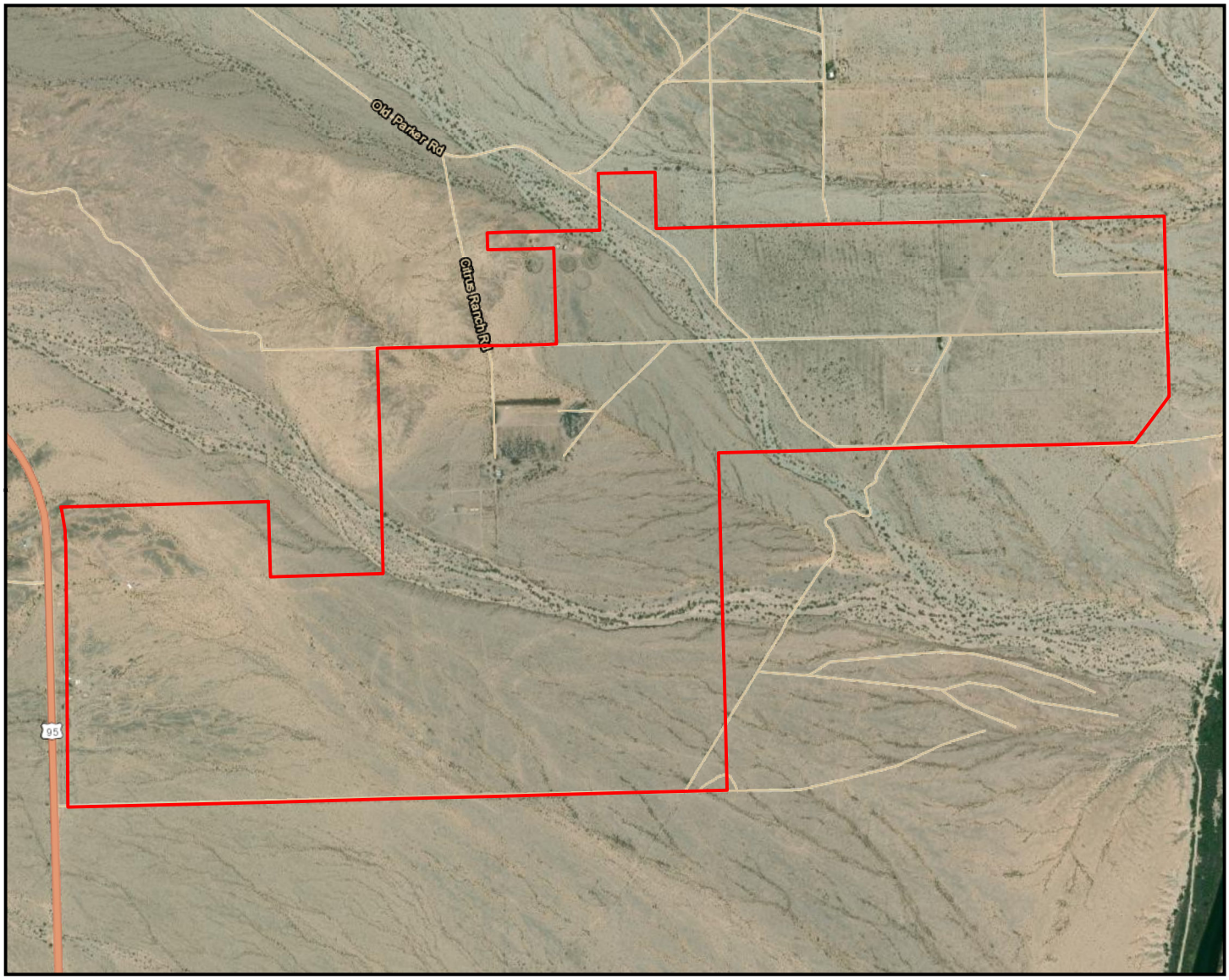
2.2 PROJECT LOCATION AND SITE CHARACTERISTICS

The Project Site is located approximately 2.5 miles southeast of Vidal, which is an unincorporated area of the County that is located east of U.S. Route 95, north of the Riverside County border, and west of the Colorado River (see **Figure 2-1**, *Project Location & Vicinity*). The Project Site encompasses 1,090 acres within 21 parcels (in their entirety and portions of) that are held under lease agreement by CORE (see **Table 2-1**, *Assessor's Parcel Numbers Associated with the Project*).

Table 2-1: Assessor's Parcel Numbers Associated with the Project

APNs		
0647-051-08	0647-061-09	0647-081-37
0647-051-11	0647-061-13	0647-091-03
0647-061-01	0647-061-15	0647-091-04
0647-061-02	0647-061-16	0647-091-05
0647-061-03	0647-061-20	0647-091-06
0647-061-04	0647-061-22	
0647-061-05	0647-061-29	
0647-061-08	0647-061-30	





Project Location

N

0 750 1,500 3,000

Feet

Figure 2-1

Project Location & Vicinity

Name: 21232 BIO Fig 1 Project Location & Vicinity.Mxd
Print Date: 7/7/2020, Author: pcarlos

CHAMBERS GROUP

The Project Site is located within the East Desert Communities planning area of the County. The County's Zoning Map identifies the zoning of the Project site as Resource Conservation (RC). The RC land use zoning district provides sites for recreational activities, including: Campgrounds, recreational vehicle parks, and equestrian facilities; single-family homes at a density of one per 40 acres; electric power generation facilities; transportation facilities; government offices and hospitals; and other similar and compatible uses. Renewable energy generation facilities are an allowed land use within the RC land use zoning district. The Countywide Plan designates the Project Site as Resource Land Management (RLM). In addition to the previous list, uses permitted within the RLM designation include mineral extraction, natural resource conservation areas, military facilities, lands under control of the State and federal government, and tribal entities. Solar generation facilities are allowed under the RLM/RC land use designation and zoning district with a Conditional Use Permit. Existing development in the area includes rural access roads and scattered rural residences. Current land uses within the Project Site include scattered structures associated with an abandoned rural residence, garage (storage) areas, and several WAPA towers.

2.3 PROJECT FACILITIES

2.3.1 Solar Generator and Power Conversion Stations (Inverters)

The Project would utilize up to 160 MW-AC PV system blocks to convert solar energy directly to electrical power for export to the electrical grid. The total BESS capacity for the PV site is 640 MWh. Solar power is generated through PV modules converting sunlight striking the modules directly to low-voltage, direct-current (DC) power, which is subsequently transformed to alternating-current (AC) power via an on-site inverter. The Project would develop modules using either fixed-tilt or tracker technology. Trackers tilt the panels to follow the course of the sun, optimizing the incident angle of sunlight on their surface. The PV panel modules are mounted on steel support posts that are pile driven into the ground. The arrays are typically placed on an aluminum rail, such that with a maximum tilt of 52 degrees, the top of the array would be a maximum of 18 feet above grade at the tallest point and approximately 2 feet above grade at the lowest point.

The PV modules are made of semiconductor material encapsulated in glass in which the PV effect converts light (photons) into electrical current. PV is best known as a method for generating electric power by using solar cells to convert energy from the sun into electricity. Energy from the sun is transmitted to the Earth as photons, which contain different levels of energy corresponding to different frequencies of the solar spectrum. When a photon is absorbed by a PV cell, the energy of the photon is transferred to an electron in an atom within the PV cell. This added energy allows the electron to escape from the atom to become part of the current in an electrical circuit.

Power conversion stations (PCS), also known as inverters, that would contain at a minimum one inverter and one transformer, would be located within the proposed solar arrays across the Project Site. Inverters are typically housed in an enclosed structure that helps to reduce the resulting operational noise levels. In addition, PCS would also be anticipated to include an exhaust fan and a heating, ventilation, and air conditioning (HVAC) system that is typically mounted to the exterior of the enclosure. Noise levels generated by PCS would be associated with operation of the inverters, transformer, exhaust fans, and HVAC systems.

2.3.2 Access and Maintenance Roads

Primary access to the Project Site would be gained by exiting easterly from U.S. Route 95 directly onto a Project-controlled access road on the west side of the Project Site. While existing roads would be used to the greatest extent possible, potential new unpaved roads may need to be constructed off-site to serve as access roads from the existing road network to the Project Site. Any new road surrounding the Project Site would be a minimum of 20 feet wide for San Bernardino County Fire Department and emergency vehicles use. Additional internal maintenance roads would be located throughout the Project Site. Spacing between each row of solar panels would depend on final panel type, orientation, and County regulations. Internal access roads would be as wide as 20 feet and would be cleared and compacted for equipment and emergency vehicle travel and access to the solar blocks. These Project Site access roads would remain in place for ongoing O&M activities after construction is completed and would be covered in gravel, or other methods to provide commensurate dust control.

2.3.3 Battery Storage

The Project would include a BESS with a capacity of 640 MWh. The BESS would likely consist of containers housing batteries connected in strings and mounted on racks. The container would likely include a transformer and monitoring, lighting, and cooling equipment. However, some BESS equipment (e.g., inverters, auxiliary transformer to control the HVAC system) may be adjacent to the container instead of within it. The Project would use as many as 47 containers, depending on container dimensions. Each container would be up to 80 feet long, 8 feet wide, and 8 feet tall.

There are two different locations and methods of storage proposed for BESS; these include: (1) all BESS containers consolidated within the Project substation area, or (2) BESS equipment distributed throughout the Project's solar arrays by co-locating a single BESS container with each of the Project's block inverters with the BESS and the inverter housed in or near the same container. Method 1, if fully employed, would require approximately 7.1 acres within the Project substation area to house the BESS containers. Under Method 2, the BESS containers would contain batteries only and the inverters would remain central to the solar array blocks. Batteries would be co-located with PV arrays and DC coupled and would share the PV inverters and transformers and have their own DC/DC converter that would either be on its own foundation, on the same skid as the inverters, or in the container with the batteries (depending on the design).

The Project design includes shielded and motion-activated lighting and safety features within each container. The containers are equipped with a door on each end and include fire detection and fire suppression systems. Cables and cooling pipes would pass through the container floor. The container would have unobtrusive external painting that would blend in with the natural terrain and landscape.

2.3.4 Project Substations

The Project would include construction of one substation facility in the southeastern corner of the Project Site. The substation would collect the power generated by the PV solar system blocks, transport the power via the underground/overhead power collection system, and then convert the power for transmission in WAPA's overhead 161-kV line. The substation facility would include equipment for both the Project and WAPA.

Equipment at the substations would include transformers, bus work, switches, breakers, and all associated equipment required to be compliant with utility grade interconnection services. The substation facilities

would house the power generation control and relaying equipment, station batteries, and Supervisory Control and Data Acquisition System (SCADA) and communication systems. The Project substation would be remotely operated and periodically maintained, but would not be permanently staffed. The substation site would be cleared, graded, and graveled. A security fence would be installed around the perimeter for safety and security purposes and comprise a chain-link fence measuring as high as 6 feet, topped with as many as three strands of barbed wire, for a total maximum height of 8 feet. For safety and security purposes, this fence would not be adapted for wildlife movement. Construction and operations of the Project substation would affect approximately 7.5 acres. The BESS may also be co-located within or adjacent to the substation yard.

2.4 PROJECT CONSTRUCTION

Project construction would last approximately 14 months and would be conducted between the hours of between 7:00 a.m. and 7:00 p.m. every day, except Sundays and Federal holidays, in accordance with County noise standards.

The various elements of the Project would be constructed concurrently on the property. Onsite workforce is expected to average 220 workers per day with a peak of up to 495 workers.

Construction activities would be expected to include site preparation, fencing, mowing, excavation, grading, trenching/underground work, pile driving, system installation, testing, and cleanup. Site preparation and Project construction would be in accordance with all federal, State, and County zoning codes and requirements. Noise-generating construction activities would be limited to the construction hours noted above. All stationary equipment and machines with the potential to generate a significant increase in noise or vibration levels would be located away from noise-sensitive receptors to the extent practicable. The contractor would conduct construction activities in such a manner that the maximum noise levels at the affected buildings would not exceed established noise levels.

2.4.1 Site Grading and Earthwork

Site grading and earthwork activities are expected to include mowing, excavation, and pile driving. Grading of the Project Site would be limited to the greatest extent possible to control dust. Micro-grading would occur to maintain pile foundation tolerances and grading would be required for installation of site roads and preparation of equipment foundation pads. Solar panels are attached to driven piles and do not require foundation pads. Site preparation and construction would occur in accordance with all federal, State, and County zoning codes and requirements. Noise-generating construction activities would be limited to the construction hours noted above.

All applicable local, State, and federal requirements and best management practices (BMPs) would be incorporated into Project construction activities. The construction contractor would be required to incorporate BMPs consistent with the County zoning ordinance and with guidelines provided in the California Stormwater Quality Association's Construction Best Management Practice Handbook, including the preparation of a Stormwater Pollution Prevention Plan (SWPPP) and a Soil Erosion and Sedimentation Control Plan to reduce potential impacts related to Project construction.

2.4.2 Solar Array Assembly

Erection of the solar arrays would include support structures and associated electrical equipment and cabling. During this work, there would be multiple crews working on the site with various equipment and

vehicles, including special vehicles for transporting the modules and other equipment. As the solar arrays are installed, the collection substation and switchyard facility upgrades would be constructed, as needed, and the electrical collection and communication systems would be installed. Within the solar fields, the electrical and communication wiring would be installed in underground trenches, although some of the mid-voltage collection runs and communication systems may be on overhead lines.

2.4.3 Construction Water Use

During Project construction, non-potable water would be required for common construction-related purposes, including but not limited to dust suppression, soil compaction, and grading. Construction water usage is anticipated to be approximately 240 acre-feet (AF) during the construction period of 14 months. During construction, the water used is anticipated to be supplied by pumping groundwater from existing wells located within the Project site. If additional water use is required, a private water purveyor could be utilized to have water trucks delivered to the Project site.

2.4.4 Solid and Nonhazardous Waste

The Project would produce a small amount of solid waste from construction activities. This may include paper, wood, glass, plastics from packing material, waste lumber, insulation, scrap metal and concrete, empty nonhazardous containers, and vegetation waste. These wastes would be segregated, where practical, for recycling. Non-recyclable wastes would be placed in covered dumpsters and removed on a regular basis by a certified waste-handling contractor for disposal at a Class III landfill. Vegetation waste generated by site clearing and grubbing would be chipped/mulched and spread on-site or hauled off-site to an appropriate green waste facility.

2.4.5 Hazardous Materials

Hazardous materials used during Project construction would be typical of most construction projects of this type. Materials may include small quantities of gasoline, diesel fuel, oils, lubricants, solvents, detergents, degreasers, paints, ethylene glycol, dust palliative, herbicides, and welding materials/supplies. A hazardous materials business plan would be provided to the County Environmental Health Services Division or the San Bernardino Fire Department, which serves as the Certified Unified Program Agency (CUPA) for the County that would include a complete list of all materials used on-site and information regarding how the materials would be transported and in what form they would be used. This information would be recorded to maintain safety and prevent possible environmental contamination or worker exposure. During Project construction, material safety data sheets for all applicable materials present at the Project Site would be made readily available to on-site personnel.

2.4.6 Hazardous Waste

Small quantities of hazardous waste may be generated during Project construction. These wastes may include waste paint, spent construction solvents, waste cleaners, waste oil, oily rags, waste batteries, and spent welding materials. Workers would be trained to properly identify and handle all hazardous materials. Hazardous waste would be either recycled or disposed of, as allowed by permit, at a permitted and licensed treatment and/or disposal facility.

2.5 PROJECT OPERATION AND MAINTENANCE

Upon completion of the construction and testing phases, the Project would be operated during daylight hours. Up to 12 full-time and/or part-time staff would be required for operation, inspection, security, maintenance, and system monitoring purposes. Effective facility operations would be ensured by the following or similar activities:

- Liaison and remote monitoring;
- Administration and reporting;
- Semi-annual and annual services;
- Remote operations of inverters;
- Site security and management;
- Additional communication protocol;
- Repair and maintenance of solar facilities, substations, microwave tower, and other Project facilities; and
- Periodic (up to twice per year) panel washing.

The PV arrays would produce electricity passively with minimal maintenance requirements. It is anticipated that panels would be washed up to two times per year, using the same water source as the construction phase. Water would likely be purchased from a local supplier using groundwater wells. This groundwater is suitable as a primary supply for panel washing but may not be suitable for potable use.

The Project would be fenced in to prevent public access. Gates would be installed at the roads entering the Project site. Limiting access to the Project site would be necessary both to ensure the safety of the public and to protect the equipment form potential theft and vandalism.

2.6 PROJECT DECOMMISSIONING

The Project has an anticipated operational life of up to 35 years, after which CORE may choose to update site technology and recommission, or decommission, the facility and remove the systems and their components. All decommissioning and restoration activities would adhere to the requirements of the appropriate governing authorities and in accordance with all applicable federal, State, and County regulations. The Project would include BMPs to ensure the collection and recycling of modules and to avoid the potential for modules to be disposed of as municipal waste.

Equipment would be de-energized prior to removal, salvaged (where possible), placed in appropriate shipping containers, and secured in a truck transport trailer for shipment off-site to be recycled or disposed of at an appropriately licensed disposal facility. Site infrastructure would be removed, including fences and concrete pads that may support the inverters, transformers, and related equipment. The exterior fencing and gates would be removed, and materials would be recycled to the extent feasible. Project roads would be restored to their pre-construction condition to the extent feasible unless the landowner elects to retain the improved roads for access throughout the property. A collection and recycling program would be utilized to promote recycling of Project components and minimize disposal in landfills.

2.7 INTERCONNECTION TO WAPA

WAPA's Proposed Action consists of approving a large generator interconnection request, entering into an interconnection agreement, and implementing project-related transmission system upgrades. In order to potentially interconnect the Vidal Solar Interconnection Project, WAPA would construct a new switchyard and associated interconnection facilities adjacent to the Project and to WAPA's existing Headgate Rock-Blythe 161-kV transmission line. WAPA is also proposing to upgrade its communication equipment along the entirety of the Headgate Rock-Blythe transmission line by replacing the existing overhead grounding wire with new fiber optic grounding wire.

WAPA would build, maintain, and decommission a new switchyard and an interconnection looping in the new switchyard to the existing Headgate Rock-Blythe 161 kV transmission line. The interconnection would consist of new three-pole structures in the vicinity of existing structures, located directly adjacent to the south of the Project's proposed substation. The new three-pole structures would be up to 100 feet tall and made of galvanized steel.

Additionally, approximately 52 miles of new 48-strand overhead fiber optic grounding wire would be installed, replacing the existing static wire, on the Headgate Rock-Blythe 161 kV transmission line between the Headgate Rock and Blythe Substations, looped through the WAPA interconnection switchyard. The fiber optic wire would serve as primary and temporary secondary communication until permanent secondary communication facilities are in place, in addition to its role in shielding the energized conductors from lightning strikes. When lightning strikes, the energy from the lightning strike will travel along the overhead grounding wire to a location where the energy from the lightning strike can go to ground and safely dissipate, allowing for the transmission line conductors to remain energized.

The communication link along a transmission line is used to gather information about the system such as the status of the line's service and equipment at the stations, the amount of power being transmitted along the line, and for sending signals to operate a station's equipment remotely. Additionally, the communication link allows for voice communication between the utility's dispatch center and its workers at the station. Typically, this communication link utilizes fiber optics placed inside of the overhead grounding wire. The use of a fiber optic cable allows for near instantaneous communication between the stations. WAPA would also work with the Bureau of Land Management (BLM) in the processing of the right-of-way (ROW) application to support these connections, as needed.

2.8 PROJECT OBJECTIVES

CORE has defined the following objectives for the Project:

- Utilize property within the County to site PV solar power-generating facilities and energy storage near existing utility infrastructure.
- Support California's efforts to reduce greenhouse gas (GHG) emissions consistent with the timeline established by the California Global Warming Solutions Act under California Assembly Bill 32, as amended by Senate Bill 32, which requires that Statewide GHG emissions are reduced to at least 40 percent below the Statewide GHG emissions limit by 2030.
- Support California's aggressive Renewables Portfolio Standard (RPS) Program consistent with the timeline established by Senate Bill 100, which requires that by December 31, 2030, 60 percent of all electricity sold in the State shall be generated from renewable energy sources.

- Develop an economically feasible and commercially financeable power-generating facility and energy storage system.
- Provide solar-generated electricity to the California Independent System Operator (CAISO) grid and WAPA.
- Promote the County's role as the State's leading producer of renewable energy.
- Provide green jobs to the County and the State of California.
- Site and design the Project in an environmentally responsible manner consistent with current County guidelines.

2.9 INTENDED USES OF THE EIR

This EIR is an informational document intended to inform public agency decision-makers and the public of potential environmental effects of the Project described above, identify ways to minimize potential significant effects, and describe and evaluate a reasonable range of alternatives to the Project.

The County is the Lead Agency for the Project, as it is the agency with primary authority over the Project's land use discretionary approvals. Several other agencies, identified as responsible and trustee agencies, will also use the EIR for their consideration of approvals or permits under their respective authorities.

For the purposes of CEQA, the term "trustee agency" means a State agency having jurisdiction by law over natural resources affected by a project, which are held in trust for the people of the State of California. The term "responsible agency" includes all public agencies other than a lead agency that may have discretionary approval power associated with the implementation of a proposed project or an aspect of subsequent implementation of a project. Accordingly, **Table 2-2**, *Matrix of Potential Approvals Required*, identifies a list of approvals that could be required from the Lead Agency, trustee agencies, and responsible agencies.

Table 2-2: Matrix of Potential Approvals Required

Permit/Action Required	Approving Agency	Lead/Trustee/Responsible Agency Designation
Environmental Impact Report Certification	County	Lead Agency
Condition Use Permit	County	Lead Agency
Air Quality Construction Management Plan	Mojave Desert Air Quality Management District (MDAQMD)	Responsible Agency
Waste Discharge Permit, if required	Lahontan Regional Water Quality Control Board (RWQCB)	Responsible Agency
General Construction Stormwater Permit	Lahontan RWQCB	Responsible Agency
Grading, Building, and Encroachment Permit(s)	County	Lead Agency
Streambed Alteration Agreement, if required	California Department of Fish and Wildlife (CDFW)	Responsible Agency / Trustee Agency
Incidental Take Permit, if required	CDFW	Responsible Agency / Trustee Agency

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CHAPTER 3 – ENVIRONMENTAL SETTING

3.1 ENVIRONMENTAL SETTING OVERVIEW

CEQA Guidelines Section 15125 requires that an Environmental Impact Report (EIR) include a description of the existing environment. This chapter provides a general overview of the existing regional and local setting in which the Project Site is located and a brief description of the existing conditions at the Project Site. Detailed information on existing conditions for each environmental topic is provided in Sections 4.1 through 4.10 of this Draft EIR. This chapter also provides a list and summary of reasonably foreseeable projects in the vicinity of the Project Site that San Bernardino County (County) has determined could, in combination with the Project, potentially result in cumulative impacts. As described further below, these related projects are considered as part of the cumulative impact analyses presented in Sections 4.1 through 4.10 of this Draft EIR.

3.2 EXISTING LAND USE

The Project Site is located approximately 2.5 miles southeast of Vidal, an unincorporated area of the County that is located just east of U.S. Route 95, just north of the Riverside County border, and just west of the Colorado River (see Figure 2-1). The Project Site encompasses 1,090 acres within 21 parcels (in their entirety and portions of) that are held under lease agreement by CORE (see **Table 3-1**, *Assessor's Parcel Numbers Associated with the Project*).

Table 3-1: Assessor's Parcel Numbers Associated with the Project

APNs		
0647-051-08	0647-061-09	0647-081-37
0647-051-11	0647-061-13	0647-091-03
0647-061-01	0647-061-15	0647-091-04
0647-061-02	0647-061-16	0647-091-05
0647-061-03	0647-061-20	0647-091-06
0647-061-04	0647-061-22	
0647-061-05	0647-061-29	
0647-061-08	0647-061-30	

The Project Site are mostly vacant and undeveloped, and currently contain scattered structures associated with an abandoned rural residence, garage (storage) areas, and several WAPA towers. The Project is located within the Vidal Wash and Upper Parker Valley-Colorado River watersheds. Vegetation characteristic of Vidal Wash and the major wash to the north includes Blue Palo Verde-Ironwood Woodland, with banks dominated by blue palo verde, ironwood, and creosote. Other minor drainages present in the Project Site are primarily located within Creosote Bush Scrub habitat with bank vegetation typical of this community.

The Project Site is located within the East Desert Communities planning area of the County. The County's Zoning Map identifies the zoning of the Project site as Resource Conservation.[1] The RC land use zoning district provides sites for recreational activities, including: Campgrounds, recreational vehicle parks, and equestrian facilities; single-family homes at a density of one per 40 acres; electric power generation

[1] County of San Bernardino, *Zoning Maps*, 2006. Available at https://cms.sbcounty.gov/lus/Planning/ZoningOverlayMaps/ZoningMaps.aspx#Desert. Accessed on August 4, 2022.

facilities; transportation facilities; government offices and hospitals; and other similar and compatible uses. Renewable energy generation facilities are an allowed land use within the RC land use zoning district. The Countywide Plan designates the Project Site as Resource Land Management (RLM). In addition to the previous list, uses permitted within the RLM designation include mineral extraction, natural resource conservation areas, military facilities, lands under control of the State and federal government, and tribal entities. Solar generation facilities are allowed under the RLM/RC land use designation and zoning district with a Conditional Use Permit.

3.2.1 Surrounding Land Uses

The Project Site is primarily surrounded by undeveloped and vacant land. Existing development in the area includes rural access roads and scattered rural residences. No established residential communities are directly adjacent to the Project Site beyond a few abandoned, dilapidated residences. The nearest residential area is located approximately 2 miles to the east, across the Colorado River in the State of Arizona. The closest off-site habitable structure is located more than 700 feet northwest of the Project Site.

The area surrounding the Project Site is within the East Desert Communities planning area of the County. The County's Zoning Map identifies the land use zoning designation of the land surrounding the Project Site as RC.[2]

3.2.2 Adopted Plans

Countywide Plan

The County Board of Supervisors formally adopted the Countywide Plan on October 27, 2020. The Countywide Plan is a long-range policy-planning document that defines the framework by which the County's physical and economic resources are to be managed over time. The Countywide Plan offers a new set of plans and tools that go well beyond a traditional general plan for the County's unincorporated communities and complements and informs the vision for the future of the County.

The Countywide Plan is organized around two main documents: The Policy Plan and the Business Plan. The Policy Plan serves as the County's General Plan, providing a blueprint for meeting the County's long-term vision for the future, but in a much more comprehensive way. The Policy Plan recognizes and differentiates the County's dual roles of serving as a "municipal" government for County unincorporated areas and as a "regional" government delivering programs, including those mandated or funded by the State and/or the federal government, to the County as a whole. The 11 elements of the Policy Plan include:

- Land Use Element
- Housing Element
- Infrastructure & Utilities Element
- Transportation & Mobility Element
- Natural Resources Element

[2] County of San Bernardino, *Development Code,* 2007. Available at http://www.sbcounty.gov/uploads/lus/developmentcode/dcwebsite.pdf. Accessed on August 4, 2022.

- Renewable Energy and Conservation Element
- Cultural Resources Element
- Hazards Element
- Personal & Property Protection Element
- Economic Development Element
- Health & Wellness Element

The Business Plan takes an innovative, systems approach to managing the County's resources with a Governance Element and an Implementation Plan.

East Desert Community Action Guide

In 2016, the County embarked on a planning process to update the fourteen existing Community Plans and create over 30 new plans for approximately 80 unincorporated communities. In addition to updated goals and policies, the County prepared draft Community Plans containing hundreds of grass-roots tools, actions, and strategies—shaped by over two years of public outreach. Public feedback led to the renaming of the documents from "Community Plans" to "Community Action Guides", which more accurately reflects their purpose and content. The Community Action Guides also include updated information on each community's background, character, issues, values, and aspirations provided by the community.

The East Desert Communities Action Guide (EDCAG) is a framework of actions identified by the East Desert Communities with ways to implement the actions. The County released revised drafts of the EDCAG in early 2019, and the 2019 Draft is the version that was accepted by the Board of Supervisors.

3.3 RELATED PROJECTS

CEQA requires that an EIR contain an assessment of the cumulative impacts that could result from a project and other related projects. As defined in CEQA Guidelines Section 15355, "[c]umulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." Although project-related impacts may be individually minor, the cumulative effects of these impacts, in combination with the impacts of other projects, could be significant under CEQA and must be addressed. Through the evaluation of cumulative impacts, CEQA attempts to ensure that large-scale environmental impacts will not be ignored.

CEQA Guidelines Section 15130(b) states that the analysis of cumulative effects "need not provide as great detail as is provided for the effects attributable to the project alone," but the discussion "shall reflect the severity of the impacts and their likelihood of occurrence." Where a Lead Agency concludes that the cumulative effects of a project, taken together with the impacts of past, present, and probable future projects, are significant, the Lead Agency then must determine whether the project's incremental contribution to such significant cumulative impact is "cumulatively considerable," and thus significant in and of itself.

CEQA Guidelines Section 15130(a)(2) additionally states, "when the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR. A Lead Agency shall identify facts and analysis supporting the Lead Agency's conclusion that the cumulative impact is less than significant."

This Draft EIR considers the effects of the Project in relation to the full development forecasted by the Countywide Plan and other related projects either proposed, approved, or under construction in the area. **Table 3-2**, *Related Projects*, provides information on the land use, location, and size of these related projects provided by the County. However, as noted in the Table 3-1 and as shown in **Figure 3-1**, *Related Projects in the Planning Area*, a majority of the related projects are located over 100 miles away and, therefore, would not contribute to a cumulatively considerable impact. Therefore, only related projects 6, 8, 9, 10 and 11 were considered throughout the cumulative impacts analysis in this Draft EIR.

Table 3-2: Related Projects

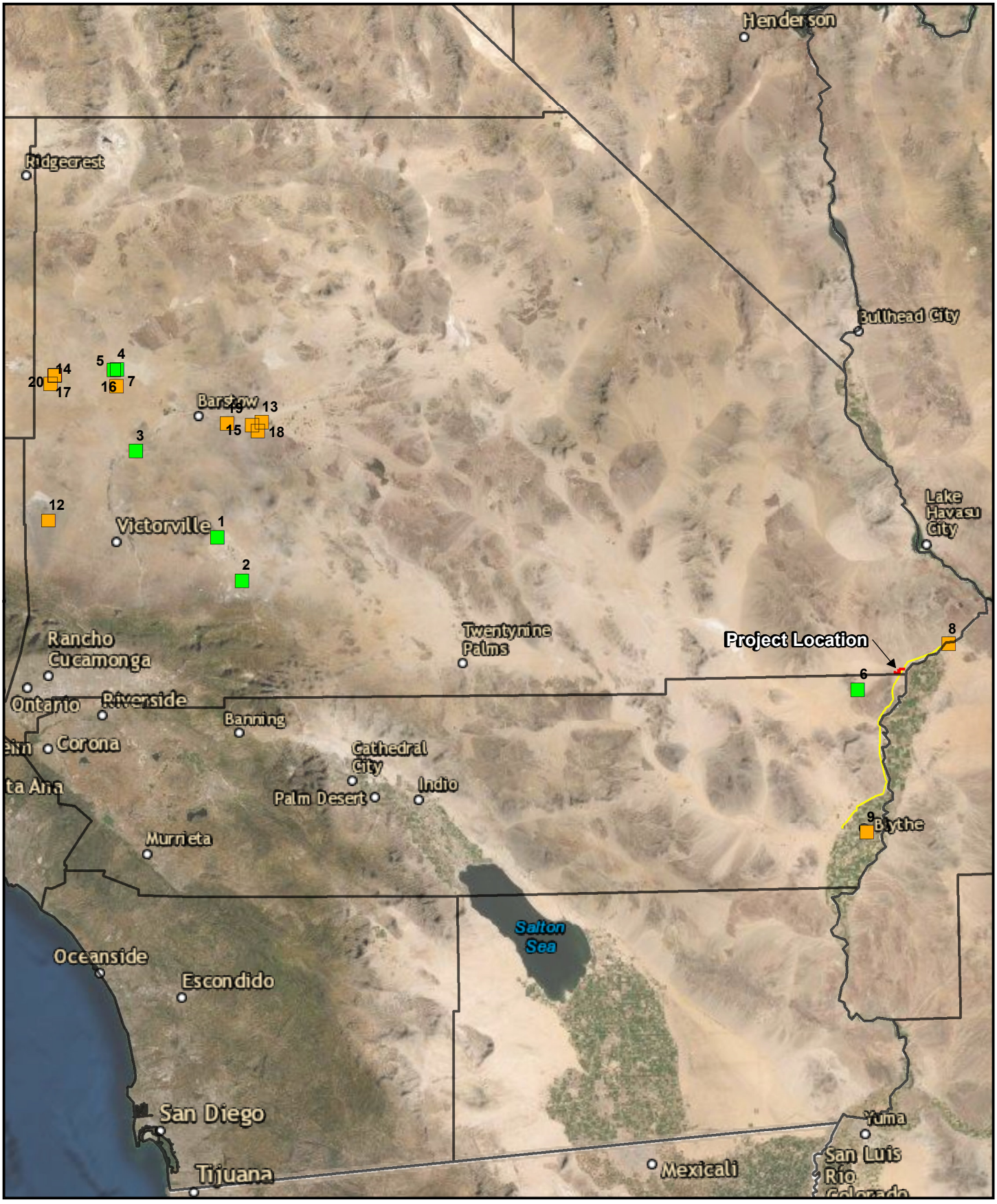
Number	Project Name	Description	Location	Approximate Distance from Project Site	Status
Active Projects					
1	Sienna Solar North, South, East and West	1,630 acre 450 MW Solar Farm	Four separate sites near Comet Road, North Side; approximately 5,800' west of Comet Rd. and HWY 247 Intersection and Two separate sites near the northwest corner of Barstow Rd (SR 247) and Granite Rd	145 miles	Accepted – Working on Project Revisions
2	Camp Rock Solar Farm LLC	20 acre 4 MW Solar Farm	West side of Camp Rock Road; 650 ft. south of Bauer Road	138 miles	Under Review
3	Corral Solar	58.5 acre 5 MW Solar Farm	North of National Trails Highway, south of Atchison Topeka and Santa Fe Railroad, and west of Corral Road.	166 miles	Under Review
4	Harper Lake Solar PV	80 acre 65 MW Solar Farm	42829 Harper Lake Road	175 miles	Under Review
5	Lockhart Solar PV II	600 acre 150 MW Solar Farm	43450 Harper Lake Road	175 miles	Recommend to Board of Supervisors
6	**Parker-Blythe No. 2 Transmission Line Rebuild**	**Electric Utility Line**	**Within the ROW on land controlled by BLM, CO River Indian Tribes, CA State Lands Commission, and WAPA**	**8 miles**	**Future/Pending**
Approved Projects					
7	Jazmin Solar Energy	40 acre 8 MW Solar Farm	East side of Harper Lake Road, approximately 3.9 miles north of California State Route 58	174 miles	Conditionally Approved
8	**Bouse-Kofa 161-kV Rebuild**	**Electric Utility Line**	**Between Bouse and Kofa Substations**	**10 miles**	**Present**
9	**Parker-Davis Transmission System Routine Operation and Maintenance Project and**	**Electric Utility Line**	**Parker-Davis Transmission System**	**34 miles**	**Past and Present**

	Proposed Integrated Vegetation Management Program (WAPA 2015)				
10	**Routine Transmission Inspections**	**Electric Utility Line**	**Parker-Davis Transmission System**	**N/A***	**Past and Present**
11	**Past/Present Dispersed Recreation OHV Travel on BLM lands**	**Recreation**	**BLM lands within Project area**	**N/A***	**Past and Present**
12	Phelan Solar / (Sheep Creek Community Solar)	20 acre 3 MW Solar Farm	Southeast Corner of Sheep Creek Road and Parkdale Road	180 miles	Conditionally Approved
13	Daggett Solar- CUP7 (an expansion of Daggett Solar)	300 acre no additional wattage Solar Farm	Adjacent to Sunray Lane, South of Valley Center, North of Chloride Street, Santa Fe.	142 miles	Conditionally Approved
14	Kramer South Solar Farm - 37BF 8me, LLC	386 acre 130 MW Solar Farm	Sheep Creek Rd and SR 58	187 miles	Conditionally Approved
15	Daggett Solar Power 1 LLC	3,500 acre 650 MW Solar Farm	East of Sunray Lane, South of Valley Center, North of Chloride Street, Santa Fe.	144 miles	Conditionally Approved
16	Lockhart Solar PV I	1,073 acre 160 MW Solar Farm	43450 Harper Lake Road	175 miles	Conditionally Approved
17	Kramer North Solar Farm - 12AT 8ME, LLC	191 acre 70 MW Solar Farm	West side of Highway 395, approximately 2.5 miles north of Highway 58	187 miles	Conditionally Approved
18	Daggett Solar 33	33.9 acre 5 MW Solar Farm	On National Trails Hwy, approximately 1 west of Hidden Springs Rd in Daggett	143 miles	Conditionally Approved
19	Daggett Solar 66	133.9 acre 7 MW Solar Farm	I40 at Nebo St., northeast of Barstow/directly east of 33640 National Trails Hwy Barstow	149 miles	Conditionally Approved
20	Resurgence Solar I & II	1,172 acre 150 MW Solar Farm	Highway 395, 1 mile north of Kramer Junction	187 miles	Conditionally Approved

Notes:

Related projects 10 and 11 are located throughout the area.

The bolded related projects (6, 8, 9, 10, and 11) are considered throughout the cumulative impacts analysis in this Draft EIR.



Project Location

WAPA Upgrade Portion Transmission Line

Active Related Projects

Approved Related Projects

*related projects 11 and 12 are located throughout the area

N

0 10 20 40

Miles

Figure 3-1
Vidal Energy
Related Projects in the Planning Area

Name: 21232 PLAN Fig 3.0-1 Related Projects.Mxd
Print Date: 6/28/2022, Author: pcarlos

CHAMBERS GROUP

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CHAPTER 4 – ENVIRONMENTAL IMPACT ANALYSIS

4.0.1 ENVIRONMENTAL ISSUES ADDRESSED

Based on the County's review of the Project, it has been determined that a Draft EIR is required for the Project. The purpose of this chapter of the Draft EIR is to further analyze those impacts previously determined to be potentially significant in order to inform decision-makers and the public of the type and magnitude of the changes to the existing environment that would result from the Project. The following sections provide detailed discussion of the environmental setting for each topic addressed in this Draft EIR, the analysis of the potential impacts of the Project, potential cumulative impacts, and measures to mitigate potential significant impacts to the fullest extent feasible.

Impacts found to be less than significant are further discussed in Section 6.1, *Effects Not Found to be Significant,* of Chapter 6, *Other CEQA Considerations,* of this Draft EIR.

Each potentially significant environmental issue is addressed in a separate section of the Draft EIR (Sections 4.1 through 4.10) and is generally organized into the following main subsections:

- **Existing Environmental Setting** describes the physical conditions that exist at this time and that may influence or affect the issue under investigation.
- **Regulatory Setting** describes the pertinent policy, standards, and codes that exist at this time and which may influence or affect the regulatory environment of the Project.
- **Thresholds of Significance** identifies the threshold of significance, as defined in CEQA Guidelines Section 15064.7, by which the Lead Agency will identify significant adverse environmental effects. The impact thresholds and significance criteria are based on Appendix G of the CEQA Guidelines, unless otherwise stated.
- **Methodology** provides a description of the methodology used for the analysis of the environmental issue addressed in the section.
- **Project Impact Analysis** identifies potential direct and indirect environmental effects associated with implementation of the Project.
- **Cumulative Impacts** considers the cumulative impact, as defined in CEQA Guidelines Section 15355, created as a result of the combination of the Project's impacts together with the related projects. This discussion considers whether the Project's incremental impact is cumulatively considerable.
- **Mitigation Measures** identifies proposed measures to mitigate environmental effects, where applicable.
- **Level of Significance After Mitigation** identifies the significance of each impact after mitigation is provided.

4.0.2 TERMINOLOGY USED IN THIS ANALYSIS

For each CEQA checklist question listed in the Draft EIR, the impact is determined by applying the evaluation criteria, or threshold of significance, presented for each resource area. Terminology used throughout the Draft EIR include:

Threshold of Significance. A threshold of significance is a criterion applied by the Lead Agency to identify significant adverse environmental impacts. A threshold is defined by a Lead Agency based on guidance found in CEQA or the CEQA Guidelines, scientific and factual data relative to the Lead Agency jurisdiction, the policy/regulatory environment of affected jurisdictions, and other factors.

No Impact. A designation of no impact is given when no adverse changes in the environment are expected.

Less Than Significant Impact. A less than significant impact would not result in a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the Project, including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance (see CEQA Guidelines Section 15382). Impacts determined to be less than significant do not require mitigation measures.

Less Than Significant Impact with Mitigation. A potentially significant (but mitigable) impact would have a substantial adverse impact on the environment, but could be reduced to a less-than-significant level with incorporation of mitigation measure(s).

Significant and Unavoidable Impact. A significant and unavoidable impact would cause a substantial adverse effect on the environment, and no feasible mitigation measures would be available to reduce the impact to a less-than-significant level. A project with significant and unavoidable impacts could still proceed, but the County would be required to prepare a statement of overriding considerations, pursuant to CEQA Guidelines Section 15093, explaining what factors the County considered in approving the project, notwithstanding the potential for significant environmental impacts.

4.1 AESTHETICS

4.1.1 Introduction

This section evaluates potential aesthetics and visual resource impacts that may result from construction and operation of the Project. The following discussion addresses: The existing aesthetic and visual resources of the Project Site and surrounding viewshed; evaluates Project consistency with applicable goals, policies, and regulations; identifies potential aesthetic and visual resource impacts; and recommends mitigation measures, if any, to reduce or avoid significant impacts that may result from implementation of the Project.

4.1.2 Existing Environmental Setting

Regional Setting

The County of San Bernardino Countywide Plan provides policies that serve to meet the County's comprehensive long-term goals for the future. The Natural Resources Element of the Countywide Plan provides goals and guidance for the protection of natural resources including the visual resources associated with natural and open space areas. San Bernardino County (County) is the largest County in the continental United States with a land area of 20,106 square miles. The County includes three distinct geographic regions, the Mountain Region, the Valley Region, and the Desert Region. The Project Site is in the East Desert Region of the County. The East Desert Region of San Bernardino County includes a significant portion of the Mojave Desert, approximately 18,735 square miles of land. The East Desert Region of the County is situated along the easterly border of the County in the southeastern portion of the County, near the Riverside and San Bernardino County border line, north of the Interstate 10 (I-10) Freeway. The visual character of the Desert Region is defined by its arid landscape consisting of sparsely vegetated mountain ranges and broad valleys with expansive bajadas[1] and scattered dry lakes. The Desert Region features extensive open space and expansive vistas. The area includes undulating terrain that generally slopes towards the Colorado River.

Surrounding Area

The surrounding area is generally flat and defined by an arid landscape, consisting of mainly undeveloped and vacant land. Existing development in the area includes rural access roads and scattered rural residences. No established residential communities are directly adjacent to the Project Site beyond abandoned, dilapidated residences. Other than sparse vegetation, the only natural visual resources present include distant views of the mountain foothills.

Project Site

The Project Site itself is located within the Vidal Wash and Upper Parker Valley-Colorado River watersheds. Vegetation characteristic of Vidal Wash and the major wash to the north includes Blue Palo Verde-Ironwood Woodland, with banks dominated by blue palo verde, ironwood, and creosote. Other minor drainages present in the Project Site are primarily located within Creosote Bush Scrub habitat with bank vegetation typical of this plant community. Current land use within the Project Site includes scattered abandoned rural residences, garage (storage) areas, and several WAPA towers. Disturbed areas of the Project show evidence of previous agricultural use on the Project Site. These areas are mainly

[1] A bajada is a broad slope of alluvial material at the foot of an escarpment or mountain.

concentrated along the western edge of the Project Area along U.S. Route 95 and in central portions of the Project Site immediately west and east of Citrus Ranch Road. Several small, developed areas are also present throughout the Project Site vicinity that include man-made structures, basins for wind avoidance, abandoned structures and barbed-wire fences, cattle watering holes (concrete), or paved areas. Evidence of continual site disturbance, such as off-highway vehicle (OHV) activity and illegal dumping is also present throughout the Project Area. Extensive OHV tracks traversing the Project Site can be seen on aerial imagery and were observed on the ground during the survey efforts (July 2021).

Scenic Vistas

Scenic vistas are typically expansive views from elevated areas. They may or may not be part of a designated scenic overlook or other area providing a static vista view of a landscape. The Project Site is located in a rural portion of the County and is not located within an area containing a scenic vista designated by the County's Countywide Plan. While there are scenic vistas in the desert regions, including views across desert landscapes, toward mountains, ridgelines, and rock formations, no designated scenic views, scenic vistas, or scenic resources are known to occur in the vicinity of the Project.[2]

Scenic Highways

The Project Site is located directly east of U.S. Route 95, a paved two-lane road and the nearest paved roadway. The Project Site is approximately 6.2 miles south of Highway 62, a County Scenic Route and Eligible State Scenic Highway.

Visual Concepts and Terminology

Visual or aesthetic resources are generally defined as both the natural and built features of the landscape that contribute to the public's experience and appreciation of the environment. Depending on the extent to which a project's presence would alter the perceived visual character and quality of the environment, a visual or aesthetic impact may occur. The following terms and concepts are used in the discussion below to describe and assess the aesthetic setting and impacts from the Project:

Vividness

Vividness refers to the visual power or memorability of landscape components as they combine in distinctive visual patterns. The Project Site is within a flat terrain and includes exposed soils that are tan in color, with similarly earth-toned low desert shrubs and grasses.

The surrounding area's desert vegetation, texture, and coloration are consistent and do not provide much of a striking visual quality when viewed for long durations. The Project area is primarily undeveloped with limited landscaping and development, including rural access roads and scattered rural residences. The Project Site includes several WAPA towers, which are relatively orderly and are aligned along other linear landscape features such as roads. The Project Site is also adjacent to regional transmission lines supported by large steel lattice towers. The scale of the WAPA electrical towers in the area make these features the most visible features throughout the landscape and reduce the overall vividness of the Project area. Based on these factors, vividness of the landscape is considered low.

[2] County of San Bernardino, *County Plan Final EIR,* 2020. Available at https://countywideplan.com/resources/document-download/. Accessed August 4, 2022.

Intactness

Intactness refers to the visual integrity of the natural and human-built landscape and its freedom from encroaching elements. Intactness can be present in developed urban and rural landscapes, as well as in natural settings. The Project Site vicinity is generally a rural desert landscape and includes primarily undeveloped land, U.S. Route 95, WAPA transmission towers, dirt roadways, and various rural residential properties. The intactness of the existing landscape is moderately low due to the existing infrastructure within the viewshed.

Unity

Unity refers to the visual coherence and compositional harmony of the landscape considered as a whole. Unity frequently attests to the careful design of individual built components in the landscape. The WAPA transmission towers traverse the western edge of the flat desert landscape in the Project area. While moderately contrasting in form, line, and color with the surrounding vegetation and terrain, the towers tend to recede into the background landscape somewhat with increased distance from receptors. For example, for motorists traveling on U.S. Route 95, the WAPA towers would be visible, but the scale of the features is reduced due to the presence of mountainous terrain in the background viewing distance. The visual prominence of the towers increases with proximity. The line and color of the towers increasingly contrast with background terrain. Visual unity of the landscape is moderately low.

Viewer Response

Viewer response is composed of two elements: Viewer sensitivity and viewer exposure. These elements combine to form a method of predicting how the viewer might react to visual changes brought about by a project. The potential for viewers in the Project Site vicinity is moderate, as the nearest paved road to the Project Site is U.S. Route 95 directly to the west. Therefore, the Project Site would have moderately high visibility from this highway. No existing residences are within the viewshed of the Project Site, and the Project Site is not within the viewshed of any designated scenic vistas.

Viewer Groups

Landscape visibility and a viewer's ability to perceive detail, color, form, and texture diminish as distance increases. Typically, the closer a resource is to the viewer, the more visually dominant the resource is. Generally, viewers cannot ascertain details at distances greater than three miles. Distance zones (or the position of the viewer in relationship to the landscape) are defined as follows:

- Foreground: 0.25-0.5 mile from the viewer
- Middleground: Extends from the foreground zone to 3-5 miles from the viewer
- Background: Extends from the middleground zone to the limit of visibility.

Due to the location of the Project, viewer groups that would be afforded views of the Project are primarily motorists and residents. Local residents, although not within the immediate viewshed of the Project Site, would experience views of the solar and energy storage site from the local public roads when driving to their homes. Local roads surrounding the Project Site include U.S. Route 95, as well as dirt roads including Old Parker Road and Citrus Ranch Road. The two dirt roads have a low levels of use and provide direct

access to rural residences. U.S. Route 95 has a higher level of use with an average annual daily traffic of 900 vehicles per day and provides regional access to a greater volume of motorists.[3]

Motorists traveling on U.S. Route 95 would have a direct view of the solar and energy storage facilities. Motorists traveling on the highway include people living in the Vidal Junction area, at the Colorado River Indian Reservation, and tourists who travel to the area to see the desert.

Nighttime Lighting

The Project Site and surrounding area are generally devoid of significant nighttime lighting sources. Existing light sources in the area consist primarily of lighting associated with the scattered rural residences. No streetlights exist along the perimeter roadways, including Old Parker Road and Citrus Ranch Road, and streetlights are not installed along U.S. Route 95.

4.1.3 Regulatory Setting

State

Senate Bill 1467

The California Department of Transportation (Caltrans) manages the State Scenic Highway Program. Senate Bill (SB) 1467 established the California Scenic Highway Program in 1963 and allows the designation of highways to be either officially designated as a State Scenic Highway by Caltrans or to be designated as eligible for such a designation. SB 1467 declares: "The development of scenic highways will not only add to the pleasure of the residents of this state but will also play an important role in encouraging the growth of the recreation and tourist industries upon which the economy of many users of this State depends."

According to Section 263.1 of the Streets and Highways Code, Highway 62 from I-10 in White Water to the Arizona State line is included in the State Scenic Highway System as an eligible State Scenic Highway.

Local

San Bernardino Countywide Plan/Policy Plan

The County adopted the Countywide Plan/Policy Plan (Policy Plan) in October 2020. The Policy Plan provides an update of the County's General Plan addressing physical, social, and economic issues facing the unincorporated portions of the County. The Policy Plan also provides an expansion of the County's General Plan to address supportive service for adults and children, healthcare service, public safety, and other regional county services provided to both incorporated and unincorporated areas. Relevant policies from the Policy Plan are summarized below.

Land Use Element

Policy LU-2.3 The design and siting of the project should be located, scaled, and buffered for compatibility with the surrounding natural environment and biodiversity.

[3] California Department of Transportation, *Traffic Volumes (excel file),* 2019. Available at https://dot.ca.gov/programs/traffic-operations/census. Accessed on August 4, 2022.

Policy LU-4.7 Protect the night sky by implementing all outdoor lighting within the Night Sky Protection Ordinance and preserve dark skies where they are fundamentally connected to community identities and local economies

Natural Resources Element

Policy NR-4.1 The location and scale of the project should be considered during development to preserve regionally significant scenic vistas and natural features, including prominent hillsides, ridgelines, dominant landforms, and reservoirs.

Policy NR-4.2 Coordinate with adjacent Federal, State, Local, and/or Tribal agencies to protect the scenic resources that are important to countywide residents, businesses, and tourists.

Policy NR-4.3 New off-site signage should not be installed and existing signage is encouraged to be removed to preserve the scenic character of the surrounding landscape.

Renewable Energy and Conservation Element

RE Policy 4.1 Apply standards to the design, siting, and operation of all renewable energy facilities that protect the environment, including sensitive biological resources, air quality, water supply and quality, cultural, archaeological, paleontological and scenic resources.

RE Policy 4.4 Encourage siting, construction and screening of [renewable energy] generation facilities to avoid, minimize or mitigate significant changes to the visual environment including minimizing light and glare.

RE Policy 5.1 Encourage the siting of [renewable energy] generation facilities on disturbed or degraded sites in proximity to necessary transmission infrastructure.

RE Policy 5.7 Support renewable energy projects that are compatible with protection of the scenic and recreational assets that define San Bernardino County for its residents and make it a destination for tourists.

County of San Bernardino Development Code

Section 83.07.040, Glare and Outdoor Lighting – Mountain and Desert Regions

Section 83.07.040 establishes standards for outdoor lighting in the County's Mountain and Desert Regions. The Project Site is located in the Desert Region. This section requires new permitted lighting for construction and operational lighting to be fully shielded to preclude light pollution or light trespass on adjacent properties, other property within the line of sight (direct or reflected) of the light source, or members of the public who may be traveling on adjacent roadways or rights-of-way.

Section 84.29.035, Required Findings for Approval of a Commercial Solar Energy Facility

Section 84.29.035 includes the following provisions:

a) In order to approve a commercial solar energy generation facility, the Planning Commission shall, in addition to making the findings required under Section 85.06.040(a) of the San Bernardino County Development Code, determine a broad variety of topics, including that the

location of the proposed commercial solar energy facility is appropriate in relation to the desirability and future development of communities, neighborhoods, and rural residential uses, and will not lead to loss of the scenic desert resources that are key to maintaining a vibrant desert tourist economy by making each of the findings of fact, as provided for in the Development Code.

b) In making these findings of fact, the Planning Commission shall consider:

1. The characteristics of the commercial solar energy facility development site and its physical and environmental setting, as well as the physical layout and design of the proposed development in relation to nearby communities, neighborhoods, and rural residential uses; and

2. The location of other commercial solar energy generation facilities that have been constructed, approved, or applied for in the vicinity, whether within a city of unincorporated territory, or on state or federal land.

c) The finding of fact shall include the following:

1. The proposed commercial solar energy generation facility is either:

A. Sufficiently separated from existing communities and existing/developing rural residential areas so as to avoid adverse effects, or

B. Of a sufficiently small size, provided with adequate setbacks, designed to be lower profile than otherwise permitted, and sufficiently screened from public view so as to not adversely affect the desirability and future development of communities, neighborhoods, and rural residential use.

2. Proposed fencing, walls, landscaping, and other perimeter features of the proposed commercial solar energy generation facility will minimize the visual impact of the project so as to blend with and be subordinate to the environment and character of the area where the facility is to be located.

3. The siting and design of the proposed commercial solar energy generation facility will be either:

A. Unobtrusive and not detract from the natural features, open space and visual qualities of the area as viewed from communities, rural residential uses, and major roadways and highways, or

B. Located in such proximity to already disturbed lands, such as electrical substations, surface mining operations, landfills, wastewater treatment facilities, etc., that it will not further detract from the natural features, open space and visual qualities of the area as viewed from communities, rural residential uses, and major roadways and highways.

4. The siting and design of project site access and maintenance roads have been incorporated in the visual analysis for the project and shall minimize visibility from public viewpoints while providing needed access to the development site.

5. The proposed commercial solar energy generation facility will avoid modification of scenic natural formations.

Section 84.29.040, Solar Energy Development Standards

Section 84.29.040 includes the following standards applicable to the proposed Project:

b) Glare. Solar energy facilities shall be designed to preclude daytime glare on any abutting residential land use zoning district, residential parcel, or public right-of-way.

c) Night Lighting. Outdoor lighting within a commercial solar energy generation facility shall comply with the provisions of Chapter 83.07 of the Development Code.

San Bernardino County Ordinance No. 3900

Because desert and mountain residents value the night sky conditions, the County adopted Ordinance No. 3900, also known as the Night Sky Ordinance. This ordinance outlines specific standards relating to glare and outdoor lighting. These standards are included in the sections of the Development Code described previously.

4.1.4 Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, a project would have a significant impact related to aesthetics if it would:

Threshold (a): Have a substantial adverse effect on a scenic vista;

Threshold (b): Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;

Threshold (c): Substantially degrade the existing visual character or quality of public views of the site and its surroundings; or

Threshold (d): Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

As identified in Section 6.5: Effects Found Not to Be Significant, impacts related to Threshold (a) and Threshold (b) were determined to be less than significant and do not require further analysis in the Draft EIR**.**

4.1.5 Methodology

Key Observation Points

Three key observation points (KOPs) were selected as representative vantage points in the landscape that offer motorists, including local residents traveling on area roadways, views of the Project Site. The locations of identified KOPs are shown in **Figure 4.1-1,** *KOP Overview Map*.

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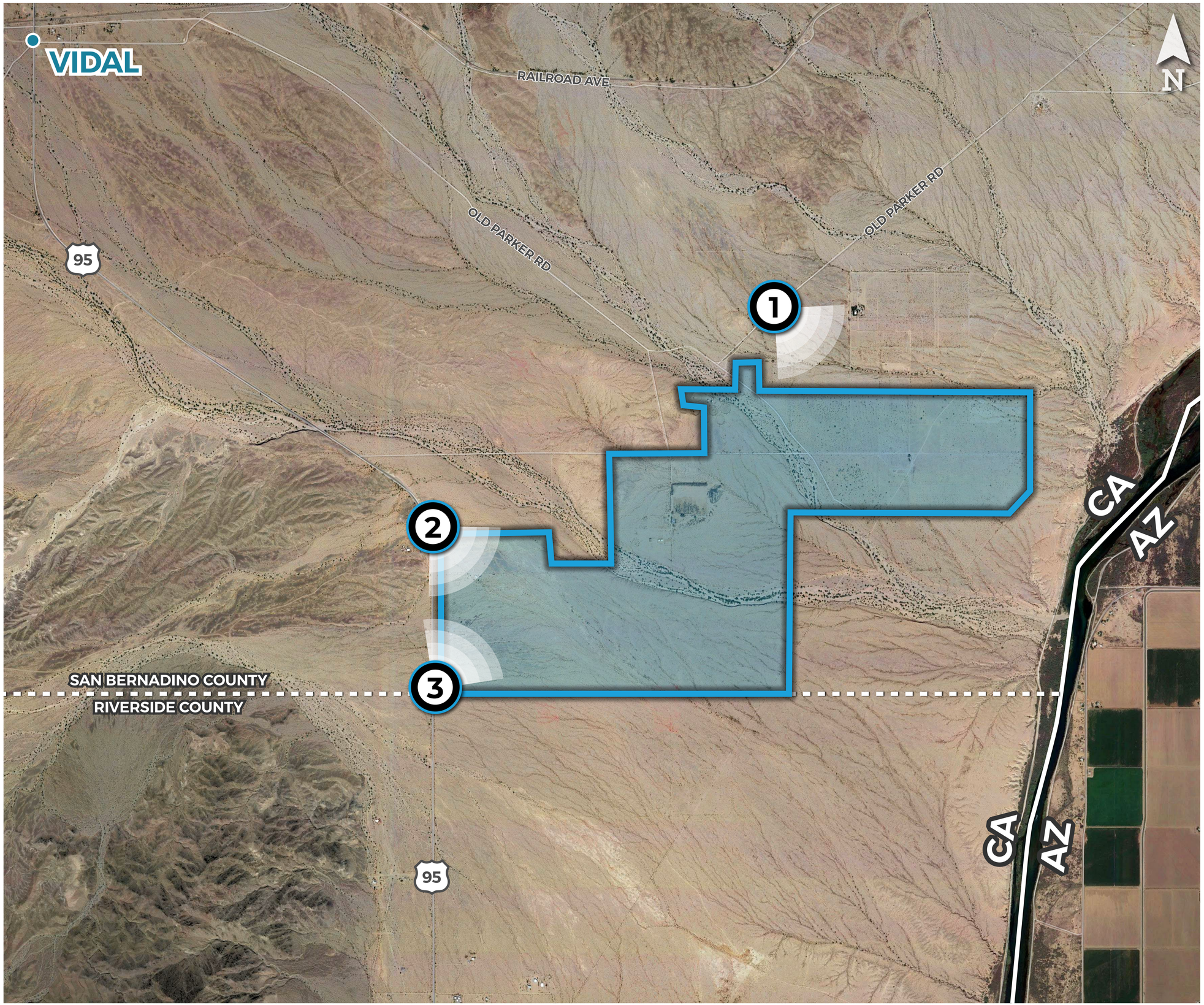
VIDAL SOLAR
ENERGY FACILITY

Figure 4.1-1
KOP Overview Map



1 PHOTO VIEWPOINT

MAP DETAIL AREA

PROJECT AREA

CHAMBERS GROUP

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Factors considered in the selection of KOPs included proximity to the Project Site, view angle, viewer concentration, view duration and frequency, and the amount of the Project Site that would be visible. One KOP (KOP 1) was selected from Old Parker Road and Desert Ranch Road, in the vicinity of a nearby rural residence, while the other two KOPs (KOP 2 and 3) selected from U.S. Route 95 immediately to the west of the Project Site. More distant viewing locations were not selected as KOPs as the visual details of the Project components would not be highly visible or prominent.

Additional Character Photos were taken of the existing conditions of the Project Site and are included as Appendix B of this Draft EIR. These Character Photos were taken from selected locations to support the discussion on existing visual setting and the analysis of potential visual impacts associated with the Project.

Viewshed Analysis

The viewshed is generally the area that is visible from an observer's viewpoint and includes the screening effects of intervening vegetation and/or physical structures. A topographic viewshed analysis was conducted for the Project to illustrate the geographic extent of potential views of the Project area and to comply with San Bernardino County Code Section 82.19.040 related to lighting. The topographic viewshed analysis for the Project is shown below in **Figures 4.1-2** through **4.1-4**. The viewshed analysis indicates that the Project Site is only distantly visible from the nearest roadways. Generally, the Project Site would be most visible from viewpoints within one mile. Site visibility diminishes as distance increases and the view angle decreases.

Visual Simulations

The visual simulations were developed using the following methodology: KOPs are identified, and several photos are collected at each KOP looking towards the Project Site. Photos are collected with a professional grade digital single-lens reflex (DSLR) camera. Each photo has direction, latitude, longitude, and elevation recorded to the metadata. A virtual camera is created with Autodesk 3DS Max, and the settings of the virtual camera are modified to match that of the physical camera used to collect the photos.

The virtual camera in Autodesk 3DS Max is aligned to the photograph using existing terrain data (LiDAR, Topographic) and other key features within the field of view. Once the virtual camera is aligned and settings adjusted to match the DSLR camera settings, materials, sun system and shadows are implemented. The Project design and 3D model is imported, or modeled in Autodesk 3DS Max, based on provided engineering design files.

The virtual camera is then rendered, using a physics based render engine (V-Ray) that calculates complex light bounces, reflection and refraction of materials. The rendered image is embedded into the matching photo, then atmospherics, blur and film grain are applied to the rendered elements to match the photo. The finished simulation will depict accurate scale, size and placement of the 3D elements, based on the best available data during the visual simulation development.

Figure 4.1-2, *KOP 1*, shows KOP 1 with views facing southeast from Desert Ranch Road and Old Parker Road, with the Existing Conditions showing low-lying vegetation, the dirt road, and WAPA power poles in the distance that characterize the Project Site and surrounding area. An occupied residence is located approximately 1,600 feet from KOP 1 and 1,600 feet from the nearest Project Site boundary line. The Proposed Conditions visual shows that the existing visual environment would be mostly unchanged, with Project structures distantly visible, with most of the structures not being perceptible at this distance.

Figure 4.1-3, *KOP 2*, shows KOP 2 with views facing southeast from U.S. Route 95. The Existing Conditions view shows an existing structure in the distance as well as WAPA transmission towers running north to south in the foreground, with distant views of mountain ridges in the background. The Proposed Conditions view shows that the solar panels will be visible from U.S. Route 95 with the battery storage facility less visually prominent due to the distance from the U.S. Route 95. Due to the distance and low height of the solar panels, views of mountains would remain visible.

Lastly, **Figure 4.1-4**, *KOP 3*, shows KOP 3 facing northeast from U.S. Route 95 at the border of San Bernardino and Riverside Counties. The Existing Conditions view shows utility poles, directional signage, and power lines visible in the foreground with more distant views of mountain ridges in the background.

Under Proposed Conditions, the solar panels will be visible from U.S. Route 95 but will be similar in height as the low-lying vegetation. Due to the distance and low height of the solar panels, views of mountains would remain visible.

Visual Change Analysis

The existing view photographs were compared to the simulated views to define the degree of visual change and visual impacts caused by the Project. The anticipated degree of viewer sensitivity (i.e., low, moderate, or strong) is disclosed for each KOP. Factors considered in determining degree of contrast include distance, view angle, view exposure, relative size or scale, and spatial relationships.

Glint and Glare Review

Potential glint and glare conditions were evaluated through a review of the *Utility-Scale Solar Energy Facility Visual Impact Characterization and Mitigation Study Project Report* published by the Argonne National Laboratory, which evaluates visual impacts for different types of solar projects.[4] The glint and glare analysis discussed in Threshold (d) below includes a review of a similar single-axis PV solar Project in southern Nevada. This has been included as an additional evaluation method.

[4] Sullivan and Abplanalp, *Utility-Scale Solar Energy Facility Visual Impact Characterization and Mitigation Study Project Report*, January 2014. Available at https://www.researchgate.net/publication/261559543_Utility-Scale_Solar_Energy_Facility_Visual_Impact_Characterization_and_Mitigation_Study_Project_Report. Accessed September 26, 2022.

VIDAL SOLAR
ENERGY FACILITY

EXISTING CONDITIONS

PROPOSED CONDITIONS

PHOTO SIMULATIONS ARE FOR DISCUSSION PURPOSES ONLY. FINAL DESIGN IS SUBJECT TO CHANGE.

Figure 4.1-2 KOP 1

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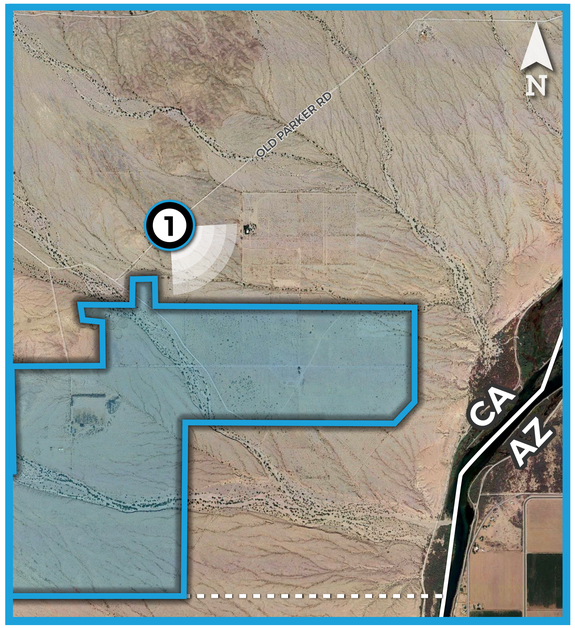
DIRECTION: SOUTHEAST



1 PHOTO VIEWPOINT

PROJECT AREA

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ENERGY FACILITY

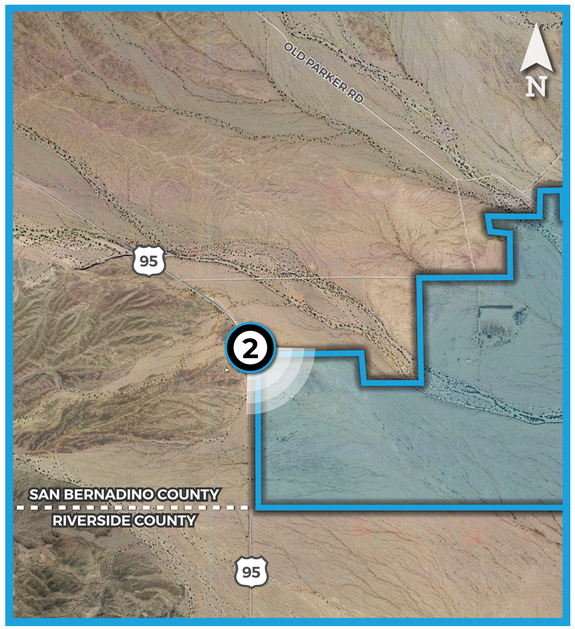
EXISTING CONDITIONS

PROPOSED CONDITIONS

PHOTO SIMULATIONS ARE FOR DISCUSSION PURPOSES ONLY. FINAL DESIGN IS SUBJECT TO CHANGE.

Figure 4.1-3 KOP 2

DATE: 6/16/21
TIME: 12:32 PM
DIRECTION: SOUTHEAST



2 PHOTO VIEWPOINT

PROJECT AREA

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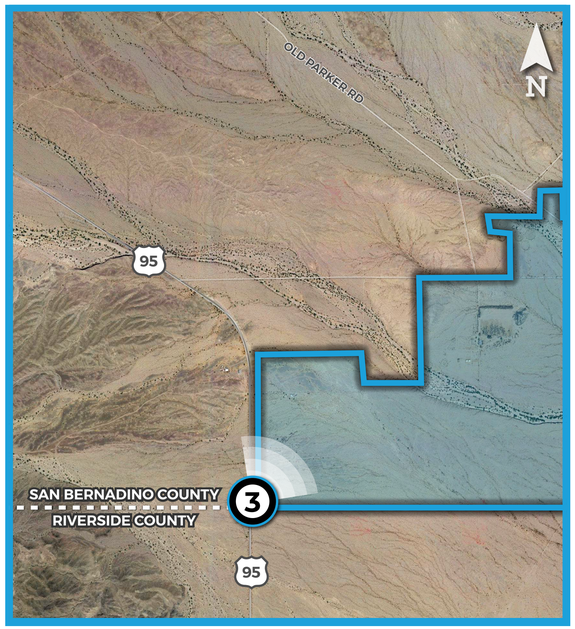
Figure 4.1-4 KOP 3

DATE: 6/16/21
TIME: 12:40 PM
DIRECTION: NORTHEAST

EXISTING CONDITIONS

PROPOSED CONDITIONS

PHOTO SIMULATIONS ARE FOR DISCUSSION PURPOSES ONLY. FINAL DESIGN IS SUBJECT TO CHANGE.



3 PHOTO VIEWPOINT

PROJECT AREA

CHAMBERS GROUP

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4.1.6 Project Impact Analysis

Threshold (c): Would the Project substantially degrade the existing visual character or quality of public views of the site and its surroundings?

The Project Site is located in a non-urbanized area. The existing visual quality of the Project Site and surrounding lands is moderate, due to the undeveloped and vacant land with scattered rural residential properties, and some prominent transportation and utility infrastructure. Existing views and the analysis of visual change are described below for representative local roads surrounding the Project Site. The location and view direction of each of the KOP photos are shown on Figure 4.1-1. Existing simulated KOP figures are provided in Figures 4.1-2 through 4.1-4. The proposed solar and energy storage facilities would introduce solar PV panels, buildings and other ancillary components to a primarily undeveloped high desert landscape. The proposed panels would be approximately a maximum of 18 feet above grade at the tallest point and approximately 2 feet above the grade at the lowest point.

Foreground Views of the Project

As described earlier, KOP 2 and KOP 3 represent views of the solar and energy storage facility from U.S. Route 95, just west of the Project Site (less than 0.25 mile), with KOP 2 north of Lye Road and KOP 3 south of Lye Road. This portion of U.S. Route 95 has a volume of approximately 900 average daily trips. The Project Site is in the immediate foreground, and the visual simulations represent the change in visual quality at a close viewing distance.

As shown in KOP 2 and KOP 3, the solar arrays would be visible in the foreground with views partially obstructed by existing desert shrubs and trees. The proposed solar equipment are low in profile, including PV modules mounted on fixed-tilt foundations or tracker units and associated electrical equipment that would display a height of approximately 12 feet. The Project would also include overhead collection lines, access roads, and a 6-foot chain-link perimeter fence. The battery storage facilities and substation would not be visible from any of the KOP vantage points. Views of expansive mountain ridgelines would remain be visible in the background, similar to existing conditions. The level of visual change with construction of the Project would be moderate, as the solar panels would become the predominant features in the foreground.

The solar panels would have a uniform color, texture, and form, which would moderately contrast with the color and form of the desert vegetation and landscape. The existing scenic quality of the area is moderately low due to the existing visual encroachments including existing dirt roads and utility lines. The moderate level of visual change on the landscape in an area with moderately low visual quality would result in a less than significant impact on visual quality.

Middleground Views of the Project

The middleground view of the Project from Old Parker Road is represented by KOP 1. After construction, Project facilities would be indistinct and not visually prominent in the middleground view. Project components would appear low to the ground and less discernable in the middleground views. The Project facilities would become visually imperceptible at the distance and viewing angle of KOP 1. Intervening topography and vegetation would provide some screening of the solar facilities. The Project would appear as a series of flat, grey horizontal forms from KOP 1, and the mountains and desert vegetation would remain visually prominent. The use of non-galvanized steel and other non-reflective materials would reduce the potential for reflectivity and would result in a low level of change from the existing

environment. The Project elements would only be slightly noticeable in the middleground of KOP 1 due to the contrast in color with the surrounding desert landscape. However, the Project would result in a low level of visual change from views on Old Parker Road. Therefore, the impact on visual quality is considered less than significant.

As such, the Project would not substantially degrade the existing visual character or quality of public views of the site and its surroundings, and impacts would be less than significant.

Threshold (d): Would the Project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Lighting

Construction

Construction of the Project is anticipated to occur during daytime hours as permitted by the County. However, if necessary and approved by the County, nighttime construction activities could occur, which may involve the use of temporary construction lighting equipment. Construction lighting is meant to be bright, and any such lighting may be visible for a great distance from nearby residences and roadways where there is an absence of intervening vegetation and topography. The use of any bright construction lighting would be temporary during the construction phase and would only occur if nighttime work was approved by the County. Any construction lighting would be directed away from any adjacent residences and toward active construction areas. Therefore, Project construction would not create a new source of substantial light that would adversely affect day or nighttime views in the area, and impacts would be less than significant.

Operation and Maintenance

The proposed solar and energy storage Project would have lighting installed at the primary access gates to the Project Site, within the battery storage containers, and around the on-site substation. Project lighting would be shielded and directed downward to minimize light trespass onto any surrounding properties. Lighting within the battery storage containers would be motion-activated. Project lighting at the substation would normally be off unless activated by on-site personnel.

In addition, nighttime lighting associated with the solar and energy storage Project would be subject to County approval and compliance with County requirements. As summarized in the Regulatory Setting, County Ordinance No. 3900 regulates glare, outdoor lighting, and night sky protection; and County Development Code Section 83.07.040 regulates outdoor lighting practices geared toward minimizing light pollution, glare, and light trespass; conserving energy and resources while maintaining nighttime safety, visibility, utility, and productivity; and curtailing the degradation of the nighttime visual environment. County lighting regulations require submittal of and approval of exterior lighting plans, per the General Plan, and any new Project lighting would be installed consistent with County requirements. Therefore, Project operation would not create a new source of substantial light that would adversely affect day or nighttime views in the area, and impacts would be less than significant.

Glint and Glare

Solar PV Panels

The Project would use darkly colored matte PV solar panels featuring an anti-reflective coating. Photovoltaic solar panels are designed to be highly absorptive of light that strikes the panel surfaces, generating electricity rather than reflecting light. The solar panels are also designed to track the sun to maximize panel exposure to the sun, which would direct the majority of any reflected light back toward the sun in a skyward direction. PV panels have a lower index of refraction/reflectivity than common sources of glare in residential environments. The glare and reflectance levels of panels are further reduced with the application of anti-reflective coatings. PV suppliers typically use stippled glass for panels as the "texturing" of the glass to allow more light energy to be channeled/transmitted through the glass while weakening the reflected light. With the application of anti-reflective coatings and use of modern glass technology, project PV panels would display overall low reflectivity.

The PV panels would be angled perpendicular to the east-west direction of the sun and are designed to track the position of the sun throughout the day to maximize panel exposure if a tracking system is used. Alternatively, the panels could be installed on a fixed-tilt system and would face to the south. The greatest potential for light reflection to reach viewer locations would occur with a tracking system when the panels would be angled toward the horizon at sunrise and sunset. During these periods, the solar panels would be tilted approximately 10 degrees below a horizontal plane in the direction of the sun. Unabsorbed light would reflect at approximately 20 degrees above the opposite horizon.

The solar power and energy storage facility would be located in a broad flat valley. Potential viewers of the facility primarily include motorists on U.S. Route 95 and residents, who would be less than 20 degrees above the facility. Motorists and residents would not be exposed to the glare at sunrise or sunset due to the low viewing angle. Motorists and residents may perceive indirect glare as an increase in color contrast in the early morning hours when the darkly colored PV panels could appear as lightly colored or while. However, this indirect glare would be brief and would not cause a nuisance to motorists or residents.

The Project would also be designed to ensure consistency with San Bernardino County Code Section 84.29.040, which requires solar energy facilities to be designed to preclude daytime glare on any abutting residential land use zoning district, residential parcel, or public right-of-way. The solar PV panels would not create a substantial source of glare due to the use of anti-reflective coating on the panels and the elevation of potential receptors relative to the facility. Impacts would be less than significant.

Metallic Electrical Equipment, Power Poles, and Buildings

Project facilities, including the gen-tie line, battery storage facilities, and on-site substation, would be constructed with metallic components, which could introduce new sources of glare compared to the undeveloped area. Any glare associated with the facilities would be minor and highly scattered because the metallic components would be separated geographically and would not concentrate potential glare in any area. In addition, for the metallic components, the Project would include use of non-galvanized steel or other similar materials to reduce glint and glare. The new overhead conductor and steel support structures installed for the on-site substation and gen-tie line would reflect approximately the same level of light as the existing transmission line facilities in the Project area. Therefore, the metallic electrical equipment, power poles, and buildings would not create a new source of substantial glare that would adversely affect day or nighttime views in the area, and impacts would be less than significant.

4.1.7 Cumulative Impacts

Chapter 3.0, Environmental Setting, of this Draft EIR provides a list of related projects that would have the potential to be considered in a cumulative context with the Project's incremental contribution. These projects are summarized in **Table 3-2,** *Related Projects*, and shown in **Figure 3-1,** *Related Projects in the Planning Area*. The geographic scope for the analysis of cumulative impacts on aesthetic resources includes both the local viewshed within a one-mile radius of the Project Site and area (generally the Vidal area). Local cumulative effects could occur in the immediate Project viewshed if related projects, activities, and landscapes are visible in the same field of view as the Project and could generally be visible from the Project area. Beyond three miles, structures become less distinct or not visible because they blend sufficiently with background forms, colors, and textures. Also, beyond three miles, it is likely that sight lines will become impaired or blocked by intervening terrain and vegetation. However, regional cumulative effects could still occur if viewers perceive that the general visual quality or landscape character of a regional area is diminished by the proliferation of visible similar structures or construction, even if the changes are not in the same field of view as existing or known future structures or facilities. The result is a perceived "industrialization" or "urbanization" of the existing landscape character. The extent of regional cumulative effects is limited to the project valley.

Potential Cumulative Impacts

The analysis below focuses on cumulative impacts to the local and regional viewshed results from development within approximately 40 miles of the Project Site, as many of the related projects are located over 100 miles away, and therefore would not contribute to a cumulatively considerable visual or aesthetic impact due to intervening topography or geographic separation. The following related projects are proposed in the regional vicinity of the Project:

- Related Project 6: Parker Blythe No. 2 Transmission Line Rebuild (approximately 8 miles away)
- Related Project 8: Bouse-Kofa 161 kV Rebuild (approximately 10 miles away)
- Related Project 9: Parker David Transmission System Routine Operation and Maintenance Project and Proposed Integrated Vegetation Management Program (approximately 34 miles away)

The proposed transmission line rebuild or maintenance projects would not contribute to cumulative aesthetic impacts with the Project, because the visual elements of those separate projects are existing features in the environment and would also appear visually distinct and unrelated to the proposed solar facility and substation.

Visual Quality

The local cumulative impact on visual quality would be less than significant because all three of the related projects in the general vicinity are existing projects and impacts during construction would be temporary. The rebuild of the transmission lines and the maintenance of the transmission system would not introduce new features that would cause cumulative impacts considering the addition of the Project. Travelers on the highways would already be used to seeing the transmission lines that are undergoing upgrades and maintenance, so the related projects would not add new visual features once construction is completed. In addition, the local and regional cumulative impact on visual quality would be less than significant because views of the related projects from the Project area would generally be screened by intervening topography and vegetation. Therefore, the Project's contribution to cumulative impacts associated with visual character or quality would not be considerable.

Light and Glare

The County is known for its dark skies. The related projects would be subject to the County's Night Sky Ordinance and Glare and Outdoor Lighting standards (County Development Code Section 83.07.040), which would limit the amount of lighting that would be introduced to the area and restrict the type of lighting that could be used. The cumulative impact on the night sky would be less than significant due to the conformance with the County's lighting ordinance. The related projects would not introduce new sources of glare that would be directed into any area. No cumulative light and glare impact would occur. Therefore, the Project's contribution to cumulative impacts associated with lighting and glare would not be considerable.

4.1.8 Mitigation Measures

As detailed above, the Project would not result in significant impacts regarding aesthetics. Therefore, no mitigation measures are required.

4.1.9 Level of Significance After Mitigation

No mitigation measures are required. Impacts related to aesthetics would be less than significant.

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4.2 AIR QUALITY

4.2.1 Introduction

This section addresses potential air quality impacts that may result from construction and operation of the Project. The section discusses the existing air quality conditions in the Project area, identifies applicable regulations, evaluates the Project's consistency with applicable air quality plans, identifies and analyzes environmental impacts, and recommends measures to reduce or avoid potential adverse impacts anticipated from implementation of the Project, as applicable.

Information contained in this section is derived from the Air Quality and Greenhouse Gas Emissions Impact Analysis, dated September 19, 2022, prepared by Vista Environmental (Appendix C).

4.2.2 Existing Environmental Setting

Air quality and dispersion of air pollution in an area is determined by such natural factors as topography, meteorology, climate, atmospheric stability. In addition, man-made influences such as development patterns and lifestyle can affect the generation of and exposure to air borne pollutants. These factors are described in more detail below.

Topography

The State of California is divided geographically into 15 air basins, generally along geographic or topographic boundaries. The Project Site is located within the San Bernardino County (County) portion of the Mojave Desert Air Basin (Basin). The Basin includes the desert portion of Los Angeles and San Bernardino Counties, the eastern desert portion of Kern County, and the northeastern desert portion of Riverside County. The Mojave Desert Air Quality Management District (MDAQMD) has jurisdiction over stationary sources of air pollution located within San Bernardino County's High Desert and Riverside County's Palo Verde Valley, which includes the Project Site.

The Basin is bound in the northwest by the Tehachapi Mountains, in the southwest by the San Gabriel Mountains, and in the south by the San Bernardino Mountains. To the north, the Basin is defined by the San Bernardino-Inyo County boundary, to the northeast the California-Nevada state line, and to the east by the Colorado River.[1] The San Gabriel and San Bernardino Mountains are high and rugged, with the highest peaks being 10,066 feet above sea level (Mt. San Antonio) and 11,503 feet (Mt. San Gorgonio), respectively. The Basin generally lies at 3,000 to 6,000 feet elevation.

The Mojave Desert is situated in a transitional zone between the Great Basin Desert to the north and the Sonoran Desert to the south (mainly between 34 and 38°N latitudes).[2] The area is primarily a rain-shadow desert, meaning it experiences little rainfall because it is sheltered from prevailing rain-bearing winds (i.e., off the Pacific Ocean) by a range of mountains.

[1] California Air Pollution Control Officers Association, Maps, 2021. Available at http://www.capcoa.org/maps/. Accessed August 25, 2022.

[2] Desert U.S.A., Mojave Desert, 2021. Available at https://www.desertusa.com/mojave-desert.html. Accessed August 25, 2022.

Meteorology and Climate

Factors such as wind, sunlight, temperature, humidity, and rainfall, affect the accumulation and/or dispersion of air pollutants throughout the Basin. Local meteorological conditions are greatly affected by the topography of the region.

Prevailing winds in the Basin are out of west and southwest. These prevailing winds are due to the proximity of the Basin to coastal and central regions and the blocking nature of the Sierra Nevada Mountains to the north. Air masses pushed onshore in Southern California by differential heating are channeled through the mountain passes. Although a portion of the prevailing winds come from the Los Angeles Basin via the canyons, the vast majority of the winds are a result of the orographic effect and the desert heat low-pressure systems. The "orographic effect" is the phenomenon whereby the air is forced over the mountain range and loses moisture as it rises. When it descends, it also compresses and heats up. The speed of the wind is aided by the "desert heat low", which routinely form over the eastern Mojave Desert area.

During the summer, a Pacific Subtropical High Cell that sits off the coast generally influences the Basin, inhibiting cloud formation and encouraging daytime solar heating. The Basin is rarely influenced by cold air masses moving south from Canada and Alaska, as these frontal systems are weak and diffuse by the time the reach the desert. Most desert moisture arrives from infrequent warm, moist, and unstable air masses from the south. The Basin averages between three and seven inches of precipitation per year (from 16 to 30 days with at least 0.01 inches of precipitation). The Basin is classified as a dry-hot desert climate, with portions classified as dry-very hot desert, indicating at least three months of maximum average temperatures over 100.4° F.

Sensitive Receptors

Sensitive receptors are more susceptible to the effects of air pollution than the general population. Sensitive populations (sensitive receptors) that are in proximity to localized sources of toxics and carbon monoxide are of particular concern. Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, daycare centers, and outdoor recreation areas. The nearest sensitive receptor to the Project Site is an unoccupied home located approximately 740 feet west of the Project Site and is located on the west side of U.S. Route 95. The closest occupied residence is located over 1,600 feet to the north along Old Parker Road.

Air Pollutants of Concern

Pollutants of concern include ozone (O_3), nitrogen dioxide (NO_2), carbon dioxide (CO), sulfur dioxide (SO_2), particulate matter (PM) with diameters of 10 and 2.5 micrometers or less (PM10 and PM2.5, respectively), and lead. These pollutants are discussed below. In California, sulfates, vinyl chloride, hydrogen sulfide, and visibility-reducing particles are also regulated as criteria air pollutants.

Ozone

Ozone is a colorless gas that is formed in the atmosphere when volatile organic compounds (VOCs), sometimes referred to as reactive organic gases (ROG), and nitrogen oxides (NO_x) react in the presence of ultraviolet sunlight. Ozone is a secondary pollutant as it is not directly emitted. Ozone is the result of

chemical reactions between other pollutants, most importantly hydrocarbons and NO_2, which occur only in the presence of bright sunlight. Pollutants emitted from upwind cities react during transport downwind to produce the oxidant concentrations experienced in the area. Many areas of Southern California contribute to the O_3 levels experienced at the Blythe Station, with the more significant areas being those directly upwind. Automobile exhaust and industrial sources are the primary sources of VOCs and NO_x. Meteorology and terrain play major roles in O_3 formation. Ideal conditions occur during summer and early autumn on days with low wind speeds or stagnant air, warm temperatures, and cloudless skies. O_3 can damage the tissues of the respiratory tract, causing inflammation and irritation, and result in symptoms such as coughing, chest tightness and worsening of asthma symptoms.[3]

The State 1-hour and 8-hour concentration standards for O_3have not been exceeded over the past three years at the Blythe Station. The Federal 8-hour O_3 standard has not been exceeded over the past three years at the Blythe Station.

Nitrogen Dioxide

Most NO_2, like O_3, is not directly emitted into the atmosphere but is formed by an atmospheric chemical reaction between nitric oxide (NO) and atmospheric oxygen. NO and NO_2 are collectively referred to as NO_x and are major contributors to O_3 formation. High concentrations of NO_2 can cause breathing difficulties and result in a brownish-red cast to the atmosphere with reduced visibility. There is some indication of a relationship between NO_2 and chronic pulmonary fibrosis. Some increase in bronchitis in children (2 and 3 years old) has also been observed at concentrations below 0.3 parts per million (ppm) by volume.

The Palm Springs Station did not record an exceedance of either the Federal or State 1-hour NO_2 standards for the last three years.

Carbon Monoxide

Carbon monoxide is a colorless and odorless gas formed by the incomplete combustion of fossil fuels. Carbon monoxide is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. Automobile exhaust accounts for most CO emissions. Carbon Monoxide is a nonreactive air pollutant that dissipates relatively quickly; therefore, ambient CO concentrations generally follow the spatial and temporal distributions of vehicular traffic. Concentrations are influenced by local meteorological conditions, primarily wind speed, topography, and atmospheric stability. Carbon monoxide from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions. The highest levels of CO typically occur during the colder months of the year when inversion conditions are more frequent. In terms of health, CO competes with oxygen, often replacing it in the blood, thus reducing the blood's ability to transport oxygen to vital organs. The results of excess CO exposure can be dizziness, fatigue, and impairment of central nervous system functions.

Sulfur Dioxide

Sulfur dioxide (SO_2) is a colorless, pungent gas formed primarily by the combustion of sulfur containing fossil fuels. Main sources of SO_2 are coal and oil used in power plants and industries; as such, the highest

[3] California Air Resources Board (CARB). 2021a. Ozone & Health. Available at https://ww2.arb.ca.gov/resources/ozone-and-health. Accessed September 26, 2022.

levels of SO_2 are generally found near large industrial complexes. In recent years, sulfur dioxide concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels. SO_2 is an irritant gas that attacks the throat and lungs and can cause acute respiratory symptoms and diminished ventilator function in children. SO_2 can also yellow plant leaves and corrode iron and steel.

Particulate Matter

Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. Particulate matter can form when gases emitted from industries and motor vehicles undergo chemical reactions in the atmosphere. PM2.5 and PM10 represent fractions of particulate matter. Fine particulate matter, or PM2.5, is roughly 1/28 the diameter of a human hair. PM2.5 results from fuel combustion (e.g., motor vehicles, power generation, and industrial facilities), residential fireplaces, and woodstoves. In addition, PM2.5 can be formed in the atmosphere from gases such as sulfur oxides (SO_x), NO_x, and VOC.

Inhalable or coarse particulate matter, or PM10, is about 1/7 the thickness of a human hair. Major sources of PM10 include: Crushing or grinding operations; dust stirred up by vehicles traveling on roads; wood-burning stoves and fireplaces; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; windblown dust from open lands, and; atmospheric chemical and photochemical reactions.

PM2.5 and PM10 pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. PM2.5 and PM10 can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections. Very small particles of substances, such as lead, sulfates, and nitrates, can cause lung damage directly or be absorbed into the bloodstream, causing damage elsewhere in the body. Additionally, these substances can transport absorbed gases, such as chlorides or ammonium, into the lungs, also causing injury. Whereas PM10 tends to collect in the upper portion of the respiratory system, PM2.5 is so tiny that it can penetrate deeper into the lungs and damage lung tissues. Suspended particulates also damage and discolor surfaces on which they settle, as well as produce haze and reduce regional visibility.

The State 24-hour concentration standard for PM10 has been exceeded between 7 and 66 days each year over the past three years at the Niland Station. Over the past three years the Federal 24-hour standard for PM10 has been exceeded between 1 and 10 days each year of the past three years at the Niland Station. The annual PM10 concentration at the Niland Station has exceeded the State standard for the past three years and has not exceeded the Federal standard for the past three years.

Over the past three years the 24-hour concentration standard for PM2.5 has been exceeded between 0 and 2 days each year over the past three years at the Joshua Tree Station. No data was available for the annual PM2.5 concentration standards at the Joshua Tree Station. There does not appear to be a noticeable trend for PM10 or PM2.5 in either maximum particulate concentrations or days of exceedances in the area. Particulate levels in the area are due to natural sources, grading operations, and motor vehicles.

According to the United States Environmental Protection Agency (U.S. EPA), some people are much more sensitive than others to breathing fine particles (PM10 and PM2.5). People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worsening illness and premature death

due to breathing these fine particles. People with bronchitis can expect aggravated symptoms from breathing in fine particles. Children may experience decline in lung function due to breathing in PM10 and PM2.5.

Lead

Lead in the atmosphere occurs as PM. Sources of lead include leaded gasoline; the manufacturing of batteries, paint, ink, ceramics, and ammunition; and secondary lead smelters. Prior to 1978, mobile emissions were the primary source of atmospheric lead. Between 1978 and 1987, the phase-out of leaded gasoline reduced the overall inventory of airborne lead by nearly 95 percent. With the phaseout of leaded gasoline, secondary lead smelters, battery recycling, and manufacturing facilities are becoming lead-emission sources of greater concern.

Prolonged exposure to atmospheric lead poses a serious threat to human health. Health effects associated with exposure to lead include gastrointestinal disturbances, anemia, kidney disease, and in severe cases, neuromuscular and neurological dysfunction. Of particular concern are low-level lead exposures during infancy and childhood. Such exposures are associated with decrements in neurobehavioral performance including intelligence quotient performance, psychomotor performance, reaction time, and growth.

Volatile Organic Compounds

VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity, that is, they do not react at the same speed or do not form O_3 to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms VOC and ROG (see below) are often used interchangeably.

Reactive Organic Gases

Similar to VOCs, ROGs are also precursors in forming O_3 and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and NO_X react in the presence of sunlight. The terms ROG and VOC are often used interchangeably.

Valley Fever

Coccidioidomycosis (CM), often referred to as San Joaquin Valley Fever or Valley Fever, commonly affects people who live in hot dry areas with alkaline soil and varies with the season. This disease, which affects both humans and animals, is caused by inhalation of arthroconidia (spores) of the fungus *Coccidioides immitis* (CI). CI spores are found in the top 2-12 inches of soil and the existence of the fungus in most areas is temporary. The cocci fungus lives as a saprophyte in dry, alkaline soil. When weather and moisture conditions are favorable, the fungus “blooms” and forms many tiny spores that lie dormant in the soil until they are stirred up by wind, vehicles, excavation, or other ground-moving activities and become airborne. Agricultural workers, construction workers, and other people who work outdoors and who are

exposed to wind and dust are more likely to contract Valley Fever. Children and adults whose hobbies or sports activities expose them to wind and dust are also more likely to contract Valley Fever.

The fugus is known to live in the soil in the southwestern United States and parts of Mexico and Central and South America. People and animals can get sick when they breathe in dust that contains the Valley Fever fungus. This fungus infects the lungs and can cause respiratory symptoms including cough, fever, chest pain, and tiredness. In California, the number of reported Valley Fever cases has greatly increased in recent years. In facts, Valley fever cases tripled from 2014 to 2018. The number of Valley Fever cases in the United States has been steadily increasing over the past few years. There were over 11,000 reported cases in 2015, and the Center for Disease Control (CDC) estimates that an additional 150,000 cases go undiagnosed each year. About 28 percent of all cases occur in California. In 2015, there were 36 cases of Valley Fever in the County, an incidence rate of 1.7 cases per 100,000 people.

Currently, no vaccine is available to prevent this infection. Further, there is no effective way to detect and monitor CI growth patterns in the soil. Thus, controlling the growth of the fungus in the environment to reduce the risk to individuals is currently not a viable option. Even if the fungus is present in soil, earthmoving activities may not result in increased incidence of Valley Fever. Propagation of Coccidioides is dependent on climatic conditions, with the potential for growth and surface exposure highest following early seasonal rains and long dry spells.

Ambient Air Quality

Ambient air quality for the Project Site can be determined from ambient air quality measurements conducted at nearby air quality monitoring stations. Existing levels of ambient air quality and historical trends in the region are documented by measurements made by the MDAQMD, the air pollution regulatory agency in the Basin that maintains air quality monitoring stations which process ambient air quality measurements. Air quality monitoring stations usually measure pollutant concentrations ten feet above ground level. Therefore, air quality is often referred to in terms of ground-level concentration. The U.S. EPA requires monitoring sites be capable of informing air pollution control officers about peak air pollution levels, typical levels in populated areas, air pollution transported into and out of a city or region, and air pollution levels near specific sources. Monitors must be designated with an appropriate site type so that the data collected can be used to support a specific federal monitoring objective.[4]

The Blythe Station is located approximately 33 miles south of the Project Site at 495 W. Murphy Street, Blythe. The Joshua Tree Station is located approximately 80 miles west of the Project Site at Cottonwood Campground. The Niland Station is located approximately 84 miles southwest of the Project Site at 7711 English Road, Niland. The Palm Springs Station is located approximately 119 miles west of the Project Site at 590 Racquet Club Avenue, Palm Springs. The monitoring data is presented in **Table 4.2-1,** *Local Area Air Quality Monitoring Summary***,** and shows the most recent three years of monitoring data from CARB. Ozone was measured at the Blythe Station, NO_2 was measured at the Palm Springs Station, PM10 was measured at the Niland Station, and PM2.5 was measured at the Joshua Tree Station.

[4] CARB, Annual Network Plan: Covering Monitoring Operations in 25 California Air Districts, June 2018. Available at https://www.mdaqmd.ca.gov/home/showpublisheddocument/5982/636710697943470000. Accessed September 26, 2022.

Table 4.2-1: Local Area Air Quality Monitoring Summary

Pollutant (Standard)	Year		
	2018	2019	2020
Ozone:[1]			
Maximum 1-Hour Concentration (ppm)	0.067	0.064	0.066
Days > CAAQS (0.09 ppm)	0	0	0
Maximum 8-Hour Concentration (ppm)	0.060	0.059	0.053
Days > NAAQS (0.070 ppm)	0	0	0
Days > CAAQs (0.070 ppm)	0	0	0
Nitrogen Dioxide:[2]			
Maximum 1-Hour Concentration (ppb)	42.5	41.4	47.4
Days > NAAQS (100 ppb)	0	0	0
Inhalable Particulates (PM10) :[3]			
Maximum 24-Hour National Measurement (ug/m^3)	331.5	155.7	239.8
Days > NAAQS (150 ug/m^3)	10	1	1
Days > CAAQS (50 ug/m^3)	7	49	66
Annual Arithmetic Mean (AAM) (ug/m^3)	47.5	32.1	35.6
Annual > NAAQS (50 ug/m^3)	No	No	No
Annual > CAAQS (20 ug/m^3)	Yes	Yes	Yes
Ultra-Fine Particulates (PM2.5):[4]			
Maximum 24-Hour National Measurement (ug/m^3)	34.1	21.6	47.4
Days > NAAQS (35 ug/m^3)	0	0	2
Annual Arithmetic Mean (AAM) (ug/m^3)	ND	ND	ND
Annual > NAAQS and CAAQS (12 ug/m^3)	ND	ND	ND

Notes: Exceedances are listed in **bold.** CAAQS = California Ambient Air Quality Standard; NAAQS = National Ambient Air Quality Standard; ppm = parts per million; ppb = parts per billion; ND = no data available.
[1] Data obtained from the Blythe Station.
[2] Data obtained from the Palm Springs Station.
[3] Data obtained from the Niland Station.
[4] Data obtained from the Joshua Tree Station.
Source: California Air Resources Board, iADAM: Air Quality Data Statistics. Available at http://www.arb.ca.gov/adam/. See Appendix C of this Draft EIR.

Toxic Air Contaminants

A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic noncancer health effects. A toxic substance released into the air is considered a toxic air contaminant (TAC). Examples include certain aromatic and chlorinated hydrocarbons, certain metals, and asbestos. TACs are generated by a number of sources, including stationary sources such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources such as automobiles; and area sources such as landfills.

Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic effects. Noncarcinogenic effects typically affect one or more target organ systems and may be experienced either on short-term (acute) or long-term (chronic) exposure to a given TAC. The

CARB has identified diesel engine exhaust particulate matter as the predominant TAC in California. Diesel particulate matter (DPM) is emitted into the air by diesel-powered mobile vehicles, including heavy-duty diesel trucks, construction equipment, and passenger vehicles. Certain reactive organic gases may also be designated as TACs.

4.2.3 Regulatory Setting

Federal

Clean Air Act

The federal Clean Air Act (CAA), which was initially enacted by the U.S. Congress in 1963 and substantially revised in 1970, 1977 and 1990, can be found in Title 42, Chapter 85 of the United States Code. An important aspect of the CAA is its requirement for the U.S. EPA to establish National Ambient Air Quality Standards (NAAQS). There are NAAQS in place for seven "criteria" pollutants: CO, lead, NO_2, O_3, PM10, PM2.5, and SO_2. Standards are classified as primary and secondary. Primary standards are designed to protect public health, including sensitive individuals, such as children and the elderly, whereas secondary standards are designed to protect public welfare, such as visibility and crop or material damage. The U.S. EPA sets the NAAQS based on a process that involves science policy workshops, a risk/exposure assessment (REA) that draws on the information and conclusions of the science policy workshops to development quantitative characterizations of exposures and associated risks to human health or the environment, and a policy assessment by U.S. EPA staff that bridges the gap between agency scientific assessments and the judgments required of the U.S. EPA administrator, who then takes the proposed standards through the federal rulemaking process.[5]

The federal CAA requires the EPA to routinely review and update the NAAQS in accordance with the latest available scientific evidence. For example, the EPA revoked the annual PM10 standard in 2006 due to a lack of evidence linking health problems to long-term exposure to PM10 emissions. The 1-hour standard for O_3 was revoked in 2005 in favor of a new 8-hour standard that is intended to better protect public health.

CAA Section 182(e)(5) allows the U.S. EPA administrator to approve provisions of an attainment strategy in an extreme area that anticipates development of new control techniques or improvement of existing control technologies if the state has submitted enforceable commitments to develop and adopt contingency measures to be implemented if the anticipated technologies do not achieve planned reductions.

Nonattainment areas that are classified as "serious" or worse are required to revise their air quality management plans to include specific emission reduction strategies to meet interim milestones in implementing emission controls and improving air quality. The U.S. EPA can withhold certain transportation funds from states that fail to comply with the planning requirements of the act. If a state fails to correct these planning deficiencies within two years of federal notification, the U.S. EPA is required to develop a Federal Implementation Plan for the identified nonattainment area or areas.

[5] United States Environmental Protection Agency (U.S. EPA), Process of Reviewing the National Ambient Air Quality Standards, 2021. Available at: https://www.epa.gov/criteria-air-pollutants/process-reviewing-national-ambient-air-quality-standards. Accessed September 26, 2022.

State

California Clean Air Act

The California Clean Air Act (CCAA) of 1988 requires all air pollution control districts in the state to aim to achieve and maintain state ambient air quality standards for O_3, CO, and NO_2 by the earliest practical date and to develop plans and regulations specifying how the districts will meet this goal. There are no planning requirements for the state PM10 standard. CARB, which became part of the California Environmental Protection Agency (CalEPA) in 1991, is responsible for meeting state requirements of the federal Clean Air Act, administrating the California Clean Air Act, and establishing the California Ambient Air Quality Standards (CAAQS). The California Clean Air Act, amended in 1992, requires all air districts in the state to endeavor to achieve and maintain the CAAQS. The CAAQS are generally stricter than national standards for the same pollutants, but there is no penalty for nonattainment. The standards for the CAAQS are adopted after review by CARB staff of the scientific literature produced by agencies such as the Office of Environmental Health Hazard Assessment (OEHHA), the Air Quality Advisory Committee, which is comprised of experts in health sciences, exposure assessment, monitoring methods, and atmospheric sciences appointed by the Office of the President of the University of California, and public review and comment. The CAAQS are set at levels determined to be protective of human health.

State Implementation Plans

The federal CAA requires all states to submit a State Implementation Plan (SIP) to the U.S. EPA for areas that are out of compliance with the NAAQS. This Statewide SIP is often referred to as an "infrastructure" SIP. Infrastructure SIPs are administrative in nature and describe the authorities, resources, and programs a state has in place to implement, maintain, and enforce the federal standards. It does not contain any proposals for emission control measures.

These area attainment SIPs are comprehensive plans that describe how an out-of-compliance area will attain and maintain the particular NAAQS standard(s) it does not conform to. Once an out-of-compliance area has attained the standard in question, a maintenance SIP is required for a period of time to ensure the area will continue to meet the standard.

SIPs are not single documents. They are a compilation of new and previously submitted plans, programs (such as monitoring, modeling, permitting, etc.), district rules, state regulations, and federal controls. Many of California's SIPs rely on the same core set of control strategies, including emission standards for cars and heavy trucks, fuel regulations, and limits on emissions from consumer products. State law makes CARB the lead agency for all purposes related to SIPs. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB forwards those revisions to the EPA for approval and publication in the Federal Register.

Table 4.2-2, *State and Federal Criteria Pollutant Standards,* compares the State and federal criteria pollutant standards while also discussing the relevant effects of pollutants on persons.

Table 4.2-2. State and Federal Criteria Pollutant Standards

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Ozone (O_3)	0.09 ppm / 1-hour 0.07 ppm / 8-hour	0.070 ppm, / 8-hour	(a) Pulmonary function decrements and localized lung edema in humans and animals; (b) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (c) Increased mortality risk; (d) Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (e) Vegetation damage; and (f) Property damage.
Carbon Monoxide (CO)	20.0 ppm / 1-hour 9.0 ppm / 8-hour	35.0 ppm / 1-hour 9.0 ppm / 8-hour	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; and (d) Possible increased risk to fetuses.
Nitrogen Dioxide (NO_2)	0.18 ppm / 1-hour 0.030 ppm / annual	100 ppb / 1-hour 0.053 ppm / annual	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; and (c) Contribution to atmospheric discoloration.
Sulfur Dioxide (SO_2)	0.25 ppm / 1-hour 0.04 ppm / 24-hour	75 ppb / 1-hour 0.14 ppm/annual	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma.
Suspended Particulate Matter (PM10)	50 µg/m^3 / 24-hour 20 µg/m^3 / annual	150 µg/m^3 / 24-hour	(a) Exacerbation of symptoms in sensitive patients with respiratory or cardiovascular disease; (b) Declines in pulmonary function growth in children; and (c) Increased risk of premature death from heart or lung diseases in elderly.
Suspended Particulate Matter (PM2.5)	12 µg/m^3 / annual	35 µg/m^3 / 24-hour 12 µg/m^3 / annual	
Sulfates	25 µg/m^3 / 24-hour	No Federal Standards	(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; and (f) Property damage.
Lead	1.5 µg/m^3 / 30-day	0.15 µg/m^3 /3-month rolling	(a) Learning disabilities; and (b) Impairment of blood formation and nerve conduction.
Visibility Reducing Particles	Extinction coefficient of 0.23 per kilometer - visibility of ten miles or more due to particles when relative humidity is less than 70 percent.	No Federal Standards	Visibility impairment on days when relative humidity is less than 70 percent.

Air Pollutant	Concentration / Averaging Time		Most Relevant Effects
	California Standards	Federal Primary Standards	
Source: CARB, Ambient Air Quality Standards, May 14, 2016. Available online at http://www.arb.ca.gov/research/aaqs/aaqs2.pdf. See Appendix C.			

Local

Mojave Desert Air Quality Management District

MDAQMD Federal 8-hour Ozone Attainment Plan (Western Mojave Desert Nonattainment Area)

On April 15, 2004, the U.S. EPA designated the Western Mojave Desert nonattainment area as nonattainment for the 8-hour O_3 NAAQS pursuant to the provisions of the federal CAA. The Western Mojave Desert O_3 Nonattainment Area includes the southwestern portion of San Bernardino County and the Antelope Valley portion of Los Angeles County. As a result, the MDAQMD prepared its O_3 Attainment Plan in June 2008 to: (1) demonstrate that the MDAQMD will meet the primary required Federal O_3 planning milestones, attainment of the 8-hour O_3 NAAQS by 2019 (revised June 2021); (2) present the progress the MDAQMD will make towards meeting all required O_3 planning milestones; and (3) discuss the newest 0.075 part per million 8-hour O_3 NAAQS, preparatory to an expected non-attainment designation for the new NAAQS. In February 2017, MDAQMD updated the 2008 O_3 Attainment Plan and adopted the MDAQMD Federal 75 parts per billion (ppb) O_3 Attainment Plan (Western Mojave Desert Nonattainment Plan) to satisfy federal CAA requirements that the MDAQMD develop a plan to attain the 0.075 ppm 8-hour O_3 NAAQS.

Final Mojave Desert Planning Area Federal Particulate Matter 10 (PM10) Attainment Plan

On January 20, 1994, the U.S. EPA re-designated a significant portion of the Mojave Desert as a nonattainment area with respect to the NAAQS for PM10. This nonattainment area covers a vast geographical region, including the urban areas of Victor Valley and Barstow, the Morongo Basin, along with the rural desert environs reaching to the Nevada and Arizona state lines. The PM10 Attainment Plan was prepared in July 1995 to provide a complete description and submittal to USEPA of the PM10 attainment planning elements which the MDAQMD will implement to bring the nonattainment area into compliance with federal law. Most importantly, the PM10 Attainment Plan serves as a planning tool for reducing PM10 pollution. The PM10 Attainment Plan sets forth an air quality improvement program for the region which will be implemented by both the public and private sector of the community.

MDAQMD Rules

The MDAQMD has adopted rules to limit air emissions. Many of these rules were put in place as required by measures specified in various SIPs and air quality management plans. The MDAQMD rules that are applicable to the Project are:

- Rule 401 – Visible Emissions. This rule prohibits discharges of air contaminants or other material, which are as dark or darker in shade as that designated No. 1 on the Ringelmann Chart.
- Rule 402 – Nuisance. This rule prohibits the discharge of air contaminants or other material that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public.

- Rule 403 – Fugitive Dust. The purpose of this rule is to control the amount of PM entrained in the atmosphere from manmade sources of fugitive dust. The rule prohibits emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area to be visible beyond the emission source's property line.

San Bernardino County Countywide Plan/Policy Plan

The County's Countywide Plan, adopted on October 27, 2020, serves as a new set of plans and tools for the County's unincorporated communities and complements the Countywide vision. The Renewable Energy and Conservation Element was adopted separately from the Countywide Plan on August 8, 2017 and amended on February 2019. The Policy Plan is a component of the Countywide Plan that is an update and expansion of the County's General Plan for the unincorporated areas. The following goals and policies are applicable to the Project:

Natural Resources Element

Goal NR-1 Air quality that promotes health and wellness of residents in San Bernardino County through improvements in locally generated emission.

Policy NR-1.1 Compact and transit-oriented development countywide are promoted and types and locations of development in unincorporated areas is regulated to minimize vehicle miles traveled and greenhouse gas emissions.

Policy NR-1.2 The improvement of indoor air quality through the California Building and Energy codes and through the provision of public health programs and services is promoted.

Policy NR-1.3 Coordination with air quality management districts and other local agencies should occur to monitor and reduce major pollutants affecting the county at the emission source.

Policy NR-1.6 Coordination with air quality management districts on the requirements of dust control plans, revegetation, and soil compaction to prevent fugitive dust emissions should occur.

Policy NR-1.8 The use of low-emission construction vehicles and equipment to improve air quality and reduce emissions is encouraged.

Policy NR-1.9 We use the CALGreen Code to meet energy efficiency standards for new buildings and encourage the upgrading of existing buildings to incorporate design elements, building materials, and fixtures that improve environmental sustainability.

Renewable Energy and Conservation Element

RE Policy-2.1 Support solar energy generation, solar water heating, wind energy and bioenergy systems that are consistent with the orientation, siting and environmental compatibility polices of the General Plan.

RE Policy-2.2 Promote use of energy storage technologies that are appropriate for the character of the proposed location.

RE Policy 4.1 Apply standards to the design, siting, and operation of all renewable energy facilities that protect the environment, including sensitive biological resources, air quality, water supply and quality, cultural, archaeological, paleontological and scenic resources.

RE Policy 4.3.1 Define measures required to minimize ground disturbance, soil erosion, flooding, and blowing of sand and dust, with appropriate enforcements mechanisms in the Development Code.

Hazards Element

Policy HZ-3.3 Air quality management district's establish community emissions reduction plans for unincorporated environmental justice focus areas that should be considered in these areas. With particular emphasis in addressing the types of pollution identified in the Hazard Element table.

San Bernardino County Development Code

Development Code Section 83.01.040 (pertaining to construction air quality) will apply to the construction phase of the Project. Relevant provisions of the section are listed below.

(c) Diesel Exhaust Emissions Control Measures. The following emissions control measures shall apply to all discretionary land use projects approved by the County on or after January 15, 2009:

(1) On-Road Diesel Vehicles. On-road diesel vehicles are regulated by the State of California Air Resources Board.

(2) Off-Road Diesel Vehicle/Equipment Operations. All business establishments and contractors that use off-road diesel vehicle/equipment as part of their normal business operations shall adhere to the following measures during their operations in order to reduce diesel particulate matter emissions from diesel-fueled engines:

(A) Off-road vehicles/equipment shall not be left idling on site for periods in excess of five minutes. The idling limit does not apply to:

(I) Idling when queuing;

(II) Idling to verify that the vehicle is in safe operating condition;

(III) Idling for testing, servicing, repairing or diagnostic purposes;

(IV) Idling necessary to accomplish work for which the vehicle was designed (such as operating a crane);

(V) Idling required to bring the machine system to operating temperature; and

(VI) Idling necessary to ensure safe operation of the vehicle.

(B) Use reformulated ultra-low-sulfur diesel fuel in equipment and use equipment certified by the U.S. Environmental Protection Agency (EPA) or that pre-dates EPA regulations.

(C) Maintain engines in good working order to reduce emissions.

(D) Signs shall be posted requiring vehicle drivers to turn off engines when parked.

(E) Any requirements or standards subsequently adopted by the South Coast Air Quality Management District, the Mojave Desert Air Quality Management District or the California Air Resources Board.

(F) Provide temporary traffic control during all phases of construction.

(G) On-site electrical power connections shall be provided for electric construction tools to eliminate the need for diesel-powered electric generators, where feasible.

(H) Maintain construction equipment engines in good working order to reduce emissions. The developer shall have each contractor certify that all construction equipment is properly serviced and maintained in good operating condition.

(I) Contractors shall use ultra-low sulfur diesel fuel for stationary construction equipment as required by Air Quality Management District (AQMD) Rules 431.1 and 431.2 to reduce the release of undesirable emissions.

(J) Substitute electric and gasoline-powered equipment for diesel-powered equipment, where feasible.

Development Code Section 84.29.035 (Required Findings for Approval of a Commercial Solar Energy Facility) includes the following requirements relevant to fugitive dust emissions:

(c) The finding of fact shall include the following:

(20) The proposed commercial solar energy generation facility will be designed, constructed, and operated so as to minimize dust generation, including provision of sufficient watering of excavated or graded soil during construction to prevent excessive dust. Watering will occur at a minimum of three (3) times daily on disturbed soil areas with active operations, unless dust is otherwise controlled by rainfall or use of a dust palliative, or other approved dust control measure.

(21) All clearing, grading, earth moving, and excavation activities will cease during period of winds greater than 20 miles per hour (mph), averaged over one hour, or when dust plumes of 20 percent or greater opacity impact public roads, occupied structures, or neighboring property, and in conformance with AQMD regulations.

(22) For sites where the boundary of a new commercial solar energy generation facility will be located within one-quarter mile of a primary residential structure, an adequate wind barrier will be provided to reduce potentially blowing dust in the direction of the residence during construction and ongoing operation of the commercial solar energy generation facility.

(23) Any unpaved roads and access ways will be treated and maintained with a dust palliative or graveled or treated by another approved dust control Chapter 83.09 of the Development Code.

(24) On-site vehicle speed will be limited to 15 mph.

4.2.4 Thresholds of Significance

California Environmental Quality Act (CEQA) Thresholds

In accordance with Appendix G of the CEQA Guidelines, a project would have a significant impact related to air quality if it would:

Threshold (a): Conflict with or obstruct implementation of the applicable air quality plan.

Threshold (b): Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in nonattainment under an applicable Federal or State ambient air quality standard.

Threshold (c): Expose sensitive receptors to substantial pollutant concentrations.

Threshold (d): Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

As identified in Section 6.5: Effects Found Not to Be Significant, impacts related to Threshold (d) were determined to be less than significant and do not require further analysis in the Draft EIR**.**

MDAQMD Air Quality Thresholds

Under CEQA, the MDAQMD is an expert commenting agency on air quality and related matters within its jurisdiction or impacting on its jurisdiction. Under the federal CAA, the MDAQMD has adopted federal attainment plans for O_3 and PM10. The MDAQMD has dedicated assets to reviewing projects to ensure that they will not: (1) cause or contribute to any new violation of any air quality standard; (2) increase the frequency or severity of any existing violation of any air quality standard; or (3) delay timely attainment of any air quality standard or any required interim emission reductions or other milestones of any federal attainment plan.

According to the MDAQMD's *CEQA and Federal Conformity Guideline*, a project is significant if it triggers or exceed the most appropriate evaluation criteria:

- Generates total emissions (direct and indirect) in excess of the thresholds given in **Table 4.2-3,** *MDAQMD Significant Emission Thresholds*.
- Generates a violation of any ambient air quality standard when added to the local background.
- Does not conform with the applicable attainment or maintenance plan(s).

- Exposes sensitive receptors to substantial pollution 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.

Table 4.2-3: MDAQMD Significant Emission Thresholds

Criteria Pollutant	Annual Threshold (tons)	Daily Threshold (pounds)
Carbon Monoxide (CO)	100	548
Oxides of Nitrogen (NO_x)	25	137
Volatile Organic Compounds (VOC)	25	137
Oxides of Sulfur (SO_x)	25	137
Particulate Matter (PM_{10})	15	82
Fine Particulate Matter ($PM_{2.5}$)	12	65
Hydrogen Sulfide (H_2S)	10	54
Lead (Pb)	0.6	3

4.2.5 Methodology

To determine air quality related impacts, the Project was modeled using CalEEMod Version 2020.4.0. The CalEEMod program uses the EMFAC2017 computer program to calculate the emission rates specific for the Mojave Desert portion of San Bernardino County for employee, vendor and haul truck vehicle trips and the OFFROAD2011 computer program to calculate emission rates for heavy equipment operations. EMFAC2017 and OFFROAD2011 are computer programs generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour.

The Project characteristics in the CalEEMod model were set to the Project location in the Mojave Desert portion of the County, a Climate Zone of 10, utility company of Southern California Edison, and an opening year of 2024 was utilized in this analysis. In addition, the EMFAC off-model adjustment factors for gasoline light duty vehicle to account for the SAFE Vehicle rule was selected in the CalEEMod model run.

4.2.6 Project Impact Analysis

Threshold (a): Would the Project conflict with or obstruct implementation of the applicable air quality plan?

The Project Site is located within the Mojave Desert Air Basin and is regulated by the MDAQMD. The MDAQMD PM10 Attainment Plan and O_3 Attainment Plan established under the Western Mojave Desert AQMPs set forth a comprehensive set of programs that will lead the Basin into compliance with Federal and State air quality standards. The control measures and related emission reduction estimates within the MDAQMD PM10 Attainment Plan and O_3 Attainment Plan are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with these attainment plans is determined by:

- Demonstrating Project consistency with local land use plans and/or population projections (**Criterion 1**);
- Demonstrating Project compliance with applicable MDAQMD Rules and Regulations **(Criterion 2**); and

- Demonstrating Project implementation will not increase the frequency or severity of a violation in the Federal or State ambient air quality standards (**Criterion 3**).

Criterion 1: Consistency with local land use plans and/or population projections.

Growth projections included in the AQMPs form the basis for the projections of air pollutant emissions and are based on general plan land use designations and the Southern California Association of Governments (SCAG) 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS, or Connect SoCal) demographics forecasts. While SCAG has recently adopted Connect SoCal, the MDAQMD has not released an updated AQMP that utilizes information from Connect SoCal. As such, this consistency analysis is based off the 2016-2040 RTP/SCS. The population, housing, and employment forecasts within the 2016-2040 RTP/SCS are based on local general plans as well as input from local governments, such as the County. The MDAQMD has incorporated these same demographic growth forecasts for various socioeconomic categories (e.g., population, housing, employment) into the AQMPs.

The San Bernardino Land Use Service Zoning Maps is the local law that regulates various aspects of how land can be used. The Project Site is designated and zoned as Resource Conservation (RC). Renewable energy generation facilities are an allowable land use within the RC land use zoning district.

The County's unincorporated area population estimate as of January 1, 2021, was 1,871,997 persons, and the County's total area population estimate as of January 1, 2021, was 2,175,909 persons. SCAG growth forecasts in the 2016-2040 RTP/SCS estimate the County's population to reach 2,731,000 persons by 2040, representing a total increase of 620,000 persons between 2015 and 2040. Additionally, SCAG growth forecasts in the 2016-2040 RTP/SCS estimate the County's employment to reach 1,028,000 jobs by 2040, representing a total increase of 299,000 jobs between 2012 and 2040.

The Project would include neither a residential component that would increase local population growth, nor a commercial component that would substantially increase employment. Construction of the Project would not result in residential, commercial, or growth-inducing development that would result in a substantial increase in growth-related emissions. In addition, because of the presence of locally available construction workers, and because of the relatively short duration of construction (approximately 14 months), workers are not expected to relocate to the area with their families. Up to 12 full-time and/or part-time staff would be required for operation, inspection, security, maintenance, and system monitoring purposes. Due to the limited number of employees required for the full-time operation of the Project, the Project would not cause the SCAG growth forecast to be exceeded. As the MDAQMD has incorporated these forecasts on population, housing, and employment into the AQMPs, the Project would be consistent with the AQMPs. Impacts would be less than significant.

Criterion 2: Compliance with applicable MDAQMD Rules and Regulations.

The Project would be required to comply with all applicable MDAQMD Rules and Regulations. This would include MDAQMD Rules 401, 402, and 403. MDAQMD Rule 403 requires periodic watering for short-term stabilization of disturbed surface area to minimize visible fugitive dust (PM10) emissions, covering loaded haul vehicles, and reduction of non-essential earth moving activities during higher wind conditions. The Project would comply with applicable MDAQMD rules, enforced through Project Conditions of Approval, and not conflict with applicable MDAQMD Rules and Regulations. Therefore, impacts would be less than significant.

Criterion 3: Demonstrating Project implementation will not increase the frequency or severity of a violation in the Federal or State ambient air quality standards.

Analysis of the Project's potential to result in more frequent or severe violations of the CAAQS and NAAQS can be satisfied by comparing the Project emissions to MDAQMD thresholds. Based on the air quality modeling analysis contained in Appendix C, short-term construction air emissions would not result in significant impacts based on MDAQMD thresholds of significance. The ongoing operation of the Project would generate air pollutant emissions that would be less than the applicable MDAQMD thresholds of significance.

Therefore, the Project would not delay the Basin's attainment goals for O_3, PM10, and PM2.5, and would not result in an increase in the frequency or severity of existing air quality violations. As such, the Project would not cause or contribute to localized air quality violations or delay the attainment of air quality standard or interim emissions reductions specified in the AQMPs. Project construction and operation would remain under existing air quality thresholds set by MDAQMD as depicted in **Table 4.2-3**, as detailed below under Threshold (b). As such, the Project would not result in an increase in the frequency or severity of existing air quality violations, or cause or contribute to localized air quality violations, or delay attainment of air quality standards. Impacts would be less than significant.

Conclusion for Threshold (a)

Criterion 1 required the Project to be consistent with local land use plans and/or population projections based off the 2016-2040 RTP/SCS. Criterion 2 required the Project to comply with all applicable MDAQMD Rules and Regulations. Criterion 3 required demonstration that the Project implementation will not increase the frequency or severity of a violation in the Federal or State ambient air quality standards. As discussed above, the Project would be consistent with the three criteria and would comply with MDAQMD Rules and Regulations, not induce population growth, and would not cause or contribute to localized air quality violations or delay the attainment of air quality standard or interim emissions reductions specified in the AQMPs. Therefore, the Project would not conflict with or obstruct implementation of the applicable air quality plan. Impacts would be less than significant.

Threshold (b): Would the Project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard?

The Project would not 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. The Project involves the construction and operation of a large-scale, solar photovoltaic (PV) electricity generation and energy storage facility. Construction of the Project would result in the temporary addition of pollutants to the local air basin caused by on- and off-site sources. Operation of the Project would generate emissions from mobile sources, including vehicle trips from employees commuting to work and maintenance vehicles.

Construction Emissions

Project construction would result in the temporary addition of pollutants to the local air basin caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and VOC off-gassing) and off-site sources (i.e., on-road haul trucks, vendor trucks, and worker vehicle trips). Construction emissions can

vary substantially from day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions. Construction activities for the Project are anticipated to start in the first quarter of 2023 and would last approximately 14 months. Annual construction-related criteria pollutant emissions from the Project are shown below in **Table 4.2-4,** *Construction-Related Air Pollutant Emissions,* and the CalEEMod modeling results are provided in Appendix C.

Table 4.2-4: Construction-Related Air Pollutant Emissions

Construction Year	Pollutant Emissions[1] (Pounds per Day)					
	VOC	NOx	CO	SO_2	PM10	PM2.5
2023	2.68	16.00	22.74	<0.05	3.56	4.22
2024	0.60	2.90	5.59	<0.05	0.27	0.38
MDAMD Thresholds	137	137	548	137	82	65
Exceeds Thresholds?	***No***	***No***	***No***	***No***	***No***	***No***

Notes:
[1] Construction based on adherence to fugitive dust suppression requirements from MDAQMD Rule 403.2.
Source: See Appendix C.

Table 4.2-4 shows that none of the analyzed criteria pollutants emissions would exceed the MDAQMD thresholds during Project construction. Therefore, Project construction would not result in a significant increase in elevated health risks to nearby sensitive receptors and impacts would be less than significant.

Operation Emissions

The Project involves development of a 160-MW solar PV energy facility and Project substation with an energy storage system. Operation of the Project would generate VOC, NO_X, CO, SO_X, PM10, and PM2.5 emissions from mobile sources, including vehicle trips from maintenance vehicles. Pollutant emissions associated with long-term operations were quantified using CalEEMod modeling software. Because the Project would have no major stationary emissions sources and a relatively low number of employees traveling to the facility site, operation of the Project would result in substantially lower emissions than Project construction. The annual operations-related criteria pollutant emissions from the Project are shown below in **Table 4.2-5,** *Operations-Related Air Pollutant Emissions,* and the CalEEMod modeling results are provided in Appendix C.

Table 4.2-5: Operations-Related Air Pollutant Emissions

Emissions Source	Pollutant Emissions (Pounds per Day)					
	VOC	NOx	CO	SO_2	PM10	PM2.5
Area Sources[1]	22.96	<0.05	<0.05	0.00	<0.05	<0.05
Energy Sources[2]	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Sources[3]	0.05	0.11	0.66	<0.05	0.16	<0.05
Total Emissions	***23.01***	***0.11***	***0.66***	***<0.05***	***0.16***	***<0.05***
MDAMD Thresholds	137	137	548	137	82	65
Exceeds Thresholds?	***No***	***No***	***No***	***No***	***No***	***No***

Notes:
[1] Area sources consist of emissions from consumer products, hearths, architectural coatings, and landscaping equipment.
[2] Energy usage consist of emissions from natural gas usage (no natural gas would be utilized by the Project).
[3] Mobile sources consist of emissions from vehicles and road dust.
Source: See Appendix C.

Table 4.2-5 shows that none of the analyzed criteria pollutants emissions would exceed the MDAQMD emissions thresholds during operation of the Project. Therefore, Project operations would not result in a

significant increase in elevated health risks to nearby sensitive receptors and impacts would be less than significant.

Air Quality Health Impacts

Adverse health effects induced by criteria air pollutants are dependent on many factors. These factors include but are not limited to concentration in the atmosphere, local meteorology, age and gender of the exposed person, and several other factors. Additionally, O_3 precursors (VOCs and NO_x) affect air quality on a regional scale and health impacts from these O_3 precursors would be the product of emissions generated by numerous sources throughout the region. Furthermore, existing models have limited sensitivity to small changes in criteria air pollutant concentrations, so, translating criteria air pollutants generated by an individual project to specific health effects with many factors or additional days of nonattainment would be difficult and produce what are effectively meaningless results. The NAAQS and CAAQS are set to be protective of human health, however, which means that the Project's has less than significant increases in regional air pollution from criteria air pollutants would have less than significant impacts on human health.

The South Coast Air Quality Management District (SCAQMD) has stated that it would be extremely difficult if not impossible to quantify the health impacts of criteria pollutants from individual projects for various reasons including modeling limitations as well as the fact that certain emissions are the result of chemical interactions and it is impossible to determine exactly where in the atmosphere precursor air pollutants will interact.[6] As discussed in Appendix C, the SCAQMD acknowledges that health effects quantification from O_3 is correlated with the increases in ambient level of O_3 in the air (concentration) that an individual breathes. SCAQMD has written that it would take a large amount of additional emissions to cause a modeled increase in ambient O_3 levels over the entire region. The SCAQMD states that a reduction of 432 tons (864,000 pounds) per day of NO_x and a reduction of 187 tons (374,000 pounds) per day of VOCs would reduce O_3 levels at highest monitored site by only 9 ppb, this is based on their own modeling in the SCAQMD's 2012 AQMP. As such, the SCAQMD concluded that it is not currently possible to accurately quantify O_3-related health impacts cause by NO_x and VOC emissions from relatively small projects (defined as projects with less than a regional scope) due to photochemistry and regional model limitations.

Because the Project would not exceed MDAQMD's health-protective significance thresholds for criteria air pollutants during construction or operational emissions, the Project would have a less than significant impact for air quality human health impacts as well and no modeling of health impacts was performed.

Cumulative Short-Term Construction Impacts

In regard to the Project's construction-based air quality emissions and the Basin-wide conditions, the MDAQMD has developed strategies to reduce criteria air pollutant emissions as outlined in the District's AQMP and federal CAA mandates. The Project would comply with the MDAQMD's Rule 403 and would implement all applicable MDAQMD rules to reduce construction air emissions. Rule 403 requires that fugitive dust to be controlled with the best available control measures to reduce dust emissions into the atmosphere such that it is not visible beyond the property line of the Project. Examples of best available control measures for dust include the application of water and soil stabilizers, covering of loads, avoiding track out onto public roads, and the minimization of non-essential grading during high wind conditions.

[6] While the SCAQMD has a working group to develop a methodology to quantify the health impacts of criteria pollutants, other air districts, including the MDAQMD, have not provided any guidance on evaluating human health impacts.

Additionally, the Project would follow the AQMP's emissions control measures which would help the Project further reduce emissions from construction activities. As noted above in **Table 4.2-4**, the Project's short-term construction emissions would not exceed the MDAQMD thresholds, and impacts would be less than significant. The Project would not contribute to a cumulatively considerable air quality impact for nonattainment criteria pollutants in the basin.

Cumulative Long-Term Operational Impacts

As noted previously, the Project would not result in any significant long-term operational air quality impacts. Adherence to MDAQMD rules and regulations would alleviate potential impacts related to cumulative conditions on a project-by-project basis. The Project would not contribute a cumulatively considerable net increase of any nonattainment criteria air pollutant. Therefore, no cumulative operational impacts associated with implementation of the Project would result.

Threshold (c): Would the Project expose sensitive receptors to substantial pollutant concentrations?

The MDAQMD considers residences, schools, daycare centers, playgrounds, and medical facilities to be sensitive receptor land uses. The nearest sensitive receptor to the Project Site is an unoccupied home located approximately 740 feet west of the Project Site, and the nearest occupied residence is over 1,600 feet north of the Project Site. According to the MDAQMD Guidelines, the following project types proposed for sites within the specified distance to an existing or planned (zoned) sensitive receptor land use must be evaluated to determine if it exposes sensitive receptors to substantial pollutant concentrations:

- 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;
- A gasoline dispensing facility within 300 feet.

Construction

Project construction is anticipated to be completed over a period of approximately 14 months. Project construction activities are anticipated to involve the operation of diesel-powered equipment, which would emit DPM. In 1998, the CARB identified diesel exhaust as a TAC. Cancer health risks associated with exposure to diesel exhaust typically are associated with chronic exposure, in which a 30-year exposure period often is assumed. Project construction would comply with the California Code of Regulations (CCR), Title 13, Section 2449(d)(3) and 2485, which minimizes the idling time of construction equipment either by shutting it off when not in use or by reducing the time of idling to nor more than five minutes. Due to the distance between the Project Site and the closest sensitive receptors, potential health impacts on sensitive receptors associated with exposure to DPM from Project construction would be less than significant.

Furthermore, construction activities are expected to occur well below the 30-year exposure period used in health risk assessments, would adhere to MDAQMD Rule 403 and the San Bernardino County Code 84.29.035, which would further reduce emissions from certain pollutants related to construction exhaust. Implementation of these regulations would reduce the amount of DPM emissions from Project construction. Additionally, emissions would be short-term and intermittent in nature, and, therefore, would not generate TAC emissions at high enough exposure concentrations to represent a health hazard.

Therefore, construction of the Project would not result in a significant increase in elevated health risks to nearby sensitive receptors and impacts would be less than significant.

Operations

The Project would consist of development of a PV solar energy facility, which would emit nominal air emissions. Typical O&M activities during Project operations include, but are not limited to: Facility monitoring; administration and reporting; remote operations of inverters, BESS system and other equipment; site security and management; communication protocol; repair and maintenance of solar facilities, electrical transmission lines, and other Project facilities; and periodic panel washing. As such, the Project would not be considered one of the above land uses. None of these activities would result in the generation of excessive TAC emissions, or associated health risks. Therefore, operation of the Project is not anticipated to result in an elevated cancer risk to nearby sensitive receptors, and impacts would be less than significant.

Carbon Monoxide Hotspots

CO emissions are a function of vehicle idling time, meteorological conditions, and traffic flow. Under certain extreme meteorological conditions, CO concentrations near a congested roadway or intersection may reach unhealthy levels. CO is primarily a product of incomplete combustion of gaseous or liquid fuels, meaning tailpipe emissions are worse in stop-and-go congested traffic as compared to free-flowing conditions. The Project does not include any stationary sources of combustion, and results in a net increase of only 40 vehicle trips per year. The Project is not located near existing CO hotspots and the trips associated with the project are insufficient to create a CO hotspot.

With such low existing ambient levels of CO, low levels of CO emissions from the Project, and lack of congested roadways around the Project Site, the Project would not cause CO hotspots in excess of applicable NAAQS or CAAQS standards at any intersections within the County, and impacts would be less that significant.

Valley Fever

During ground disturbing activities associated Project construction, the potential exists that such activities could disturb dust particles and, if present, CI spores, which could then be released into the air and potentially be inhaled by on-site workers and nearby sensitive receptors; exposure to these spores can cause Valley Fever. Due to the distance of the nearest sensitive receptor, the Project is not anticipated to exacerbate the risk of existing sensitive receptors to contract Valley Fever. Although CEQA does not require the analysis of a Project's impacts on its construction workers, such analysis is included for informational purposes. The best approaches to reducing construction workers' risk of contracting Valley Fever are awareness and dust reduction because dust can be an indicator that increased efforts are needed to control other airborne particulates (including CI spores, if any). Therefore, the Project is required to control dust through compliance with applicable MDAQMD rules as well as provide training and awareness of Valley Fever via **Mitigation Measure AQ-1**. Compliance with MDAQMD rules reduce dust. For example, Rule 401 prohibits a person from discharging into the atmosphere any air emission contaminant for a period or periods aggregating more than three minutes in any single hour emissions that is: (a) as dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines; or (b) of such opacity as to obscure an observer's view to a degree equal to or greater than 20 percent opacity. Rule 402 prohibits the discharge of air contaminants in

quantities that would cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or that endanger the comfort, repose, health or safety of any such persons or the public. **Mitigation Measure AQ-1** would further ensure worker safety through education and ensuring implementation of required OHSA safety measures.

With the implementation of **Mitigation Measure AQ-1**, the potential for the release of CI spores, if present, and the potential for workers or other sensitive receptors to be exposed to CI would be reduced to less than significant levels.

4.2.7 Cumulative Impacts

Chapter 3.0, Environmental Setting, of this Draft EIR provides a list of related projects that would have the potential to be considered in a cumulative context with the Project's incremental contribution. These projects are summarized in **Table 3-2,** *Related Projects*, and shown in **Figure 3-1,** *Related Projects in the Planning Area* Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the MDAQMD develops and implements plans for future attainment of ambient air quality standards account for planned growth. Based on these considerations, project-level thresholds of significance for criteria pollutants are also the thresholds to determine whether the Project's individual emissions would have a cumulatively significant impact on air quality. The MDAQMD significance thresholds account for the cumulative contribution of a project that adds emissions to the Basin, which has significant cumulative impacts related to O_3 and PM. As noted above, the Project would not make cumulatively considerable contribution to existing significant cumulative impacts. There are no other projects proposed within a ten-mile radius of the Project that would be under construction at the same time as the Project and could combine with Project construction emissions to create a new significant cumulative impact.

Regarding compliance with MDAQMD's air quality plans, the Project would not result in a significant impact. Each cumulative project would need to comply with the land uses set forth by the San Bernardino Land Use Service Maps or otherwise submit a Conditional Use Permit(s) if their proposed land use is not consistent with the Plan. Additionally, each cumulative project would need to ensure that any residential components or potential for additional employment as a result of the specific project would operate consistent with the SCAG's population forecasts, which are considered within the AQMP.

Furthermore, each cumulative project would need to conform to all applicable MDAQMD rules and regulations. As these impacts are primarily considered on a project-by-project basis, a combination of impacts with other cumulative projects that could potentially lead to cumulative impacts is not expected. The Project is within the growth anticipated by the MDAQMD's air quality plans and would not exceed any threshold. Therefore, the Project's contribution to cumulative impacts associated with consistency with local land use plans and population projections and forecasts would be less than cumulatively considerable.

Considering net increases to criteria air pollutants for which the Basin are in nonattainment for, the Project would not result in significant impacts. Currently, the Basin is in federal nonattainment for O_3 and PM10 and in state nonattainment for O_3, PM10, and PM2.5. Each cumulative project would need to complete an analysis of construction and operational impacts regarding air emissions as part of CEQA. These analyses would find potential pollutants for which the potential project would be in excess of MDAQMD thresholds and would determine if the implementation of mitigation measures would be necessary for construction or operational processes. As such, each cumulative project would investigate

their own impacts to the Basin and implement mitigation measures as appropriate. As the above analysis shows, the Project's contribution to cumulative impacts associated with the Basin's attainment goals would not be cumulatively considerable.

Regarding impacts to sensitive receptors, the Project would not result in a significant impact. Sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants. Potential pollutants that may impact sensitive receptors include DPM, CO, and other TACs. As part of the air quality analyses that each potential cumulative project would need to complete, these TACs would be investigated, and mitigation measures applied as applicable to reduce impacts. A sensitive receptor's exposure to potential pollutants and their health impacts is hard to measure against individual projects and more closely related to regional concentrations. Additionally, for an individual project to greatly impact the regional concentrations of pollutants, the project would likely need to exceed MDAQMD significance thresholds by a significant margin, which is unlikely upon the implementation of individual project mitigation measures, as applicable. It is not anticipated that cumulative impacts would be significant. Therefore, the Project's contribution to cumulative impacts associated with impacts to sensitive receptors would be less than cumulatively considerable.

4.2.8 Mitigation Measures

In order to minimize potential impacts to air quality, the following mitigation measure would be implemented:

AQ-1 Prior to ground disturbance activities, the Applicant must prepare a Valley Fever Management Plan (VFMP), including a Valley Fever training program, to be implemented during construction to address potential risks from CI by minimizing the potential for unsafe dust exposure during construction. The VFMP will identify best management practices including:

- Development of an educational Valley Fever Training Handout for distribution to onsite workers, which should include general information about the causes, symptoms, and treatment instructions regarding Valley Fever, including contact information of local health departments and clinics knowledgeable about Valley Fever.
- Conducting Valley Fever training sessions to educate all Project construction workers regarding appropriate dust management and safety procedures, symptoms of Valley Fever, testing, and treatment options. This training must be completed by all workers and visitors (expected to be on-site for more than 2 days) prior to participating in or working in proximity to any ground disturbing activities. Signed documentation of successful completion of the training is to be kept on-site for the duration of construction.
- Developing a job-specific Job Hazard Analyses (JHA), in accordance with Cal/OSHA regulations, to analyze the risk of worker exposure to dust, and maintain and manage safety supplies identified by the JHA.
- Provide and/or require, if determined to be needed based on the applicable JHA, OSHA-approved half-face respirators equipped with a minimum N-95 protection factor for use during worker collocation with surface disturbance activities, following

completion of medical evaluations, fit-testing, and proper training on use of respirators.

4.2.9 Level of Significance After Mitigation

With implementation of **Mitigation Measure AQ-1**, the Project's impacts on air quality would be reduced to less than significant.

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4.3 BIOLOGICAL RESOURCES

4.3.1 Introduction

This section evaluates the existing biological resource setting and the potential effects caused by implementation of the Project, including impacts on sensitive and special-status species and habitat. The following discussion also evaluates the Project's consistency with applicable goals and policies, identifies and analyzes environmental impacts, and requires measures to reduce or avoid adverse impacts anticipated from implementation of the Project, as applicable. Information contained in this section is derived from the Biological Resources Report, dated December 2020, prepared by Chambers Group, Inc. (Appendix D).

4.3.2 Existing Environmental Setting

Regional Setting

San Bernardino County (County) is divided into three subregions for planning purposes: Valley, Mountain, and Desert. These regions have distinctive climates and geography, which in turn produce differing biological environments. The Project Site is in the East Desert Region. Rainfall in the general Project vicinity was well above normal for the 2019/2020 rain season. According to the Western Regional Climate Center (WRCC), the annual historic precipitation average for the general area is approximately 3.68 inches.[1] The rainfall season total between May 2019 and April 2020 was approximately 6.23 inches, approximately 40 percent higher than the normal annual rainfall for the area.[2] Based on data provided by the WRCC, the average annual low temperature for the general area is 55 degrees Fahrenheit and the average annual high temperature for the general area is 88.3 degrees Fahrenheit. The average annual low temperature for the year preceding the surveys (May 2019 to April 2020) was approximately 60.5 degrees Fahrenheit, and the average annual high temperature for the same period was approximately 93.3 degrees Fahrenheit; approximately 5 degrees warmer than the annual historic average. Slight differences in the locations of the weather stations referenced may account for some temperature and rainfall variation.

Project Site

Disturbed areas of the Project show evidence of previous agricultural use on the Project Site. These areas are mainly concentrated along the western edge of the Project Site along U.S. Route 95 and in central portions of the Project Site immediately west and east of Citrus Ranch Road. Several small, developed areas are also present throughout the Project Site that include man-made structures, basins (grow crop circles for wind avoidance), abandoned structures and barbed-wire fences, cattle watering holes (concrete), or paved areas. Evidence of continual Project Site. disturbance, such as off-highway vehicle (OHV) activity and illegal dumping is also present throughout the Project Site. Extensive OHV tracks traversing the Project Site can be seen on aerial imagery and were observed on the ground during the survey efforts.

[1] Western Regional Climate Center, *Western Regional Climate Center. Historic Data. Climate Summaries,* 2022. Available at https://wrcc.dri.edu/summary/Climsmsca.html. Accessed August 4, 2022.

[2] Weather Underground, *Weather Underground. KCAPARKE4 weather station,* 2022. Available at https://www.wunderground.com/dashboard/pws/KAZPARKE22?cm_ven=localwx_pwsdash. Accessed August 4, 2022.

4.3.3 Regulatory Setting

Federal

Clean Water Act

The purpose of the Clean Water Act (CWA) is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of fill material into waters of the United States without a permit from the U.S. Army Corps of Engineers (USACE). The definition of waters of the United States includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 Code of Federal Regulations [CFR] § 328.3(b)). The goals and standards of the CWA are enforced through permit provisions. The U.S. Environmental Protection Agency (U.S. EPA) also has authority over wetlands and may override a USACE permit.

When a project may create impacts for wetlands, the project requires a permit or a waiver. Substantial impacts to wetlands may require an Individual Permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required from the Regional Water Quality Control Board (RWQCB) for Section 404 permit actions.

Navigable Waters Protection Rule

The Clean Water Rule: Definition of Waters of the United States—published in the Federal Register (FR) on June 29, 2015, and effective August 28, 2015—was enacted to ensure that waters protected under the CWA are more precisely defined and predictably determined. On October 22, 2019, the U.S. EPA and USACE published a rule to repeal the 2015 Clean Water Rule: Definition of "Waters of the United States" (2015 Rule) and to restore the regulatory text that existed prior to the 2015 Rule; the final rule became effective on December 23, 2019. On April 21, 2020, the U.S. EPA and USACE published the Navigable Waters Protection Rule in the Federal Register to finalize a revised definition of "Waters of the United States" under the CWA. The rule streamlines the definition of Waters of the United States so that it includes four categories of jurisdictional waters, provides clear exclusions for many water features, and defines terms in the regulatory text that have never been defined before. The Rule regulates the nation's navigable waters and the core tributary systems that provide perennial or intermittent flow into them. This final rule became effective on June 22, 2020.

The term ''waters of the United States'' means:

(1) the territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide

(2) tributaries, defined as a river, stream, or similar naturally occurring surface water channel that contributes surface water flow to a water identified in paragraph (a)(1) of this section in a typical year and is perennial or intermittent in a typical year

(3) lakes and ponds, and impoundments of jurisdictional waters

(4) adjacent wetlands

The final rule specifically clarifies that waters of the United States do not include the following:

- groundwater, including groundwater drained through subsurface drainage systems
- ephemeral features that flow only in direct response to precipitation, including ephemeral streams, swales, gullies, rills, and pools
- diffuse stormwater runoff and directional sheet flow over upland
- ditches that are not traditional navigable waters, tributaries, or that are not constructed in adjacent wetlands, subject to certain limitations
- prior converted cropland
- artificially irrigated areas that would revert to upland if artificial irrigation ceases
- artificial lakes and ponds that are not jurisdictional impoundments and that are constructed or excavated in upland or non-jurisdictional waters
- water-filled depressions constructed or excavated in upland or in non-jurisdictional waters incidental to mining or construction activity, and pits excavated in upland or in non-jurisdictional waters for the purpose of obtaining fill, sand, or gravel
- stormwater control features constructed or excavated in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater runoff
- groundwater recharge, water reuse, and wastewater recycling structures constructed or excavated in upland or in non-jurisdictional waters
- waste treatment systems

Federal Endangered Species Act of 1973

As defined within the Federal Endangered Species Act (FESA) of 1973, an endangered species is any animal or plant listed by regulation as being in danger of extinction throughout all or a significant portion of its geographical range. A threatened species is any animal or plant that is likely to become endangered within the foreseeable future throughout all or a significant portion of its geographical range. Without a special permit, Federal law prohibits the "take" of any individuals or habitat of Federally-listed species. Under Section 9 of the FESA, take is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." The term "harm" has been clarified to include "any act which actually kills or injures fish or wildlife, and emphasizes that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife." Enforcement of FESA is administered by the U.S. Fish and Wildlife Service (USFWS).

Under the definition used by the FESA, "Critical Habitat" refers to specific areas within the geographical range of a species that were occupied at the time it was listed that contain the physical or biological features that are essential to the survival and eventual recovery of that species and that may require special management considerations or protection, regardless of whether the species is still extant in the area. Areas that were not known to be occupied at the time a species was listed can also be designated as Critical Habitat if they contain one or more of the physical or biological features that are essential to that species' conservation and if the occupied areas are inadequate to ensure the species' recovery. If a project may result in take or adverse modification to a species' designated Critical Habitat and the project

has a Federal nexus, the project proponent may be required to provide suitable mitigation. Projects with a Federal nexus may include projects that occur on Federal lands, require Federal permits (e.g., CWA Section 404 permit), or receive any Federal oversight or funding. If there is a Federal nexus, then the Federal agency that is responsible for providing funds or permits would be required to consult with the USFWS under the FESA.

Whenever Federal agencies authorize, fund, or carry out actions that may adversely modify or destroy Critical Habitat, they must consult with USFWS under Section 7 of the FESA. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing uses Federal funds, or requires Federal authorization or permits (i.e., funding from the Federal Highway Administration or a permit from the USACE).

When a private project that has no federal funding and for which no federal action is required may affect a listed species, the private applicant may receive authorization for incidental take of species listed under the FESA. In these situations, Section 10 of the FESA provides for issuance of incidental take permits (ITPs) to private entities with the development of a Habitat Conservation Plan (HCP). An ITP allows take of the species that is incidental to another authorized activity.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 United States Code [USC] 668-668c) was enacted in 1940 and amended several times since, prohibits anyone without a permit issued by the Secretary of the Interior from "taking" bald (*Haliaeetus leucocephalus*) or golden eagles (*Aquila chrysaetos*), including their parts (i.e., feathers, skeletal remains, etc.) nests or eggs. The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." To disturb means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, (2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or (3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior. (Federal Register, volume 72, page 31132; 50 CFR 22.3).

Migratory Bird Treaty Act, as Amended

The Migratory Bird Treaty Act (MBTA) of 1918, as amended (16 United States Code [USC] 703-711), provides legal protection for almost all bird species occurring in, migrating through, or spending a portion of their life cycle in North America by restricting the killing, taking, collecting, and selling or purchasing of native bird species or their parts, nests, or eggs. The USFWS determined it was illegal under the MBTA to directly kill or destroy an active nest (nest with eggs or nestlings) of nearly any bird species (with the exception of non-native species) through the MBTA Reform Act of 2004. Certain game bird species are allowed to be hunted for specific periods determined by federal and state governments. The intent of the MBTA is to eliminate any commercial market for migratory birds, feathers, or bird parts, especially for eagles and other birds of prey. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities:

- falconry
- raptor propagation
- scientific collecting
- special purposes, such as rehabilitation, education, migratory game bird propagation, and salvage

- take of depredating birds, taxidermy, and waterfowl sale and disposal

The regulations governing migratory bird permits can be found in Title 50, Part 13 (General Permit Procedures) and Part 21 (Migratory Bird Permits) of the CFR.

Desert Renewable Energy Conservation Plan

In response to Executive Order S-14-08, which established a target of obtaining 33 percent of the State's electricity from renewable resources by 2020, the California Energy Commission (CEC), California Department of Fish and Wildlife (CDFW), USFWS, and the Bureau of Land Management (BLM) have developed the Desert Renewable Energy Conservation Plan (DRECP). The plan area encompasses the Mojave and Colorado Desert regions in California, including all or a portion of the following counties: Kern, Los Angeles, San Bernardino, Inyo, Riverside, Imperial, and San Diego. The DRECP is a joint State and Federal Natural Community Conservation Plan and part of one or more Habitat Conservation Plans (HCPs) with the goal of facilitating the development and minimizing the environmental impact of the development of renewable energy resources within the desert regions of California. The plan consists of multiple components targeting varying aspects of development, including but not limited to the following: General Conservation Plan (GCP) and a Natural Community Conservation Plan (NCCP). The overall goal is to conserve biological, physical, cultural, social, and scenic resources within the plan area. As this applies to biological resources, the plan intends to achieve six primary objectives: (1) Locate renewable energy development to disturbed lands or those with low biological conflict; (2) Identify plan-wide biological goals and objectives; (3) identify a DRECP Plan-Wide Reserve Design Envelope for each alternative; (4) contribute to the long-term conservation and management of covered species and natural communities; (5) preserve, restore, and enhance natural communities and ecosystems; and (6) identify and incorporate climate change adaption research and management objectives and/or policies.

In 2016, the BLM issued a Record of Decision, approving a LUPA that represents the conclusion of Phase I of the DRECP, which identifies priority areas for renewable energy development while setting aside millions of acres for conservation and outdoor recreation. The BLM plan complements the non-federal land component of the DRECP (Phase II), which is ongoing, led by the CEC.

State

California Endangered Species Act

The California Endangered Species Act (CESA; California Fish and Game Code [CFGC] Sections 2050-2116) parallels the FESA. As a responsible agency, the CDFW has regulatory authority over species listed as endangered and threatened. The State Legislature encourages cooperative and simultaneous findings between state and federal agencies. Consultation with CDFW is required for projects with the potential to affect listed or candidate species. CDFW would determine whether a reasonable alternative would be required for the conservation of the species. CESA prohibits the "take" of these species unless an ITP is granted. Under CFGC Section 2081 (ITP), CDFW can authorize the "take" of a listed species (with exception to fully protected species) if the "take" of the listed species is incidental to carrying out an otherwise lawful project that has been approved under the California Environmental Quality Act (CEQA). Section 2080.1 allows for "take" once an applicant obtains a federal ITP which can be approved (Consistency Determination letter) within 30 days by the CDFW Director. If the federal Incidental Take Statement is determined not to be consistent with CESA, then application for a State ITP (2081) is required.

The CFGC outlines protection for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are "fully protected" may not be taken or possessed at any time. CDFW has designated certain species native to California as Species of Special Concern to "focus attention on wildlife at conservation risk by the Department, other State, Local and Federal governmental entities, regulators, land managers, planners, consulting biologists, and others; stimulate research on poorly known species; achieve conservation and recovery of wildlife before they meet CESA criteria for listing as threatened or endangered."

State Fully Protected Species

The State of California designated species as Fully Protected (FP) prior to the creation of CESA and FESA. Lists of FP species were initially developed to provide protection to species that were rare or faced possible extinction/extirpation. Most FP species have since been state listed as threatened or endangered species. Under CFGC Section 4700, FP species may not be taken or possessed at any time.

In September 2011, the California Legislature sent the Governor legislation authorizing CDFW to permit the incidental take of 36 FP species pursuant to a NCCP approved by CDFW (Senate Bill [SB] 618 [Wolk]). The legislation gives FP species the same level of protection as provided under the NCCP Act for endangered and threatened species (CFGC Section 2835). The NCCP Act, enacted in the 1990s, authorizes the incidental take of species "whose conservation and management" is provided for in a conservation plan approved by CDFW.

California Fish and Game Code

The CDFW administers the CFGC. There are particular sections of the CFGC that are applicable to natural resource management.

Sections 1600-1602

Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the CFGC, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW limits of jurisdiction include the maximum extent of the uppermost bank-to-bank distance or riparian vegetation dripline.

Sections 3503, 3503.5, 3505, 3511, 3513, 3800, and 4154

CFGC Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. CFGC Section 3800 affords protection to all nongame birds, which are all birds occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds. CFGC Section 3505 protects birds in the Falconiformes order (birds of prey), 3511 protects fully protected bird species, and 3513 upholds the MBTA by prohibiting any take or possession of birds that are designated by the MBTA as migratory nongame birds except as allowed by federal rules and regulations promulgated pursuant to the MBTA. CFGC Section 4154 protects all fully protected mammals and nongame mammals.

Species of Special Concern

Species of special concern are broadly defined as animals not listed under the CESA, but nonetheless of concern to the CDFW, because they are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist. This designation focuses research and management attention on these species to avert their need for listing by stimulating collection of additional information on the biology, distribution, and status of poorly known at-risk species and by identifying recovery efforts that might ultimately be required. Species of special concern are included in the Special Animals List tracked in the California Natural Diversity Database (CNDDB).

Nongame Mammals

CFGC Section 4150 protects nongame mammals, defined as any naturally-occurring mammal in California that is not a game mammal, fully protected mammal, or fur-bearing mammal. Nongame mammals, which includes bats and bat roosts, may not be taken or possessed except as provided by the CFGC or in accordance with applicable regulations.

Native Plant Protection Act

CFGC Sections 1900–1913, the Native Plant Protection Act, were developed to preserve, protect, and enhance Rare and Endangered plants in the State of California. The act requires all State agencies to use their authority to carry out programs to conserve Endangered and Rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFW at least ten days in advance of any change in land use which would adversely impact listed plants. This allows the CDFW to salvage listed plant species that would otherwise be destroyed.

California Desert Native Plants Act

Division 23 of the California Food and Agriculture Code consists of the California Desert Native Plants Act (CDNPA). The CDNPA was developed to protect certain species of California desert native plants from unlawful harvesting on both public and privately-owned lands. The CDNPA only applies within the boundaries of Imperial, Inyo, Kern, Los Angeles, Mono, Riverside, San Bernardino, and San Diego Counties. Within these counties, the CDNPA prohibits the harvest, transport, sale, or possession of specific native desert plants unless a person has a valid permit or wood receipt, and the required tags and seals. The appropriate permits, tags and seals must be obtained from the sheriff or commissioner of the county where collecting will occur, and the county will charge a fee.

California Environmental Quality Act

CEQA (Public Resources Code [PRC] Sections 21000-21177) provides for the protection of the environment within the State by establishing State policy to prevent significant, avoidable damage to the environment through the use of alternatives or mitigation measures for projects. It applies to actions directly undertaken, financed, or permitted by State lead agencies. If a project is determined to be subject to CEQA, the lead agency will be required to conduct an Initial Study (IS). If the IS determines that the project may have significant impacts on the environment, the lead agency will subsequently be required to write an Environmental Impact Report (EIR). A finding of non-significant effects will require either a Negative Declaration or a Mitigated Negative Declaration instead of an EIR. Section 15380 of the CEQA Guidelines independently defines “endangered” species as those whose survival and reproduction in the wild are in

immediate jeopardy, while "rare" species are defined as those who are in such low numbers that they could become endangered if their environment worsens

Clean Water Act Section 401

Under CWA Section 401, the local RWQCB must certify that actions receiving authorization under CWA Section 404 also meet state water quality standards. The RWQCB requires projects to avoid impacts to wetlands if feasible and requires that projects do not result in a net loss of wetland acreage or a net loss of wetland function and values. Compensatory mitigation for impacts to wetlands and/or waters of the State is required.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act of 1966 (Porter-Cologne; California Water Code Sections 13000-13999.10) mandates that activities that may affect waters of the State shall be regulated to attain the highest quality. The State Water Resources Control Board (SWRCB) and the local RWQCB are the relevant permitting agencies. RWQCB provides regulations for a "non-degradation policy" that are especially protective of areas with high water quality. Porter-Cologne reserves the right for the State of California to regulate activities that could affect the quantity and/or quality of surface and/or ground waters, including isolated wetlands, within the state. Waters of the State include isolated waters that are no longer regulated by USACE. If the project is proposed to discharge into waters of the State, a Waste Discharge Report (WDR), or a waiver to WDRs, must be filed before beginning discharge.

Local

San Bernardino County Countywide Plan/Policy Plan

The County adopted the *Countywide Plan/Policy Plan* (Policy Plan) in October 2020. The Policy Plan provides an update of the County's General Plan addressing physical, social and economic issues facing the unincorporated portions of the County. The Policy Plan also provides an expansion of the County's General Plan to address supportive service for adults and children, healthcare service, public safety, and other regional county services provided to both incorporated and unincorporated areas.

Relevant goals and policies of the San Bernardino County Policy Plan are as follows:

Natural Resources Element

Policy NR-5.7 There shall be compliance with state and federal regulations regarding protected species of animals and vegetation through the development review, entitlement, and environmental clearance processes.

Policy NR 5.8 The use of non-invasive plant species with new development is required and the management of existing invasive plant species that degrade ecological function is encouraged.

Renewable Energy and Conservation Element

Policy RE 4.1 Apply standards to the design, siting, and operation of all renewable energy facilities that protect the environment, including sensitive biological resources, air quality,

water supply and quality, cultural, archaeological, paleontological and scenic resources.

Policy RE 4.1.2 Renewable energy development applications shall be subject to thorough environmental review, including consideration of water consumption, before being permitted.

Policy RE 4.7 Renewable Energy project site selection and site design shall be guided by the following priorities relative to habitat conservation and mitigation:

- Avoid sensitive habitat, including wildlife corridors, during site selection and project design.
- Where necessary and feasible, conduct mitigation on-site.
- When on-site habitat mitigation is not possible or adequate, establish mitigation off-site in an area designated for habitat conservation.

San Bernardino County Development Code

Development Code Section 84.29.040 focuses on solar energy development standards and includes regulations and guidelines for the notification and permitting processes pertaining to solar facilities, and is, therefore, applicable to the Project Site since it is a proposed solar facility.

Development Code Section 84.29.070 focuses on decommissioning requirements for wind and solar energy projects. This section of the Code includes regulations and guidelines for site closure activities to meet federal, state, and local requirements for the rehabilitation and revegetation of wind and solar energy project sites after decommissioning.

Development Code Section 88.01.060 is a subset of the Plant Protection and Management Code, which provides regulations for the removal or harvesting of specified desert native plants in order to preserve and protect the plants and to provide for the conservation and wise use of desert resources. The provisions are intended to augment and coordinate with the Desert Native Plants Act (Food and Agricultural Code Section 80001 et seq.) and the efforts of the State Department of Food and Agriculture to implement and enforce the Act.

The following desert native plants or any part of them, except the fruit, shall not be removed except under a Tree or Plant Removal Permit in compliance with Section 88.01.050 (Tree or Plant Removal Permits). In all cases the botanical names shall govern the interpretation of this Section. (1) The following desert native plants with stems 2 inches or greater in diameter or 6 feet or greater in height: *Dalea spinosa* (smoke tree), all species of the genus *Prosopis* (mesquites). (2) All species of the family Agavaceae (century plants, nolinas, yuccas). (3) Creosote Rings, 10 feet or greater in diameter. (4) All Joshua trees. (5) Any part of any of the following species, whether living or dead: *Olneya tesota* (desert ironwood), all species of the genus *Prosopis* (mesquites), all species of the genus *Cercidium* (synonym: *Parkinsonia*, palo verde).

4.3.4 Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, a project would have a significant impact related to biological resources if it would:

Threshold (a): 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 or U.S. Fish and Wildlife Service;

Threshold (b): 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 the California Department of Fish and Game or U.S. Fish and Wildlife Service;

Threshold (c): Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;

Threshold (d): 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;

Threshold (e): Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or

Threshold (f): Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or approved local, regional, or state HCP.

As identified in Section 6.5: Effects Found Not to Be Significant, related to Threshold (c) and Threshold (f), the Project was determined to have no impact and do not require further analysis in the Draft EIR**.**

4.3.5 Methodology

Chambers Group conducted a literature review; reconnaissance-level survey; jurisdictional waters delineation; and desert tortoise, burrowing owl, and focused plant surveys for the Project (see Appendix D of this Draft EIR). The Survey Area for the reconnaissance-level survey, vegetation mapping, and focused plant survey is the same as the Project Site. The Survey Area for the desert tortoise and burrowing owl surveys includes the Project Site plus a 500-foot buffer as depicted in Figure 10 within the Biological Resources Report. The methods used by Chambers Group are outlined below. The following geographies were evaluated:

- Literature search for special status species occurrences: 5-mile buffer around the Project Site
- Reconnaissance-level survey: Project Site boundary
- Vegetation mapping: Project Site boundary
- Focused plant survey: Project Site boundary
- Desert tortoise and burrowing owl survey: Project Site boundary plus a 500-foot buffer around the Project location for burrowing owl

Literature Review

Prior to performing the reconnaissance-level survey; jurisdictional waters delineation; and desert tortoise, burrowing owl, and rare plant focused surveys, existing documentation relevant to the Project Site was

reviewed. The most recent records of the CNDDB managed by the CDFW[3], the USFWS database – Carlsbad office[4], the National Wetlands Inventory[5], the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey[6], and the California Native Plant Society's Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California[7] were reviewed for the following quadrangles containing and surrounding the Project Site: *Vidal Junction*, *Parker NW*, *Vidal*, and *Parker SW* California United States Geological Survey (USGS) 7.5-minute quadrangles. These databases contain records of reported occurrences of federally and state listed endangered or threatened species, proposed endangered or threatened species, California Species of Special Concern (SSC), or otherwise sensitive species or habitats that may occur within or in the immediate vicinity of the Project.

Jurisdictional Waters

An assessment of jurisdictional waters regulated by the USACE, RWQCB, and CDFW was conducted to determine the potential of jurisdictional waters to be found within the Project Site. A small, unmanned aircraft system (sUAS) was deployed within the Project Site for aerial imagery and analysis. Chambers Group analyzed the aerial imagery recorded from the sUAS in collaboration with the field data for a comprehensive map of all existing drainage features.

Climate and flow frequency were considered when observing watermarks and drift lines. For the purpose of determining hydrologic connectivity to a Traditional Navigable Water (TNW), aerial photos, NWI maps, and USGS quadrangle maps were reviewed; and all features were inspected in the field on and off site for true connectivity. Potential USACE/RWQCB/CDFW jurisdictional areas identified during the literature search and aerial image analysis were field checked for the presence of definable channels, soils, wetland vegetation, riparian habitat, and hydrology. Transects were walked across the width of the Project Site perpendicular to the flow of the existing streams to obtain sufficient quantity of data points to facilitate Global Information System (GIS) digitization of jurisdictional features. Data was recorded for the presence or absence of fluvial activity, boundaries of geomorphic units, changes in plant species composition between different geomorphic units, soil types and textures, and mapping the watercourse and watercourse boundaries. Each of these drainages were examined in the field, and the channel banks were examined for signs of flow, terraces, drift deposits and other indicators that would determine the location of the Ordinary High-Water Mark (OHWM). Average channel width and depth, substrate types, and vegetation along the banks were recorded. Data were collected using a combination of records entered

[3] California Department of Fish and Wildlife, *California Natural Diversity Database (CNDDB). RareFind Version 5.2.14. Database Query for the Vidal Junction, Parker NW, Vidal, and Parker SW California USGS 7.5 minute quadrangles. Wildlife and Habitat Data Analysis Branch,* 2020.

[4] United States Fish and Wildlife Service, *Threatened & Endangered Species Active Critical Habitat Report*. Available at https://www.arcgis.com/home/webmap/viewer.html?url=https://services.arcgis.com/QVENGdaPbd4LUkLV/ArcGIS/rest/services/USFWS_Critical_Habitat/FeatureServer&source=sd. Accessed on August 4, 2022.

[5] United States Fish and Wildlife Service, *National Wetland Inventory (NWI),* 2022. Available at https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/. Accessed on August 4, 2022.

[6] United States Department of Agriculture, *Websoil Survey Database,* 2022. Available at https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx. Accessed on August 4, 2022.

[7] California Native Plant Society, Electronic Inventory, *Inventory of Rare and Endangered Plants (online edition). Rare Plant Scientific Advisory Committee, California Native Plant Society, Sacramento, California.* Available at http://www.cnps.org/inventory for the Vidal Junction, Parker NW, Vidal, and Parker SW California USGS 7.5 minute quadrangles. Accessed on August 4, 2022.

into ESRI ArcGIS Collector© and hand-written field notes. Jurisdictional waters and riparian communities were mapped at a minimum scale of 1:6000, often down to 1:3000.

Potential wetland habitats were evaluated using the methodology set forth in the *1987 Corps of Engineers Wetlands Delineation Manual*[8] and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (version 2.0)*.[9] The methods set forth in the 1987 Wetland Manual and the 2008 Arid West Supplement involve the delineation of wetlands based on the presence of three wetland parameters: a predominance of hydrophytic vegetation, wetland hydrology, and hydric soils. For more information, these wetland parameters are discussed in greater detail in Appendix D.

Biological Reconnaissance-Level Survey

Chambers Group biologists conducted a reconnaissance-level survey within the Project Site to identify the potential for occurrence of sensitive species, vegetation communities, and habitats that could support sensitive wildlife species. The survey was conducted on foot throughout the Project Site on April 23, 2020. All plant and wildlife species and vegetation communities observed within the Project Site were recorded.

Vegetation Mapping

All plant species and vegetation communities observed within the Project Site during the reconnaissance-level survey were recorded. Vegetation communities within the Project Site were then identified, qualitatively described, and mapped onto an aerial photograph. The vegetation communities are described following *A Manual of California Vegetation, Second Edition*.[10] Plant nomenclature follows that of *The Jepson Manual, Second Edition*.[11]

Wildlife

All wildlife and wildlife signs observed and/or detected, including tracks, scat, carcasses, burrows, excavations, and vocalizations, during both surveys were recorded. Additional survey time was spent in those habitats most likely to be utilized by wildlife (trees were surveyed with binoculars for bird nests or avian activity) or in habitats with the potential to support federally and/or state listed or otherwise sensitive species. Notes were made on the general habitat types, species observed, and the conditions of the Project Site.

Focused Plant Survey

A focused plant survey was conducted within the Project Site by Chambers Group biologists to identify and record occurrences of any of the seven rare plants identified in literature searches as having potential to occur on or within five miles of the Project Site. The survey was conducted in accordance with the

[8] U.S. Army Corps of Engineers, Corps of Engineers *Wetlands Delineation Manual. U.S. Army Corps of Engineers Waterways Experiment Station. Vicksburg, MS,* 1987.

[9] U.S. Army Corps of Engineers, *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center,* 2008.

[10] Sawyer, J.O., Jr., T. Keeler-Wolf, and J.M. Evens, *A Manual of California Vegetation, Second Edition.* California Native Plant Society, Sacramento, California, 2009.

[11] Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, and T.J. Rosatti, and D.H. Wilken, *The Jepson Manual: Vascular Plants of California, Second Edition.* University of California Press, Berkeley, CA, 2012.

CDFW's *Guidelines for Assessing the Effects of Proposed Projects on Rare, Threatened and Endangered Plants and Natural Communities* over a five-day period from May 4 through May 8, 2020. The surveys occured within the blooming period for four of the seven sensitive plant species identified as having potential to occur on or within the Project vicinity including chaparral sand-verbena, Alverson's foxtail cactus, glandular ditaxis, Abrams' spurge, winged cryptantha, Torrey's box-thorn, and Hall's tetracoccus. The survey was conducted outside the bloom period for three of the seven species, glandular ditaxis (typically blooms October through March), Abrams' spurge (typically blooms September through November), and winged cryptantha (typically blooms from March through April); for these species, surveyors focused on identifying vegetative characteristics and any floral remains. Although winged cryptantha blooms from March through April, this species, even if not in bloom, would have been conspicuous in early May. Furthermore, no *Johnstonella* or unidentified *Cryptantha* species were observed during the focused plant survey, and therefore this species is considered unlikely to occur Project Site.

Desert Tortoise and Burrowing Owl Survey

Chambers Group biologists conducted a desert tortoise survey and a burrowing owl survey over a five-day period from May 11, 2020, through May 15, 2020, in accordance with the USFWS Mojave Desert Tortoise Pre-project Survey Protocol and the CDFW Staff Report on Burrowing Owl Mitigation. These surveys were required to determine if desert tortoises and burrowing owls are present within the Project Site and, if present, estimate the amount of incidental take of these species.

The desert tortoise survey and one round of burrowing owl surveys were conducted concurrently within the approximately 1,090-acre Project Site. The burrowing owl survey included a 500-foot survey buffer around the Project Site (where feasible), in accordance with CDFW protocol. Buffer areas not accessible for surveys on foot included a private landowner (APN: 0647-091-08) along the northern boundary of the Project, and Colorado River Indian Reservation Lands (APN: 0647-061-07) located at the eastern boundary of the Project. For further details regarding methods, please refer to Appendix D.

4.3.6 Project Impact Analysis

Threshold (a): 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 or U.S. Fish and Wildlife Service?

Special Status Plant Species

A database search resulted in a list of seven sensitive plant species documented to occur within five miles of the Project Site and within the quadrangles containing and surrounding the Project Site. Of the seven special status plant species evaluated for their potential occurrence in the Project Site, no species had a High potential to occur, two species had a Moderate potential to occur, four species had a Low potential to occur, and one species was considered to be Absent from the Project Site. None of the four species evaluated as having potential to occur in the Project Site were observed during the survey and are therefore considered Absent on the Project. One additional species, Utah vine milkweed (*Funastrum utahense*), was not identified in the literature searches but was observed in the original Project Site during the focused plant survey. Nonetheless, after Project design revisions, it is now located within the Survey Area 500-foot buffer and is therefore considered Absent from the Project Site. Although no special status

plant species were identified within the Project Site boundaries, there is potential for those species to occur near the Project Site boundaries. **Mitigation Measure BIO-1** would be implemented to ensure no impacts would occur to sensitive species potentially occurring near the Project Site boundaries. **Mitigation Measure BIO-1** requires a biological monitor be present prior to initiation of ground disturbing activities to demark limit of disturbance boundaries with flagging and/or staking to clearly define the work area. With the implementation of **Mitigation Measure BIO-1**, the potential for special status plant species to be impacted directly and indirectly by the Project would be reduced to less than significant levels.

Special Status Wildlife Species

A database search resulted in a list of 21 sensitive wildlife species documented to occur within the quadrangles containing and surrounding the Project Site. After a literature review, reconnaissance-level survey, and desert tortoise and burrowing owl focused surveys, it was determined that nine sensitive wildlife species are considered Absent, six species have a Low potential to occur, and seven species have a Moderate potential to occur in the Project Site. The following six sensitive wildlife species have a Low potential for occurrence in the Project Site due to low quality and disturbed suitable habitat:

- Arizona Bell's vireo (*Vireo bellii arizonae*)
- Bendire's thrasher (*Toxostoma bendirei*)
- northern cardinal (*Cardinalis cardinalis*)
- prairie falcon (*Falco mexicanus*)
- southwestern willow flycatcher (*Empidonax traillii extimus*)
- yellow-breasted chat (*Icteria virens*)

The following seven sensitive wildlife species have a Moderate potential for occurrence in the Project Site due to marginal habitat and environmental and food source conditions:

- American badger (*Taxidea taxus*)
- burrowing owl (*Athene cunicularia*)
- Costa's hummingbird (*Calypte costae*)
- crissal thrasher (*Toxostoma crissale*)
- Le Conte's thrasher (*Toxostoma lecontei*)
- Gila woodpecker (*Melanerpes uropygialis*)
- yellow warbler

Suitable habitat for Costa's hummingbird, crissal thrasher, Le Conte's thrasher and Gila woodpecker exits within the Project Site primarily within the Blue Palo Verde – Ironwood Woodland habitat found along Drainage 4 and the major wash within Drainage System 5. No observations or historic records have been documented for Costa's hummingbird or Le Conte's thrasher within 5 miles of the Project Site, but these species did show as a potential for the Project vicinity based on the USFWS Environmental Conservation of Concern database. Therefore, Costa's hummingbird or Le Conte's thrasher could occur within the drainage areas that will be avoided by this Project. Both of these drainages will be avoided based on current Project design and in accordance with mitigation measure BIO-2. While habitat exists within the Project Site for American badger, crissal thrasher, and Gila woodpecker, historic records of these species

are all more than 30 years old and none of these species were observed during the survey efforts. Therefore, these species are not anticipated to occur within the Project Site.

One species, yellow warbler (*Setophaga petechia*), was not identified in the literature searches but was observed foraging between the Project Site boundary and the 500-foot buffer. Therefore, this species is considered to have a Moderate potential to occur on the Project for forage (no suitable nesting habitat). Three additional species, loggerhead shrike (*Lanius ludovicianus*), osprey (*Pandion haliaetus*), and black-tailed gnatcatcher (*Polioptila melanura*), were not identified in the literature searches but were observed or detected in the Project Site during survey efforts. Osprey was migrating through the area (no nesting habitat or foraging opportunities on the Project Site), while loggerhead shrike and black-tailed gnatcatcher have nesting and foraging habitat on the Project Site. Therefore, the latter two species are considered Present on the Project Site. There is potential for these wildlife species to be impacted. In order to avoid impacts to potential nesting birds on-site, vegetation trimming/crushing would take place outside the general bird breeding season (February 15 to September 15), to the maximum extent practical, in accordance with **Mitigation Measure BIO-4**. If avoidance is not possible, **Mitigation Measure BIO-4** requires that a qualified biologist conduct a nesting bird survey prior to ground-disturbing activities to comply with CDFW Code 3503 and 3503.5 and the MBTA. With implementation of **Mitigation Measure BIO-4,** impacts would be reduced to less than significant.

Desert Tortoise and Burrowing Owl

No live desert tortoises, active desert tortoise burrows, or other desert tortoise sign were identified in the Survey Area during desert tortoise surveys. One potential desert tortoise burrow was observed in the survey buffer near the southwest corner of the Project Site. However, the burrow was filled with spider webs and appeared to have been in disuse for some time. No live burrowing owls were observed within the Survey Area during the burrowing owl surveys. Nonetheless, three potential burrows with sign including cough pellets and/or whitewash were observed within the Project Site and one potential burrowing owl cough pellet was identified within the 500-foot survey buffer near the northeastern portion of the Project Site. With potential burrows and sign observed within the Project Site, impacts would be potentially significant. Implementation of **Mitigation Measure BIO-6**, which requires a Take Avoidance Survey to be conducted for burrowing owl prior to construction, would reduce impacts to less than significant.

Desert Kit Fox

Five active desert kit fox burrow/burrow complexes were identified within the Project Site during the desert tortoise and burrowing owl surveys. These burrows had fresh sign including scat, tracks, and/or prey remains on the burrow apron or in the vicinity, indicating recent use. Although desert kit fox is a non-sensitive species, these burrows/burrow complexes would be investigated during pre-construction surveys with a fiber-optic scope and/or wildlife motion cameras to determine their status. Due to the potential for active desert kit foxes to be identified within the Project Site, impacts would be potentially significant.

In accordance with **Mitigation Measure BIO-7**, if any burrow/burrow complex is determined to house desert kit fox, and the burrow/burrow complex is unavoidable, exclusionary devices (i.e., one-way doors) would be fitted on the active burrow openings. Once the burrow is confirmed vacant, the burrow would be carefully excavated to prevent re-entry/re-use of the burrow. These exclusion/excavation activities would only occur during the non-breeding season (July 2 to January 15). If construction occurs during the

breeding season, any active burrow/burrow complex that is unavoidable would be provided a 500-foot no work buffer until the end of breeding season (July 1) or until the burrow has been determined to be inactive (and does not contain pups) by a qualified biologist. Implementation of **Mitigation Measure BIO-7** would reduce impacts to less than significant.

Other Protections for Special Status Species

Beyond those mitigation measures discussed above, the Project would also implement **Mitigation Measure BIO-3**, which requires an environmental training to be developed and presented to all crew members prior to the beginning of all Project construction. The training would describe special-status wildlife species and sensitive habitats that could occur within Project work areas, protection afforded to these species and habitats, and avoidance and minimization measures required. With implementation of **Mitigation Measures BIO-1, BIO-3**, **BIO-4**, **BIO-6**, and **BIO-7**, impacts to sensitive species resulting from the Project would be less than significant.

Threshold (b): Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

The Project is located within the Vidal Wash (Hydrologic Unit Code [HUC] 1503010402) and Upper Parker Valley-Colorado River (HUC 1503010403; USDA 2022) watersheds. Vegetation characteristic of Vidal Wash and the major wash to the north includes Blue Palo Verde- Ironwood Woodland, with banks dominated by blue palo verde, ironwood, and creosote. Other minor drainages present in the Project Site were primarily located within Creosote Bush Scrub habitat with bank vegetation typical of this community.

As seen in **Table 4.3-1**, *Comparison of Impacted Drainages within the Survey Area,* below, there are six drainages located within the Project Site which make up 123.85 acres of jurisdictional waters. Of the total 123.85 acres, 14.45 acres may be temporarily impacted by construction activities and 10.21 acres may be permanently impacted by construction activities. Thus, a total of 24.66 acres of jurisdictional waters would be impacted by the Project. All of the jurisdictional areas were determined to be waters of the State, under the jurisdiction of both CDFW and RWQCB. The CDFW and RWQCB jurisdictional waters are regulated by State and local governments under a no-net-loss policy, and all impacts should be avoided to the greatest extent possible. A map of temporary and permanent impacts to jurisdictional waters is provided in Appendix D of this Draft EIR.

Table 4.3-1: Comparison of Impacted Drainages within the Survey Area

	Total Acres Within Survey Area	Temporary Impacts (acres)	Permanent Impacts (acres)	Total Impacts (acres)
Drainage 1	3.88	2.17	1.71	3.88
Drainage 2	13.40	8.13	5.26	13.40
Drainage 3	0.10	0.07	0.03	0.10
Drainage 5	100.24	4.07	3.21	7.28
Drainage 6	6.22	0.0	0.0	0.0
Totals	**123.85**	**14.45**	**10.21**	**24.66**

Source: See Appendix D.

On April 21, 2020, the U.S. EPA and USACE published the Navigable Waters Protection Rule in the Federal Register to finalize a revised definition of "Waters of the United States" (WOUS) under the CWA. This final rule became effective on June 22, 2020. The rule provides clear exclusions for many water features. The final rule specifically clarifies that WOUS do not include the following:

- Groundwater, including groundwater drained through subsurface drainage systems
- Ephemeral features that flow only in direct response to precipitation, including ephemeral streams, swales, gullies, rills, and pools

The drainages identified on site are considered ephemeral; therefore, based on the definition of WOUS, should not be considered under USACE jurisdiction.

The Project has been designed to minimize impacts to sensitive resources; however, impacts to all waters are not able to be avoided. Drainages 5 and 6 are the largest washes on-site and the Project layout has been designed to avoid these drainages. The Project would also be required to implement erosion protection and sediment control best management practices (BMPs) in compliance with the General Construction General Permit and the Stormwater Pollution Prevention Plan (SWPPP). Nonetheless, since impacts to other jurisdictional waters are not avoidable, the Project would implement **Mitigation Measures BIO-8** through **BIO-11** requiring habitat creation, enhancement, or preservation as determined by consultation with the regulatory agencies and the County during the permitting process. Any impacts to CDFW jurisdictional waters would require a 1602 Streambed Alteration Agreement from the CDFW. Since no Section 404 permit is required, Section 401 of the CWA is not applicable; however, a Waste Discharge Report (WDR), or a waiver to WDRs, may be required by RWQCB. A mitigation plan would be submitted for agency approval with each of the permit application packages. Although 24.66 acres of State waters would be impacted by the Project, acquisition of required permits and implementation of **Mitigation Measures BIO-8** through **BIO-11** would reduce impacts to less than significant.

Threshold (d): 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?

As mentioned in threshold a) above, the database search resulted in a list of 21 sensitive wildlife species documented to occur within the quadrangles containing and surrounding the Project Site. Of the 21 sensitive species, nine sensitive wildlife species were considered absent from the Project Site, six have low potential to occur, and seven have moderate potential to occur. Four species were considered Present on the Project Site. Project construction could temporarily interfere with the movement of native resident or migratory wildlife species for approximately 14 months, through the presence of workers on-site, equipment and vehicle travel, installation of fencing, and loud construction noise. To avoid impacts during construction M**itigation Measures BIO-3, BIO-5, BIO-6, and BIO-7** would be implemented. These mitigation measures require a biological monitor to be present to conduct pre-construction sweeps and species relocation, if necessary; an environmental training program to describe special-status wildlife species and sensitive habitats; a burrowing owl Take Avoidance Survey; and execution of a protocol for encountered desert kit fox burrows. Further, to avoid impediment or use of native wildlife survey sites **Mitigation Measure BIO-4** would require vegetation trimming/crushing to take place outside the general bird breeding season (February 15 to September 15) to the maximum extent practical or nesting bird surveys would be required.

Additionally, two large washes present on the Project Site (Drainages 4 and 5) are wildlife corridors providing a migration pathway for small to large mammal species (e.g., black-tailed jackrabbits, desert kit fox, mule deer, and wild burro) from the surrounding areas including the Turtle Mountains and Whipple Mountains to water sources such as the Colorado River. In accordance with **Mitigation Measure BIO-2**, desert riparian vegetation would be avoided to the greatest extent possible within Drainage 4 (Vidal Wash) and Drainage Systems 5 and 6 to preserve habitat for wildlife movement.

With implementation of **Mitigation Measures BIO-2** through **BIO-7**, impacts to the movement of wildlife species or the use of native wildlife nursery sites would be reduced to less than significant.

Threshold (e): Would the Project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

The Project Site is within the planning area of several adopted local plans, including the West Mojave Plan, the County Countywide Plan/Policy Plan, and the DRECP. However, the West Mojave Plan and the DRECP apply only to BLM-administered lands and therefore do not apply to the Project. As such, the following analysis demonstrates Project consistency with the following relevant County goals and policies relating to the protection of biological resources.

With implementation of **Mitigation Measures BIO-1** through **BIO-7**, the Project would be consistent with the Renewable Energy and Conservation Element goals and policies to collaborate with appropriate federal and State agencies to facilitate mitigation/habitat conservation offsets on public lands where suitable habitat is available because the Project would not interfere with the County's programs to:

- Balance sustainable energy production with sound resource conservation;
- Apply standards to the design, siting, and operation of renewable energy facilities that protect special-status biological resources; and
- Select and design renewable energy sites to conserve habitat; avoid impacts to special-status habitats and wildlife corridors; and provide sanctuary for native bees, butterflies, and birds, where feasible and appropriate.

With implementation of **Mitigation Measures BIO-1** through **BIO-7**, the Project would be consistent with Development Code Section 88.01.060 to conserve specified desert plant species as the Project would not impact special-status plants.

The Project would be consistent with the requirement of Development Code Chapter 82.11 for a biotic resources report evaluating significant project impacts to and mitigation measures for biotic resources on and adjacent to the Project Site. In addition, the Project would not interfere with the County's programs to protect and conserve beneficial unique, rare, threatened, or endangered plants and animal resources and their habitats in unincorporated areas because the Project would implement mitigation measures to reduce potential direct and indirect impacts to special-status habitats and wildlife species to less than significant levels.

Because the Project would implement mitigation measures to reduce potential direct and indirect impacts to special-status habitats and wildlife species to less than significant levels, the Project would be consistent with and would not interfere with Development Code Chapter 88.01 and the County's programs for the:

- Management of biotic resources in unincorporated areas under private or public ownership, including conservation of native plant heritage;
- Regulation of native plant and tree removal activities;
- Protection and maintenance of local watersheds;
- Preservation of habitats for rare, endangered, or threatened plants; and
- Protection of wildlife with limited or specialized habitats.

With implementation of **Mitigation Measures BIO-1** through **BIO-7**, impacts would be reduced to less than significant.

4.3.7 Cumulative Impacts

Chapter 3.0, Environmental Setting, of this Draft EIR provides a list of related projects that would have the potential to be considered in a cumulative context with the Project's incremental contribution. These projects are summarized in **Table 3-2,** *Related Projects*, and shown in **Figure 3-1,** *Related Projects in the Planning Area*. The geographic scope for considering cumulative impacts on biological resources includes other related projects in the County's East Desert Region.

Development of the related projects could result in direct take to special-status plant and wildlife species; construction, operational, and decommissioning disturbances; and/or special-status habitat conversion. While most of the related projects would convert undeveloped land into renewable energy facilities, over time, vegetation communities would re-establish between the panels, fencing, and utility structures, allowing wildlife (e.g., rodents, raptors, small birds, and reptiles) to continue inhabiting and foraging on the sites over the lifetime of the projects (approximately 30 years). Decommissioning plans, required for solar projects, also outline revegetation requirements for potential habitat growth. Therefore, while habitat would be temporarily disturbed or removed during the construction and decommissioning phases, operation and post-operation of such renewable energy facilities would not result in substantial permanent impacts to special-status species and habitats, and the affected lands could return to existing conditions for the foreseeable future.

Further, as with the Project, these related projects would also be required to avoid and/or mitigate impacts to special-status species and habitats in accordance with County, CDFW, and USFWS requirements. Therefore, the Project's less than significant impacts with mitigation incorporated, in combination with other reasonably foreseeable development projects in the County's East Desert Region, would not result in significant cumulative impacts to special-status species or habitats. Accordingly, the Project would not result in a considerable contribution to a significant cumulative impact.

4.3.8 Mitigation Measures

In order to minimize potential impacts to biological resources, the following mitigation measures would be implemented:

BIO-1 A biological monitor shall be present prior to initiation of ground disturbing activities to demark limit of disturbance boundaries. Flagging and/or staking shall be used to clearly define the work area boundaries and avoid impacts to sensitive plant species with the potential to occur near the proposed Project boundaries. The biological monitor will be present to conduct pre-construction sweeps and inspect compliance with project protection measures.

BIO-2 Desert riparian vegetation shall be avoided to the greatest extent possible within Drainage 4 (Vidal Wash) and Drainage Systems 5 and 6 to preserve habitat for the sensitive species with potential to nest and forage in these areas.

BIO-3 An environmental training program shall be developed and presented to all crew members prior to the beginning of all project construction. The training shall describe special-status wildlife species and sensitive habitats that could occur within project work

areas, protection afforded to these species and habitats, and avoidance and minimization measures required to avoid and/or minimize impacts from the project. The training program will be approved by a qualified biologist. Records of training will be kept on-site.

BIO-4 Vegetation trimming/crushing shall take place outside the general bird breeding season (February 15 to September 15), to the maximum extent practical. If this is not possible, prior to ground-disturbing activities, a qualified biologist shall conduct a nesting bird survey to comply with CDFW Code 3503 and 3503.5 and the Migratory Bird Treaty Act. The survey shall occur no more than 30 days prior to initiation of proposed project activities, and any occupied passerine and/or raptor nests occurring within or adjacent to the proposed project area shall be delineated. Additional follow-up surveys may be required by the resource agencies and the County of San Bernardino. If an active nest is identified, an avoidance buffer zone around occupied nests (as determined by the avian biologist) shall be maintained during physical ground-disturbing activities. The buffer zone shall be sufficient in size to prevent impacts to the nest. Once nesting has ceased and the fledglings are no longer using the nest area, the buffer may be removed. A nesting bird survey report shall be provided to the County of San Bernardino.

BIO-5 If a sensitive species is found, the species shall be relocated out of harm's way according to the capture/relocation plan. Any mortalities shall be reported to the agencies and County of San Bernardino. A final monitoring report will be submitted to CDFW and County of San Bernardino. The annual report shall include a summary of pre-construction surveys, biological monitoring, avoidance measures implemented, and whether the avoidance measures were effective.

BIO-6 Prior to construction, a burrowing owl Take Avoidance Survey shall be conducted by a qualified biologist. The survey shall be conducted no less than 14 days prior to initiating ground disturbance activities. If burrowing owls are determined to be present where Project activities will occur, minimization and avoidance measures shall be required including but not limited to a final survey within 24 hours prior to ground disturbance.

BIO-7 If any burrow/burrow complex is determined to house desert kit fox and the burrow/burrow complex is unavoidable, exclusionary devices (e.g., one-way doors) should be fitted on the active burrow openings, and once the burrow is confirmed vacant, the burrow should be carefully excavated to prevent re-entry/re-use of the burrow. These exclusion/excavation activities should only occur during the non-breeding season (July 2 to January 15). If construction will occur during the breeding season, any active burrow/burrow complex that is unavoidable should be provided a 500-foot no work buffer until the end of breeding season (July 1) or until the burrow has been determined to be inactive (and does not contain pups) by a qualified biologist.

BIO-8 Temporary and permanent impacts to all jurisdictional resources shall be compensated through a combination of habitat creation (i.e., establishment), enhancement, preservation, and/or and restoration at a minimum of a 1:1 ratio or as required by the permitting agencies. Any creation, enhancement, preservation, and/or restoration effort shall be implemented pursuant to a Habitat Restoration Plan, which shall include success criteria and monitoring specifications, and shall be approved by the permitting agencies and County of San Bernardino. A habitat restoration specialist will be designated and

approved by the permitting agencies and will determine the most appropriate method of restoration.

BIO-9 Temporarily impacted drainage features shall be recontoured to pre-construction conditions. Temporary impacts shall be restored sufficient to compensate for the impact to the satisfaction of the permitting agencies (depending on the location of the impact). If restoration of temporary impact areas is not possible to the satisfaction of the appropriate agency, the temporary impact shall be considered a permanent impact and compensated accordingly.

BIO-10 A biological monitor shall be present prior to initiation of ground disturbing activities to demark limit of disturbance boundaries. Flagging and/or staking will be used to clearly define the work area boundaries and avoid impacts to adjacent drainage features.

BIO-11 Graded areas shall be stabilized to promote infiltration and reduce run-off potential.

4.3.9 Level of Significance After Mitigation

With the implementation of **Mitigation Measures BIO-1** through **BIO-11**, the Project's impacts on biological resources would be reduced to less than significant.

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4.4 CULTURAL RESOURCES

4.4.1 Introduction

This section addresses the Project's potential impacts in relation to cultural resources, including prehistoric and historic archaeological sites, archaeological districts, historic buildings and structures, and isolated occurrences of artifacts. Such resources provide information on scientific progress, environmental adaptations, group ideology, or other human advancements. By statute, the California Environmental Quality Act (CEQA) is primarily concerned with two classes of cultural resources: Historical resources, which are defined in Public Resources Code (PRC) Section 21084.1 and CEQA Guidelines Section 15064.5, and unique archaeological resources, which are defined in PRC Section 21083.2.

Information contained in this section is derived from the Cultural Resources Survey Report, dated March 2022, prepared by Chambers Group, Inc. (Appendix E). Due to the confidential nature of the location of cultural resources, information regarding locations of these resources has been removed and is not included in the appendix.

4.4.2 Existing Environmental Setting

Existing Conditions

The Project Site is located in southeastern San Bernardino County (County), along the western margin of the Colorado River Indian Tribes Reservation, immediately adjacent to the Colorado River, approximately 41 miles north of Blythe and 58 miles south of Needles, California. This area is located within the northernmost section of the Sonoran Desert physiography, near its intersection with the Mojave Desert. At this location, the Mojave Desert encompasses a thin wedge of Sonoran Desert extending along the Colorado River, stretching only a few miles west of the river. The Sonoran Desert is composed of several subregion deserts for which this aspect is defined as part of the Colorado Desert.

Cultural Setting

As one of the first researchers in the Southern California deserts, Malcolm Rogers and his cultural chronologies have influenced and confounded subsequent researchers for decades. Rogers was among the first to synthesize and propose a regional overview; but because he frequently added new data to his thesis, several revisions—often contrary to a previous iteration—were produced. Rogers proposed a sequence beginning with the San Dieguito Complex, which he subdivided into San Dieguito I, II, and III. This cultural complex spanned from 11000 to 9000 before present (B.P.). After a 2000-year hiatus, the Amargosa Complex (Amargosa I–III) followed, dating from 7000 to 1950 B.P. Rogers then proposed the introduction of Basketmaker III and Pueblo II Periods, dating from 1950 to 1450 B.P. This was then followed by Prehistoric Yuman and Shoshonean Groups from approximately 1450 to 450 B.P., and then by the Paiute and Mojave groups after 450 B.P.

Mojave Desert

The Mojave Desert cultural sequence had been divided into five major periods. This sequence includes Lake Mojave, Pinto, Gypsum, Saratoga Springs, and Shoshonean/Protohistoric periods. Warren describes the Lake Mojave period, from 10000 to 7000 B.P., as being "a generalized hunting and gathering subsistence system." The Pinto Period which follows, dating approximately from 7000 to 4000 B.P., is

defined by its characteristic Pinto-style projectile point as well as by scrapers and knives. Warren also suggested that this period lacked ground stone implements. Schroth], however, states "Ground stone, principally cobble manos and block metates, are present at 16" of 22 Pinto-period sites in the Pinto Basin. Campbell and Campbell also noted ground stone at Pinto Basin sites, though they could not necessarily place these within the Pinto-period. Nevertheless, Campbell and Campbell noted that given the numerous associations of ground stone within these sites they could not disclaim their contemporaneity with the other Pinto-period artifacts. These factors suggest that Pinto-period occupation comprised small bands of people, as evidenced by the non-intensive seasonal encampments that date to this period. By 4000 B.P. Humboldt Concave Base, Gypsum Cave, Elko Eared, and Elko Corner-notched projectile points are evident in the archaeological record. Additionally, ground stone tools suggest a shift toward a changing economy based on processing hard seed goods.

Indications of long-range trade or travel are also suggested, based on coastal California shell ornaments. By 1450 B.P. use of ground stone and bow and arrow technologies suggests further shifts in desert adaptations. With the introduction of the Rose Spring and Eastgate projectile points through much of the desert region and brownware and buffware ceramics as well as Cottonwood and Desert Side-notched projectile points in the southern desert region, Warren proposed the Saratoga Springs Period. Dating from 1450 to 750 B.P. this period is characterized by "more complex settlement-subsistence system with large permanent villages" and increased long-distance networks. Warren further suggests that the artifact types associated with the Saratoga Springs Period see continued use through the Shoshonean/Protohistoric time period, from 750 B.P. up to the historic period.

Following on from Warren, Sutton presents a slightly altered chronology for the Mojave Desert region. Though claims for a very early "Pre-Projectile Point" occupation of the desert region have been made, Sutton suggests that evidence for these claims is wanting. The first clearly definable period of occupation occurs during the Paleoindian Period. Dating from 12,000 to 10,000 B.P, the Paleoindian Period is characterized by Clovis, or Clovis-style, fluted points, which have been associated with the Big Game Hunting Tradition. Sutton notes, however, that while taking megafauna may have been the primary subsistence strategy, smaller game as well as vegetal foods would have also been procured. Sutton's Pre-Projectile Period cultural sequence is followed by Warren's outline for the Lake Mojave, Pinto, and Gypsum Periods. Sutton nuances Warren's Saratoga Springs Period with his own Rose Springs Period. Dating from 1450 to 950 B.P., the Rose Spring Period follows the Gypsum Period and is characterized by Rose Springs and Eastgate projectile points. These point types—indicating use of bow and arrow technologies along with the use of ground stone tools, imported marine shell artifacts and obsidian, and evidence of more developed middens within sites—suggest more intensive and extensive use of desert resources. Sutton's Late Prehistoric Period, from 950 B.P. to contact, is an extension of the previous Rose Springs Period with a continuation of similar subsistence strategies, but with a replacement of projectile point forms with Cottonwood Triangular and Desert Side-notched points and the introduction of ceramic technology.

Like others, Hall suggests a five-stage chronology. Hall begins with the Lake Mojave Period beginning around 10,000 B.P. and extending to 7500 B.P. Hall suggests that during this period the Mojave Desert region was occupied by small bands of hunters and gatherers. Great Basin stemmed points and flaked stone crescents mark this period. Continuing on into the Pinto Period (approximately 7500 B.P. to 4500 B.P.), these mobile bands evidenced an intensified occupation with the advent of ground stone tools, a reliance on large and small game, and an assortment of vegetal resources. Long-range travel or trade is also noted for this period, as illustrated by the presence of *Olivella* sp. spire-lopped beads in archaeological sites.

Following a brief hiatus, a culture adopting a different strategy emerges. Hall describes the Newberry Period, dating from 4000 to 1450 B.P., as one which has "geographically expansive land-use pattern[s]…involving small residential groups moving between select localities." As with the Pinto Period, there is evidence of long-distance trade or travel, along with a diffusion of trait characteristics from other groups. Defining artifact types from this period include Elko and Gypsum contracting stem points and split oval beads. Hall then adopts Warren's Saratoga Springs Period (1450 to 750 B.P) and adds a Tecopa Period (750 B.P to contact) as defining the last 1,500 years of cultural development. Like Warren's Saratoga Springs Period, Hall notes an apparent restriction in geographic use area as a consequence of an increasing population. Anasazi grayware ceramics and Rose Springs and Eastgate projectile points are characteristic artifact types for the period. The Tecopa Period sees a continuation of similar patterns noted during the Saratoga Springs Period; and, like Sutton's Late Period, Cottonwood Triangular and Desert Side-notched projectile points replace earlier iterations. Furthermore, buff and brownwares are introduced into the archaeological record, as well as beads of steatite, glass, and *Olivella* sp., including Thin Lipped, Tiny Saucer, Cupped, and Cylinder styles.

Colorado Desert

Schaefer, using numerous northern Colorado Desert area studies, presents a four-period cultural sequence. Incorporating Rogers' earlier definition of the Malpais Pre-Projectile Period, Schaefer identifies a Paleoindian Period, dating prior to 10,000 B.P. and lasting to 8000 B.P. It is characterized by settlements atop mesas and terraces occupied by small, mobile bands of hunters and gatherers who subsisted on small and large game and a variety of vegetal materials. Key indicators of this period include cleared circular areas in the desert gravels, sometimes called "house sites" or "sleeping circles"; gravel pictographs of both the rock alignment and intaglio type; and very simple stone tools.

Schaefer next describes an Early Archaic Period dating from 8000 B.P. to 4000 B.P. and a Late Archaic Period dating from 4000 to 1450 B.P. Both periods appear to have been thinly populated with a population decline beginning in the Early Archaic. Both periods indicated highly flexible group sizes that practiced a seasonally adjusted settlement pattern based on available food resources. Ground stone tool production and use greatly expands during this period. In a work presented by Altschul, Schaefer elaborates on these periods, shifting the time frame out to 10,000 B.P. and 1350 B.P. and inserting a Middle Archaic Period. While both Early and Late Archaic periods are indicated by low population densities, Schaefer suggests that the Middle Archaic witnessed a population increase. Based on interpretations of increased projectile point variability, some have suggested that social group membership, resource competition, and development of defenses along territorial borders were taking place during this period. Following a return to warmer and drier conditions, the Late Archaic Period appears to indicate a return to small, mobile groups focusing on ground stone technology and seasonally available resources. Characteristic artifact types include large spear and dart points, basketry, nets, traps, split-twig figurines (which were also noted in Warren's Gypsum Period), and other perishable items.

Schaefer's last cultural phase, the Late Prehistoric, has been termed the Patayan and has been subdivided into Patayan I, II, and III. Particular characteristic features of this period are the use of ceramic technology, cremation funerary patterns, and an extensive trail system. Schaefer dates Patayan I from 1150 to 900 B.P., noting that people organized in small mobile groups along the Lower Colorado River and utilized a Hohokam-style tool kit. The Patayan II Period is dated from 900 to 450 B.P. and is notable for the infilling of Lake Cahuilla. The lake encouraged population shifts toward the floodplain and along the western and eastern regions of the desert. Ceramic production also shifted from the Lower Colorado River toward a more local manufacture. Subsequent desiccation of Lake Cahuilla marks the Patayan III Period

(approximately 450 B.P. to historic times). Populations return to the Lower Colorado River as small, mobile bands subsisting on seasonal hunting and gathering as well as on small-scale agriculture. During this period contact with European explorers is made, giving rise to the Protohistoric Period.

For an ethnography of the Project Site and surrounding area please refer to Section 4.10, Tribal Cultural Resources, of this Draft EIR.

4.4.3 Regulatory Setting

Federal

Archaeological Resources Protection Act

The Archaeological Resources Protection Act of 1979 regulates the protection of archaeological sites and resources that are on Native American lands or federal lands.

National Historic Preservation Act of 1966

Enacted in 1966, the National Historic Preservation Act (NHPA) (16 United States Code [U.S.C] §§ 470 et seq.) declared a national policy of historic preservation and instituted a multifaceted program, administered by the Secretary of the Interior, to encourage the achievement of preservation goals at the federal, state, and local levels. The NHPA authorized the expansion and maintenance of the National Register of Historic Places (NRHP), established the position of State Historic Preservation Officer (SHPO), provided for the designation of State Review Boards, set up a mechanism to certify local governments to carry out the purposes of the NHPA, assist Native American tribes in preserving their cultural heritage, and created the Advisory Council on Historic Preservation (ACHP).

NHPA establishes the nation's policy for historic preservation and sets in place a program for the preservation of historic properties by requiring federal agencies to consider effects to significant cultural resources (i.e., historic properties) prior to undertakings.

Section 106 of the National Historic Preservation Act of 1966

Federal regulations for cultural resources are governed primarily by Section 106 of the National Historic Preservation Act of 1966. Section 106 of the NHPA states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in, or eligible for inclusion in, the NRHP and that the ACHP and SHPO must be afforded an opportunity to comment, through a process outlined in the ACHP regulations at 36 Code of Federal Regulations (CFR) Part 800, on such undertakings. The goal of the Section 106 review process is to offer a measure of protection to sites that are determined eligible for listing on the NRHP. The criteria for determining National Register eligibility are found in 36 CFR 60. Amendments to the NHPA (1986 and 1992) and subsequent revisions to the implementing regulations have, among other things, strengthened the provisions for Native American consultation and participation in the Section 106 review process. While federal agencies must follow federal regulations, most Projects by private developers and landowners do not require this level of compliance. Federal regulations only come into play in the private sector if a project requires a federal permit or if it uses federal funding.

National Register of Historic Places

The NRHP was established by the NHPA of 1966 as "an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment." The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, or association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

- Criterion A: It is associated with events that have made a significant contribution to the broad patterns of our history.
- Criterion B: It is associated with the lives of persons who are significant in our past.
- Criterion C: It embodies the distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D: It has yielded, or may be likely to yield, information important in prehistory or history.

Notwithstanding Criteria Considerations, in general cemeteries, birthplaces, or graves of historic figures; properties owned by religious institutions or used for religious purposes; structures that have been moved from their original locations; reconstructed historic buildings; and properties that are primarily commemorative in nature are not considered eligible for the NRHP unless they satisfy certain conditions. In general, a resource must be at least 50 years of age to be considered for the NRHP, unless it satisfies a standard of exceptional importance.

In addition to the four National Register Criteria noted above, qualifying resources must maintain elements of integrity. Integrity is the ability of a property to convey its significance. According to the National Park Service, "The evaluation of integrity is sometimes a subjective judgment, but it must always be grounded in an understanding of a property's physical features and how they relate to its significance." The National Register Bulletin (1990, revised 1997) identifies seven aspects of integrity that a property should retain, and include: Location, Design, Setting, Materials, Workmanship, Feeling, and Association. While maintenance of all aspects of integrity is not required, a property should possess most of the aspects that are integral to its ability to convey its significance. Understandably, not all aspects of integrity are applicable across the range of buildings, structure, objects, or sites under evaluation. Aspects such as design or feeling likely would not be integral to understanding the significance of an archaeological deposit, whereas these would be essential in understanding a significant building, or landscape.

The Bulletin further exemplifies how to broadly assess the integrity of eligible resources when applying the qualifying National Register Criteria. Under Criteria A and B, a property that is significant for its historic association is eligible if it retains the essential physical features that made up its character or appearance during the period of its association with the important event, historical pattern, or person(s). If the property is a site (such as a treaty site) where there are no material cultural remains, the setting must be intact. Eligible archaeological sites must be in overall good condition with excellent preservation of features, artifacts, and spatial relationships to the extent that these remains are able to convey important associations with events or persons.

Under Criterion C, a property important for illustrating a particular architectural style or construction technique must retain most of the physical features that constitute that style or technique. A property that has lost some historic materials or details can be eligible if it retains the majority of the features that illustrate its style in terms of the massing, spatial relationships, proportion, pattern of windows and doors, texture of materials, and ornamentation. The property is not eligible, however, if it retains some basic features conveying massing but has lost the majority of the features that once characterized its style. Eligible archaeological sites must be in overall good condition with excellent preservation of features, artifacts, and spatial relationships to the extent that these remains are able to illustrate a site type, time period, method of construction, or work of a master.

Properties eligible under Criterion D, including archaeological sites and standing structures studied for their information potential, less attention is given to their overall condition, than if they were being considered under Criteria A, B, or C. Archaeological sites, in particular, do not exist today exactly as they were formed. There are numerous cultural and natural processes that may have altered the deposited materials and their spatial relationships. For properties eligible under Criterion D, integrity is based upon the property's potential to yield specific data that addresses important research questions, such as those identified in the historic context documentation, or in the research design, for projects meeting the Secretary of the Interior's Standards for Archeological Documentation.

Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act (NAGPRA) of 1990 sets provisions for the intentional removal and inadvertent discovery of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains and associated funerary objects and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation.

State

The Office of Historic Preservation (OHP), an office of the Department of Park and Recreation (DPR), implements the policies of the NHPA on a State-wide level. The OHP also carries out the duties as set forth in the PRC and maintains the California Historic Resources Inventory and the California Register of Historical Resources (CRHR). The SHPO is an appointed official who implements historic preservation programs within the State's jurisdictions. Also implemented at the State level, CEQA requires projects to identify any substantial adverse impacts which may affect the significance of identified historical resources.

California Register of Historical Resources

The CRHR was created by Assembly Bill (AB) 2881 which was signed into law on September 27, 1992. The CRHR is "an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC Section 5024.1(a)).

The CRHR consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The CRHR automatically includes the following:

- California properties listed on the National Register of Historic Places and those formally Determined Eligible for the National Register of Historic Places;
- California Registered Historical Landmarks from No. 770 onward;
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the California Register.

Other resources which may be nominated to the CRHR include:

- Individual historical resources;
- Historical resources contributing to historic districts;
- Historical resources identified as significant in historical resources surveys with significance ratings of Category 1 through 5;
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone (PRC Section 5024.1(e)).

To be eligible for the CRHR, a historic resource must be significant at the local, State, or national level, under one or more of the following four criteria:

1) It is associated with the events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the U.S.;
2) It is associated with the lives of persons important to local California, or U.S. history;
3) It embodies the distinctive characteristics of a type, period, region, or method of construction, represents the work of a master, possesses high artistic values; and/or
4) It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

Additionally, a historic resource eligible for listing in the CRHR must meet one or more of the criteria of significance described above and retain enough of its historic character or appearance to be recognizable as a historic resource and to convey the reasons for its significance.

California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the state and is codified at PRC Section 21000 et seq. CEQA requires lead agencies to determine if a proposed project would have a significant effect on the environment, including significant effects on historical or unique archaeological resources. Under PRC Section 21084.1, a "project that may cause a substantial adverse change in the significance of a historic resource is a project that may have a significant effect on the environment." This statutory standard involves a two-part inquiry. The first involves a determination of whether the project involves a historic resource. If so, then the second part involves determining whether the project may involve a "substantial adverse change in the significance" of the resource. To address

these issues, guidelines that implement the 1992 statutory amendments relating to historical resources were adopted on October 26, 1998, with the addition of CEQA Guideline Section 15064.5. The CEQA Guidelines 15064.5 provides that for the purposes of CEQA compliance, the term "historical resources" shall include the following:

- A resource listed in or determined to be eligible by the State Historical Resources Commission, for listing in the CRHR.

- A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the PRC or identified as significant in a historical resource survey meeting the requirements in Section 5024.1(g) of the PRC, shall be presumed to be historically or culturally significant. Public agencies must treat such resources as significant for purposes of CEQA unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

- Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be a historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be 'historically significant' if the resource meets one of the criteria for listing on the CRHR.

- The fact that a resource is not listed in or determined to be eligible for listing in the CRHR, not included in a local register of historical resources (pursuant to Section 5020.1(k) of the PRC), or identified in a historical resources survey (meeting the criteria in Section 5024.1(g) of the PRC) does not preclude a lead agency from determining that the resource may be a historical resource as defined in PRC Sections 5020.1(j) or 5024.1."

If a lead agency determines that an archaeological site is a historical resource, the provisions of CEQA Guidelines Sections 21084.1 and 15064.5 apply. If an archaeological site does not meet the criteria for a historical resource contained in the CEQA Guidelines, then the site may be treated in accordance with the provisions of Section 21083, which is as a unique archaeological resource. As defined in CEQA Guidelines Section 21083.2, a "unique" archaeological resource is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;

- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or,

- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological site meets the criteria for a unique archaeological resource as defined in Section 21083.2, then the site is to be treated in accordance with the provisions of Section 21083.2, which state that if the lead agency determines that a project would have a significant effect on unique archaeological resources, the lead agency may require reasonable efforts be made to permit any or all of these resources

to be preserved in place (Section 21083.1(a)). If preservation in place is not feasible, mitigation measures shall be required. CEQA Guidelines Section 15064.5(c)(4) notes that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment.

A significant effect under CEQA would occur if a project results in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5(a). As defined in CEQA Guidelines Section 15064.5(b)(1)), substantial adverse change is "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired." According to CEQA Guidelines Section 15064.5(b)(2), the significance of a historical resource is materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics that:

A. Convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the CRHR; or
B. Account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in a historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
C. Convey its historical significance and that justify its eligibility for inclusion in the CRHR as determined by a Lead Agency for purposes of CEQA.

California Government Code Sections 6254(r) and 6254.10

These sections of the California Public Records Act were enacted to protect archaeological sites from unauthorized excavation, looting, or vandalism. Section 6254(r) explicitly authorizes public agencies to withhold information from the public relating to "Native American graves, cemeteries, and sacred places maintained by the Native American Heritage Commission." Section 6254.10 specifically exempts from disclosure requests for "records that relate to archaeological site information and reports, maintained by, or in the possession of the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, the Native American Heritage Commission, another state agency, or a local agency, including the records that the agency obtains through a consultation process between a Native American tribe and a state or local agency."

Assembly Bill 4239

AB 4239 established the Native American Heritage Commission (NAHC) as the primary government agency responsible for identifying and cataloging Native American cultural resources. The bill authorized the NAHC to act in order to prevent damage to and insure Native American access to sacred sites and authorized the NAHC to prepare an inventory of Native American sacred sites located on public lands.

Public Resources Code 5097.97

No public agency and no private party using or occupying public property or operating on public property under a public license, permit, grant, lease, or contract made on or after July 1, 1977, shall in any manner whatsoever interfere with the free expression or exercise of Native American religion as provided in the United States Constitution and the California Constitution; nor shall any such agency or party cause severe

or irreparable damage to any Native American sanctified cemetery, place of worship, religious or ceremonial site, or sacred shrine located on public property, except on a clear and convincing showing that the public interest and necessity so require.

Public Resources Code Sections 5097.98(b) and (e)

PRC Sections 5097.98(b) and (e) require a landowner on whose property Native American human remains are found to limit further development activity in the vicinity until he/she confers with the NAHC-identified Most Likely Descendants (MLDs) to consider treatment options. Once the MLD has been granted access to the site by the landowner and inspected the discovery, the MLD then has 48 hours to provide recommendations to the landowner for the treatment of the human remains and any associated grave goods. In the absence of MLDs or of a treatment acceptable to all parties, the landowner is required to reinter the remains elsewhere on the property in a location not subject to further disturbance.

California Health and Safety Code, Section 7050.5, 7501, and 7054

California Health and Safety Code (HSC) Sections 7050.5, 7051, and 7054 collectively address the illegality of interference with human burial remains as well as the disposition of Native American burials in archaeological sites. The law protects such remains from disturbance, vandalism, or inadvertent destruction and establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including the treatment of remains prior to, during, and after evaluation, and reburial procedures. California HSC Section 7050.5 requires that in the event human remains are discovered, the County Coroner be contacted to determine the nature of the remains. In the event the remains are determined to be Native American in origin, the Coroner is required to contact the NAHC within 24 hours to relinquish jurisdiction.

Local

San Bernardino County Development Code

Development Code Chapter 82.12, Cultural Resources Preservation (CP) Overlay, includes regulations pertaining to the identification and preservation of important archaeological and historical resources. The chapter outlines application requirements for a project proposed within a CP Overlay, as well as development standards and an explanation of the need for a Native American monitor. The Development Code states that the CP Overlay may be applied to areas where archaeological and historic sites that warrant preservation are known or are likely to be present. Specific identification of known cultural resources is indicated by listing in one or more of the following inventories: California Archaeological Inventory, California Historic Resources Inventory, California Historical Landmarks, California Points of Historic Interest, and/or National Register.

San Bernardino County Countywide Plan/Policy Plan

The County adopted the Countywide Plan/Policy Plan) in October 2020. The Policy Plan provides an update of the County's General Plan addressing physical, social and economic issues facing the unincorporated portions of the County. The Policy Plan also provides an expansion of the County's General Plan to address supportive service for adults and children, healthcare service, public safety, and other regional county services provided to both incorporated and unincorporated areas. Relevant policies from the Cultural Resources Element are as follows:

Goal CR-2 **Historic and Paleontological Resources.** Historic resources (buildings, structures, or archaeological resources) and paleontological resources that are protected and preserved for their cultural importance to local communities as well as their research and educational potential.

Policy CR-2.1 **National and state historic resources.** We encourage the preservation of archaeological sites and structures of state or national significance in accordance with the Secretary of Interior's standards.

Policy CR-2.2 **Local historic resources.** We encourage property owners to maintain the historic integrity of resources on their property by (listed in order of preference): preservation, adaptive reuse, or memorialization.

Policy CR-2.3 **Paleontological and archaeological resources.** We strive to protect paleontological and archaeological resources from loss or destruction by requiring that new development include appropriate mitigation to preserve the quality and integrity of these resources. We require new development to avoid paleontological and archeological resources whenever possible. If avoidance is not possible, we require the salvage and preservation of paleontological and archeological resources.

Policy CR-2.4 **Partnerships.** We encourage partnerships to champion and financially support the preservation and restoration of historic sites, structures, and districts.

Policy CR-2.5 **Public awareness and education.** We increase public awareness and conduct education efforts about the unique historic, natural, tribal, and cultural resources in San Bernardino County through the County Museum and in collaboration with other entities.

4.4.4 Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, a project would have a significant impact related to cultural resources if it would:

Threshold (a): Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5;

Threshold (b): Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; or

Threshold (c): Disturb any human remains, including those interred outside of formal cemeteries.

4.4.5 Methodology

Chambers Group completed an archaeological literature review and cultural resources inventory survey for the Project. A Cultural Resources Report was prepared for the Project (Appendix E). A records search request to the South Central Coastal Information Center (SCCIC) was submitted on July 9, 2020, and cultural resources surveys were completed in July and October 2020. A summary of these efforts has been included below.

Literature Review

A records search request was submitted to the SCCIC at California State University, Fullerton, on July 9, 2020. The records search results were received on August 27, 2020. The records search indicates that three studies have taken place within the Project Site, and three studies are located within a 1.0-mile radius of the Project Site.

Assembly Bill 52

Chambers Group submitted a request for a search of the Sacred Lands Files (SLF) housed at the NAHC on July 9, 2020. The results of the search were returned on July 10, 2020, and were positive, indicating that sacred areas are known within or around the Project Site that may be impacted by Project development. The NAHC response included a recommendation to reach out to the Chemehuevi Indian Tribe for more information. The NAHC provided contact information for the Chemehuevi Indian Tribe and seven other tribes that may have information on cultural resources on the Project Site. For further information regarding the Project's tribal consultation process, refer to Section 4.10, Tribal Cultural Resources.

Field Survey

Chambers Group performed a survey of the Project Site over the course of three weeks in two separate rotations. The first rotation occurred from July 27 to July 31, 2020 with qualified Chambers Group archaeologists. The second rotation occurred between October 5 and October 14, 2020 and included Chambers Group archaeologists. The Project Site was surveyed at 15-meter intervals, and crews were equipped with sub-meter accurate Global Positioning Systems (GPS) units for recording spatial data and to document the survey area and all findings through ArcGIS Collector and Survey 123. A prior visit by Chambers Group biologists conducting targeted plant and desert tortoise surveys earlier in the year, identified approximately 15 historic-period and prehistoric-period resources. All of these possible resources were revisited by the cultural resources survey teams.

The archaeologists examined exposed ground surface for artifacts (e.g., flaked stone tools, tool-making debris, milling tools, ceramics), ecofacts (e.g., marine shell and bone), soil discoloration that might indicate the presence of a cultural midden, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramics). Ground disturbances such as burrows were visually inspected for archaeological resources. In addition, previously identified possible historic properties were visited and photographed for inclusion in this report. These properties were assessed in the field and through post-field analysis of historic aerial photographs.

4.4.6 Project Impact Analysis

Threshold (a): Would the Project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

Threshold (b): Would the Project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

During the literature search, Chambers Group found that none of the reported studies within the Project Site or within a 1.0-mile radius of the Project Site resulted in the identification of cultural resources within the Project Site. One unreported study resulted in the identification of a road segment (P-36-024757)

along the eastern margin of U.S. Route 95, which is directly connected to a longer dirt road that crosses through the east-west axis of the northern third of the Project Site. No indication as to the status of this road segment on the CRHR is given. Two other resources were identified outside the Project Site. These include a prehistoric lithic reduction station, which was destroyed during a geological testing program, and three prehistoric sleeping circles, the current status of which are unknown.

As a result of the current cultural resources survey, a total of 64 resources were identified. These include 21 historic-period resources, 32 prehistoric resources, and 11 prehistoric isolates. **Table 4.4-1***, Count and Cultural Resource Type on the Project Site,* below provides the period, type, and number of each resource found on-site. Chambers Group completed a California DPR Form 523 for each of the 64 resources.

Table 4.4-1: Count and Cultural Resource Type on the Project Site

Period and Type	Number of Resources
Historic	
Encampment	10
Homestead	1
Homestead trash scatter	2
Mining trash scatter	1
Ranching	1
Survey monument	2
Trash scatter	1
WWII DTC/Cold War EDS	3
Total Historic Sites	*21*
Prehistoric	
Artifact scatter	2
Ceramic scatter	3
Desert pavement quarry	1
Lithic reduction station	25
Temporary camp	1
Total Prehistoric Sites	*32*
Total Prehistoric Isolates	*11*
Total All Resources	**64**

Source: See Appendix E.

According to the Cultural Resources Report, the Project Site exhibits three primary eras of use. The earliest is the prehistoric period. The many archaeological sites and isolated artifacts recorded across the Project site illustrate a pattern of repeated, extensive use of the area by prehistoric Native American populations. The middle period of use within the Project Site is represented by sites that date to the early twentieth century. Calzona Mine Road runs through the Project Site and is indicated on a 1911 USGS map. Although the mine itself is not within the Project Site, an artifact scatter was identified adjacent to the road which has historic-period tools indicative of mining activities. The last period of use is representative of World War II and post-war developments. The Project Site may have been subjected to use by General George Patton's Desert Training Center – California/Arizona Maneuver Area (DTC). The Project Site does not have evidence of any camp areas or other major maneuver areas documented in the region. However, the southern portion of the Project Site has many tracks that appear to have been made from tracked vehicles.

In addition, the remains of at least two homesteads from the historic era are still present on the Project Site. The oldest one is visible on 1947 historic aerials and may have pre-dated DTC use of the area. The second homestead dates to approximately 1953 and appears to have been abandoned by the 1980s, based on aerial photograph evidence.

CEQA regulations require consideration of archaeological sites through the lens of answering specific questions, including: 1) whether a resource can be found to be eligible for the CRHR or the National Register; or 2) meet the definition of a 'unique archaeological resource' and have the potential to contribute data to previously defined research questions. The 11 isolated occurrences, by their singular nature, possess minimal information and are not considered eligible for inclusion on the National Register. The remaining 53 resources were identified as either historic or prehistoric sites and are not considered as eligible for listing in the National Register.

However, a potential remains for buried historic or archaeological resources to be unearthed during ground disturbing activities which may result in a potentially significant impact. Implementation of **Mitigation Measure CUL-1**, which would require worker awareness training to train construction workers to look for resources, and **CUL-2**, which would require an archaeologist be present on-site during all ground disturbing activities, would reduce impacts to any historical or archaeological resources to less than significant.

Threshold (c): Would the Project disturb any human remains, including those interred outside of formal cemeteries?

The Project Site is not located on a known cemetery. Construction of the Project would involve grading, which may have the potential to uncover unknown human remains. However, if human remains are found during Project ground-disturbing activities, the Project would be required to adhere to HSC Sections 7050.5-7055 and PRC Sections 5097.98 and 5097.99. HSC Sections 7050.5-7055 describe the general provisions for treatment of human remains. Specifically, HSC Section 7050.5 states that no further disturbance shall occur until the San Bernardino County Medical Examiner-Coroner has made a determination of origin and disposition pursuant to PRC Section 5097.98. In the event of an unanticipated discovery of human remains, the San Bernardino County Medical Examiner-Coroner would be notified immediately. If the human remains are determined to be prehistoric, the Medical Examiner-Coroner would notify the NAHC, which would notify the MLD. The MLD would complete an inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Compliance with these regulations would ensure impacts to human remains resulting from the Project would be less than significant.

Operation of the Project would not require substantial ground disturbing activities, such as grading or excavation. Therefore, it is not anticipated that Project operation would encounter subsurface human remains, and impacts to human remains during Project operation are not anticipated.

4.4.7 Cumulative Impacts

Chapter 3.0, Environmental Setting, of this Draft EIR provides a list of related projects that would have the potential to be considered in a cumulative context with the Project's incremental contribution. These projects are summarized in **Table 3-2,** *Related Projects*, and shown in **Figure 3-1,** *Related Projects in the Planning Area.* Similar to the Project, ground-disturbing activities associated with related projects would have the potential to uncover previously unknown archaeological resources and human remains. The Project, in combination with cumulative development, could contribute to the loss of undeveloped land,

which could potentially contain cultural resources. Determinations regarding the significance of impacts of the related projects on cultural resources would be made on a case-by-case basis and, if necessary, the applicants of the related projects would be required to implement appropriate mitigation measures. It is not anticipated that cumulative impacts would be significant. Therefore, the Project's contribution to cumulative impacts associated with impacts to sensitive receptors would be less than cumulatively considerable.

4.4.8 Mitigation Measures

In order to minimize potential impacts to cultural resources, the following mitigation measures would be implemented:

CUL-1 Prior to the initiation of ground-disturbing activities, the Project Applicant and construction manager shall conduct a Worker Education Awareness Program (WEAP) to alert field personnel to the possibility of buried prehistoric or historic cultural deposits. Development of the WEAP shall include consultation with a Qualified Archaeologist meeting the Secretary of the Interior standards. The WEAP shall provide an overview of potential significant archaeological resources that could be encountered during ground disturbing activities, including how to identify prehistoric or historic cultural deposits, to facilitate worker recognition, avoidance, and subsequent immediate notification to the Qualified Archaeologist. Prior to ground disturbing activities, the Project Applicant shall provide evidence to the San Bernardino County Land Use Services Department that construction personnel have conducted a WEAP. Documentation shall be retained demonstrating that construction personnel attended the training.

In the event that cultural resources are discovered during Project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease, and a Qualified Archaeologist shall be hired to assess the find. The Qualified Archaeologist shall have the authority to stop or divert construction excavation as necessary. Work on the other portions of the Project outside of the buffered area may continue during this assessment period. Additionally, the applicable Indian Tribe (as described in **Mitigation Measure TCR-1**) shall be contacted regarding any pre-contact and/or historic-era finds and be provided information after the Qualified Archaeologist makes their initial assessment of the nature of the find, so as to provide Tribal input with regard to significance and treatment.

CUL-2 If significant pre-contact and/or post-contact cultural resources, as defined by CEQA, are discovered, and avoidance cannot be ensured, the Qualified Archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to the County Planning Division and applicable Indian Tribe for review and comment. The Qualified Archaeologist shall monitor the remainder of the Project and implement the plan accordingly.

4.4.9 Level of Significance after Mitigation

With the implementation of M**itigation Measures CUL-1** and **CUL-2**, the Project's impacts on cultural resources would be reduced to less than significant.

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4.5 GEOLOGY AND SOILS

4.5.1 Introduction

This section discusses the environmental setting, existing conditions, regulatory context, and potential impacts of the Project in relation to geology and soils. This section also considers the potential impacts to paleontological resources. Information contained in this section is derived from the Preliminary Geotechnical Report, dated May 10, 2022, prepared by Terracon Consultants, Inc. (Appendix F).

4.5.2 Existing Environmental Setting

Regional Setting

The Project Site is situated within the Mojave Desert Geomorphic Province in Southern California. Geologic structures in this province trend mostly northwest, in contrast to the prevailing east–west trend in the neighboring Transverse Ranges Geomorphic Province to the west. The Mojave Desert Province extends into lower California and is bounded by the Garlock fault to the north, the San Andreas fault to the west, and the Nevada and Arizona borders to the east. Surficial geologic units surrounding and within the Project Site consist mainly of marine and continental sedimentary rocks from the Pleistocene epoch, including older alluvium, lake, playa, and terrace deposits.[1]

Project Site

Soils and Groundwater

Based on the results of borings performed for the Preliminary Geotechnical Report, on-site soils generally consist of medium dense to very dense sand with varying amounts of silt and gravel. Groundwater was not observed in the borings while drilling, which reached a maximum depth explored of 51.5 feet below ground surface (bgs), or for the short duration in which the borings could remain open.

Faults and Seismicity

The Project Site is located in central California, which is a seismically active area. The type and magnitude of seismic hazards affecting the Project Site are dependent on the distance to causative faults, the intensity, and the magnitude of the seismic event. The Project Site is not located within an Alquist-Priolo Earthquake Fault Zone based on a review of the State Fault Hazard Maps. As calculated using the United States Geologic Survey (USGS) Unified Hazard Tool, the fault which is considered to have the most significant effect at the Project Site from a design standpoint, has a maximum credible earthquake magnitude of 5.71 and is located approximately 8.5 miles from the Project Site.

Ground Shaking

One of the seismic hazards most likely to impact the Project Site is strong ground shaking during an earthquake. Ground shaking from seismic events could reach the Project Site if certain seismic factors (e.g., Richter magnitude, focal depth, distance from the causative fault, source mechanism, duration of

[1] California Department of Conservation, *Geologic Map of California,* 2022. Available at https://maps.conservation.ca.gov/cgs/gmc/. Accessed on August 4, 2022.

shaking, high rock accelerations, type of surficial deposits or bedrock, degree of consolidation of surficial deposits, etc.) occur nearby.

Surface Rupture

Surface rupture is an offset of the ground surface when fault rupture extends to the Earth's surface. Normal- and reverse- (collectively called dip-slip) faulting surface ruptures feature vertical offsets, while strike-slip faulting produces lateral offsets. Many earthquake surface ruptures are combinations of both. Surface rupture represents a primary or direct potential hazard to structures built on an active fault zone. However, the Project Site is not located in an Alquist-Priolo Earthquake Fault Zone that is prone to surface rupture. No faults are known to align through the Project Site.

Landslides

Landslides occur when slopes become unstable and collapse. Landslides are typically caused by natural factors such as fractured or weak bedrock, heavy rainfall, erosion, earthquake activity, and fire, but also by human alteration of topography and water content. A landslide at the Project Site is unlikely because of the regional planar topography. No ancient landslides are shown on geologic maps of the region, and no indications of landslides were observed by during site investigations.

Liquefaction

Liquefaction is a mode of ground failure that results from the generation of high pore water pressures during earthquake ground shaking, causing loss of shear strength. Liquefaction is typically a hazard where loose sandy soils exist below groundwater. The California Geological Survey (CGS) has designated certain areas as potential liquefaction hazard zones. These are areas considered at a risk of liquefaction-related ground failure during a seismic event, based upon mapped surficial deposits and the presence of a relatively shallow water table.

The Project Site is not mapped for liquefaction hazard by the CGS. Based on the anticipated depth to groundwater, liquefaction hazard potential at the site is considered low. Other geologic hazards related to liquefaction, such as lateral spreading, are therefore also considered low.

4.5.3 Regulatory Setting

Federal

Earthquake Hazards Reduction Act

The Earthquake Hazards Reduction Act is also cited as the “National Earthquake Hazards Reduction Program Reauthorization Act of 2018.” The purpose of the Earthquake Hazards Reduction Act is to reduce the risks to life and property from future earthquakes in the United States through the establishment and maintenance of an effective earthquake hazards reduction program. Loss of life, injury, destruction of property, and economic and social disruption can be substantially reduced through the development and implementation of earthquake hazard reduction measures. To accomplish this, the Act established the National Earthquake Hazards Reduction Program (NEHRPA). This program was significantly amended in November 1990 by the National Earthquake Hazards Reduction Program Act, which refined the description of agency responsibilities, program goals, and objectives. The NEHRPA designates the Federal Emergency Management Agency (FEMA) as the lead agency of the program and assigns it several

planning, coordinating, and reporting responsibilities. Other NEHRPA agencies include the National Institute of Standards and Technology, National Science Foundation, and USGS.

International Building Code

Published by the International Code Council, the scope of the International Building Code (IBC) covers major aspects of construction and design of structures and buildings, except for detached one- and two-family dwellings and townhouses not more than three stories in height. The IBC contains provisions for structural engineering design. Published every three years (most recently in 2021) by the International Code Council, the IBC addresses the design and installation of structures and building systems through requirements emphasizing performance. The IBC includes codes governing structural strength (including seismic loads and wind loads) as well as fire- and life-safety provisions covering accessibility, egress, occupancy, and roofs.

State

Alquist-Priolo Earthquake Fault Zoning Act of 1972

The Alquist-Priolo Earthquake Fault Zoning Act (Public Resources Code [PRC] Section 2621 et seq.) was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The Alquist-Priolo Earthquake Fault Zoning Act's main purpose is to prevent the construction of buildings used for human occupancy on the surface trace of active faults. The Act addresses only the hazard of surface fault rupture and is not directed toward other earthquake hazards.

The law requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones or, prior to January 1, 1994, Special Studies Zones) around the surface traces of active faults and to issue appropriate maps. The maps are distributed to all affected cities, counties, and State agencies for their use in planning and controlling new or renewed construction. Local agencies must regulate most development projects within the zones. Projects include all land divisions and most structures for human occupancy.

Before a project can be permitted for construction, cities and counties must require a geologic investigation to demonstrate that proposed buildings will not be constructed across active faults. An evaluation and written report of a specific site must be prepared by a licensed geologist. If an active fault is found, a structure for human occupancy cannot be placed over the trace of the fault and must be set back from the fault.

Seismic Hazards Mapping Act of 1990

The Seismic Hazards Mapping Act of 1990 (7.8 PRC 2690-2699.6) directs the CGS to identify and map areas prone to earthquake hazards of liquefaction, earthquake-induced landslides, and amplified ground shaking. The purpose of this Act is to reduce the threat to public safety and minimize the loss of life and property by identifying and mitigating these seismic hazards. The Seismic Hazard Zone maps identify where a site investigation is required, and the site investigation determines whether structural design or modification of the Project Site is necessary for safer development. The Seismic Hazards Mapping Act requires site-specific geotechnical investigations identifying the seismic hazard and formulating mitigation measures, when needed, prior to permitting most developments designed for human occupancy within the Zones of Required Investigation.

California Building Code

The State establishes minimum standards for building design and construction through the California Building Code (CBC) (California Code of Regulations [CCR] Title 24). The CBC is based on the Uniform Building Code (UBC), which is used widely throughout the United States (generally adopted on a state-by-state or district-by-district basis) and has been modified for conditions in California. The UBC establishes minimum standards related to development, seismic design, building siting, and grading. The purpose of the UBC is to provide minimum standards to preserve public peace, health, and safety by regulating the design, construction, quality of materials, certain equipment, location, grading, use, occupancy, and maintenance of all buildings and structures. UBC standards address foundation design, shear wall strength, and other structural related conditions. Upon incorporation, the City adopted the 1997 edition of the UBC.

Public Resources Code Sections 5097.5 and 30244

Other state requirements for paleontological resource management are included in PRC Section 5097.5 and Section 30244. Section 5097.5 prohibits "knowing and willful" excavation, removal, destruction, injury, and defacement of any paleontological feature on state lands (lands under state, county, city, district, or public authority jurisdiction, or the jurisdiction of a public corporation), except where the agency with jurisdiction has granted express permission.

California Environmental Quality Act

Paleontological resources are afforded protection by environmental legislation set forth under CEQA. Appendix G of the CEQA Guidelines provides guidance relative to significant impacts on paleontological resources, stating that "a project will normally result in a significant impact on the environment if it will …disrupt or adversely affect a paleontological resource or site or unique geologic feature." The Guidelines do not define "directly or indirectly destroy," but it can be reasonably interpreted as the physical damage, alteration, disturbance, or destruction of a paleontological resource. The Guidelines also do not define the criteria or process to determine whether a paleontological resource is significant or "unique."

Local

San Bernardino County Countywide Plan/Policy Plan

The County adopted the Countywide Plan/Policy Plan (Policy Plan) in October 2020. The Policy Plan provides an update of the County's General Plan addressing physical, social and economic issues facing the unincorporated portions of the County. The Policy Plan also provides an expansion of the County's General Plan to address supportive service for adults and children, healthcare service, public safety, and other regional county services provided to both incorporated and unincorporated areas.

Relevant policies of the San Bernardino County Policy Plan are as follows:

Cultural Resources Element

Policy CR-2.3 **Paleontological and archaeological resources.** We strive to protect paleontological and archaeological resources from loss or destruction by requiring that new development include appropriate mitigation to preserve the quality and integrity of

these resources. We require new development to avoid paleontological and archeological resources whenever possible. If avoidance is not possible, we require the salvage and preservation of paleontological and archeological resources.

Hazards Element

Policy HZ-1.2 All development must be located outside of the Alquist Priolo earthquake fault zone. For any lot or parcel that does not have sufficient buildable area outside this hazard area requires adequate mitigation measures that allow occupants to shelter in place and to have sufficient time to evacuate during times of extreme weather and natural disaster.

Policy HZ-1.6 New critical and essential facilities should be located outside of hazard areas whenever feasible.

Policy HZ-1.7 Underground utilities must be designed to withstand seismic forces, accommodate ground settlement, and hardened to fire risk.

San Bernardino County Emergency Operations Plan

The San Bernardino County Emergency Operations Plan (EOP) is a comprehensive, single source of guidance and procedures for the County to prepare for and respond to significant or catastrophic natural, environmental, or conflict-related risks that result in situations requiring coordinated response. The EOP further provides guidance regarding management concepts relating to the County's response to and abatement of various emergency situations, identifies organizational structures and relationships, and describes responsibilities and functions necessary to protect life and property.

The plan is consistent with the requirements of the Standardized Emergency Management System (SEMS) as defined in Government Code Section 8607(a) and the National Incident Management System (NIMS) as defined by presidential executive orders for managing response to multi-agency and multi-jurisdictional emergencies. As such, the plan is flexible enough to use in all emergencies and will facilitate response and short-term recovery activities. SEMS/NIMS incorporate the use of the Incident Command System (ICS), mutual aid, the operational area concept, and multi/interagency coordination.

San Bernardino County Hazard Mitigation Plan

The Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) is a "living document" that should be reviewed, monitored, and updated to reflect changing conditions and new information. As required, the MJHMP must be updated every 5 years to remain in compliance with regulations and federal mitigation grant conditions. The plan includes information regarding hazards being faced by the County, the San Bernardino County Fire Protection District, the San Bernardino County Flood Control District, and those board-governed special districts administered by the San Bernardino County Special Districts Department.

Society for Vertebrate Paleontology Guidelines

The Society of Vertebrate Paleontology (SVP) has established guidelines for the identification, assessment, and mitigation of adverse impacts on nonrenewable paleontological resources. Most practicing paleontologists in the nation adhere closely to the SVP's assessment, mitigation, and monitoring requirements outlined in these guidelines, which were approved through a consensus of professional

paleontologists and are the standard. The SVP outlined criteria for screening the paleontological potential of rock units (High, Undetermined, Low) and established assessment and mitigation procedures tailored to such potential.

As defined by the SVP (2010:11) significant nonrenewable paleontological resources are:

> *Fossils and fossiliferous deposits here restricted to vertebrate fossils and their taphonomic and associated environmental indicators. This definition excludes invertebrate or paleobotanical fossils except when present within a given vertebrate assemblage. Certain invertebrate and plant fossils may be defined as significant by a project paleontologist, local paleontologist, specialists, or special interest groups, or by lead agencies or local governments.*

As defined by the SVP (1995:26), significant fossiliferous deposits are:

> *A rock unit or formation which contains significant nonrenewable paleontologic resources, here defined as comprising one or more identifiable vertebrate fossils, large or small, and any associated invertebrate and plant fossils, traces, and other data that provide taphonomic, taxonomic, phylogenetic, ecologic, and stratigraphic information (ichnites and trace fossils generated by vertebrate animals, e.g., trackways, or nests and middens which provide datable material and climatic information). Paleontologic resources are considered to be older than recorded history and/or older than 5,000 years BP [before present].*

Based on the significance definitions of the SVP, all identifiable vertebrate fossils are considered to have significant scientific value. This position is adhered to because vertebrate fossils are relatively uncommon, and only rarely will a fossil locality yield a statistically significant number of specimens of the same genus. Therefore, every vertebrate fossil found has the potential to provide significant new information on the taxon it represents, its paleoenvironment, and/or its distribution. Furthermore, all geologic units in which vertebrate fossils have previously been found are considered to have high sensitivity. Identifiable plant and invertebrate fossils are considered significant if found in association with vertebrate fossils or if defined as significant by project paleontologists, specialists, or local government agencies.

A geologic unit known to contain significant fossils is considered to be "sensitive" to adverse impacts if there is a high probability that earth-moving or ground-disturbing activities in that rock unit will either directly or indirectly disturb or destroy fossil remains. Paleontological sites indicate that the containing sedimentary rock unit or formation is fossiliferous. The limits of the entire rock formation, both areal and stratigraphic, therefore define the scope of the paleontological potential in each case.

Fossils are contained within surficial sediments or bedrock, and are, therefore, not observable or detectable unless exposed by erosion or human activity. Therefore, without natural erosion or human-caused exposure, paleontologists cannot know either the quality or quantity of fossils. As a result, even in the absence of surface fossils, it is necessary to assess the sensitivity of rock units based on their known potential to produce significant fossils elsewhere within the same geologic unit (both within and outside of the study area), a similar geologic unit, or based on whether the unit in question was deposited in a type of environment that is known to be favorable for fossil preservation. Monitoring by experienced paleontologists greatly increases the probability that fossils will be discovered during ground-disturbing activities and that, if the fossils are significant, that successful mitigation and salvage efforts may be undertaken.

4.5.4 Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, a project would have a significant impact related to geology and soils if it would:

Threshold (a): Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. 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. (Refer to Division of Mines and Geology Special Publication 42).

ii. Strong seismic ground shaking.

iii. Seismic-related ground failure, including liquefaction.

iv. Landslides.

Threshold (b): Result in substantial soil erosion or the loss of topsoil;

Threshold (c): 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;

Threshold (d): Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property;

Threshold (e): Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater; or

Threshold (f): Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

As identified in Section 6.5: Effects Found Not to Be Significant, impacts related to Threshold (a), (c), (d), and (e) were determined to have no impact or a less than significant impact and do not require further analysis in the Draft EIR.

4.5.5 Methodology

The Project's Preliminary Geotechnical Report presents the results of Terracon's preliminary subsurface exploration and geotechnical engineering services performed to provide information and recommendations relative to:

- Subsurface soil conditions
- Foundation design and construction
- Groundwater conditions
- Thermal Resistivity Test Results
- Site preparation and earthwork
- Seismic site classification per CBC
- Field Electrical Resistivity Test Results
- Roadway design and construction

4.5.6 Project Impact Analysis

Threshold (b): Would the Project result in substantial soil erosion or the loss of topsoil?

Construction

Soil erosion may result during Project construction, as grading and construction can loosen surface soils and make soils susceptible to the effects of wind and water movement across the surface. However, all construction activities related to the Project would be subject to compliance with the CBC. Additionally, all development associated with the Project would be subject to compliance with the requirements set forth in the National Pollutant Discharge Elimination System (NPDES) Storm Water General Construction Permit (Order No. 99- 08-DWQ) for construction activities. Compliance with the CBC and the NPDES would minimize effects from erosion and ensure consistency with Colorado River Regional Water Quality Control Board (CRRWQCB) requirements, which establish water quality standards for the groundwater and surface water of the region.

A stormwater pollution prevention plan (SWPPP) is required as part of the grading permit submittal package. The SWPPP will provide a schedule for the implementation and maintenance of erosion control measures, and a description of the erosion control measures, including appropriate design details, to be implemented during the Project's construction phase. The SWPPP would consider the full range of erosion control best management practices (BMPs) with consideration for any additional site-specific and seasonal conditions, as appropriate.

Erosion control BMPs include but are not limited to the application of straw mulch, hydroseeding, the use of geotextiles, plastic covers, silt fences, and erosion control blankets, as well as construction site entrance/outlet tire washing. The State General Permit also requires that those implementing SWPPPs meet prerequisite qualifications that demonstrate the skills, knowledge, and experience necessary to implement those plans. NPDES requirements would substantially reduce the potential for erosion or topsoil loss to occur in association with new development. Water quality features intended to reduce construction-related erosion impacts will be clearly noted on the grading plans for implementation by the construction contractor.

The Preliminary Geotechnical Report provides a review of the Project Site and the potential soil conditions at the time of the borings, and variations that were not initially detected in the preliminary boring program may result in potentially significant impacts from soil erosion. Therefore, additional recommendations to minimize the potential for erosion to occur during Project construction, including limiting certain construction activities to dry weather, covering exposed excavated dirt during periods of rain, and protecting excavated areas from flooding with temporary berms would be required to be implemented under **Mitigation Measure GEO-1**. With implementation of all required erosion and runoff control measures and **Mitigation Measure GEO-1**, erosion impacts resulting from Project construction would be reduced to less than significant.

Operations

Without the use of asphalt concrete or other hardened material to surface the Project's access roads, there is an increased potential for erosion and deep rutting of the roads to occur during Project operations. Although post construction traffic is anticipated to only consist of intermittent pickup trucks for operations and maintenance personnel, un-surfaced roadways will display varying levels of wear and deterioration over time. Thus, variations that were not initially detected in the preliminary boring program

may result in potentially significant impacts from soil erosion. Therefore, additional recommendations such as a site inspection program, preventative maintenance activities to slow the rate of deterioration, and preservation of the roadway investment are recommended under **Mitigation Measure GEO-1**. With implementation of all required erosion and runoff control measures and **Mitigation Measure GEO-1**, erosion impacts resulting from Project operation would be reduced to less than significant.

Threshold (f): Would the Project directly or indirectly destroy a unique paleontological resource or site or unique geological feature?

The Countywide Plan Program Draft EIR prepared a Paleontological Resources Technical Report for the County and evaluated paleontological resources throughout the County.[2] The Paleontological Resources Technical Report noted that the broad alluvial plains in the East Desert Region generally have low to high sensitivity where younger alluvium is mapped at the surface and likely overlies older, high-sensitivity sediments. These older, high-sensitivity sediments are often exposed along the margins of these alluvial plains as they approach the intervening mountain ranges.

The Project Site itself is generally characterized by younger alluvium (Q) and older alluvium (Qoa) formation types which have low to high paleontological sensitivity. With disturbance of these soils, there is a potential for the Project to unearth unknown paleontological resources. However, the Project would implement the Countywide Plan Program EIR mitigation measures to address potential impacts to paleontological resources. With implementation of **Mitigation Measure GEO-2**, in areas of documented or inferred paleontological resource presence, the Project would require consultation with a qualified paleontologist. If any paleontological resources are discovered, **Mitigation Measure GEO-3** would require proper avoidance of the area and proper handling and documentation of the resource. With implementation of **Mitigation Measures GEO-2** and **GEO-3**, impacts would be reduced to less than significant.

4.5.7 Cumulative Impacts

Chapter 3.0, Environmental Setting, of this Draft EIR provides a list of related projects that would have the potential to be considered in a cumulative context with the Project's incremental contribution. These projects are summarized in **Table 3-2,** *Related Projects*, and shown in **Figure 3-1,** *Related Projects in the Planning Area*.

Geology and Soils

Due to the site-specific nature of geological conditions (i.e., soils, geological features, subsurface features, seismic features, etc.), impacts associated with geology and soils are typically assessed on a project-by-project basis rather than on a cumulative basis. However, as with the Project, cumulative projects would be subject to the same established guidelines and regulations pertaining to building design and seismic safety, including those set forth in the CBC and other applicable regulations. In addition, the cumulative projects would not have the potential to directly or indirectly exacerbate existing seismic conditions cumulatively in combination with the Project. Therefore, considering the existing regulatory requirements

[2] County of San Bernardino, San Bernardino Countywide Plan Draft Program Environmental Impact Report, Appendix F: Paleontological Resources Technical Report, June 2018. Available at https://countywideplan.com/wp-content/uploads/sites/68/2021/01/F_PaleontologicalResourcesTechnicalReport_report.pdf. Accessed September 28, 2022.

and regulations that would apply to all development, the Project's contribution to cumulative impacts associated with geology and soils would not be considerable.

Paleontological Resources

With regard to paleontological resources, some of the cumulative projects may include excavation on parcels that have been disturbed or are already developed, as well as on open space parcels, and would have the potential to disturb geological units that are sensitive for paleontological resources. Generally, however, projects that require substantial excavation would be subject to environmental review under CEQA. If the potential for significant impacts on paleontological resources were identified given the site characteristics and development program of the cumulative projects, the cumulative projects would be required to implement mitigation measures to avoid significant impacts. Implementation of similar mitigation measures, as proposed under the Project, would ensure that cumulative effects from cumulative projects are considered less than significant.

The Project would be required to comply with **Mitigation Measures GEO-1** through **GEO-3** to reduce the potential for significant impacts on geology and soils to less-than-significant levels. Therefore, the Project's contribution to cumulative impacts associated with paleontological resources would not be considerable.

4.5.8 Mitigation Measures

In order to minimize potential impacts to geology and soils, the following mitigation measures should be implemented:

GEO-1 Prior to the issuance of grading permits, the Applicant shall retain a California registered and licensed engineer to design the Project facilities in agreement with geologic conditions identified at the Project site. A Final Geotechnical Report shall be produced to account for variations likely occur in the subgrade which were not detected in the preliminary boring program. All grading and construction on-site shall adhere to the specifications, procedures, and site conditions contained in the final design plans, which shall be fully compliant with the recommendations of the California-registered and licensed professional engineer and consistent with the recommendations in the Preliminary Geotechnical Engineering Report prepared by Terracon Consultants, Inc. in 2022.

GEO-2 In areas of documented or inferred paleontological resource presence, the Applicant shall require consultation with a qualified paleontologist meeting the standards of Society for Vertebrate Paleontology. The initial consultation may be provided by a qualified paleontologist on staff at the County Museum. The qualified paleontologist will determine the degree of paleontological resource sensitivity, as outlined below, and will recommend a paleontological resources monitoring and mitigation plan (PRMMP). This plan will address specifics of monitoring and mitigation for the development project, and will take into account updated geologic mapping, geotechnical data, updated paleontological records searches, and any changes to the regulatory framework. This PRMMP should usually meet the standards of the SVP (2010), unless the project is on BLM land or subject to federal jurisdiction, in which case the BLM standards should be used.

The following provisions would be typical for units mapped with the different levels of paleontological sensitivity:

- High (SVP)/Class 4–5 (BLM)—All projects involving ground disturbances in previously undisturbed areas sediments mapped as having high paleontological sensitivity will be monitored by a qualified paleontological monitor (BLM, 2009; SVP, 2010) on a full-time basis under the supervision of the Qualified Paleontologist. Undisturbed sediments may be present at the surface, or present in the subsurface, beneath earlier developments. This monitoring will include inspection of exposed sedimentary units during active excavations within sensitive geologic sediments. The monitor will have authority to temporarily divert activity away from exposed fossils to evaluate the significance of the find and, should the fossils be determined to be significant, professionally and efficiently recover the fossil specimens and collect associated data. Paleontological monitors will use field data forms to record pertinent location and geologic data, will measure stratigraphic sections (if applicable), and collect appropriate sediment samples from any fossil localities.
- Low to High (SVP)/Class 2 to Class 4–5 (BLM)—All projects involving ground disturbance in previously undisturbed areas mapped with low-to-high paleontological sensitivity will only require monitoring if construction activity will exceed the depth of the low sensitivity surficial sediments. The underlying sediments may have high paleontological sensitivity, and therefore work in those units might require paleontological monitoring, as designated by the Qualified Paleontologist in the PRMMP. When determining the depth at which the transition to high sensitivity occurs and monitoring becomes necessary, the Qualified Paleontologist should take into account: a) the most recent local geologic mapping, b) depths at which fossils have been found in the vicinity of the project area, as revealed by the museum records search, and c) geotechnical studies of the project area, if available.
- Low (SVP)/Class 2–3 (BLM)—All projects involving ground disturbance in previously undisturbed areas mapped as having low paleontological sensitivity should incorporate worker training to make construction workers aware that while paleontological sensitivity is low, fossils might still be encountered. The Qualified Paleontologist should oversee this training as well as remain on-call in the event fossils are found. Paleontological monitoring is usually not required for sediments with low (Low / Class 2-–3) paleontological sensitivity.
- None (SVP)/Class 1 (BLM)—Projects determined by the Qualified Paleontologist to involve ground-disturbing activities in areas mapped as having no paleontological sensitivity (i.e., plutonic igneous or high-grade metamorphic rocks) will not require further paleontological mitigation measures.

GEO-3 In the event of any fossil discovery, regardless of depth or geologic formation, construction work will halt within a 50-ft. radius of the find until its significance can be determined by a Qualified Paleontologist. Significant fossils will be recovered, prepared to the point of curation, identified by qualified experts, listed in a database to facilitate analysis, and deposited in a designated paleontological curation facility in accordance with the standards of the SVP (2010) and BLM (2009). A repository will be identified and a curatorial arrangement will be signed prior to collection of the fossils. Although the San Bernardino County Museum is specified as the repository for fossils found in the county

in the current General Plan, the museum may not always be available as a repository. Therefore, any accredited institution may serve as a repository.

4.5.9 Level of Significance After Mitigation

With the implementation of **Mitigation Measures GEO-1** through **GEO-3**, the Project's impacts on geology and soils would be reduced to less than significant.

4.6 GREENHOUSE GAS EMISSIONS

4.6.1 Introduction

This section addresses potential impacts to global climate change resulting from the emissions into and retention of greenhouse gases (GHG) in the atmosphere. These emissions may result from the construction and/or operation of the Project. The following discussion addresses the existing conditions of the affected environment pertaining to GHG emissions, evaluates the Project's consistency with applicable goals and policies, identifies and analyzes environmental impacts, and recommends measures to reduce or avoid potential adverse impacts anticipated from implementation of the Project, as applicable. Information contained in this section is derived from the Air Quality and Greenhouse Gas Emissions Impact Analysis, dated September 19, 2022, prepared by Vista Environmental (Appendix C).

4.6.2 Environmental Setting

Background Information

Climate change is a recorded change in the Earth's average weather measured by variables such as wind patterns, storms, precipitation, and temperature. Global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide (CO_2), methane (CH_4), and nitrous oxide (N_2O), which are known as GHGs. Historical records show that global temperature changes have occurred naturally in the past, such as during previous ice ages. However, it has been shown that emissions from human activities, such as electricity production and vehicle use, have elevated the concentration of these gases in the atmosphere. The years 2016 and 2020 are tied for the Earth's warmest year since recordkeeping began in 1880, and 16 of the 17 warmest years in the instrumental record occurred since 2001. The average global temperature has risen more than 2.0 °F (1.2 °C) since 1880.

The global atmospheric concentration of CO_2 has increased from a pre-industrial (roughly 1750) value of about 280 parts per million (ppm) to a monthly mean value of 414 ppm in December 2020[1]. According to the Global Greenhouse Emissions Data website[2], the breakdown of global GHG emissions by sector consists of: 25 percent from electricity and heat production; 21 percent from industry; 24 percent from agriculture, forestry and other land use activities; 14 percent from transportation; 6 percent from building energy use; and 10 percent from all other sources of energy use.

According to Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2018, prepared by the U.S. Environmental Protection Agency (U.S. EPA) on April 13, 2020, in 2018, total U.S. GHG emissions were 6,676.6 million metric tons of CO_2 equivalent ($MMTCO_2e$) emissions. Total U.S. emissions have increased by 3.7 percent between 1990 and 2018, which is down from a high of 15.2 percent above 1990 levels in 2007. Emissions increased by 2.9 percent or 188.4 $MMTCO_2e$ between 2017 and 2018. The recent increase in GHG emissions was largely driven by an increase in CO_2 emissions from fossil fuel combustion, a result of multiple factors including greater heating and cooling needs due to a colder winter and hotter summer in 2018 compared to 2017.

[1] National Oceanic and Atmospheric Administration, Global Monitoring Laboratory. Available at https://gml.noaa.gov/. Accessed August 10, 2022.

[2] United States Environmental Protection Agency (U.S. EPA), Global Greenhouse Gas Emissions Data. Available at https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data#Sector. Accessed August 10, 2022.

According to the California Air Resources Board, the State of California created 425 $MMTCO_2e$ in 2018. The breakdown of California GHG emissions by sector consists of 39.9 percent from transportation, 21.0 percent from industrial, 14.8 percent from electricity generation, 7.7 percent from agriculture, 6.1 percent from residential buildings, and 3.7 percent from commercial buildings. In 2018, GHG emissions were 0.8 $MMTCO_2e$ higher than 2017 levels and are 6 $MMTCO_2e$ below the 2020 GHG limit of 431 $MMTCO_2e$ established by Assembly Bill (AB) 32.

Greenhouse Gases

GHGs are global pollutants and are, therefore, unlike criteria air pollutants such as ozone (O_3), particulate matter (PM10 and PM2.5), and toxic air contaminants (TACs), which are pollutants of regional and local concern (see Section 4.2, Air Quality, of this Draft EIR). While pollutants with localized air quality effects have relatively short atmospheric lifetimes (generally on the order of a few days), GHGs have relatively long atmospheric lifetimes, ranging from one year to several thousand years. Long atmospheric lifetimes allow GHGs to disperse around the globe. Therefore, GHG effects are global, as opposed to the local and/or regional air quality effects of criteria air pollutant and TAC emissions.

AB 32 defines GHGs as any of the following compounds: CO_2, methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). CO_2, followed by CH_4 and N_2O, are the most common GHGs that result from human activity.

GHGs have varying global warming potential (GWP). The GWP is the potential of a gas or aerosol to trap heat in the atmosphere. It is the "cumulative radiative forcing effect of a gas over a specified time horizon resulting from the emission of a unit mass of gas relative to a reference gas."[3] The reference gas for GWP is CO_2. Therefore, CO_2 has a GWP of 1. The other main GHGs that have been attributed to human activity include CH_4, which has a GWP of 30, and N_2O, which has a GWP of 273. **Table 4.6-1**, *Global Warming Potentials, Atmospheric Lifetimes, and Abundances of GHGs,* presents the GWP and atmospheric lifetimes of common GHGs.

Table 4.6-1: Global Warming Potentials, Atmospheric Lifetimes, and Abundances of GHGs

Gas	Atmospheric Lifetime (year)[1]	Global Warming Potential (100 Year Horizon)[2]	Atmospheric Abundance
Carbon Dioxide (CO_2)	50-200	1	379 ppm
Methane (CH_4)	9-15	25	1,774 ppb
Nitrous Oxide (N_2O)	114	298	319 ppb
HFC-23	270	14,800	18 ppt
HFC-134a	14	1,430	35 ppt
HFC-152a	1.4	124	3.9 ppt
PFC: Tetrafluoromethane (CF_4)	50,000	7,390	74 ppt
PFC: Hexafluoroethane (C_2F_6)	10,000	12,200	2.9 ppt
Sulfur Hexafluoride (SF_6)	3,200	22,800	5.6 ppt

Notes:
[1] Defined as the half-life of the gas.
[2] Compared to the same quantity of CO_2 emissions and is based on the Intergovernmental Panel On Climate Change (IPCC) 2007 standard, which is utilized in CalEEMod (Version 2016.3.2).
Definitions: ppm = parts per million; ppb = parts per billion; ppt = parts per trillion

[3] U.S. EPA, Understanding Global Warming Potentials. Available at https://www.epa.gov/ghgemissions/understanding-global-warming-potentials. Accessed August 10, 2022.

Human-caused sources of CO_2 include combustion of fossil fuels (coal, oil, natural gas, gasoline and wood). Data from ice cores indicate that CO_2 concentrations remained steady prior to the current period for approximately 10,000 years. Concentrations of CO_2 have increased in the atmosphere since the industrial revolution. CH_4 is the main component of natural gas and also arises naturally from anaerobic decay of organic matter. Human-caused sources of natural gas include landfills, fermentation of manure, and cattle farming. Human-caused sources of N_2O include combustion of fossil fuels and industrial processes such as nylon production and production of nitric acid.

Other GHGs are present in trace amounts in the atmosphere and are generated from various industrial or other uses. The sources of GHG emissions, GWP, and atmospheric lifetime of GHGs are all important variables to be considered in the process of calculating CO_2e for discretionary land use projects that require a climate change analysis.

4.6.3 Regulatory Setting

Federal

To date, no national standards have been established for GHG reduction targets, nor have any regulations or legislation been enacted specifically to address climate change and GHG emissions reduction at an individual project level. Various efforts have been promulgated at the federal level to improve fuel economy and energy efficiency to address climate change and its associated effects.

Energy Independence and Security Act of 2007

The Energy Independence and Security Act of 2007 (December 2007), among other key measures, requires the following, which would aid in the reduction of national GHG emissions:

- Increase the supply of alternative fuel sources by setting a mandatory Renewable Fuel Standard requiring fuel producers to use at least 36 billion gallons of biofuel in 2022.
- Set a target of 35 miles per gallon for the combined fleet of cars and light trucks by model year 2020 and direct the National Highway Traffic Safety Administration (NHTSA) to establish a fuel economy program for medium- and heavy-duty trucks and create a separate fuel economy standard for work trucks.
- Prescribe or revise standards affecting regional efficiency for heating and cooling products and procedures for new or amended standards, energy conservation, energy efficiency labeling for consumer electronic products, residential boiler efficiency, electric motor efficiency, and home appliances.

U.S. Environmental Protection Agency Endangerment Finding

The U.S. EPA authority to regulate GHG emissions stems from the U.S. Supreme Court decision in *Massachusetts v. EPA* (2007). The Supreme Court ruled that GHGs meet the definition of air pollutants under the existing federal Clean Air Act (CAA) and must be regulated if these gases could be reasonably anticipated to endanger public health or welfare. Responding to the Court's ruling, the U.S. EPA finalized an endangerment finding in December 2009. Based on scientific evidence it found that six GHGs (CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6) constitute a threat to public health and welfare. Thus, it is the Supreme Court's interpretation of the existing Act and the U.S. EPA's assessment of the scientific evidence that form the basis for the U.S. EPA's regulatory actions.

Presidential Executive Order 13783

Presidential Executive Order (EO) 13783, Promoting Energy Independence and Economic Growth (March 28, 2017), orders all federal agencies to apply cost-benefit analyses to regulations of GHG emissions and evaluations of the social cost of carbon, nitrous oxide, and CH_4.

Federal Vehicle Standards

In response to the U.S. Supreme Court ruling discussed above, EO 13432 was issued in 2007 directing the U.S. EPA, the Department of Transportation, and the Department of Energy to establish regulations that reduce GHG emissions from motor vehicles, non-road vehicles, and non-road engines by 2008. In 2009, the NHTSA issued a final rule regulating fuel efficiency and GHG emissions from cars and light-duty trucks for model year 2011, and in 2010, the U.S. EPA and NHTSA issued a final rule regulating cars and light-duty trucks for model years 2012 to 2016.

In 2010, an Executive Memorandum was issued directing the Department of Transportation, Department of Energy, U.S. EPA, and NHTSA to establish additional standards regarding fuel efficiency and GHG reduction, clean fuels, and advanced vehicle infrastructure. In response to this directive, the U.S. EPA and NHTSA proposed stringent, coordinated federal GHG and fuel economy standards for model years 2017 2025 light-duty vehicles. The proposed standards projected to achieve 163 grams per mile of CO_2 in model year 2025, on an average industry fleet-wide basis, which is equivalent to 54.5 miles per gallon (mpg) if this level were achieved solely through fuel efficiency. The final rule was adopted in 2012 for model years 2017 to 2021, and NHTSA intends to set standards for model years 2022 to 2025 in a future rulemaking. On January 12, 2017, the U.S. EPA finalized its decision to maintain the current GHG emissions standards for model years 2022 to 2025 cars and light trucks. It should be noted that the U.S. EPA is currently proposing to freeze the vehicle fuel efficiency standards at their planned 2020 level (37 mpg), canceling any future strengthening (currently 54.5 mpg by 2026).

In addition to the regulations applicable to cars and light-duty trucks described above, in 2011, the U.S. EPA and NHTSA announced fuel economy and GHG standards for medium- and heavy-duty trucks for model years 2014 to 2018. The standards for CO_2 emissions and fuel consumption are tailored to three main vehicle categories: Combination tractors, heavy-duty pickup trucks and vans, and vocational vehicles. According to the U.S. EPA, this regulatory program will reduce GHG emissions and fuel consumption for the affected vehicles by 6 to 23 percent over the 2010 baselines.

In August 2016, the U.S. EPA and NHTSA announced the adoption of the phase two program related to the fuel economy and GHG standards for medium- and heavy-duty trucks. The phase two program will apply to vehicles with model year 2018 through 2027 for certain trailers, and model years 2021 to 2027 for semi-trucks, large pickup trucks, vans, and all types and sizes of buses and work trucks. The final standards are expected to lower CO_2 emissions by approximately 1.1 billion metric tons and reduce oil consumption by up to 2 billion barrels over the lifetime of the vehicles sold under the program.

State

California Air Resources Board

CARB has the primary responsibility for implementing State policy to address global climate change; however, State regulations related to global climate change affect a variety of State agencies. CARB, which

is a part of the California Environmental Protection Agency (Cal/EPA), is responsible for the coordination and administration of both the federal and State air pollution control programs within California. In this capacity, the CARB conducts research, sets the California Ambient Air Quality Standards (CAAQS), compiles emission inventories, develops suggested control measures, provides oversight of local programs, and prepares the State Implementation Plan (SIP). In addition, the CARB establishes emission standards for motor vehicles sold in California, consumer products (e.g., hairspray, aerosol paints, and barbeque lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions.

In 2008, CARB approved a Climate Change Scoping Plan that proposes a "comprehensive set of actions designed to reduce overall carbon GHG emissions in California, improve our environment, reduce our dependence on oil, diversify our energy sources, save energy, create new jobs, and enhance public health."[4] The Climate Change Scoping Plan has a range of GHG reduction actions which include direct regulations, alternative compliance mechanisms, monetary and nonmonetary incentives, voluntary actions, and market-based mechanisms such as a cap-and-trade system. In 2014, CARB approved the First Update to the Climate Change Scoping Plan that identifies additional strategies moving beyond the 2020 targets to the year 2050. On December 14, 2017, CARB adopted California's 2017 Climate Change Scoping Plan[5] that provides specific statewide policies and measures to achieve the 2030 GHG reduction target of 40 percent below 1990 levels by 2030 and the aspirational 2050 GHG reduction target of 80 percent below 1990 levels by 2050. In addition, the State has passed the following laws directing CARB to develop actions to reduce GHG emissions, which are listed below in chronological order, with the most current first.

Executive Order S-3-05

On June 1, 2005, Governor Arnold Schwarzenegger signed EO S-3-05, which proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce snowpack in the Sierra Nevada Mountains, could further exacerbate California's air quality problems, and could potentially cause a rise in sea levels. In an effort to avoid or reduce the impacts of climate change, EO S-3-05 calls for a reduction in GHG emissions to the year 2000 level by 2010, to year 1990 levels by 2020, and to 80 percent below 1990 levels by 2050. It should be noted that the 80 percent below 1990 levels by 2050 is currently an aspirational goal by EO S-3-05 but has not yet been codified into law.

The EO directed the secretary of the Cal/EPA to coordinate a multi-agency effort to reduce GHG emissions to the target levels. The secretary also submits biannual reports to the governor and California Legislature describing the progress made toward the emissions targets, the impacts of global climate change on California's resources, and mitigation and adaptation plans to combat these impacts. To comply with the EO, the secretary of Cal/EPA created the California Climate Action Team (CAT), made up of members from various State agencies and commissions. The team released its first report in March 2006. The report proposed to achieve the targets by building on the voluntary actions of California businesses, local governments, and communities and through State incentive and regulatory programs.

[4] California Air Resources Board (CARB), Climate Change Scoping Plan 2008. Available at https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2008-scoping-plan-documents. Accessed August 10, 2022.

[5] CARB, California's 2017 Climate Change Scoping Plan, 2017. Available at http://www.arb.ca.gov/cc/scopingplan/scoping plan 2017.pdf. Accessed August 10, 2022.

Executive Order B-30-15, Senate Bill 32, & Assembly Bill 197 (Statewide Year 2030 GHG Targets)

California EO B-30-15 (April 29, 2015) set an "interim" statewide emission target to reduce greenhouse emissions to 40 percent below 1990 levels by 2030 and directed State agencies with jurisdiction over greenhouse gas emissions to implement measures pursuant to statutory authority to achieve this 2030 target and the 2050 target of 80 percent below 1990 levels. Specifically, the EO directed CARB to update the Scoping Plan to express this 2030 target in metric tons. AB 197 (September 8, 2016) and SB 32 (September 8, 2016) codified into statute the GHG emissions reduction targets of at least 40 percent below 1990 levels by 2030 as detailed in EO B-30-15. AB 197 also requires additional GHG emissions reporting to CARB from stationary sources and requires CARB to provide sources of GHG emissions on its website that is broken down to sub-county levels. AB 197 requires CARB to consider the social costs of emissions impacting disadvantaged communities.

Assembly Bill 32, The California Global Warming Solutions Act of 2006

The California Legislature adopted the public policy position that global warming is "a serious threat to the economic well-being, public health, natural resources, and the environment of California" (California Health and Safety Code, Section 38501). Further, the State Legislature has determined that:

> "…the potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra Nevada snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious disease, asthma, and other human health-related problems."

The State Legislature also states that:

> "Global warming will have detrimental effects on some of California's largest industries, including agriculture, wine, tourism, skiing, recreational and commercial fishing, and forestry. It will also increase the strain on electricity supplies necessary to meet the demand for summer air-conditioning in the hottest parts of the State (California Health and Safety Code, Section 38501)."

These public policy statements became law with the enactment of AB 32, the California Global Warming Solutions Act of 2006, signed by Governor Arnold Schwarzenegger in September 2006. AB 32 is now codified as Sections 38500 through 38599 of the California Health and Safety Code.

AB 32 requires that Statewide GHG emissions be reduced to 1990 levels by 2020. This reduction is to be accomplished through an enforceable Statewide cap on GHG emissions to be phased in starting in 2012. AB 32 directs CARB to establish this Statewide cap based on 1990 GHG emissions levels, to disclose how it arrived at the cap, to institute a schedule to meet the emissions cap, and to develop tracking, reporting, and enforcement mechanisms. Emissions reductions under AB 32 are to include carbon sequestration projects and best management practices that are technologically feasible and cost effective. As of the date of this Draft EIR, CARB has not promulgated GHG emissions or reporting standards that are directly applicable to the Project.

Senate Bill 350 (Clean Energy & Pollution Reduction Act)

SB 350 was signed into law in September 2015 and establishes tiered increases to the Renewable Portfolio Standard (RPS). SB 350 requires 40 percent of the State's energy supply come from renewable sources by 2024, 45 percent by 2027, and 50 percent by 2030. SB 350 also established a new goal to double the energy-efficiency savings in electricity and natural gas through energy efficiency and conservation measures.

Executive Order B-55-18 and Senate Bill 100 (100 Percent Clean Energy Act of 2018)

In 2018, SB 100, known as the 100 Percent Clean Energy Act of 2018, declares that CARB should plan for 100 percent total retail sales of electricity in California come from eligible renewable energy resources and zero-carbon resources by the end of 2045. SB 100 also set interim goals, accelerating the RPS requirement to 50 percent from renewable energy sources by 2026 and 60 percent by 2030. SB 100 also requires that retail sellers and local publicly owned electric utilities procure a minimum quantity of electricity products from eligible renewable energy resources so that the total kilowatt hours of those products sold to their retail end-use customers achieve 44 percent of retail sales by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030. In addition to targets under AB 32 and SB32, EO B-55-18 establishes a carbon neutrality goal for the state of California by 2045, and sets a goal to maintain net negative emissions thereafter. The EO directs the CNRA, Cal/EPA, the Department of Food and Agriculture, and CARB to include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal.

Assembly Bill 341

AB 341 makes a legislative declaration that it is the policy goal of the State that not less than 75 percent of solid waste generated be source reduced, recycled, or composted by the year 2020, and would require the department, by January 1, 2014, to provide a report to the Legislature that provides strategies to achieve that policy goal and also includes other specified information and recommendations. The bill would allow the department to provide the report required by the bill in conjunction with the annual progress report, if the combined report is submitted by January 1, 2014. Furthermore, AB 341 would require a business, defined to include a commercial or public entity, that generates more than 4 cubic yards of commercial solid waste per week or is a multifamily residential dwelling of 5 units or more to arrange for recycling services, on and after July 1, 2012.

Executive Order S-1-07

EO S-1-07 proclaims that the transportation sector is the main source of GHG emissions in California, generating more than 40 percent of statewide emissions. The EO establishes a goal to reduce the carbon intensity of transportation fuels sold in California by at least 10 percent by 2020. This order also directs the CARB to determine whether the Low Carbon Fuel Standard (LCFS) could be adopted as a discrete early-action measure as part of the effort to meet the mandates in AB 32.

Executive Order S-14-08

In 2008, the California Governor issued EO S-14-08, which expands the State's Renewable Energy Standard to 33 percent renewable power by 2020. Additionally, EO S-21-09 (2009) directs CARB to adopt regulations requiring that 33 percent of electricity sold in the state come from renewable energy by 2020.

Executive Order N-79-20

On September 23, 2020, the California Governor issued EO N-79-20 that requires all new passenger cars and trucks and commercial drayage trucks sold in California to be zero-emissions by the year 2035 and all medium-heavy-duty vehicles (commercial trucks) sold in the state to be zero-emissions by 2045 for all operations where feasible. EO N-79-20 also requires all off-road vehicles and equipment to transition to 100 percent zero-emission equipment, where feasible, by 2035.

Title 24, Part 6, Energy Efficiency Standards

California Code of Regulations (CCR) Title 24, Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings (Title 24) was first established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. Although it was not originally intended to reduce GHG emissions, electricity production by fossil fuels results in GHG emissions; and energy efficient buildings require less electricity. Therefore, increased energy efficiency results in decreased GHG emissions.

Title 24 standards are updated on a three-year schedule, and the most current 2019 standards went into effect on January 1, 2020. The Title 24 standards now require that the average new home built in California will now use zero-net-energy and that nonresidential buildings will use about 30 percent less energy than the 2016 standards due mainly to lighting upgrades. The 2019 standards also encourage the use of battery storage and heat pump water heaters and require the more widespread use of LED lighting as well as improve a building's thermal envelope through high performance attics, walls, and windows. The 2019 standards also require improvements to ventilation systems by requiring highly efficient air filters to trap hazardous air particulates as well as improvements to kitchen ventilation systems.

Title 24, Part 11, California Green Building Standards

CCR Title 24, Part 11: California Green Building Standards (Title 24) was developed in response to continued efforts to reduce GHG emissions associated with energy consumption. The most current version is the 2019 CALGreen Code, which became effective on January 1, 2020, and replaced the 2016 CALGreen Code.

The CALGreen Code contains requirements for construction site selection, storm water control during construction, construction waste reduction, indoor water use reduction, material selection, natural resource conservation, site irrigation conservation, and more. The code provides for design options that allow the designer to determine how best to achieve compliance for a given site or building condition. The code also requires building commissioning, which is a process for verifying that all building systems (e.g., heating and cooling equipment and lighting systems) are functioning at their maximum efficiency.

The CALGreen Code provides standards for bicycle parking, carpool/vanpool/electric vehicle spaces, light and glare reduction, grading and paving, energy-efficient appliances, renewable energy, graywater systems, water-efficient plumbing fixtures, recycling and recycled materials, pollutant controls (including moisture control and indoor air quality), acoustical controls, storm water management, building design, insulation, flooring, and framing, among others. Implementation of the CALGreen Code measures reduced energy consumption and vehicle trips and encourages the use of alternative-fuel vehicles, which reduces pollutant emissions.

Some of the notable changes in the 2019 CALGreen Code over the prior 2016 CALGreen Code include: an alignment of building code engineering requirements with the national standards that include anchorage requirements for solar panels, provide design requirements for buildings in tsunami zones, increase MERV for air filters from 8 to 13, increase electric vehicle charging requirements in parking areas, and set minimum requirements for use of shade trees.

Executive Order B-29-15 and Senate Bill X7-7, Water Conservation Measures

The Water Conservation Act of 2009 sets an overall goal of reducing per-capita urban water use by 20 percent by December 31, 2020. The state is required to make incremental progress toward this goal by reducing per-capita water use by at least 10 percent by December 31, 2015. This is an implementing measure of the Water Sector of the AB 32 Scoping Plan. Reduction in water consumption directly reduces the energy necessary and the associated emissions to convene, treat, and distribute the water. It also reduces emissions from wastewater treatment.

The Department of Water Resources adopted a regulation on February 16, 2011, that sets forth criteria and methods for exclusion of industrial process water from the calculation of gross water use for purposes of urban water management planning. The regulation would apply to all urban retail water suppliers required to submit an Urban Water Management Plan, as set forth in the Water Code, Division 6, Part 2.6, Sections 10617 and 10620.

On April 1, 2015, the California Governor issued EO B-29-15 that directed the State Water Resources Control Board (SWRCB) to impose restrictions to achieve a statewide 25-percent reduction in urban water usage and directed the Department of Water Resources to replace 50 million square feet of lawn with drought-tolerant landscaping through an update to the State's Model Water Efficient Landscape Ordinance. The Ordinance also requires installation of more efficient irrigation systems, promotes usage of greywater and on-site stormwater capture, and limits the turf planted in new residential landscapes to 25 percent of the total area and restricts turf from being planted in median strips or in parkways unless the parkway is next to a parking strip where a flat surface is required to enter and exit vehicles. EO B-29-15 and SB X7-7 would reduce GHG emissions associated with the energy used to transport and filter water.

Senate Bill 375

SB 375 was adopted September 2008 in order to support the State's climate action goals to reduce GHG emissions through coordinated regional transportation planning efforts, regional GHG emission reduction targets, and land use and housing allocation. SB 375 requires CARB to set regional targets for GHG emissions reductions from passenger vehicle use. In 2010, CARB established targets for 2020 and 2035 for each Metropolitan Planning Organization (MPO) within the state. It was up to each MPO to adopt a sustainable communities strategy (SCS) that will prescribe land use allocation in that MPO's Regional Transportation Plan (RTP) to meet CARB's 2020 and 2035 GHG emission reduction targets. These reduction targets are required to be updated every eight years. In June 2017, CARB released Staff Report Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Target, which provided recommended GHG emissions reduction targets for Southern California Association of Governments (SCAG) of 8 percent by 2020 and 21 percent by 2035.

The 2020-2045 Regional Transportation Plan/Sustainable Communities Strategy (2020-2045 RTP/SCS or Connect SoCal) was adopted September 3, 2020 and provides a 2035 GHG emission reduction target of 19 percent reduction over the 2005 per capita emissions levels. The Connect SoCal include new initiatives

of land use, transportation and technology to meet the 2035 new 19 percent GHG emission reduction target for 2035. CARB is also charged with reviewing SCAG's RTP/SCS for consistency with its assigned targets.

City and County land use policies, including General Plans, are not required to be consistent with the RTP and associated SCS. However, new provisions of CEQA incentivize, through streamlining and other provisions, qualified projects that are consistent with an approved SCS and categorized as "transit priority projects."

Assembly Bill 1493

AB 1493, adopted September 2002, also known as Pavley I, requires the development and adoption of regulations to achieve the maximum feasible reduction of GHGs emitted by noncommercial passenger vehicles, light-duty trucks, and other vehicles used primarily for personal transportation in the state. Although setting emissions standards on automobiles is solely the responsibility of the U.S. EPA, the federal CAA allows California to set state-specific emission standards on automobiles if the State first obtains a waiver from the U.S. EPA. The U.S. EPA granted California that waiver on July 1, 2009. The emission standards become increasingly more stringent through the 2016 model year. California is also committed to further strengthening these standards beginning in 2017 to obtain a 45-percent GHG reduction from 2020 model year vehicles.[6]

The second set of regulations, "Pavley II," was developed in 2010 and is being phased in between model years 2017 through 2025 with the goal of reducing GHG emissions by 45 percent by the year 2020 as compared to the 2002 fleet. The Pavley II standards were developed by linking the GHG emissions and formerly separate toxic tailpipe emissions standards previously known as the "LEV III" (third stage of the Low Emission Vehicle standards) into a single regulatory framework. The new rules reduce emissions from gasoline-powered cars as well as promote zero-emissions auto technologies such as electricity and hydrogen through increasing the infrastructure for fueling hydrogen vehicles. In 2009, the U.S. EPA granted California the authority to implement the GHG standards for passenger cars, pickup trucks, and sport utility vehicles; and these GHG emissions standards are currently being implemented nationwide. However, U.S. EPA has performed a midterm evaluation of the longer-term standards for model years 2022-2025; and, based on the findings of this midterm evaluation, the U.S. EPA has proposed to amend the CAFE and GHG emissions standards for light vehicles for model years 2021 through 2026. The U.S. EPA's proposed amendments do not include any extension of the legal waiver granted to California by the 1970 Clean Air Act (CCAA) which has allowed the State to set tighter standards for vehicle pipe emissions than the U.S. EPA standards. On September 20, 2019, California filed suit over the U.S. EPA decision to revoke California's legal waiver that has been joined by 22 other states.

Regional

Mojave Desert Air Quality Management District

The Mojave Desert Air Quality Management District (MDAQMD) is the agency principally responsible for comprehensive air pollution control that includes GHG emissions in the San Bernardino County portion of the Mojave Desert Air Basin (MDAB). To that end, as a regional agency, the MDAQMD works directly with

[6] CARB, Staff Report: Initial Statement of Reasons for Rulemaking. Available at https://www.arb.ca.gov/regact/2009/ghgpv09/ghgpvisor.pdf. Accessed August 10, 2022.

the County and incorporated communities as well as the military bases within the MDAB to control GHG emissions within the MDAB.

Southern California Association of Governments – Connect SoCal: Regional Transportation Plan/Sustainable Communities Strategy

On September 3, 2020, SCAG, the MPO for the region's six counties and 191 cities, formally adopted the 2020–2045 RTP/SCS. The SCS portion of the 2020-2045 RTP/SCS highlights strategies for the region to reach the regional target of reducing GHGs from autos and light-duty trucks by 8 percent per capita by 2020, and 19 percent by 2035 (compared to 2005 levels). Specifically, these strategies:

- Focus growth near destinations and mobility options;
- Promote diverse housing choices;
- Leverage technology innovations;
- Support implementation of sustainability policies; and
- Promote a green region.

Furthermore, the 2020-2045 RTP/SCS discusses a variety of land use tools to help achieve the state-mandated reductions in GHG emissions through reduced per capita vehicle miles traveled (VMT). Some of these tools include center-focused placemaking, focusing on priority growth areas, job centers, transit priority areas, as well as high quality transit areas and green regions, which are regions that require the built environment and natural resource areas coexist in a well-balanced land use pattern that encourages mutual co-benefits.

Local

San Bernardino County Countywide Plan/Policy Plan

The County adopted the Countywide Plan/Policy Plan (Policy Plan) in October 2020. The Policy Plan provides an update of the County's General Plan addressing physical, social and economic issues facing the unincorporated portions of the County. The Policy Plan also provides an expansion of the County's General Plan to address supportive service for adults and children, healthcare service, public safety, and other regional county services provided to both incorporated and unincorporated areas.

The County's abundant natural resources are integral to the quality of life, community identities, and economic success. Appropriately managed, they provide safe air and water for the people and the environment, improve the health of the residents and workers, attract visitors from around the world, and sustain the productivity of our local and national economies. Adequate regional landfill capacity that provides for the safe disposal of solid waste, and efficient waste diversion and collection for unincorporated areas. Relevant policies of the San Bernardino County Policy Plan are summarized below:

Infrastructure and Utilities Element

Goal IU-4	**Solid Waste:** Adequate regional landfill capacity that provides for the safe disposal of solid waste, and efficient waste diversion and collection for unincorporated areas.

Policy IU-4.3	**Waste diversion**. We shall meet or exceed state waste diversion requirements, augment future landfill capacity, and reduce greenhouse gas emissions and use of natural resources through reduction, reuse, or recycling of solid waste.
Goal IU-5	**Power and Communications:** Unincorporated area residents and businesses have access to reliable power and communication systems.
Policy IU-5.5	**Energy and fuel facilities**. We encourage the development and upgrade of energy and regional fuel facilities in areas that do not pose significant environmental or public health and safety hazards, and in a manner that is compatible with military operations and local community identity.

Natural Resources Element

Goal NR-1:	**Air Quality:** Air quality that promotes health and wellness of residents in San Bernardino County through improvements in locally-generated emissions.
Policy NR-1.1	**Land Use**. We promote compact and transit-oriented development countywide and regulate the types and locations of development in unincorporated areas to minimize vehicle miles traveled and greenhouse gas emissions.
Policy NR-1.7	**Greenhouse gas reduction targets**. We strive to meet the 2040 and 2050 greenhouse gas emission reduction targets in accordance with state law.
Policy NR-1.9	**Building design and upgrades.** We use the CalGreen Code to meet energy efficiency standards for new buildings and encourage the upgrading of existing buildings to incorporate design elements, building materials, and fixtures that improve environmental sustainability and reduce emissions.

Renewable Energy and Conservation Element[7]

RE Goal 1	The County will pursue energy efficiency tools and conservation practices that optimize the benefits of renewable energy.
Policy RE-1.1	**Energy Conservation and Efficiency.** Continue implementing the energy conservation and efficiency measures identified in the County of San Bernardino Greenhouse Gas Emissions Reduction Plan.
RE Goal 4	The County will establish a new era of sustainable energy production and consumption in the context of sound resource conservation and renewable energy development practices that reduce greenhouse gases and dependency on fossil fuels.
Policy RE-4.1	**Development Standards.** Apply standards to the design, siting, and operation of all renewable energy facilities that protect the environment, including sensitive biological resources, air quality, water supply and quality, cultural, archaeological, paleontological and scenic resources.

[7] The Renewable Energy and Conservation Element was adopted in 2017 and amended in February 2019.

RE Goal 6	County regulatory systems will ensure that renewable energy facilities are designed, sited, developed, operated and decommissioned in ways compatible with our communities, natural environment, and applicable environmental and cultural resource protection laws.
Policy RE-6.4	**State Renewable Energy Goal.** Support the Governor's initiative to obtain 50% of the energy consumed in the state through RE generation sources by 2040.
Policy RE-6.4.1	**Energy Conservation Policies and Strategies.** Continue to implement policies and strategies for energy conservation by the County in the Greenhouse Gas Emissions Reduction Plan, including capture and use of landfill gas, installation of renewable energy systems and use of alternative fuels.

San Bernardino County Greenhouse Gas Emissions Reduction Plan

The County of San Bernardino Greenhouse Gas Emissions Reduction Plan (GHGRP Plan), prepared September 2011, requires the reduction of 159,423 metric tons of CO_2 equivalent emissions ($MTCO_2e$) per year from new development by 2020 as compared to the unmitigated conditions. The Greenhouse Gas Emissions Development Review Processes (GHG Review Processes), prepared for the County in March 2015, provides project level direction on how the County plans to achieve the reduction in GHG Emissions. The GHGRP helps the County to prioritize actions to reduce GHG emissions and serves as the roadmap for implementing communitywide programs and policies. However, the County's GHGRP does not align with the Statewide goals beyond 2020 and thus the GHGRP is not consistent with the criteria within CEQA Guidelines Section 15183.5 for the post-2020 period. Consequently, the County is currently working with the San Bernardino County Transportation Authority (SBCTA) to update the County's current GHGRP to address SB 32 and post-2020 GHG emission reductions. As the Project would be constructed and operational post-2020, the 2011 GHGRP was not utilized for consistency analysis.

San Bernardino County Regional Greenhouse Gas Reduction Plan

In response to SB 32, a project partnership, led by SBCTA, has complied an inventory of GHG emissions and developed reduction measures in the Regional Greenhouse Gas Reduction Plan (RGHGRP) that could be adopted by the partnership jurisdictions, including the County.[8] A final draft of the RGHGRP was made public in March 2021 and was formally adopted on September 21, 2021. The RGHGRP plan contains substantial evidence to support its recommendations for reducing GHG emissions within the region to achieve the GHG reduction goal set by SB 32. Therefore, the RGHGRP was utilized for project consistency analysis.

4.6.4 Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, a project would have a significant impact related to GHG emissions if it would:

[8] San Bernardino Council of Governments, *San Bernardino County Regional Greenhouse Gas Reduction Plan*, 2021. Available at https://www.gosbcta.com/wp-content/uploads/2019/09/San_Bernardino_Regional_GHG_Reduction_Plan_Main_Text_Mar_2021.pdf. Accessed August 10, 2022.

Threshold (a): Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment.

Threshold (b): Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

According to the MDAQMD, a project is significant if it triggers or exceeds the most appropriate evaluation criteria. In general, for GHG emissions, the MDAQMD significance emission threshold is 100,000 tons of CO_2e or 90,718.5 $MTCO_2e$ per year. A project identified as having significant impacts on GHG emissions by the MDAQMD must incorporate mitigation measures sufficient to reduce its impact to a level that is not significant. A project that cannot be mitigated to a level that is not significant must incorporate all feasible mitigation measures.

4.6.5 Methodology

The GHG emission impacts created by the Project have been analyzed through use of CalEEMod Version 2020.4.0. CalEEMod is a computer model published by the South Coast Air Quality Management District (SCAQMD) for estimating air pollutant emissions. The CalEEMod program uses the EMFAC2017 computer program to calculate the emission rates specific for the Mojave Desert portion of the County for employee, vendor and haul truck vehicle trips and the OFFROAD2011 computer program to calculate emission rates for heavy equipment operations. EMFAC2017 and OFFROAD2011 are computer programs generated by CARB that calculates composite emission rates for vehicles. Emission rates are reported by the program in grams per trip and grams per mile or grams per running hour.

The Project characteristics in the CalEEMod model were set to a project location of the Mojave Desert portion of the County, a Climate Zone of 10, utility company of Southern California Edison, and an opening year of 2024 was utilized in this analysis. In addition, the EMFAC off-model adjustment factors for gasoline light duty vehicle to account for the SAFE Vehicle rule was selected in the CalEEMod model conducted.

4.6.6 Project Impact Analysis

Threshold (a): Would the Project, generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction

Project construction would result in GHG emissions, primarily associated with the use of off-road construction equipment, on-road vendor trucks, and worker vehicles. The County's GHG Plan recommends that construction emissions be amortized over a 30-year project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies. Thus, the Project's total construction GHG emissions were calculated, amortized over 30 years, and added to the total operational emissions.

A summary of the results is shown below in **Table 4.6-2,** *Project Related Construction Greenhouse Gas Annual Emissions*.

Table 4.6-2: Project Related Construction Greenhouse Gas Annual Emissions

Category	Greenhouse Gas Emissions (Metric Tons per Year)			
	CO_2	CH_4	N_2O	CO_2e
Construction				
Year 2023	877.67	0.11	0.02	887.28
Year 2024	232.19	0.02	<0.01	234.73
Total Construction Emissions	1,109.86	0.13	0.03	1,122.01
Amortized Construction Emissions[1] (30 Years)	**37.00**	**<0.01**	**<0.01**	**37.40**

Notes:
[1] Construction emissions amortized over 30 years as recommended in the SCAQMD GHG Working Group on November 19, 2009.
Source: See Appendix C.

Table 4.6-2 shows that the construction activities would create a total of 1,122.01 $MTCO_2e$, which equates to 37.40 $MTCO_2e$ per year when amortized over 30 years. As with Project-generated construction air quality pollutant emissions, GHG emissions generated during construction of the Project would be short-term in nature, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions. Because there is no separate GHG threshold for construction, the evaluation of significance is discussed in the operational emissions analysis below.

Operations

Project operation would generate GHG emissions through motor vehicle trips to and from the Project Site, energy use (natural gas and generation of electricity consumed by the Project), solid waste disposal, and generation of electricity associated with water supply, treatment, and distribution and wastewater treatment. Because the Project would have no major stationary emission sources, operation of the proposed solar farm would result in substantially lower emissions than Project construction.

Table 4.6-3, *Project Related Operational Greenhouse Gas Annual Emissions,* shows that operational activities would create 1,426.62 $MTCO_2e$ per year and, when combined with the amortized construction and decommissioning emissions, the Project would create a total of 1,501.42 $MTCO_2e$ per year, which is within the MDAQMD threshold of 100,000 $MTCO_2e$ per year. Therefore, a less than significant generation of GHG emissions would occur from development of the Project. Impacts would be less than significant.

Table 4.6-3: Project Related Operational Greenhouse Gas Annual Emissions

Category	Greenhouse Gas Emissions (Metric Tons per Year)			
	CO_2	CH_4	N_2O	CO_2e
Operations				
Area Sources[1]	0.02	<0.01	0.00	0.02
Energy Usage and Production[2]	1,380.96	0.12	0.01	1,388.08
Mobile Sources[3]	23.89	<0.01	<0.01	24.29
Solid Waste[4]	5.74	0.34	0.00	14.22
Water and Wastewater[5]	0.02	0.00	0.00	0.02
Total Operational Emissions	**1,410.62**	**0.46**	**0.02**	**1,426.62**
Total Annual Emission (Construction & Operations)	**1,447.61**	**0.46**	**0.02**	**1,464.02**
County of San Bernardino GHG Emissions Reduction Plan Screening Threshold				**100,000**

Category	Greenhouse Gas Emissions (Metric Tons per Year)			
	CO_2	CH_4	N_2O	CO_2e
Exceed Thresholds?				**No**

Notes:
[1] Area sources consist of GHG emissions from consumer products, architectural coatings, and landscaping equipment.
[2] Energy usage consists of GHG emissions from electricity used and generated on-site.
[3] Mobile sources consist of GHG emissions from vehicles.
[4] Waste includes the CO_2 and CH_4 emissions created from the solid waste placed in landfills.
[5] Water includes GHG emissions from electricity used for transport of water and processing of wastewater.
Source: See Appendix C.

Threshold (b): Would the Project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Since the San Bernardino County GHGRP is not consistent with the State's post-2020 GHG reduction goals, the GHGRP was not used in this analysis. Instead, the consistency analysis for the Project is based off the Project's consistency with the RGHGRP, the County's Policy Plan, and CARB's 2017 Scoping Plan Update.

Consistency with the 2021 Regional GHG Reduction Plan

The RGHGRP includes GHG inventories, and local GHG reduction strategies for each of the 25 Partnership jurisdictions including the unincorporated areas of San Bernardino County. This RGHGRP is not mandatory for the Partnership jurisdictions. Instead, it provides information that can be used by Partnership jurisdictions, if they choose so, to develop individual climate action plans (CAPs). The RGHGRP describes the reductions that are possible if San Bernardino Council of Governments (SBCOG) and every Partnership jurisdiction were to adopt the reduction strategies as described in the document.

The RGHGRP demonstrates how Unincorporated San Bernardino County could achieve its selected goal, "of reducing its community GHG emissions to a level that is 40% below its 2020 GHG emissions level by 2030."[9] The majority (approximately 80 percent) of unincorporated San Bernardino County's GHG reduction goal will be achieved through state efforts, such as the Pavley vehicle standards, the State's low carbon fuel standard, the RPS, and other state measures to reduce GHG emissions in the on-road, solid waste and building energy sectors in 2030. According to the RGHGRP, the remaining 20 percent need to meet its goal could be achieved "primarily through the following local measures, in order of reductions achieved: Solar Installation for Existing Commercial/Industrial (Energy-8); Waste Diversion and Reduction (Waste-2); Solar Installation for Existing Housing (Energy-7)."[10] As shown on Table 3-75 of the RGHGRP[11], the County has proposed to adopt ten GHG reduction measures, including increasing the energy efficiency of and solar installation upon new and existing buildings, Transportation Demand Management and Synchronization, expanded bike lanes, waste diversion and reduction, water efficient landscaping, and other measures. It should be noted that the County has not adopted its jurisdictional plan.

[9] San Bernardino Council of Governments, San Bernardino County Regional Greenhouse Gas Reduction Plan, 2021, Page 3-228. Available at https://www.gosbcta.com/wp-content/uploads/2019/09/San_Bernardino_Regional_GHG_Reduction_Plan_Main_Text_Mar_2021.pdf. Accessed September 29, 2022.
[10] San Bernardino Council of Governments, San Bernardino County Regional Greenhouse Gas Reduction Plan, 2021, Page 3-228.
[11] San Bernardino Council of Governments, San Bernardino County Regional Greenhouse Gas Reduction Plan, 2021, Pages 3-232 and 3-233.

Of the 10 GHG reduction measures proposed, the following two apply to the County directly and not project owners or occupants: OnRoad-3 encouraging signal synchronization and OnRoad-4 encouraging bike lanes; thus, these measures are not applicable to the Project. The following six measures do not apply to the Project because they are directed towards sources the Project would not include: Energy-1 improving the energy efficiency of new buildings; Energy-7 encouraging solar installation for existing housing; Energy-8 encouraging solar installation for existing commercial and industrial; Energy-10 encouraging urban tree planting for shading and energy savings; Offroad-2 directed at heavy duty diesel truck idling; and PS-1 proposing a GHG performance standard for new development. The Project is designed to be consistent with GHG reduction measure Water-3, encouraging water-efficient landscaping practices, and would be operated consistent with Waste-2 encouraging increased waste diversion and reduction if adopted and as applicable.

Assuming the County is successful in adopting its plan substantively as written, the above discussion demonstrates that the Project would be consistent with the applicable portions of the jurisdictional GHG reduction measures contained in the RGHGRP, and impacts would be less than significant.

Consistency with the San Bernardino County Countywide Plan/Policy Plan

The San Bernardino Policy Plan includes goals and policies that all new projects are required to comply with, as applicable. Project consistency with the policy plan goals and policies is discussed in **Table 4.6-4**, *Consistency with GHG Policies in the County's Policy Plan*. As shown in **Table 4.6-4**, the Project would be consistent with the policy plan and impacts would be less than significant.

Table 4.6-4: Consistency with GHG Policies in the County's Policy Plan

Policy No.	San Bernardino County Policy Plan Policy	Project Consistency with Policy
IU-4.3	**Waste diversion.** We shall meet or exceed state waste diversion requirements, augment future landfill capacity, and reduce greenhouse gas emissions and use of natural resources through the reduction, reuse, or recycling of solid waste.	**Consistent.** The Project is a solar generation and energy storage facility, which would generate a limited amount of solid waste from Project operations. The Project would be required to comply with State waste diversion requirements. As such, the Project would be consistent with this policy.
IU-5.5	**Energy and fuel facilities.** We encourage the development and upgrade of energy and regional fuel facilities in areas that do not pose significant environmental or public health and safety hazards, and in a manner that is compatible with military operations and local community identity.	**Consistent.** The Project is a solar generation and energy storage facility and would not create additional significant environmental or public health and safety hazards as it would displace fossil fuel energy production. Clean energy would be produced from operation of the Project. Therefore, the Project would not conflict with this policy.
NR-1.7	**Greenhouse gas reduction targets**. We strive to meet the 2040 and 2050 greenhouse gas emission reduction targets in accordance with state law.	**Consistent.** The Project would indirectly reduce GHG emissions overall and is consistent with State goals and requirements to replace non-carbon neutral electricity sources with carbon-neutral electrical sources. Therefore, the Project would be consistent with this policy.

Policy No.	San Bernardino County Policy Plan Policy	Project Consistency with Policy
RE 4.10	Prohibit utility-oriented RE project development on sites that would create adverse impacts on the quality of life or economic development opportunities in existing unincorporated communities. Any exceptions or revisions to the following policy direction would require approval by the Board of Supervisors.	**Consistent.** The Project is located on land that is crossed over by high voltage lines and has limited use, other than for PV solar projects. Therefore, the Project would not conflict with this policy.
RE 5.2	Utility-oriented RE generation projects on private land in the unincorporated County will be limited to the site-types below, in addition to meeting criteria established herein and in the Development Code: **ix.** Sites within or adjacent to electric transmission and utility distribution corridors	**Consistent.** The Project is located on land that is crossed over by high voltage lines. Therefore, the Project is consistent with this policy.

Consistency with the 2017 CARB Scoping Plan Update

The 2017 Scoping Plan identifies additional GHG reduction measures necessary to achieve the 2030 target. These measures build upon those identified in the first update to the Scoping Plan (2014). Although a number of these measures are currently established as policies and measures, some measures have not yet been formally proposed or adopted. It is expected that these measures or similar actions to reduce GHG emissions will be adopted as required to achieve statewide GHG emissions targets. **Table 4.6-5,** *Consistency with the 2017 Scoping Plan*, is an evaluation of applicable reduction actions/strategies by emissions source category to determine how the Project would be consistent with or exceed reduction actions/strategies outlined in the 2017 Scoping Plan. Therefore, the Project would be consistent with the 2017 CARB Scoping Plan and potential impacts would be less than significant in this regard.

Table 4.6-5: Consistency with the 2017 Scoping Plan

Actions and Strategies	Project Consistency with Actions and Strategies
SB 350	
Achieve a 50 percent Renewable Portfolio Standard (RPS) by 2030, with a doubling of energy efficiency savings by 2030	**Consistent** The Project includes the construction and operation of a renewable energy generation and storage facility. Therefore, the Project would help the State achieve the RPS goals. As such, the Project would be consistent with SB 350 (and SB 100).
Low Carbon Fuel Standard (LCFS)	
Increase stringency of carbon fuel standards; reduce the carbon intensity of fuels by 18 percent by 2030, which is up from 10 percent in 2020.	**No Conflict.** This standard applies to all vehicle fuels sold in California including that could be used in vehicles associated with the Project. The Project would not impede this goal.

Actions and Strategies	Project Consistency with Actions and Strategies
Mobile Source Strategy (Cleaner Technology and Fuel Scenario)	
Maintain existing GHG standards of light and heavy-duty vehicles while adding an addition 4.2 million zero emission vehicles (ZEVs) on the road. Increase the number of ZEV buses, delivery trucks, or other trucks.	**No Conflict.** The Project may include occasional light- and heavy-duty truck uses for operations and maintenance activities. Trucks uses associated with the Project would be required to comply with all CARB regulations, including the LCFS and newer engine standards. The Project would not conflict with the CARB's goal of adding 4.2 million ZEVs on the road. As such, the Project would not conflict with the goals of the Mobile Source Strategy.
Sustainable Freight Action Plan	
Improve the freight system efficiency and maximize the use of near zero emission vehicles and equipment powered by renewable energy. Deploy over 100,000 zero-emission trucks and equipment by 2030.	**No Conflict.** As described above, occasional truck uses associated with the Project would be required to comply with all CARB regulations, including the LCFS and newer engine standards. Additionally, the Project would comply with all future applicable regulatory standards adopted by CARB and would not conflict with CARB's goal to deploy over 100,000 zero-emission trucks and equipment by 2030.
Short-Lived Climate Pollutant (SLCP) Reduction Strategy	
Reduce the GHG emissions of methane and hydrofluorocarbons by 40 percent below the 2013 levels by 2030. Furthermore, reduce the emissions of black carbon by 50 percent below the 2013 levels by the year 2030.	**No Conflict.** The Project would not emit a large amount of CH_4 (methane) emissions; refer to **Table 4.6-2** and **Table 4.6-3**. Furthermore, the Project would comply with all applicable CARB and MDAQMD hydrofluorocarbon regulations. As such, the Project would not conflict with the SLCP reduction strategy.
Post-2020 Cap and Trade Programs	
The Cap-and-Trade Program will reduce greenhouse gas (GHG) emissions from major sources (covered entities) by setting a firm cap on statewide GHG emissions while employing market mechanisms to cost-effectively achieve the emission-reduction goals.	**Not Applicable.** The Project is estimated to generate approximately 1,464.02 $MTCO_2e$ per year, which is below the 25,000 $MTCO_2e$ per year Cap-and-Trade screening level. Therefore, this goal is not applicable to the Project.

Conclusion

In summary, the plan consistency analysis provided above demonstrates that the Project is consistent with applicable plans, policies, regulations and GHG reduction actions/strategies, such as those outlined in the RGHGRP, County Policy Plan, and CARB's 2017 Scoping Plan Update. Therefore, the Project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing emissions of GHGs. Thus, impacts would be less than cumulatively considerable.

4.6.7 Cumulative Impacts

Chapter 3.0, Environmental Setting, of this Draft EIR provides a list of related projects that would have the potential to be considered in a cumulative context with the Project's incremental contribution. These

projects are summarized in **Table 3-2,** *Related Projects*, and shown in **Figure 3-1,** *Related Projects in the Planning Area*. It is generally the case that an individual project of this size and nature is of insufficient magnitude by itself to influence climate change or result in a substantial contribution to the global GHG inventory. GHG impacts are recognized as exclusively cumulative impacts. There are no non-cumulative GHG emission impacts from a climate change perspective.

The additive effect of Project related GHGs would not result in a reasonably foreseeable cumulatively considerable contribution to global climate change. In addition, the Project as well as other cumulative related projects would also be subject to all applicable regulatory requirements, which would further reduce GHG emissions. As the Project provides a net positive effect on GHG emissions by providing clean renewable energy and would comply with all applicable plans, rules, regulations, and policies, its contribution to cumulative GHG emissions and climate change impacts would be less than cumulatively considerable.

4.6.8 Mitigation Measures

No mitigation measures are required, as all Project impacts regarding GHG emissions are less than significant.

4.6.9 Level of Significance After Mitigation

No mitigation measures are required. Impacts related to GHG emissions would be less than significant.

4.7 HAZARDS AND HAZARDOUS MATERIALS

4.7.1 Introduction

This section discusses the potential hazards and hazardous materials impacts that would occur in association with implementation of the proposed Project. The discussion focuses on hazardous materials and hazards requiring remediation or mechanisms to prevent accidental release. Information contained in this section is derived in part from the Environmental Database Reports (Appendix G).

4.7.2 Existing Environmental Setting

Current Use

The Project Site consists of 1,090 acres within 21 parcels (in their entirety and portions of) that are held under lease agreement by CDH Vidal LLC (CORE). The Project Site consists of primarily vacant, undeveloped land; however, six parcels are developed with multiple structures, including dwellings and storages areas for agricultural purposes. The following parcels and their associated potential uses are described below:

- 0647-081-37: Five structures, likely associated with the abandoned rural residence and associated storage or agricultural sheds, are scattered throughout the parcel. Multiple Aboveground Storage Tanks (ASTs) are observed from aerial imagery with unknown contents. Six circular berms are observed with unknown use along with trash and debris.
- 0647-061-01: Three concrete pads (possibly for former or future structures) and one dwelling is observed from aerial imagery. Power lines bisect the southeast portion of the parcel with an access road.
- 0647-061-02: One structure is observed along the northwestern boundary of the parcel.
- 0647-061-22: One structure along with a fallow orchard is observed off of Citrus Ranch Road in the center of the Project Site.
- 0647-061-28: Six structures were observed within the southeast portion of the parcel.
- 0647-061-14: Three structures and storage areas are observed within the eastern portion of the parcel.

Regional Setting

San Bernardino County's (County) geography and the complexity of its economy and socioeconomics exposes people, buildings, and facilities to a wide range of natural hazards including wildfires, flooding, geologic activity, and wind and human-generated hazards such as hazardous materials, airports, and noise. According to the San Bernardino Countywide Plan Program Draft Environmental Impact Report (EIR), the Desert Region of the County Planning Area encompasses 24 facilities that have reported toxic releases; 99 large quantity hazardous waste generators; 352 small quantity hazardous waste generators; 24 potential hazardous waste Superfund sites; 3 Superfund sites on the Final National Priorities List; 9 hazardous waste transporters; 25 leaking underground storage tanks; and 49 formerly used defense sites.[1]

[1] County of San Bernardino, *Countywide Plan Final EIR,* 2020. Available at https://countywideplan.com/resources/document-download/. Accessed August 11, 2022.

Historical Use of Site

As described above, the majority of the Site is undeveloped and vacant. Images observed through Google Earth indicate that an orchard operated from at least 1985 (earliest image) until at least 2012 within parcel (Assessor Parcel Number [APN]: 0647-061-22). Therefore, there is a potential that agricultural related chemicals such as pesticides, herbicides, and fertilizers may have been used and stored on-site. No specific areas of concern such as structures or mixing areas were noted in available historical records (see Appendix G).

Federal and State Database Review

The primary reason for defining potentially hazardous sites is to protect health and safety and to minimize the public's exposure to hazardous materials during Project construction and waste handling. Exposure can occur during normal use, handling, storage, transportation, and disposal of hazardous materials. Exposure may also occur due to hazardous compounds existing in the environment, such as fuels in underground storage tanks, pipelines, or areas where chemicals have leaked into the soil or groundwater or preferential pathways for vapor migration. If encountered, impacted soil may qualify as hazardous waste, thus requiring handling and disposal according to local, State, and federal regulations. **Table 4.7-1**, *Impacted Sites within 10 Miles of the Project Site,* below lists the only contaminated site identified within 10 miles of the Project site.

Table 4.7-1: Impacted Sites within 10 Miles of the Project Site

Site Name	Address	City	Site/Facility Type	Cleanup Status	Distance from Project Site
K-8 Parker Dam School	Osage Trail/ Cochise Road	Big River, CA	School	No Action Required as of 8/19/2003	5 miles
Source: California Department of Toxic Substances Control, EnviroStor Database. Available at http://www.envirostor.dtsc.ca.gov/?surl=09vie. Accessed August 11, 2022.					

EnviroStor, which is administered by the Department of Toxic Substances Control (DTSC), provides information on permits, investigations, and corrective actions at hazardous waste facilities, as well as site cleanup projects. Review of EnviroStor indicates that a Phase I Environmental Site Assessment (ESA) was prepared for K-8 Parker Dam School in 2003. The Phase I ESA identified no contaminants on-site and determined that no action was or will be required as of August 19, 2003.[2]

GeoTracker, which is administered by the State Water Resources Control Board (SWRCB), is used to track and archive compliance data from authorized or unauthorized discharges of waste to land, or unauthorized releases of hazardous substances from underground storage tanks (UST). While not listed as a contaminated site, review of GeoTracker indicates that an abandoned permitted UST was associated with Eagle Mountain Pumping Plant. No additional information is provided online with no indication of leaking was reported.[3]

EnviroMapper, which is administered by the U.S. EPA, includes geographic information, such as locations of federal Superfund sites and other hazardous materials sites. Review of the California Department of

[2] Department of Toxic Substance Control, Envirostor, Available at https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=36650009. Accessed August 11, 2022.

[3] State Water Resources Control Board, GeoTracker. Available at https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=10033828. Accessed August 11, 2022.

Conservation Geologic Energy Management Division's (CalGEM) Well Finder database, and EnviroMapper revealed no hazardous material sites within 10 miles of the Project Site. The Environmental Database Report (see Appendix G) further reported that there are no listings for the Project Site.

Sensitive Receptors

Sensitive receptors that may be susceptible to health and safety impacts resulting from the construction and operation of renewable energy facilities generally include on-site workers and the young and elderly sectors of the population.

The Mojave Desert Air Quality Management District (MDAQMD), within which the Project Site is located, considers residences, schools, daycare centers, playgrounds, and medical facilities to be sensitive receptors. Land use surrounding the Project site consists primarily of undeveloped desert with scattered abandoned rural residences, garage (storage) areas, and several WAPA towers. The closest residence is approximately 700 feet northwest of the Project site. The closest schools to the Project site are Blake Primary School, Wallace Elementary School, Wallace Junior High School, and Parker High School. All of these schools are located in Parker, Arizona approximately 9 miles northeast of the Project site. The closest medical facility to the Project site is also in Parker, La Paz Regional Hospital, approximately 10 miles northeast of the Project site.

4.7.3 Regulatory Setting

Federal

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) grants authority to the U.S. EPA to control hazardous waste from start to finish. This covers the production, transportation, treatment, storage, and disposal of hazardous waste. The RCRA also sets forth a framework for the management of nonhazardous solid waste. The 1986 amendments to the RCRA enabled the U.S. EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

Hazardous Materials Transport Regulations

The U.S. Department of Transportation (USDOT) regulates transportation of hazardous materials between states. The USDOT Federal Railroad Administration enforces the hazardous materials regulations, which are promulgated by the Pipeline and Hazardous Materials Safety Administration for rail transportation. These regulations include requirements that railroads and other transporters of hazardous materials, as well as shippers, have and adhere to security plans and also train employees involved in offering, accepting, or transporting hazardous materials on both safety and security matters. Additionally, the Federal Hazardous Materials Transportation Law is enforced by the USDOT's Federal Highway Administration with the purpose of protecting risks to life, property, and the environment resulting from the transportation of hazardous materials.

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) is a program created to implement the Clean Water Act. The SWRCB and the nine regional water boards administer NPDES to regulate and monitor discharged waters and to ensure they meet water quality standards.

Occupational Safety and Health Act (OSHA)

Congress passed the Occupational Safety and Health Act (OSHA) to assure safe and healthful working conditions for working men and women. OSHA assists states with ensuring safe and healthful working conditions and provides for research, information, education, and training in the field of occupational safety and health. The Project would be subject to OSHA requirements during construction, operation, and maintenance.

National Fire Protection Association

The National Fire Protection Association (NFPA) provides codes and standards, research, trainings, and education for fire protection. The NFPA publishes more than 300 codes and standards intended to minimize the possibility and effects of fire and other risks. The NFPA standards are recommended guidelines and nationally accepted good practices in fire protection. Specific codes of the NFPA are typically implemented through the California Fire Code (CFC) or at the local level through the respective county or city.

State

Title 22 of the California Code of Regulations

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency or if it has characteristics defined as hazardous by such an agency. According to Title 22, Section 66260.10, of the California Code of Regulations (CCR), a hazardous material is defined as:

> …A substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or, (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed.

Chemical and physical properties that cause a substance to be considered hazardous include the properties of toxicity, ignitability, corrosivity, and reactivity (Title 22, Sections 66261.20 through 66261.24). Factors that influence the health effects of exposure to hazardous materials include dosage, frequency, the exposure pathway, and individual susceptibility. The Project would require use of small amounts of hazardous materials (such as diesel fuel, oil, and grease for heavy equipment) during construction, operation, and reclamation.

California Environmental Protection Agency

The California Environmental Protection Agency (CalEPA) has jurisdiction over hazardous materials and wastes at the State level. CalEPA and the SWRCB establish rules governing the use of hazardous materials and the management of hazardous waste. Applicable State and local laws include the following:

- Public Safety/Fire Regulations/Building Codes
- Hazardous Waste Control Law
- Hazardous Substances Information and Training Act

- Air Toxics Hot Spots and Emissions Inventory Law
- Underground Storage of Hazardous Substances Act
- Porter-Cologne Water Quality Control Act

Small quantities of hazardous materials will be used and stored on site for miscellaneous, general maintenance activities that would be subject to State and local laws.

California/Occupational Safety and Health Act (Cal/OSHA)

The Division of Occupational Safety and Health (DOSH), better known as Cal/OSHA, protects workers from health and safety hazards on the job in almost every workplace in California through its research and standards, enforcement, and consultation programs.

Hazardous Materials Management Plans

In January 1996, CalEPA adopted regulations implementing a Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The six program elements of the Unified Program are hazardous waste generators and hazardous waste on-site treatment, underground storage tanks, aboveground storage tanks, hazardous material release response plans and inventories, risk management and prevention program, and Uniform Fire Code hazardous materials management plans and inventories. The program is implemented at the local level by a local agency—the Certified Unified Program Agency (CUPA). The CUPA is responsible for consolidating the administration of the six program elements within its jurisdiction.

State and federal laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and, in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the environment.

Hazardous Materials Disclosure Program

The Hazardous Materials Disclosure Program is found within the provisions of the California Health and Safety Code [HSC], Division 20, Chapter 6.95, Article 1. CUPAs are required to implement this Hazardous Materials Disclosure Program by reporting and disclosing the storage, use, or handling of hazardous materials on a site as a strategic measure to minimize loss of life and property. In addition, Hazardous Materials Business Plans must be submitted by all businesses that handle more than a threshold quantity of hazardous materials.

California Accidental Release Prevention Program

The California Accidental Release Prevention Program (CalARP) is found within the provisions of the California HSC, Division 2, Chapter 4.5. CalARP is implemented at the local level by CUPAs as a strategy to minimize the accidental releases of stationary substances that can cause harm to the general public and the environment. Businesses are required to develop risk management plans if more than a threshold quantity of regulated substances is handled.

California Hazardous Materials Release Response Plans and Inventory Law

The California Hazardous Materials Release Response Plans and Inventory Law of 1985 (Business Plan Act) requires hazardous materials business plans to be prepared and inventories of hazardous materials to be disclosed. A business plan includes an inventory of the hazardous materials handled, facility floor plans showing where hazardous materials are stored, an emergency response plan, and provisions for employee safety and emergency response training (HSC, Division 20, Chapter 6.95, Article 1.).

Department of Toxic Substances Control

The DTSC has primary regulatory responsibility for the management of hazardous materials and the generation, transport, and disposal of hazardous waste under the authority of the Hazardous Waste Control Law (HWCL). Enforcement is delegated to local jurisdictions that enter into agreements with DTSC.

California's Secretary of Environmental Protection established a unified hazardous waste and hazardous materials management regulatory program as required by HSC Chapter 6.11. The unified program consolidates, coordinates, and makes consistent portions of the following six existing programs:

- Hazardous Waste Generations and Hazardous Waste Onsite Treatment
- Underground Storage Tanks
- Hazardous Material Release Response Plans and Inventories
- California Accidental Release Prevention Program
- Aboveground Storage Tanks (spill control and countermeasure plan only)
- Uniform Fire Code Hazardous Material Management Plans and Inventories

The statute requires all counties to apply to the CalEPA Secretary for the certification of a local unified program agency. Qualified cities are also permitted to apply for certification. The local CUPA is required to consolidate, coordinate, and make consistent the administrative requirements, permits, fee structures, and inspection and enforcement activities for these six program elements within the county. Most CUPAs have been established as a function of a local environmental health or fire department.

The Office of the State Fire Marshal participates in all levels of the CUPA program including regulatory oversight, CUPA certifications, evaluations of the approved CUPAs, training, and education. The CUPA designated for San Bernardino County is the Hazardous Materials Division of the San Bernardino County Fire Department (SBCFPD).

Small quantities of hazardous materials will be transported to and from the Project area and used and stored on site for miscellaneous general operations and maintenance activities.

Government Code Section 65962.5 (Cortese List)

Government Code Section 65962.5, amended in 1992, requires the CalEPA to develop and update annually the Hazardous Waste and Substances Sites (Cortese) List, which is a list of DTSC-listed hazardous waste facilities and sites, Department of Health Services lists of contaminated drinking water wells, sites listed by the SWRCB as having UST leaks and have had a discharge of hazardous wastes or materials into the water or groundwater, and lists from local regulatory agencies of sites that have had a known migration of hazardous waste/material. The Cortese List is a planning document used by the State, local agencies,

and developers to comply with the California Environmental Quality Act (CEQA) requirements in providing information about the location of hazardous materials release site. Enforcement of directives from DTSC is handled at the local level, in this case the San Bernardino County Division of Environmental Health (DEH). The Colorado River Regional Water Quality Control Board (RWQCB) also has the authority to implement regulations regarding the management of soil and groundwater investigation.

California Emergency Response Plan

California has developed an emergency response plan to coordinate emergency services provided by federal, State, and local governments and private agencies. Response to hazardous material incidents is one part of this plan. The plan is managed by the Governor's Office of Emergency Services, which coordinates the responses of other agencies, including CalEPA, the California Highway Patrol (CHP) and the RWQCB.

California Building Code and Fire Code

Chapter 7A of the California Building Code (CBC), Materials and Methods for Exterior Wildfire Exposure, prescribes building materials and construction methods for new buildings in a fire hazard severity zone. Chapter 7A contains requirements for roofing; attic ventilation; exterior walls; exterior windows and glazing; exterior doors; decking; protection of underfloor, appendages, and floor projections; and ancillary structures. Chapter 49 of the California Fire Code (CFC), Requirements for Wildland-Urban Interface Fire Areas, prescribes construction materials and methods in fire hazard severity zones. These requirements generally parallel CBC Chapter 7A.

Lead-Based Paint

Lead-based paint has been identified by OSHA, the U.S. EPA, and the Department of Housing and Urban Development as a potential health risk to humans, particularly children, based on its effects to the central nervous system, kidneys, and bloodstream. The Department of Housing and Urban Development classifies the risk of lead-based paint based upon the painted surface's age and condition. Cal/OSHA has established limits of exposure to lead contained in dusts and fumes. Specifically, 8 CCR Section 1532.1 establishes the rules and procedures for conducting demolition and construction activities and establishes exposure limits, exposure monitoring, and respiratory protection for workers exposed to lead.

Division of Oil, Gas and Geothermal Resources Map

To evaluate the presence of oil or gas wells on-site and in the immediate site vicinity, maps available online at the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (https://maps.conservation.ca.gov/doggr/wellfinder/#/) were reviewed. No oil, gas or geothermal wells were identified on or on properties adjoining the Project Site.

Title 8, California Code of Regulations, Section 2700 et seq., "High Voltage Safety Orders"

Title 8 of the CCR specifies requirements and minimum standards for safety when installing, operating, working around, and maintaining electrical installations and equipment.

Title 14, California Code of Regulations, Sections 1250-1258, "Fire Prevention Standards for Electric Utilities"

Title 14 of the CCR provides specific exemptions from electric pole and tower firebreak. Title 14 also provides conductor clearance standards and specifies when and where standards apply. These standards address hazards that could be caused by sparks from conductors of overhead lines, or that could result from direct contact between the line and combustible objects.

Local

San Bernardino County Fire Department

The SBCFPD Hazardous Materials Division, is the CUPA for the County. It issues permits to and conducts inspections of businesses that use, store, or handle substantial quantities of hazardous materials and/or waste. The CUPA is charged with the responsibility of conducting compliance inspections for over 7,000 regulated facilities in the county. These facilities handle hazardous materials, generate or treat hazardous waste, and/or operate an underground storage tank. The CUPA employs a comprehensive environmental management approach to resolve environmental issues and uses education and enforcement procedures to minimize the potential risk to human health and the environment while promoting fair business practices. As a CUPA, the SBCFPD manages six hazardous material and hazardous waste programs. The CUPA program is designed to consolidate, coordinate, and uniformly and consistently administer permits, inspection activities, and enforcement activities throughout the County.

San Bernardino County Hazardous Materials Release Response Plans and Inventory Program

In San Bernardino County, the Business Emergency/Contingency Plan (Business Plan) is also used to satisfy the contingency plan requirement for hazardous waste generators. Any business subject to any of the CUPA permits is required in San Bernardino County to file a Business Emergency/Contingency Plan using the California Environmental Reporting System. This submission is used as the basis for the permit application. A new business going through the process of obtaining County planning or building approval is required to comply with the Business Emergency/Contingency Plan requirement prior to obtaining final certificate of occupancy and prior to bringing hazardous materials onto the property.

The quantities that trigger disclosure are based on the maximum quantity on site at any time, excluding materials under active shipping papers or for direct retail sale to the public. The basic quantities are: hazardous materials at or exceeding 55 gallons, 500 pounds, or 200 cubic feet at any time in the course of a year; specified amounts of radioactives; and extremely hazardous substances above the threshold planning quantity.[4]

San Bernardino County Countywide Plan/Policy Plan

The County's Policy Plan includes policies and programs that are intended to address hazards to the public and environment and guide future development in a way that lessens impacts. For instance, the Countywide Plan/Policy Plan requires the application of program review and permitting procedures for proposed land uses potentially introducing hazardous substances, as well as the inspection of hazardous

[4] San Bernardino County Fire Department, Hazardous Materials Release Response Plans and Inventory (Business Plan). Available at https://sbcfire.org/hazmatbusinessplan/. Accessed August 11, 2022.

material handlers and hazardous waste generators. Policies and goals that are relevant to hazards and hazardous materials are listed below.

Renewable Energy and Conservation Element

Policy RE 4.6 Require all recyclable electronic and/or toxic materials to be recycled in accordance with the requirements of the Basel Convention or comparable standard.

Hazards Element

Policy HZ-1.2 New development in environmental hazard areas. We require all new development to be located outside of the environmental hazard areas listed below. For any lot or parcel that does not have sufficient buildable area outside of such hazard areas, we require adequate mitigation, including designs that allow occupants to shelter in place and to have sufficient time to evacuate during times of extreme weather and natural disasters.

- Flood: 100-year flood zone, dam/basin inundation area
- Geologic: Alquist Priolo earthquake fault zone; County-identified fault zone; rockfall/debris-flow hazard area, medium or high liquefaction area (low to high and localized), existing and County-identified landslide area, moderate to high landslide susceptibility area)
- Fire: high or very high fire hazard severity zone

Policy HZ-1.7 Underground utilities. We require that underground utilities be designed to withstand seismic forces, accommodate ground settlement, and hardened to fire risk.

Policy HZ-1.14 Long-term fire hazard reduction and abatement. We require proactive vegetation management/hazard abatement to reduce fire hazards on existing private properties, along roadsides of evacuation routes out of wildfire prone areas, and other private/public land where applicable, and we require new development to enter into a long-term maintenance agreement for vegetation management in defensible space, fuel modification, and roadside fuel reduction in the Fire Safety Overlay and/or Very High Fire Hazard Severity Zones.

Policy HZ-3.18 Application requirements. In order for a Planning Project Application (excluding Minor Use Permits) to be deemed complete, we require applicants to indicate whether the project is within, adjacent to, or nearby an unincorporated environmental justice focus area and, if so, to:

- document to the County's satisfaction how an applicant will address environmental justice concerns potentially created by the project; and
- present a plan to conduct at least two public meetings for nearby residents, businesses, and property owners to obtain public input for applications involving a change in zoning or the Policy Plan. The County will require additional public outreach if the proposed project changes substantively in use, scale, or intensity from the proposed project presented at previous public outreach meeting(s).

Personal & Property Protection Element

Policy PP-3.4 Fire prevention services. We proactively mitigate or reduce the negative effects of fire, hazardous materials release, and structural collapse by implementing the California Fire Code, adopted with County amendments.

Policy PP-3.5 Firefighting water supply and facilities. We coordinate with water providers to maintain adequate water supply, pressure, and facilities to protect people and property from urban fires and wildfires.

San Bernardino County Code of Ordinances Title 2, Division 3, Fire Protection and Explosives and Hazardous Materials

Chapter 6, Permits, Inspections and Hearing Procedures for Hazardous Materials, prohibits any person or business subject to the requirements of the CUPA Permit Program Elements from generating, producing, storing, treating, or other handling of hazardous materials or hazardous waste without getting the proper operation permitting and paying the appropriate fees.

Chapter 7, CUPA Permit Elements for Hazardous Materials, defines the types of facilities, activities, and operations that are subject to these fees and permit requirements.

Title 8, Division 2, Land Use Zoning Districts and Allowed Land Uses

Development Code Chapter 82.13, Fire Safety (FS) Overlay, was created to provide greater public safety in areas prone to wildland brush fires by establishing additional development standards for these areas. Chapter 82.16, Hazardous Waste (HW) Overlay, ensures that hazardous waste facilities are sited in areas that protect public health, safety, welfare, and the environment by buffering hazardous waste facilities so that incompatible uses are not permitted to be developed in the vicinity.

Title 8, Division 4, Standards for Specific Land Uses and Activities

Development Code Chapter 84.11, Hazardous Waste Facilities, includes provisions that apply to hazardous waste facilities where allowed in compliance with Chapter 82.16 described above. The chapter states that an approved Special Use Permit is required for the establishment of a hazardous waste facility. The permit's purpose is to evaluate the operation and monitoring plan of the facility; ensure the facility has adequate measures for monitoring ongoing impacts to air quality, groundwater, and environmentally sensitive resources; evaluate the types and quantities of wastes that will be treated or disposed of at the facility; and require periodic inspections of the facility to ensure conditions of approval are implemented and monitored.

Emergency Response Plan

The intent of hazard mitigation is to reduce and/or eliminate loss of life and property. Hazard mitigation is defined by the Federal Emergency Management Agency (FEMA) as "any action taken to reduce or eliminate the long-term risk to human life and property from natural hazards." FEMA defines a hazard as "any event or condition with the potential to cause fatalities, injuries, property damage, infrastructure damage, agricultural loss, environmental damage, business interruption, or other loss." The purpose of the County's 2011 Multi-Jurisdictional Hazard Mitigation Plan (MJHMP) is to demonstrate the mechanisms for reducing and/or eliminating risk in the unincorporated area of the county and its five special districts.

The MJHMP process encourages communities to develop goals and projects that will reduce risk and build a more disaster-resilient community by analyzing potential hazards.

4.7.4 Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, a project would have a significant impact related to hazards and hazardous materials if it would:

Threshold (a): Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

Threshold (b): 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;

Threshold (c): Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

Threshold (d): 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, create a significant hazard to the public or the environment;

Threshold (e): 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, result in a safety hazard or excessive noise for people residing or working in the project area;

Threshold (f): Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; or

Threshold (g): Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

As identified in Section 6.5: Effects Found Not to Be Significant, impacts related to Threshold (a), (c), (d), and (e) were determined to have no impact or a less than significant impact and do not require further analysis in the Draft EIR.

4.7.5 Methodology

The analysis of hazardous materials evaluates materials potentially existing on the Project Site and those that would be used as part of Project construction, operations, and maintenance. Therefore, this analysis was conducted by examining the choice and amount of chemicals to be used, the manner in which the chemicals would be used, the manner by which any hazardous materials would be transported to and from the Project area, and the way in which the materials would be stored on the Project Site.

4.7.6 Project Impact Analysis

Threshold (b): 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?

Project construction activities would involve the use and transportation of hazardous materials such as fuels, asphalt, lubricants, toxic solvents, pesticides, and herbicides. Construction equipment generally contains limited amounts of hazardous materials such as diesel fuel, hydraulic oil, lubricants, grease, solvents, cleaners, adhesives, paints, and other petroleum-based products. Project construction activities would occur in accordance with all applicable local standards set forth by the County, as well as State and federal health and safety requirements that are intended to minimize hazardous materials risk to the public, such as Cal/OSHA requirements, the Hazardous Waste Control Act, the California Accidental Release Protection Program, and the California HSC. For hazardous materials used during construction, contractors, in accordance with State regulations, would be required to properly use and store materials in appropriate containers with secondary containment to contain a potential release. Compliance with all applicable regulations would ensure that the risk of a release of hazardous materials into the environment during construction is less than significant.

During operation, the Project would not generate or require the use or storage of significant quantities of hazardous substances. All storage and disposal of hazardous materials on the Project site would be in accordance with regulations set forth by the County Fire Department's Hazardous Materials Division (HMD), Cal/OSHA, CalARP, the California HSC, and the U.S. EPA Hazardous Waste Control Act. Moreover, the photovoltaic panels used in the Project are environmentally sealed collections of photovoltaic cells that require no chemicals and produce no waste materials.

However, the Project would include a Battery Energy Storage System (BESS) with a capacity of 640 megawatt-hour (MWh). Under normal operations, BESS facilities do not store or generate hazardous materials in quantities that would represent a risk to offsite receptors. Although the Project's BESS would be enclosed in containers, battery storage systems create potential for accidental release of hazardous substances in the rare case of a fire event. Nonetheless, the Project will be required to comply with the San Bernardino County Fire Protection District (SBCFPD) Fire Code and the 2019 CFC. Additionally, the Project would comply with the National and International Fire Codes, which have evolved over the past decade of experience with electrical energy storage systems to become the state-of-the-art development and performance standards that ensure the safe installation, operations, and maintenance of utility scale BESS. These standards address, among other topics: development standards for design, installation, commissioning, operation, maintenance and decommissioning of these systems, including fire and safety equipment requirements, fire-resistant ratings of enclosures and other components; equipment and system fire testing in accordance with UL standards, stringent standards for commissioning, operation and maintenance, on-going inspection and testing, decommissioning, seismic and structural design, signage, security installations, fire detection and suppression systems, vegetation control; and minimum setbacks from lot lines, roads, and adjacent buildings.

Further, the Project has been designed to include numerous built-in fire and safety features. The Project's fire and safety features are described below in terms of multiple levels of defense: 1) the Module Level, 2) the BESS Container Level, 3) the Site Level, and 4) the Operational Level.

Module Level: The first priority in fire safety is to prevent an event from ever occurring and limit the extent of that fire if it does occur. Pursuant to the National and International Fire Codes, the voltages, currents,

and temperatures of battery modules are required to be monitored and controlled 24/7 to ensure every cell remains within its safe operating parameters. These monitoring and control systems are required to transmit an alarm signal if potentially hazardous temperatures or other conditions such as short circuits, over voltage or under voltage, are detected. If a module-level system failure is detected, the system automatically controls and isolates individual modules from the rest of the system preventing the conditions that could lead to an event. Furthermore, battery manufacturers must prove that battery modules, if they catch fire, will not cause a fire to propagate to other modules, racks, or other enclosures. As part of this process, manufacturers must show that their batteries can pass rigorous UL 1973 and UL 9540A testing and certification. This testing includes demonstration of adequate system controls and alarms, separations between equipment, protections such as fire-retardant barriers and coatings, fire suppression systems, and ventilation systems to limit failure to a single battery module.

Container Level: The National and International Fire Codes contain safety standards for construction of battery enclosures including mounting, elevation of enclosures from the ground, materials, fire resistant barriers as well as requirements addressing: insulation, wiring, switches, transformers, spacing and grounding; safety standards for performance, such as tests for temperature, volatility, impact, overload of switches, and an impact drop test; as well as standards for manufacturing, ratings, markings; and instruction manuals. In addition to the many individual standards referenced, a Failure Mode and Effects Analysis (FMEA) must be performed for each system enclosure and requires a test to ensure safe compatibility of the system's parts. The Project will also be equipped with integrated fire and safety systems, such as air cooling/conditioning systems, deflagration, gas-ventilation, gas, heat and smoke detection and alarms, and fire extinguishing and suppression systems within each container.

Site Plan Level: The Project Site layout is designed for operational safety pursuant to SBCFPD Fire Code requirements, including fire access routes, setbacks, fire hydrants, and fire-resistant perimeter walls. These site design elements have been reviewed and approved by the SBCFPD as part of the CUP Site Plan review.

Operational Level: The Project would obtain an operational permit and would be operated in accordance with the SBCFPD Fire Code's strict standards for commissioning, inspection, repair, and decommissioning. This will include the creation and implementation of an Emergency Response Plan, that will govern coordination and response to a fire emergency at the Project Site. The Emergency Response Plan will contain protocols to ensure that first responders are adequately trained to control a fire emergency at the site during both Project development and operation.

Compliance with the appropriate regulations and standard protocols, as well as inclusion of the Project's fire and safety features, would reduce the potential for hazardous materials impacts during Project operation. Therefore, Project operation would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accidental conditions involving the release of hazardous materials into the environment, and impacts would be less than significant.

Threshold (f): Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

The County has adopted the Multi-Hazard Functional Plan (MHFP) to address the County's planned response to extraordinary emergency situations associated with natural disasters, technological incidents, and national security emergencies. The objective of the MHFP is to incorporate and coordinate all the facilities and personnel of the County into an efficient organization capable of responding to any emergency. The MHFP provides a process for emergency management and response with the County. The

MHFP identifies the organization structure and responsibilities of agencies in the event of an emergency or disaster. No revisions to the MHFP would be required as a result of the Project.

During construction, materials would be placed within the Project boundaries adjacent to the current phase of construction in order to avoid any access conflicts in case of emergency evacuations. During operation, primary access to the Project Site would be via U.S Route 95 directly onto a new Project-controlled, dirt access road on the west side of the Project Site. A 26-foot-wide perimeter access road would be constructed surrounding the Project Site. Additional 20-foot-wide internal maintenance roads would be located throughout the Project Site. All of the Project roads have been designed in compliance with the SBCFD Fire Code to ensure accessibility for the fire department and emergency vehicles. Internal access roads would be cleared and compacted for equipment and emergency vehicle travel and access to the solar blocks and BESS. Primary access to the Project Site would be maintained and would not interfere with emergency access into or out of the Project Site. Therefore, the Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. Impacts would be less than significant.

Threshold (g): Would the Project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires.

The Project Site is not located within a designated Very High Fire Hazard Severity Zone (VHFHSZ). Furthermore, the County's Hazard Overlay Mapping shows that the Project Site is not located in a Fire Safety Overlay District. No areas in the general vicinity of the site are classified within a Fire Safety Overlay District. Therefore, the Project would not expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires, and no impact would occur.

However, as previously discussed, the Project's BESS creates potential for accidental release of hazardous substances during a fire event. Nonetheless, the Project will be required to comply with the SBCFPD Fire Code, 2019 California Fire Code, National Fire Code, and International Fire Code. These regulations implement state-of-the-art development and performance standards that ensure the safe installation, operations, and maintenance of utility scale BESS. The Project would also implement fire and safety features at the Module Level, BESS Container Level, Site Level, and Operational Level (see Threshold b above). Compliance with the SBCFPD Fire Code, 2019 CFC, National Fire Code, and International Fire Code, as well as inclusion of the Project's fire and safety features, would reduce the potential for a wildland fire event to less than significant levels.

4.7.7 Cumulative Impacts

Chapter 3.0, Environmental Setting, of this Draft EIR provides a list of related projects that would have the potential to be considered in a cumulative context with the Project's incremental contribution. These projects are summarized in **Table 3-2,** *Related Projects*, and shown in **Figure 3-1,** *Related Projects in the Planning Area*. The geographic scope of the cumulative setting for hazards and hazardous materials is a 1-mile radius from the geographical center point of the Project Site. One mile is the standard American Society for Testing and Materials (ASTM) standard search distance for hazardous materials. This geographic scope encompasses an area larger than the Project area and provides a reasonable context wherein cumulative projects in the vicinity of the Project could affect hazards and hazardous materials. Based on **Table 3-2**, no projects from the related projects list are within the geographic scope.

The Project would involve the storage, use, disposal, and transport of hazardous materials to varying degrees during construction and operations. Accidental release of hazardous materials can be mitigated

to less than significant levels through compliance with various federal, State, and local laws, regulations, and policies regarding transport, storage, and use of hazardous materials. Therefore, the Project's contribution to cumulative hazardous materials impacts is considered less than cumulatively considerable.

4.7.8 Mitigation Measures

As detailed above, the Project would not result in significant impacts regarding hazards and hazardous materials. Therefore, no mitigation measures are required.

4.7.9 Level of Significance After Mitigation

No mitigation measures are required. Impacts related to hazards and hazardous materials would be less than significant.

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4.8 NOISE

4.8.1 Introduction

This section will evaluate the Project's potential noise impacts, both during short-term construction activities and long-term operational activities. This section presents relevant regulatory guidelines and County policies related to noise. Information contained in this section is derived from the Noise Assessment, dated September 19, 2022, prepared by Ldn Consulting (Appendix H).

4.8.2 Existing Environmental Setting

Noise Fundamentals

Acoustics is the science of sound. Sound may be thought of as mechanical energy of a vibrating object transmitted by pressure waves through a medium to human (or animal) ears. If the pressure variations occur frequently enough (at least 20 times per second), they can be heard and are called sound. The number of pressure variations per second is called the frequency of sound and is expressed as cycles per second, or hertz (Hz).

Noise is defined as unwanted or objectionable sound. The effect of noise on people can include general annoyance, interference with speech communication, sleep disturbance and, in the extreme, hearing impairment. The unit of measurement used to describe a noise level is the decibel (dB). The human ear is not equally sensitive to all frequencies within the sound spectrum. Therefore, the "A-weighted" noise scale, which weights the frequencies to which humans are sensitive, is used for measurements. Noise levels using A-weighted measurements are written as dB(A) or dBA. Decibels are measured on a logarithmic scale, which quantifies sound intensity in a manner similar to the Richter scale used for earthquake magnitudes. Thus, a doubling of the energy of a noise source, such as doubling a traffic volume, would increase the noise level by 3 dBA; a halving of the energy would result in a 3-dBA decrease.

A given level of noise may be more or less tolerable depending on the duration of exposure experienced by an individual. A number of measures of noise exposure consider not only the A-level variation of noise but also the duration of the disturbance. The Day-Night Average Level (L_{dn}) is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time of day corrections require the addition of 10 dB to sound levels at night between 10 PM and 7 AM. The Community Noise Equivalent Level (CNEL) is similar to the L_{dn} except that another 4.77 dB is added to sound levels during the evening hours between 7 PM and 10 PM. These additions are made to the sound levels at these time periods because during the evening and nighttime hours, when compared to daytime hours, ambient noise levels are decreased, which creates an increased sensitivity of the receptors to sounds. For this reason, sound appears louder in the evening and nighttime hours and is weighted accordingly. The San Bernardino County Hazards Element uses the CNEL and L_{dn}.

The most effective noise reduction methods consist of controlling the noise at the source, blocking the noise transmission with barriers or relocating the receiver. Any or all of these methods could be required to reduce noise levels to an acceptable level.

Sound Propagation and Attenuation

Generally, sound spreads (propagates) uniformly outward in a spherical pattern. The sound level decreases (attenuates) at a rate of approximately 6 dB for each doubling of distance from a stationary or

point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics.[1]

Noise levels may also be reduced by intervening structures or landforms. Generally, a single row of buildings between the receptor and the noise source reduces the noise level by about 5 dBA, while a solid wall or berm reduces noise levels by 5 to 10 dBA.[2] The way older homes in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows. The exterior-to-interior reduction of newer residential units is generally 30 dBA or more.

Fundamentals of Environmental Groundborne Vibration

Sources of groundborne vibration includes natural phenomena (earthquakes, volcanic eruptions, sea waves, landslides, etc.) or man-made causes (explosions, machinery, traffic, trains, construction activities which require the use of heavy-duty equipment, etc.). Vibration sources may be continuous (e.g., factory machinery) or transient (e.g., explosions). The strength of groundborne vibration attenuates rapidly over distance. It is unusual for vibration from typical urban sources such as buses and heavy trucks to be perceptible.

For the purposes of this analysis, a peak particle velocity (PPV) descriptor with units of inches per section (in/sec) is used to evaluate construction-generated vibration. The Project does not include operational sources of groundborne vibration.

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several different methods are typically used to quantify vibration amplitude. One is the PPV, another is the root mean square (RMS) velocity. The PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. The RMS velocity is defined as the average of the squared amplitude of the signal. The PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

For the purposes of this analysis, a PPV descriptor with units of in/sec is used to evaluate construction-generated vibration. The Project does not include operational sources of groundborne vibration.

Existing Environmental Setting

The Project Site is located within the East Desert Communities planning area of the County. The County's Zoning Map identifies the zoning of the Project Site as Resource Conservation.[3] The RC land use zoning district provides sites for: Recreational activities, such as campgrounds, recreational vehicle parks, and equestrian facilities; single-family homes at a density of one per 40 acres; electric power generation facilities; transportation facilities; government offices and hospitals; and other similar and compatible uses. Renewable energy generation facilities are an allowed land use within the RC land use zoning

[1] California Department of Transportation (Caltrans), *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, 2013. Available at https://dot.ca.gov/-/media/dot-media/programs/environmental-analysis/documents/env/tens-sep2013-a11y.pdf. Accessed August 18, 2021.

[2] Federal Highway Administration (FHWA), *Construction Noise Handbook Notice*, 2006. Available at https://www.fhwa.dot.gov/environment/noise/construction_noise/handbook/. Accessed August 18, 2021.

[3] County of San Bernardino, Zoning Maps, 2006. Available at https://cms.sbcounty.gov/lus/Planning/ZoningOverlayMaps/ZoningMaps.aspx#Desert. Accessed on August 4, 2022.

district. The Countywide Plan designates the Project Site as Resource Land Management (RLM). In addition to the previous list, uses permitted within the RLM designation include mineral extraction, natural resource conservation areas, military facilities, lands under control of the State and federal government, and tribal entities. Solar generation facilities are allowed under the RLM/RC land use designation and zoning district with a Conditional Use Permit. Existing development in the area includes rural access roads and scattered rural residences. Current land use within the Project Site includes scattered structures associated with an abandoned rural residence, garage (storage) areas, and several WAPA towers. U.S. Route 95 borders the Project Site to the west and is classified as a Major Highway in the San Bernardino County General Plan Circulation Element. Existing noise occurs mainly from on-site and nearby agricultural activities and minor background noise from vehicular traffic traveling on U.S. Route 95 to the west.

Existing Ambient Noise Environment

Noise sources at the Project Site consist primarily of traffic along U.S. Route 95. Since there have been no ambient noise measurements either at the Project Site or the nearest land uses, estimates were made using the traffic volumes identified in the 2020 Traffic Data and Truck Volumes on a State Highway by the California Department of Transportation (Caltrans). Based on this traffic data, that segment of U.S. Route 95 north of State Route 62 has a traffic volume of 2,900 average daily traffic (ADT) posted speed limit of 55 miles per hour (MPH). Truck traffic makes up approximately 25 percent of the ADT. At distances of 50 feet to from U.S. Route 95, using soft propagation, the ambient noise would be approximately 70 dBA and at a distance of 200 feet would drop to 61 dBA CNEL. Conservatively, the noise levels during the nighttime hours could be 10 dB lower.

Noise Sensitive Receptors

Noise-sensitive land uses are generally considered to include single- and multi-family residential areas, group homes, parks, and open space lands where quiet is a basis for use. Additional land uses such as schools, churches, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses. The nearest occupied noise-sensitive receptor to the Project Site is a residential use approximately 1,600 feet to the north along Old Parker Road.

4.8.3 Regulatory Setting

Federal

Occupational Safety and Health Administration

With the Occupational Safety and Health Act of 1970, Congress created the Occupational Safety and Health Administration (OSHA) to ensure safe and healthful working conditions for working men and women by setting and enforcing standards and by providing training, outreach, education, and assistance. The Act requires protection against the effects of noise exposure for employees when sound levels exceed 90 dBA over an eight-hour period. If such controls fail to reduce sound levels to within acceptable levels, personal protective equipment is required. Additionally, a Hearing Conservation Program must be instituted by employers whenever employee noise exposure equals or exceeds an eight-hour time-weighted average sound level of 85 dBA. The Hearing Conservation Program requirements consist of periodic area and personal noise monitoring, performance and evaluation of audiograms, provision of hearing protection, annual employee training, and record keeping.

The Noise Control Act of 1972 (P.L. 92-574)

The federal Office of Noise Abatement and Control (ONAC) was initially tasked with implementing the Noise Control Act. However, the ONAC has since been eliminated, leaving the development of federal noise policies and programs to other federal agencies and interagency committees. For example, OSHA prohibits exposure of workers to excessive sound levels. The U.S. Department of Transportation (USDOT) assumed a significant role in noise control through its various operating agencies. The Federal Aviation Administration (FAA) regulates noise of aircraft and airports. Surface transportation system noise is regulated by a host of agencies, including the Federal Transit Administration (FTA). Transit noise is regulated by the federal Urban Mass Transit Administration (UMTA), while freeways that are part of the interstate highway system are regulated by the Federal Highway Administration (FHWA). Finally, the federal government actively advocates that local jurisdictions use their land use regulatory authority to arrange new development in such a way that "noise sensitive" uses are either prohibited from being sited adjacent to a highway or, alternately, that the developments are planned and constructed in such a manner that potential noise impacts are minimized.

Although the Project is not under the jurisdiction of the FTA, the FTA is the only agency that has defined what constitutes a significant noise impact from implementing a project. **Table 4.8-1,** *FTA Project Effects on Cumulative Noise Exposure*, provides the thresholds utilized by the FTA for permanent noise level increase at the project level. As shown in **Table 4.8-1**, the allowable cumulative noise level increase created from a project would range from 0 to 7 dBA based on the existing (ambient) noise levels in the project vicinity. The justification for the sliding scale is that people already exposed to high levels of noise should be expected to tolerate only a small increase in the amount of noise in their community. In contrast, if the existing noise levels are quite low, it is reasonable to allow a greater change in the community noise for the equivalent difference in annoyance.

Table 4.8-1: FTA Project Effects on Cumulative Noise Exposure

Existing Noise Exposure (dBA L_{eq} or L_{dn})	Allowable Noise Impact Exposure dBA L_{eq} or L_{dn}		
	Project Only	Combined	Noise Exposure Increase
45	51	52	+7
50	53	55	+5
55	55	58	+3
60	57	62	+2
65	60	66	+1
70	64	71	+1
75	65	75	0

Source: Federal Transit Administration (FTA), *Transit Noise and Vibration Impact Assessment,* May 2006. Available at https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf. Accessed September 29, 2022.

State

California Noise Control Act of 1973

California Health and Safety Code (HSC) Sections 46000 through 46080, known as the California Noise Control Act, find that excessive noise is a serious hazard to public health and welfare and that exposure to certain levels of noise can result in physiological, psychological, and economic damage. The California Noise Control Act also finds that there is a continuous and increasing bombardment of noise in urban, suburban, and rural areas. The California Noise Control Act declares that the State has a responsibility to protect the health and welfare of its citizens through the control, prevention, and abatement of noise. It is the policy of the state to provide an environment for all Californians that is free from noise that jeopardizes their health or welfare.

California Department of Health Services Office of Noise Control

Established in 1973, the California Department of Health Services Office of Noise Control (ONC) was instrumental in developing regularity tools to control and abate noise for use by local agencies. One significant model is the "Land Use Compatibility for Community Noise Environments Matrix," which allows the local jurisdiction to clearly delineate compatibility of sensitive uses with various incremental levels of noise.

California Noise Insulation Standards

Title 24, Chapter 1, Article 4 of the California Administrative Code (California Noise Insulation Standards) requires noise insulation in new hotels, motels, apartment houses, and dwellings (other than single-family detached housing) that provides an annual average noise level of no more than 45 dBA CNEL. When such structures are located within a 60-dBA CNEL (or greater) noise contour, an acoustical analysis is required to ensure that interior levels do not exceed the 45-dBA CNEL annual threshold. In addition, Title 21, Chapter 6, Article 1 of the California Administrative Code requires that all habitable rooms, hospitals, convalescent homes, and places of worship shall have an interior CNEL of 45 dB or less due to aircraft noise.

Government Code Section 65302

Government Code Section 65302 mandates that the legislative body of each county and city in California adopt a noise element as part of its comprehensive general plan. The local noise element must recognize the land use compatibility guidelines published by the State Department of Health Services. The guidelines rank noise land use compatibility in terms of normally acceptable, conditionally acceptable, normally unacceptable, and clearly unacceptable.

California Vehicle Code Section 27200-27207 – On-Road Vehicle Noise

California Vehicle Code Section 27200-27207 provides noise limits for vehicles operated in California. For vehicles over 10,000 pounds, noise is limited to 88 dB for vehicles manufactured before 1973, 86 dB for vehicles manufactured before 1975, 83 dB for vehicles manufactured before 1988, and 80 dB for vehicles manufactured after 1987. All measurements are based at 50 feet from the vehicle.

California Vehicle Code Section 38365-38380 – Off-Road Vehicle Noise

California Vehicle Code Section 38365-38380 provides noise limits for off-highway motor vehicles operated in California as follows: 92 dBA for vehicles manufactured before 1973, 88 dBA for vehicles manufactured before 1975, 86 dBA for vehicles manufactured before 1986, and 82 dBA for vehicles manufactured after December 31, 1985. All measurements are based at 50 feet from the vehicle.

Local

County of San Bernardino Countywide Plan/Policy Plan

The County's Countywide Plan, adopted on October 27, 2020, serves as a new set of plans and tools for the County's unincorporated communities and complements the Countywide vision. The Policy Plan is a component of the Countywide Plan that is an update and expansion of the County's General Plan for the unincorporated areas. The following goals and policies are applicable to the Project:

Hazards Element

Goal HZ-2 **Human-Generated Hazards:** Human-generated Hazards. People and the natural environment protected from exposure to hazardous materials, excessive noise, and other human-generated hazards.

Policy HZ-2.7 **Truck delivery areas.** We encourage truck delivery areas to be located away from residential properties and require associated noise impacts to be mitigated.

Policy HZ-2.8 **Proximity to noise generating uses.** We limit or restrict new noise sensitive land uses in proximity to existing conforming noise generating uses and planned industrial areas.

Policy HZ-2.9 **Control sound at the source.** We prioritize noise mitigation measures that control sound at the source before buffers, soundwalls, and other perimeter measures.

Infrastructure & Utilities Element

Policy IU-5.5 **Energy and fuel facilities.** We encourage the development and upgrade of energy and regional fuel facilities in areas that do not pose significant environmental or public health and safety hazards, and in a manner that is compatible with military operations and local community identity.

San Bernardino County Code of Ordinance

Chapter 83.01, Section 83.01.080, *Noise*, of the San Bernardino County Code of Ordinance establishes standards concerning acceptable noise levels for both noise-sensitive land uses and for noise-generating land uses. The following sections of the San Bernardino County Code are applicable to the Project:

§ 83.01.080 Noise

This Section establishes standards concerning acceptable noise levels for both noise-sensitive land uses and for noise-generating land uses.

(c) *Noise Standards for Stationary Noise Sources*

(1) *Noise Standards*. Table 83-2 (**Table 4.8-2,** *Noise Standards for Stationary Noise Sources*) describes the noise standard for emanations from a stationary noise source, as it affects adjacent properties.

Table 4.8-2: Noise Standards for Stationary Noise Sources

Affected Land Uses (Receiving Noise)	7 a.m. – 10 p.m. (L_{eq})	10 p.m. – 7 a.m. (L_{eq})
Residential	55 dB(A)	45 dB(A)
Professional Services	55 dB(A)	55 dB(A)
Other Commercial	60 dB(A)	60 dB(A)
Industrial	70 dB(A)	70 dB(A)

Notes:
L_{eq} = (Equivalent Energy Level). The sound level corresponding to a steady-state sound level containing the same total energy as a time-varying signal over a given sample period, typically one, eight or 24 hours.
dB(A) = (A-weighted Sound Pressure Level). The sound pressure level, in decibels, as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound, placing greater emphasis on those frequencies within the sensitivity range of the human ear.
L_{dn} = (Day-Night Noise Level). The average equivalent A-weighted sound level during a 24-hour day obtained by adding 10 decibels to the hourly noise levels measured during the night (from 10 p.m. to 7 a.m.). In this way L_{dn} takes into account the lower tolerance of people for noise during nighttime periods.

Source: Codified Ordinances of the County of San Bernardino, Section 83.01.080, Table 83-2.

(2) *Noise Limit Categories*. No person shall operate or cause to be operated a source of sound at a location or allow the creation of noise on property owned, leased, occupied, or otherwise controlled by the person, which causes the noise level, when measured on another property, either incorporated or unincorporated, to exceed any one of the following:

(A) The noise standard for the receiving land use as specified in Subdivision (b) (Noise-Impacted Areas), above, for a cumulative period of more than 30 minutes in any hour.

(B) The noise standard plus five dB(A) for a cumulative period of more than 15 minutes in any hour.

(C) The noise standard plus ten dB(A) for a cumulative period of more than five minutes in any hour.

(D) The noise standard plus 15 dB(A) for a cumulative period of more than one minute in any hour.

(E) The noise standard plus 20 dB(A) for any period of time.

(d) *Noise Standards for Adjacent Mobile Noise Sources*. Noise from mobile sources may affect adjacent properties adversely. When it does, the noise shall be mitigated for any new development to a level that shall not exceed the standards described in the following Table 83-3 (**Table 4.8-3,** *Noise Standards for Adjacent Mobile Noise Sources*).

Table 4.8-3: Noise Standards for Adjacent Mobile Noise Sources

Categories	Uses	L_{dn} (or CNEL) db(A)[4]	
		Interior[1]	Exterior[2]
Residential	Single and multi-family, duplex, mobile homes	45	60[3]
Commercial	Hotel, motel, transient housing	45	60[3]
	Commercial retail, bank, restaurant	50	65
	Office building, research and development, professional offices	45	N/A
	Amphitheater, concert hall, auditorium, movie theater	45	65
Institutional/Public	Hospital, nursing home, school classroom, religious institution, library	45	N/A
Open Space	Park	N/A	65

Notes:

1 The indoor environment shall exclude bathrooms, kitchens, toilets, closets and corridors.

2. The outdoor environment shall be limited to:
   - Hospital/office building patios
   - Hotel and motel recreation areas
   - Mobile home parks
   - Multi-family private patios or balconies
   - Park picnic areas
   - Private yard of single-family dwellings
   - School playgrounds

3. An exterior noise level of up to 65 dB(A) (or CNEL) shall be allowed provided exterior noise levels have been substantially mitigated through a reasonable application of the best available noise reduction technology, and interior noise exposure does not exceed 45 dB(A) (or CNEL) with windows and doors closed. Requiring that windows and doors remain closed to achieve an acceptable interior noise level shall necessitate the use of air conditioning or mechanical ventilation.

4. CNEL = (Community Noise Equivalent Level). The average equivalent A-weighted sound level during a 24-hour day, obtained after addition of approximately five decibels to sound levels in the evening from 7 PM to 10 PM and ten decibels to sound levels in the night from 10 PM to 7 AM.

Source: Codified Ordinances of the County of San Bernardino, Section 83.01.080, Table 83-3.

(e) *Increases in Allowable Noise Levels*. If the measured ambient level exceeds any of the first four noise limit categories in Subdivision (d)(2), above, the allowable noise exposure standard shall be increased to reflect the ambient noise level. If the ambient noise level exceeds the fifth noise limit category in Subdivision (d)(2), above, the maximum allowable noise level under this category shall be increased to reflect the maximum ambient noise level.

(f) *Reductions in Allowable Noise Levels*. If the alleged offense consists entirely of impact noise or simple tone noise, each of the noise levels in Table 83-2 (**Table 4.8-2**, *Noise Standards for Stationary Noise Sources*) shall be reduced by five dB(A).

(g) Exempt Noise. The following sources of noise shall be exempt from the regulations of this Section:

(1) Motor vehicles not under the control of the commercial or industrial use.

(2) Emergency equipment, vehicles, and devices.

(3) Temporary construction, maintenance, repair, or demolition activities between 7 AM and 7 PM, except Sundays and Federal holidays.

§ 83.01.090 Vibration

(a) *Vibration Standard*. No ground vibration shall be allowed that can be felt without the aid of instruments at or beyond the lot line, nor shall any vibration be allowed which produces a particle velocity greater than or equal to two-tenths inches per second measured at or beyond the lot line.

(b) *Vibration Measurement*. Vibration velocity shall be measured with a seismograph or other instrument capable of measuring and recording displacement and frequency, particle velocity, or acceleration. Readings shall be made at points of maximum vibration along any lot line next to a parcel within a residential, commercial, and industrial land use zoning district.

(c) *Exempt Vibrations*. The following sources of vibration shall be exempt from the regulations of this Section.

(1) Motor vehicles not under the control of the subject use.

(2) Temporary construction, maintenance, repair, or demolition activities between 7 AM and 7 PM, except Sundays and Federal holidays.

4.8.4 Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, a project would have a significant impact related to noise if it would:

Threshold (a): Generate a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies;

Threshold (b): Generate excessive groundborne vibration or groundborne noise levels; or

Threshold (c): For a project located within the vicinity of a private airstrip or 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 expose people residing or working in the project area to excessive noise levels.

As identified in Section 6.5: Effects Found Not to Be Significant, impacts related to Threshold (c) were determined to have no impact and do not require further analysis in the Draft EIR.

4.8.5 Methodology

Noise is defined as unwanted or annoying sound which interferes with or disrupts normal activities. Exposure to high noise levels has been demonstrated to cause hearing loss. The individual human response to environmental noise is based on the sensitivity of that individual, the type of noise that occurs and when the noise occurs. Sound is measured on a logarithmic scale consisting of sound pressure levels known as a dB. The sounds heard by humans typically do not consist of a single frequency but of a broadband of frequencies having different sound pressure levels. The method for evaluating all the frequencies of the sound is to apply an A-weighting to reflect how the human ear responds to the different sound levels at different frequencies. The A-weighted sound level adequately describes the instantaneous noise whereas the equivalent sound level depicted as L_{eq} represents a steady sound level containing the same total acoustical energy as the actual fluctuating sound level over a given time interval.

The CNEL is the 24 hour A-weighted average for sound, with corrections for evening and nighttime hours. The corrections require an addition of 5 decibels to sound levels in the evening hours between 7 p.m. and 10 p.m. and an addition of 10 dB to sound levels at nighttime hours between 10 p.m. and 7 a.m. These additions are made to account for the increased sensitivity during the evening and nighttime hours when sound appears louder.

Because mobile/traffic noise levels are calculated on a logarithmic scale, a doubling of the traffic noise or acoustical energy results in a noise level increase of 3 dBA. Therefore, the doubling of the traffic volume, without changing the vehicle speeds or mix ratio, results in a noise increase of 3 dBA. Mobile noise levels radiate from the source and drop off at a rate of 3 dBA for each doubling of distance under hard site conditions and at a rate of 4.5 dBA for soft site conditions. Hard site conditions consist of concrete, asphalt and hard pack dirt while soft site conditions exist in areas having grade changes, landscaped areas and vegetation. On the other hand, fixed/point sources radiate outward uniformly as it travels away from the source and the sound levels attenuate or drop off at a rate of 6 dBA for each doubling of distance.

4.8.6 Project Impact Analysis

Threshold (a): Would the Project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Construction

Project construction is anticipated to be completed over a period of approximately 14 months. Construction equipment would include standard equipment such as graders, scrapers, backhoes, loaders, cranes, dozers, water trucks, portable generators and air compressors, and miscellaneous trucks. Noise levels from construction equipment have the potential to exceed 80 dBA. At approximately 1,600 feet to the nearest occupied residence, noise levels due to construction would be reduced a minimum of 30 dBA and would not contribute to the overall ambient noise levels. While the Project is located within the Resource Conservation land use zoning district, Section 83.01.080 of the County's Development Code sets an exterior noise limit for residential noise sensitive land uses of 55 dBA L_{eq} for daytime hours of 7 a.m. to 10 p.m. and 45 dBA L_{eq} during the noise sensitive nighttime hours of 10 p.m. to 7 a.m.

No Project construction activity is planned outside these hours. Additionally, all equipment would be properly fitted with mufflers and all staging and maintenance would be conducted as far away from the nearest occupied residence as possible. Noise levels from construction equipment have the potential to exceed 80 dBA at a distance of 80 feet. At over 1,600 feet to the nearest residence, noise levels due to construction would be reduced a minimum of 30 dBA and would not contribute to the overall ambient noise levels. Therefore, no impacts are anticipated, and no mitigation is required during Project construction.

Operation

Operation and maintenance of the Project would include permanent and temporary noise sources associated with the solar photovoltaic (PV) systems, electrical collection lines, gen-tie power lines, battery energy storage system (BESS), and maintenance activities. The San Bernardino County Development Code Section 83.01.080(c) establishes the noise level standards for stationary noise sources. Since the Project would potentially impact adjacent noise-sensitive uses in the Project area, the more conservative residential noise level standards were used to describe potential operational noise impacts. For residential

properties, the exterior noise level shall not exceed 55 dBA L_{eq} during the daytime hours (7:00 a.m. to 10:00 p.m.) and 45 dBA L_{eq} during the nighttime hours (10:00 p.m. to 7:00 a.m.). The County operational noise level standards are shown in **Table 4.8-2,** above.

The Project Site is within the East Desert Communities planning area. The County's Zoning Map identifies the zoning of the Project Site as RC. The RC land use zoning district provides sites for open space and recreational activities, single-family homes on very large parcels, and similar and compatible uses. Commercial renewable energy facilities are an allowable land use within the RC land use zoning district Existing development in the area includes rural access roads and scattered rural residences. Current land uses within the Project Site include scattered structures associated with an abandoned rural residence, garage (storage) areas, and several WAPA towers.

The surrounding land uses are also within the RC land use zoning district, therefore are considered noise-sensitive land uses (NSLUs) of single-family residences. The nearest occupied residence is located approximately 1,600 feet to the north along Old Parker Road. Section 83.01.080 of the County's Development Code sets a most restrictive operational exterior noise limit for residential noise sensitive land uses of 55 dBA L_{eq} for daytime hours of 7 AM to 10 PM and 45 dBA L_{eq} during the noise sensitive nighttime hours of 10 PM to 7 AM as shown in **Table 4.8-3** above. Most of the Project components will only operate during the daytime hours but a few may operate during nighttime or early morning hours and therefore the most restrictive and conservative approach is to apply the 45 dBA L_{eq} nighttime standard at the property lines.

Solar PV Systems

Panels would be electrically connected into panel strings using wiring attached to the racking, which would connect via underground wiring. Gathering lines would connect individual panel strings to one or more inverters/transformers and combiner boxes distributed throughout the facility. Wiring from the panel strings are connected to combiner boxes. The electrical current is then transferred to the inverters, which convert the Direct Current (DC) produced by the PV solar panels into Alternating Current (AC). A pad-mounted transformer next to the inverter would increase the voltage. The AC would then travel through underground gathering lines to the Project Substation.

Inverters and Transformers

Each inverter station would contain at a minimum one inverter and one transformer. This equipment would be installed on concrete pads. Central inverters would be utilized for the Project. Central Inverters are generally clustered in 2 to 3 Mega-Watt, Alternating Current (MWac) equipment pads. Each inverter station would be equipped with a step-up transformer to convert the power output from the inverters from 550–400 V AC on the "low side" to 34.5 kV on the "high side." It is estimated that a total of 48 inverter stations would be required for the Project. The maximum dimensions of each station would be 21.7 feet by 7 feet, and 7 feet in height. The total number of inverter stations and the overall dimensions of each inverter station depends on the number and capacity of inverters included in each inverter station, which would be determined during final design.

Battery Energy Storage System

The Project would include a battery energy storage system (BESS) with a capacity of 640 megawatt hours (MWh). The BESS would likely consist of containers housing batteries connected in strings and mounted

on racks. The container would likely include a transformer, monitoring equipment, and lighting and cooling equipment. However, some BESS equipment (e.g., inverters, auxiliary transformer to control the HVAC system) may be adjacent to the container instead of located within the container. The Project would utilize up to 48 containers (depending on container dimensions). Each container would be up to 80 feet long by 8 feet wide and 8 feet tall.

Tracker Motors

The single-axis rack system will be equipped with a tracker motor to rotate the PV panels. The proposed HEM FS3350M Inverters have a noise level rating of 79 dB at 3 feet (Power Electronics). There will be a transformer along with a set of inverters. The proposed transformers have an unshielded noise rating of less than 65 dBA at 1 feet.[4] The proposed battery storage containers were tested and found to have an unshielded noise rating of 75 dBA at 1 meter (3 feet). The Project could potentially use 3,000 kVA transformers with unshielded noise levels anticipated to be 71 dBA at 3 feet.[5] The purpose of the substation is to collect the energy received and increase the voltage from 34.5–138 kV. Once the voltage is stepped up to 138kV, the power would be conveyed through the gen-tie line to the regional substation. The transformer at the on-site substation would be either a 50 megavolt amperes (MVA) or 70 MVA step up transformer. A transformer with 50 MVA or 70 MVA capacity has a noise level rating of 72 dB at 5 feet.[6] The noise levels from the proposed PV tracker motors combined with the dryers/blowers needed to remove condensation from the panels was found to be 44 dBA at 50 feet.[7] This noise level would be the hourly level if the equipment were to operate for an entire hour. Panel washing is anticipated to occur approximately one time per year and would take approximately 4 to 8 weeks to complete. Washing of the photovoltaic panels/arrays would generally occur during the daytime hours of 7 a.m. to 10 p.m. During panel/array washing times, the Project's power system would still be operational. Therefore, the panel washing activity is addressed cumulatively with other operational noise sources.

Panel Washing

Noise exposure from the proposed operation of the solar panel wash station was found to have a reference maximum sound power level of 99 dB at 9 feet. This would equate to a sound pressure level of 67 dBA at 9 feet. To reduce the noise level of 67 dBA to the County's most restrictive 55 dBA threshold the wash station would need to be located 35 feet from the nearest property line. At a distance of 80 feet, the panel washing would result in a property line noise level of 48 dBA. Since the paneling washing equipment will not be located near a property line for an hour or more and will be moving farther away from the property line as washing is conducted. Therefore, a less than significant impact would occur.

The noise levels of the transformers, inverters, substation, and multiple PV tracker motors were combined and propagated out to the worst case property lines at a common location. The results of the propagated noise levels are shown in **Table 4.8-4**, *Operational Noise Levels – Location 1,* and **Table 4.8-5**, *Operational Noise Levels – Location 2*. **Figure 4.8-1**, *Noise Measurement Locations,* shows the worst case location

[4] National Electric Manufactures Association (NEMA), TR-1: Transformers, Regulators, and Reactors, 1993. Available at https://www.scribd.com/doc/154097009/NEMA-Standards-Publication-No-TR-1-1993-R2000. Accessed on August 4, 2022.

[5] National Electric Manufactures Association (NEMA), TR-1: Transformers, Regulators, and Reactors, 1993.

[6] Soitec Solar Development Project, Final Program EIR, February 18, 2015. Available at https://www.sandiegocounty.gov/content/sdc/pds/ceqa/Soitec-Solar-RFPEIR.html. Accessed on August 4, 2022.

[7] Soitec Solar Development Project, Final Program EIR.

scenarios. The combined noise level at the nearest property lines were projected to be 45 dBA L_{eq} or less based on the proposed site configuration and the proposed equipment as described above. Since not all equipment will be simultaneously operating no impacts are anticipated, the Project will comply with the most restrictive nighttime property line standard of 45 dBA L_{eq}, and no mitigation is needed.

Table 4.8-4: Operational Noise Levels - Location 1

Source	Distance from Source to Measurement Location (Feet)	Sources at that Common Distance	Noise Levels Combined (dBA)	Distance to Nearest Property Line (feet)	Noise Reduction due to distance (dBA)	Resultant Noise Level at Property Line (dBA L_{eq})
Transformer	3	1	71	270	-49	32
Inverter	3	1	79	270	-39	40
BESS	3	1	75	320	-41	34
Transformer	1	1	65	270	-49	16
Inverter	3	1	79	270	-39	40
BESS	3	1	75	320	-41	34
Tracker	50	1	44	80	-4	40
Cumulative Noise Level at Property Line (dBA L_{eq})						**44**

Table 4.8-5: Operational Noise Levels - Location 2

Source	Distance from Source to Measurement Location (Feet)	Sources at that Common Distance	Noise Levels Combined (dBA)	Distance to Nearest Property Line (feet)	Noise Reduction due to distance (dBA)	Resultant Noise Level at Property Line (dBA L_{eq})
Transformer	3	3	71	1240	-52	23
Inverter	3	3	79	1240	-52	31
BESS	3	3	75	1240	-52	27
Substation	5	1	72	340	-37	35
Tracker	50	1	44	80	-4	25
Cumulative Noise Level at Property Line (dBA L_{eq})						**38**

Cumulatively, the panel washing noise level of 48 dBA combined with the transformer and inverter noise levels would result in an overall cumulative noise level of 50 dBA or less. Since the panel washing equipment would only operate during the daytime hours of 7 a.m. and 10 p.m., the noise levels would not exceed the County's daytime threshold of 55 dBA. Additionally, the paneling washing will be moving farther away from the property line as washing is conducted. Therefore, impacts would be less than significant.

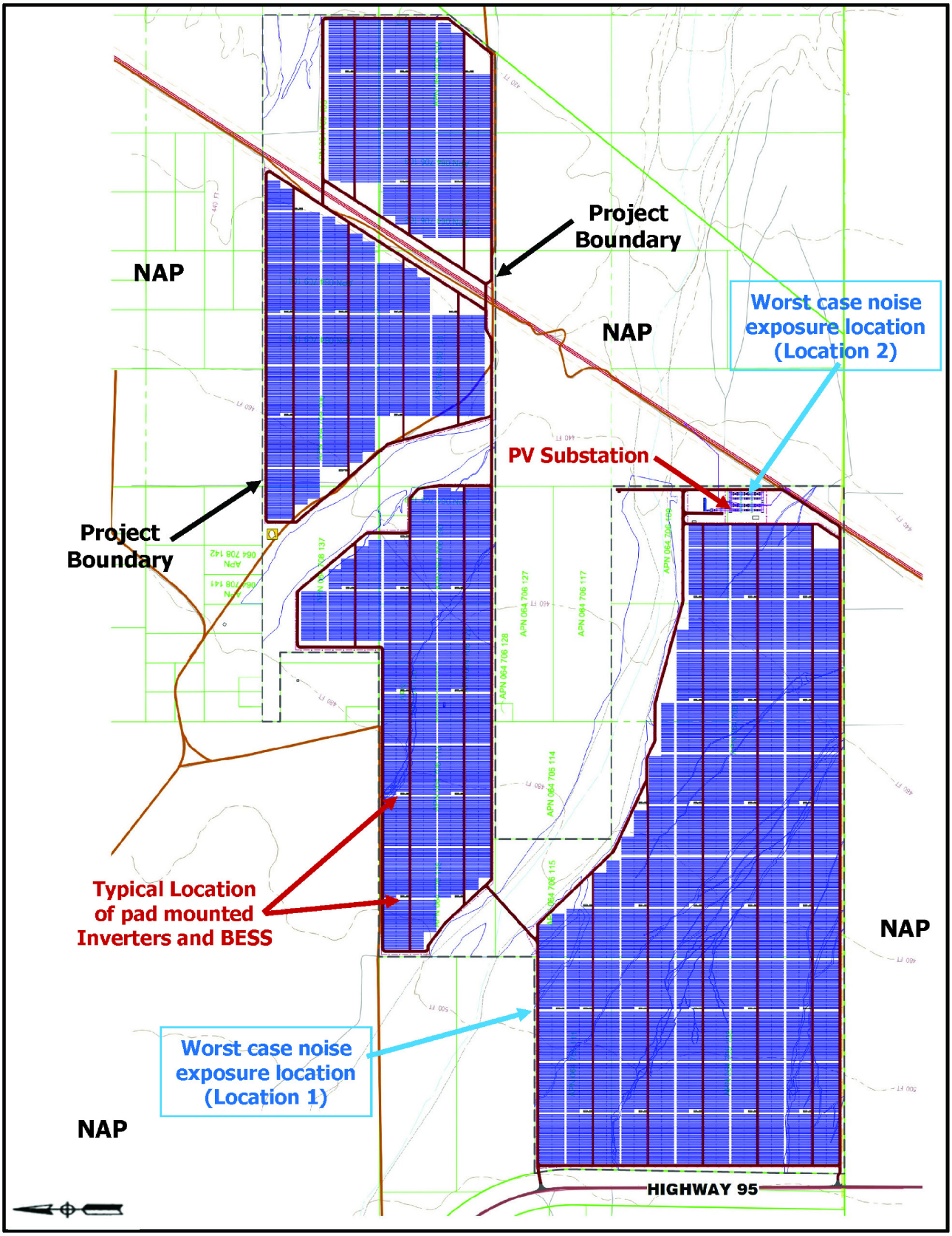

Figure 4.8-1
Vidal Energy
Noise Measurement Locations

Name: 21232 PLAN Fig 3-A Noise Measurement Locations.Mxd
Print Date: 7/14/2022, Author: pcarlos

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Decommissioning

When the Project is decommissioned, equipment operation and site restoration activities would result in a temporary increase in ambient noise levels in the Project vicinity. Decommissioning would first involve removing the PV panels for sale into a secondary solar PV panel market or recycling. The Calcite Substation would not be decommissioned. Most of the components of the solar installation are made of materials that can be easily recycled. If the panels can no longer be used in a solar array, the aluminum can be resold, and the glass recycled. Other components of the solar installation, such as the solar array structure and mechanical assemblies, can be recycled since they are made from galvanized steel. Equipment such as inverters and switchgear can be reused, or their components recycled. The equipment pads are made from concrete that can be crushed and recycled. Conduit and wire would be removed by uncovering trenches and backfilling when done. The electrical wiring is made from copper and/or aluminum and could also be reused or recycled.

Dismantling the solar and energy storage site would entail disassembly of the solar facilities and substantive restoration of the site. Closure and decommissioning of the site would involve the following:

- The aboveground (detachable) equipment and structures would be disassembled and removed from the site. Detachable elements include all solar arrays, inverters, and associated controllers. Most of these materials can be recycled or reclaimed. Remaining materials would be limited, contained and disposed of at an appropriate off-site facility.
- Removal of solar array posts would entail vibration extraction in the case of vibration or conventional pile-driven installation. For solar arrays supported by concrete encasements, if any, the concrete would be fully removed. Recycling of solar arrays is anticipated; concrete would be disposed of or recycled off-site.
- Collector components would be removed.
- If a new use was not proposed, the decommissioning would include removal of all ground-level components and preparation of the site with a soil stabilization agent, such as a nontoxic permeable soil binding agent.

Given the fact that much of the construction equipment necessary to construct the Project would also be required for Project decommissioning, it is reasonable to assume that noise generated from decommissioning activities would be similar in nature to construction activities. Similar to the construction noise analysis above, Project decommissioning would potentially result in increased noise levels compared to existing conditions. However, San Bernardino County Code Section 83.01.080 exempts construction activities from the noise standard providing that such activities take place between the hours of 7:00 a.m. to 7:00 p.m. except Sundays and Federal holidays. Therefore, upon compliance with the County's allowable construction hours (San Bernardino County Code Section 83.01.080), short-term noise impacts from decommissioning activities would be less than significant.

Threshold (b): Would the Project result in generation of excessive groundborne vibration or groundborne noise levels?

Construction

Project construction, including site preparation and testing/commissioning/cleanup would not require blasting. However, impact-post driving or drilling would be utilized for system installation (i.e. installation of the PV arrays foundations support posts) and could cause vibration impacts at close distances. While

these construction activities would result in some minor amounts of groundborne vibration, such groundborne vibration would attenuate rapidly from the source and would not be generally perceptible outside of the Project Site. Groundborne vibration generated during construction activities between the hours of 7 a.m. to 7 p.m. (except Sundays and Federal holidays) is exempt pursuant to San Bernardino County Code Section 83.01.090. Nonetheless, a quantitative analyses is presented below.

The FTA has published standard vibration velocities for construction equipment operations. In general, the FTA architectural damage criterion for continuous vibrations (i.e., 0.2 inch/second) appears to be conservative. The types of construction vibration impact include human annoyance and building damage. Human annoyance occurs when construction vibration rises significantly above the threshold of human perception for extended periods of time. Building damage can be cosmetic or structural. This distance can vary substantially depending on the soil composition and underground geological layer between vibration source and receiver. The vibration produced by construction equipment, is illustrated in **Table 4.8-6,** *Typical Vibration Levels for Common Construction Equipment***.**

Table 4.8-6: Typical Vibration Levels for Common Construction Equipment

Equipment		Reference peak particle velocity at 25 feet (in/sec)	Approximate peak particle velocity at 1,600 feet (in/sec)[1]
Pile Driver (Impact)	*Upper Range*	1.518	0.003
	Typical	0.644	0.001
Pile Driver (Sonic)	*Upper Range*	0.000	0.001
	Typical	0.000	<0.001
Auger/Drill Rigs		0.089	<0.001
Jackhammer		0.035	<0.001
Vibratory Hammer		0.035	<0.001
Vibratory Roller		0.210	<0.001
Large Bulldozer		0.089	<0.001
Loaded Trucks		0.076	<0.001
Small Bulldozer		0.003	<0.001

Note:
1.Calculated using the following formula:
$PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$
PPV (equip) = the peak particle velocity in in/sec of the equipment adjusted for the distance
PPV (ref) = the reference vibration level in in/sec from Table 7-4 of the FTA *Transit Noise and Vibration Impact Assessment Manual*
D = the distance from the equipment to the receiver

Source: FTA, *Transit Noise and Vibration Impact Assessment Manual*, September 2018.

Groundborne noise and vibration decreases rapidly with distance. As indicated in **Table 4.8-6,** vibration velocities from typical heavy construction equipment operations that would be used during Project construction range from 0.003 to 1.518 in/sec PPV at 25 feet from the source of activity. It should be noted, however, that post driving would only occur during construction of the PV modules on-site. The nearest occupied noise-sensitive receptor to the Project Site is a residence located approximately 1,600 feet to the north. At this distance, vibration velocities would be imperceptible (i.e., up to 0.003 in/sec PPV). Therefore, the 0.2 in/sec PPV significance threshold and the 0.4 inch-per-second PPV human annoyance criteria would not be exceeded as a result of Project construction activities. Thus, no Project-related sources of groundborne vibration or groundborne noise would be expected to affect sensitive receptors in the Project vicinity, and there would not be any potential for excessive exposure of persons to or generation of groundborne vibration levels. Impacts would be less than significant.

Operation and Maintenance

The Project would have operation and maintenance components, such as HVAC systems for the BESS, maintenance vehicles, inverters, and transformers, that would not generate noticeable groundborne vibration levels. Project operations would not involve any sources capable of generating perceptible levels of vibration in the surrounding area. There would be no permanent source or potential to change vibration levels, except during unscheduled maintenance or repair activities, which would be similar to construction activities. Regular maintenance trucks could generate 0.076 inch-per-second PPV a distance of 25 feet. Pursuant to San Bernardino County Code Section 83.01.090, groundborne vibration shall not exceed 0.2 in/sec PPV at the nearest property line within a residential, commercial and industrial land use zoning district. Regular maintenance trucks would not generate groundborne vibration levels exceeding the County's 0.2 in/sec PPV vibration threshold at the Project Site boundary. Thus, the County's 0.2 in/sec PPV vibration threshold would not be exceeded, and impacts would be less than significant.

Decommissioning

When the Project is decommissioned, equipment operation and site restoration activities could result in a temporary vibration impacts at close distances. Given the fact that much of the construction equipment necessary to construct the Project would also be required for Project decommissioning, it is reasonable to assume that vibration generated from decommissioning activities would be similar in nature to construction activities. As with the construction activities described above, decommissioning activities would not be expected to generate groundborne noise that would affect sensitive receptors in the Project vicinity, and there would not be any potential for excessive exposure of persons to or generation of groundborne vibration levels. Impacts would be less than significant.

4.8.7 Cumulative Impacts

Chapter 3.0, Environmental Setting, of this Draft EIR provides a list of related projects that would have the potential to be considered in a cumulative context with the Project's incremental contribution. These projects are summarized in **Table 3-2,** *Related Projects*, and shown in **Figure 3-1,** *Related Projects in the Planning Area.*

Construction Noise

The Project's construction activities would not result in a substantial temporary increase in ambient noise levels at the nearest sensitive receptors. Construction noise would be periodic and temporary noise impacts that would cease upon completion of construction activities. The Project would contribute to other proximate construction project noise impacts if construction activities were conducted concurrently. However, based on the noise analysis above, the Project's construction-related noise impacts would be less than significant and would be required to comply with the San Bernardino County Code.

The combination of the Project together with other related present and reasonably foreseeable future projects in the Project vicinity could involve actions with the potential to result in noise impacts. However, construction noise impacts for each cumulative project would be mitigated through compliance with the County's standards and ordinances, and any necessary mitigation measures identified through the County's development review process. Thus, construction noise impacts would not be cumulatively considerable, and impacts would be less than significant.

Operational Noise

Operation of the Project would not result in a substantial permanent increase in ambient noise levels from on-site stationary or off-site mobile traffic noise sources. In addition, cumulative projects in the Project vicinity would be subject to the development review process, which could include conditions of approval to minimize the exposure of sensitive receptors and other receiving land uses to excessive noise to the furthest extent possible. Therefore, operational noise impacts would not be cumulatively considerable, and impacts would be less than significant.

Decommissioning Noise

Cumulative projects in the Project vicinity would likely be operational and contribute to the overall ambient noise conditions prior to Project decommissioning activities. Thus, temporary noise impacts from decommissioning activities associated with the Project would not likely combine with other cumulative projects in close proximity and at the same time.

As noted above, the Project's construction and operational vibration levels would not exceed any applicable thresholds for groundborne noise or vibration and would result in a less than significant impact. Therefore, vibration impacts would not be cumulatively considerable, and impacts would be less than significant.

4.8.8 Mitigation Measures

As detailed above, the Project would not result in significant impacts regarding noise and vibration. Therefore, no mitigation measures are required.

4.8.9 Level of Significance After Mitigation

No mitigation measures are required. Impacts related to noise and vibration would be less than significant.

4.9 TRANSPORTATION

4.9.1 Introduction

This section describes regulations related to transportation and the existing transportation systems in the Project vicinity, identifies significance criteria for impacts on transportation, and evaluates potential impacts associated with the Project. Information contained in this section is derived from the Trip Generation Memorandum, dated April 28, 2022, prepared by Linscott, Law & Greenspan, Engineers (LLG) (Appendix I).

As discussed throughout this section, in September 2013, the Governor signed Senate Bill (SB) 743. Among other provisions, this legislation mandated that the Office of Planning and Research (OPR) evaluate a new metric to analyze transportation impacts under the California Environmental Quality Act (CEQA). The County has moved forward with adopting the new vehicle miles traveled (VMT) metric and has developed VMT significance thresholds for CEQA. Therefore, this section analyzes potential transportation impacts of the Project based on the VMT metric.

4.9.2 Existing Environmental Setting

Regional Setting

The Project Site is located approximately 2.5 miles southeast of Vidal, an unincorporated area of San Bernardino County (County) that is located just east of U.S. Route 95, just north of the Riverside County line, and just west of the Colorado River. The Project site is located within the Desert Region's East Desert Communities planning area of the County.

Existing Street Network

The road and street network surrounding the site is primarily rural unpaved roads, and the U.S. Route 95. Some of these roads support access to transmission lines, scattered abandoned rural residences, garage (storage) areas, and several Western Area Power Administration (WAPA) towers. Wash areas accessible from these rural roads are also being used by off-highway vehicles. However, the area is not designated for recreational uses.

4.9.3 Regulatory Setting

Federal

Federal rules and regulations govern many facets of the County's traffic and circulation system, including transportation planning and programming; funding; and design, construction, and operation of facilities. The County complies with all applicable rules and regulations of the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), the Federal Railroad Administration, the Federal Aviation Administration (FAA), and other federal agencies. In addition, the County coordinates with federal resource agencies where appropriate in the environmental clearance process for transportation facilities.

State

As the County complies with federal rules and regulations, it also complies with applicable State rules and regulations, including those of the California Department of Transportation (Caltrans), and coordinates with State resource agencies.

Senate Bill 743

On September 27, 2013, SB 743 was signed into State law and became effective on January 1, 2014. The California legislature found that with the adoption of the Sustainable Communities and Climate Protection Act of 2008 (SB 375), the State had signaled its commitment to encourage land use and transportation planning decisions and investments that reduce VMT and thereby contribute to the reduction of greenhouse gas (GHG) emissions, as required by the California Global Warming Solutions Act of 2006 (Assembly Bill [AB] 32).

SB 743 requires the California Governor's OPR to amend the CEQA Guidelines to provide an alternative to level of service (LOS) as the metric for evaluating transportation impacts under CEQA. Particularly within areas served by transit, SB 743 requires the alternative criteria to promote the reduction of greenhouse gas emissions, development of multimodal transportation networks, and diversity of land uses. The alternative metric for transportation impacts detailed in the CEQA Guidelines is VMT. Jurisdictions had until July 1, 2020, to adopt and begin implementing VMT thresholds for traffic analysis.

In addition, CEQA Guidelines Section 15064.3(c) states that the provisions of Section 15064.3 shall apply statewide beginning on July 1, 2020. The County issued their *Transportation Impact Study Guidelines* on July 9, 2019, to provide recommendations related to VMT assessment (both thresholds of significance and methodology for identifying VMT related impacts) and to refine the County's existing Transportation Impact Study Guidelines (TISG) to reflect methodologies for identifying impacts

Regional

Regional Transportation Plan/Sustainable Communities Strategy

The Southern California Association of Governments (SCAG), in which the County is a part of, adopted Connect SoCal (2020-2045 Regional Transportation Plan/Sustainable Communities Strategy [RTP/SCS]) on September 3, 2020. The 2020-2045 RTP/SCS is a long-range visioning plan that balances future mobility and sustainable growth with land use and transportation strategies to reach the region's GHG reduction goals. The 2020-2045 RTP/SCS includes the following specific goals and strategies that are applicable to the Project to integrate land use and transportation, such that the region can grow smartly and sustainably:

- Encourage regional economic prosperity and global competitiveness
- Reduce GHG emissions and improve air quality
- Adapt to a changing climate and support an integrated regional development pattern and transportation network

San Bernardino Associated Governments Congestion Management Program

The Congestion Management Program (CMP) was established Statewide in 1990 to implement Proposition 111, tying appropriation of new gas tax revenues to congestion reduction efforts. The CMP is managed at the countywide level and primarily uses an LOS performance metric, which is inconsistent with more recent state efforts to transition to VMT-based performance metrics.

The San Bernardino Associated Governments (SANBAG) prepared the San Bernardino County CMP, in consultation with San Bernardino County and cities in the county, in an effort to align land use, transportation, and air quality management efforts and promote reasonable growth management programs that effectively use statewide transportation funds, while ensuring that new development pays its fair share of needed transportation improvements. In San Bernardino County, SANBAG is responsible for planning and managing vehicular congestion and coordinating regional transportation policies. The CMP was last updated in June 2016. The CMP includes goals that are supportive of maintaining and enhancing the multimodal transportation system and also includes, by association, the goals of the SCAG's 2016-2040 RTP/SCS.

Through the use of traffic impact analysis reports and Comprehensive Transportation Plan model forecasts, the CMP evaluates proposed land use decisions to ensure adequate transportation network improvements that are developed to accommodate future growth in population. If a CMP facility is found to fall below the level of service standard under either existing or future conditions, a deficiency plan must be prepared, adopted, and implemented by local jurisdictions that contribute to such situations.

Annual monitoring activities are a method of accountability for those local jurisdictions required to mitigate a network facility with substandard level of service. While this interjurisdictional approach provides political and technical consistency for future development in the county, the CMP is only a mechanism to be used to guide efforts in a more efficient manner. It is not to be considered a replacement to the Regional Transportation Plan (RTP).

San Bernardino Countywide Transportation Plan

The San Bernardino County Transportation Authority (SBCTA), formerly known as SANBAG, developed the County's Countywide Transportation Plan (CTP), which was released in September 2015. The CTP has a horizon year of 2040 and serves as the County's input into the SCAG RTP/SCS. The purpose of the CTP is to lay out a strategy for long-term investment in and management of the County's transportation system. Key issues addressed by the CTP include transportation funding, congestion relief, economic competitiveness, system preservation and operations, transit system interconnectivity, air quality, sustainability, and GHG emission reductions. The CTP analyses a Year 2040 baseline scenario with traditional revenue sources and an aggressive scenario that assumes added revenue sources defined in SCAG's RTP/SCS. The CTP has developed a set of strategies to address issues such as air quality, goods movement, sustainability, and active transportation.

Local

San Bernardino County Transportation Impact Study Guidelines

The County's TISG, dated July 9, 2019, provides a guide in assessing a proposed development project's potential transportation impacts. As stated within the TISG, a Transportation Impact Study is required if one or more of the following criteria is met:

- If a project generates 100 or more trips without consideration of pass-by trips during any peak hour.
- If a project is located within 300 feet of
    - The intersection of two streets designated as a Collector or higher in the County's General Plan or the Department's Master plan **or**
    - An impacted intersection as determined by the Traffic Division
- If a project creates safety or operational concerns.
- If a project has the potential to generate VMT that could result in a transportation impact as noted in the significance criteria presented within the TISG.
- If a project generates less than 100 trips without consideration of pass-by trips during any peak hour, a study may be required if there are special concerns.

As it relates to VMT, according to the County's TISG, land use projects that meet certain screening criteria are assumed to result in a less-than-significant transportation impact under CEQA and do not require a detailed quantitative VMT assessment. Consistent with OPR guidance, the County identifies the following project types as appropriate for screening. Projects need only meet one of the listed criteria to be screened from a VMT analysis:

- **Local Community Projects.** The following list of projects would be screened out:
    - K-12 Schools
    - Local-serving retail less than 50,000 square feet
    - Local parks
    - Day care centers
    - Local serving gas stations
    - Local serving banks
    - Student housing projects
    - Local serving community colleges that are consistent with the assumptions noted in the Regional Transportation plan/Sustainable Communities Strategy
- **Trip Generation Threshold.** Projects Generating less than 110 daily vehicle trips, which generally corresponds to the following "typical" development potentials:
    - 11 single family housing units
    - 12 multi-family, condominium, or townhouse units
    - 10,000 square feet of office
    - 15,000 square feet of light industrial
    - 63,000 square feet of warehouse
    - 79,000 square feet of high cube transload and short-term storage warehouse
    - 12 hotel rooms

- **Transit Priority Area (TPA).** Projects located within a TPA as determined in the most recent SCAG RTP/SCS.
- **Low VMT Area.** Projects located within a low VMT generating area as determined by the analyst based on the County's VMT efficient area maps online at: https://www.arcgis.com/apps/webappviewer/index.html?id=779a71bc659041ad995cd48d9ef4.

For projects that do not meet the screening criteria above, it should be considered to have a significant impact if the project VMT per person/employee is greater than 4 percent below the existing baseline VMT per person for the unincorporated County.

San Bernardino Countywide Plan/Policy Plan

The County adopted the Countywide Plan/Policy Plan (Policy Plan) in October 2020. The Policy Plan provides an update of the County's General Plan addressing physical, social and economic issues facing the unincorporated portions of the County. The Policy Plan is a component of the Countywide Plan that is an update and expansion of the County's General Plan for the unincorporated areas. The following goals and policies are applicable to the Project:

Transportation and Mobility Element

Goal TM-1 **Roadway Capacity.** Unincorporated areas served by roads with capacity that is adequate for residents, businesses, tourists, and emergency services.

Policy TM-1.4 **Unpaved roadways.** The County does not accept new unpaved roads into the County Maintained Road System, and we require all-weather treatment for all new unpaved roads.

Policy TM-1.6 **Paved roads.** For any new development for which paved roads are required, we require the developer to construct the roads and we require the establishment of a special funding and financing mechanism to pay for roadway operation, maintenance, and set aside reserves.

Policy TM-1.8 **Emergency access.** When considering new roadway improvement proposals for the CIP or RTP, we consider the provision of adequate emergency access routes along with capacity expansion in unincorporated areas. Among access route improvements, we prioritize those that contribute some funding through a local area funding and financing mechanism.

Hazards Element

Policy HZ-1.15 **Evacuation route adequacy.** We coordinate with CAL FIRE, California's Office of Emergency Services, and other local fire districts to identify strategies that ensure the maintenance and reliability of evacuation routes potentially compromised by wildfire, including emergency evacuation and supply transportation routes.

4.9.4 Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, a project would have a significant impact related to transportation if it would:

Threshold (a): Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities;

Threshold (b): Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b);

Threshold (c): Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or

Threshold (d): Result in inadequate emergency access.

As identified in Section 6.5: Effects Found Not to Be Significant, impacts related to Threshold (c) and Threshold (d) were determined to be less than significant and do not require further analysis in the Draft EIR.

4.9.5 Methodology

As discussed above, with implementation of SB 743, the updated Appendix G thresholds, and the County's TISG, vehicle delay is not considered a potential significant impact on the environment. As such, this analysis will not go into detail on the anticipated effect of the Project with respect to LOS. Instead, the focus of the analysis of transportation impacts is on VMT in order to reduce GHG. The County's TISG defines the methodology for analyzing a project's transportation impacts in accordance with SB 743.

4.9.6 Project Impact Analysis

Threshold (a): Would the Project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle and pedestrian facilities?

As noted in Section 5, CEQA Assessment – Active Transportation and Public Transit Analysis, of the TISG, in accordance with the CEQA Guidelines, a Transportation Impact Study should examine if a project is inconsistent with adopted policies, plans, or programs regarding active transportation or public transit facilities, or otherwise decreases the performance or safety of such facilities. However, the TISG does not include a list of transportation-related programs, plans, ordinances, and policies that should be consulted to identify the potential for conflicts with a project.

As detailed in the Trip Generation Memorandum (Appendix I), the Project is expected to generate approximately 40 trips per year associated with solar panel washing activities. The Project Site is also not located within 300 feet of an intersection of two Collector streets or higher, or any impacted intersections as determined by the Traffic Division. The Project is a utility-scale solar and energy storage facility and would not create safety or operational concerns. As described further below under Threshold (b), the Project would not generate VMT that would result in a significant impact. Therefore, the Project does not meet any of the screening criteria requiring that the Project complete a Transportation Impact Study.

Project construction is anticipated to be completed over a period of approximately 14 months, with construction occurring between the hours of between 7:00 a.m. and 7:00 p.m. every day except Sundays and Federal holidays in accordance with County noise standards. On-site workforce is expected to average 220 workers per day with a peak of up to 495 workers. During peak construction activities approximately an average of 495 employees would travel to and from the Project Site on a daily basis Monday through Friday, along with a maximum of 25 medium size trucks per day would be required. This translates to approximately 1,090 daily vehicle trips during Project construction. Construction traffic is considered temporary (approximately 14 months) and is not expected to negatively affect current operations of the

roadway network near the Project Site. The roadway network in the vicinity is characterized by free-flowing traffic conditions, with limited existing traffic. **Table 4.9-1,** *Construction Trip Generation,* provides the total daily and peak hour Project traffic volumes during the construction period.

Table 4.9-1: Construction Trip Generation

Use	Quantity	Daily Trips		AM Peak Hour Volume		PM Peak Hour Volume	
		Rate[1] (In + Out)	Volume (ADT)[2]	In	Out	In	Out
Personnel	495	2.0 /personnel	990	99	10	10	99
Trucks[3]	25	2.0 /truck * (PCE of 2.0)[4]	100	4	4	4	4
Subtotal	**-**	**-**	***1,090***	***103***	***14***	***14***	***103***

Notes:
[1] Rate accounts for the fact that personal and trucks enter and exit the site for a total of the trips each.
[2] To estimate the employee traffic, it is assumed that 20% of the employee traffic would access the work area during the commuter peak hours.
[3] Truck trips are estimated to occur evenly throughout a 12-hour construction period proposed for the Project.
[4] A Passenger Car Equivalent (PCE) factor of 2.0 was applied based on HCM 6th Ed. to account for the diminished operations of trucks.
[5] Rate accounts for the fact that personal and trucks enter and exit the site for a total of the trips each.

Source: LLG, Trip Generation Memorandum (Appendix I).

As a standard condition of approval, and per comments received from the County Department of Public Works on the Conditional Use Permit (CUP) applications (Project #PROJ-2021-00012), the Project would be required to provide a Construction Traffic Management Plan (CTMP) to the County Department of Public Works, Transportation Operations Division prior to the issuance of grading permits. The CTMP will include the number of trucks, type of trucks (size), the total number of Equivalent Single Axle Loads, and planned truck routes to the Project Site during construction. This information will be used to determine if a maintenance agreement is required to ensure all County maintained roads utilized by Project construction traffic remain in acceptable condition during construction. In addition, Project construction traffic control measures, such as that listed below, would be included in the County-required CTMP:

- Timing the delivery of heavy equipment and building materials under the contractors' control during non-peak commute hours, to the extent feasible.
- Schedule construction traffic ingress/egress to not interfere with peak-hour traffic and to minimize traffic obstructions, to the extent feasible.
- Specifying oversize load haul routes.
- Directing construction traffic with a flag person, as needed.
- Placing temporary signing, lighting, and traffic control devices if required, including, but not limited to, appropriate signage along access routes to indicate the presence of heavy vehicles and construction traffic.
- Ensuring access for emergency vehicles to the Project Site.
- Temporarily closing travel lanes or delaying traffic during materials delivery or any other utility connections, if required.
- Maintaining access to adjacent properties.

Implementation of the CTMP would ensure that Project construction would not result in any access or traffic issues on roads surrounding the Project Site, such that there would be a conflict with a program, plan, ordinance, or policy addressing the circulation system. Therefore, impacts during Project construction would be less than significant. Solar panel washing is expected to occur two times per year. As such, this operational activity was included within the assumption that the Project would generate approximately 20 ADT once construction is completed. From a daily and peak hour perspective, these trips are considered nominal and would not be expected to impact the existing road network near the Project Site, including U.S. Route 95.

The roadway network in the vicinity is characterized by free-flowing traffic conditions, and vehicles on the roadway generally travel unimpeded by others. Therefore, traffic during Project operation would not conflict with the CMP standards.

Currently no vehicular access roads are provided to the Project Site. Site access would be provided via two access roads on the northern and southern portions of the west side of the site. Access points would have two double gates to help maintain security on-site. While existing unofficial roads would be utilized to the greatest extent possible, potential new unpaved roads may need to be constructed off site to serve as access roads from the existing road network to the Project. Any new perimeter roads surrounding the Project site would be a minimum of 20 feet wide, as required for fire department and emergency vehicles. Additional internal maintenance roads would be located throughout the Project site. Spacing between each row of solar arrays would depend on final panel type, orientation, and any County regulations. Internal access roads would be up to 20 feet wide and would be cleared and compacted for equipment and emergency vehicle travel and access to the solar blocks. These Project site access roads would remain in place for ongoing operations and maintenance activities after construction is completed.

No public transit, pedestrian, or bicycle facilities currently exist on U.S. Route 95, Old Parker Road or in the vicinity of the Project Site. The Project would also not develop any new public roadways, transportation facilities, or transportation-related improvements. As the Project would not develop a new roadway system or road improvements and would not bring additional employees to the Project Site, the Project would not conflict with any programs, plans, ordinances, or policies related to transportation. Impacts during Project operation would be less than significant.

Threshold (b): Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Impacts due to construction activities would be temporary and would not result in any meaningful long-term or permanent change in VMT; therefore, the evaluation of VMT is focused on Project operations. VMT primarily is a metric for assessing project-related GHG emissions impacts. The analysis related to GHG emissions associated with Project-related construction and operational traffic is provided in Section 4.6, *Greenhouse Gas Emissions,* of this Draft EIR. Overall, as the Project would generate clean renewable energy that would offset GHG emissions that would have otherwise resulted from producing energy from a non-renewable source, the Project will have a net beneficial impact in offsetting GHG emissions. This Draft EIR further addresses potential significant transportation impacts of all project vehicles, including construction vehicles, related to air quality, noise, and safety.

As previously discussed under Section 4.9.3: *Regulatory Setting – Local – San Bernardino County Transportation Impact Study Guidelines,* according to the County's TISG, land use projects that meet certain screening criteria are assumed to result in a less-than-significant transportation impact under

CEQA and do not require a detailed quantitative VMT assessment. **Table 4.9-2,** *VMT Screening Criteria and Project Evaluation***,** details the TISG screening criteria and whether the Project would meet the criteria.

Table 4.9-2: VMT Screening Criteria and Project Evaluation

Screening	Screening Criteria	Project Evaluation	Result
Local Community Projects	The following list of projects would be screened out: • K-12 Schools • Local-serving retail less than 50,000 square feet • Local parks • Day care centers • Local serving gas stations • Local serving banks • Student housing projects • Local serving community colleges that are consistent with the assumptions noted in the RTP/SCS	Project is a solar and energy storage facility and is not considered a local community project.	Does Not Meet Criteria
Trip Generation Threshold	Projects generating less than 110 daily vehicle trips such as: • 11 single family housing units • 12 multi-family, condominium, or townhouse units • 10,000 square feet of office • 15,000 square feet of light industrial • 63,000 square feet of warehouse • 79,000 square feet of high cube transload and short-term storage warehouse • 12 hotel rooms	Project generates less than 110 daily vehicle trips since the new trips generated by the Project is estimated at 20 ADT.	Does Meet Criteria
Transit Priority Area	Projects located within a Transit Priority Area (TPA) as determined by the most recent SCAG RTP/SCS.	The Project is not located within a TPA.	Does Not Meet Criteria
Low VMT Area	Projects located within a low VMT generating area as determined by the analyst based on the County's VMT efficient area maps online at https://www.arcgis.com/apps/webappviewer/index.html?id=779a71bc659041ad995cd48d9ef4052b	The Project is not located within a low VMT generating area.	Does Not Meet Criteria

The Project would generate 20 ADT, with approximately 40 trips required for cleaning during operations. These trips are less than the 110 ADT OPR daily vehicle trips screening threshold. As such, the Project meets one of the screening criteria identified in the TISG, and a detailed quantitative VMT assessment is not required. Therefore, the Project is considered to have a less-than-significant VMT impact.

4.9.7 Cumulative Impacts

Chapter 3.0, Environmental Setting, of this Draft EIR provides a list of related projects that would have the potential to be considered in a cumulative context with the Project's incremental contribution. These projects are summarized in **Table 3-1,** *Related Projects*, and shown in **Figure 3-1,** *Related Projects in the Planning Area*.

Each of the cumulative projects considered in this cumulative analysis of consistency with programs, plans, policies, and ordinances would be separately reviewed and approved by the County, including a review of consistency with applicable policies. As the Project would not be inconsistent and would not conflict with the programs, plans, policies, and ordinances that are analyzed above, the Project in combination with the cumulative projects would not create inconsistencies nor result in cumulative impacts with respect to the identified programs, plans, policies, and ordinances.

Similar to the Project, any cumulative project that would be subject to environmental review would be required to evaluate VMT on a project-by-project basis. If the cumulative project were determined to have potentially significant VMT impacts, it would be required to include appropriate mitigation measures to reduce VMT impacts to a less-than-significant level. As the Project would result in a less-than-significant impact on VMT, the Project would similarly result in a less-than-significant impact on VMT in cumulative conditions, and further analysis is not necessary.

4.9.8 Mitigation Measures

As detailed above, the Project would not result in significant impacts regarding transportation. Therefore, no mitigation measures are required.

4.9.9 Level of Significance After Mitigation

No mitigation measures are required. Impacts related to transportation would be less than significant.

4.10 TRIBAL CULTURAL RESOURCES

4.10.1 Introduction

This section addresses the Project's potential impacts to tribal cultural resources. Tribal cultural resources are generally described as sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe and are further defined in Public Resources Code (PRC) Section 21074(a)(1)(A)-(B). Information contained in this section is derived from the Cultural Resources Survey Report, dated March 2022, prepared by Chambers Group, Inc. (Appendix E). The consultation process was conducted pursuant to PRC Section 21080.3 (Appendix J).

4.10.2 Existing Environmental Setting

Ethnographic Setting

According to the *Cultural Resources Assessment*, the Project Site is located within the ancestral territory of the Mohave and the Chemehuevi. The Colorado River Indian Tribe is the closest reservation to the Project, though the reservation is a modern construct of the American government and does not reflect the cultural history of the area. The population of the reservation comprises people from the Mohave, Chemehuevi, Hopi, and Navaho. While the Hopi and Navaho were forced into the reservation from further east, both the Mohave and Chemehuevi have been in this region since the tribe split off from the Southern Paiute in the area of current-day Las Vegas. Although the origins of the Chemehuevi are of the Southern Paiute, their culture has been heavily influenced by the Mohave, testifying to the close relationship between the two tribes. Relationships between the Chemehuevi and the Mohave have not always been peaceful. However, the Mohave retained the rights to travel through the newly established Chemehuevi territory.

The subsistence pattern of the Chemehuevi was agriculturally based. Maize, squash, melons, gourds, beans, cowpeas, winter wheat, and some grasses were key crops grown in the floodplain areas along the Colorado River. Hunting and gathering were also important elements of the subsistence strategy undertaken by younger adults while the elderly stayed in the village to tend to the crops.

Spiritually, the Chemehuevi were tied to their land, with spiritual power coming from particular landmarks within their territory such as mountain peaks, caves, or springs. Puha trails link the landmarks together and are also considered to have spiritual power. The manner in which ceremonies were practiced showed the tribe's close ties with the Mohave. Hunting and gathering traditions followed the traditional Paiute pattern, as did burial practices. Other ceremonial practices testify to the Mohave influence.

The Mohave were agrarian and had a reliance on fishing in the Colorado River. It should be noted that the Chemehuevi deferred fishing rights to the Mohave. The Mohave people during the protohistoric and historic times were semi-sedentary. Floodplain farming was common, and the Colorado River made up the center of their territory. The extent of their territory extended on either side of the Colorado River to the east as far as the highest crest of the Black Mountains, the Buck Mountains, and the Mohave Mountains, and to the west to the Sacramento, Dead, and Newberry Mountains. From north to south their territory ran from the Mohave Valley to south of what is now the City of Blythe.

The Mohave peoples were nationalistic, considering their home territory to be their own country. Frequently warring with the Halchidoma, the Mohave and Quechan joined forces to evict the Halchidoma

from their territory. The Mohave then encouraged the Chemehuevi to move into the river area. Trade was of particular importance to the Mohave, who had extensive trail networks to take them to the Pacific Coast in the west, and with the Cahuilla in the south and east.

In the spring and summer months the Mohave lived along the banks of the Colorado River to tend to crops and to fish. Crops were planted in the spring as the river, swollen from the winter rains, receded. Seeds were planted in the newly exposed and saturated mud. While the Mohave peoples relied on their crops, their major food staple was mesquite and screwbean pods, which were gathered. In the winter they moved their settlement areas to rises above the river to avoid seasonal flooding.

The closest aspect of the Project Area is approximately 1,800 feet (0.34 mile) from the Colorado River, as presently aligned, and is situated on a mesa terrace approximately 85 feet above the river and approximately 75 feet above the adjacent sandy river margin. It is not expected that riverine farmlands at the higher mesa elevations will be identified. Similarly, the closest aspect of Vidal Wash within the Project Area is approximately 6,200 feet (1.17 miles) from the current river course and is approximately 85 feet higher in elevation. However, this, and an unnamed wash to the north are not noted for supporting mesquite and screwbean habitat, nor are the adjacent lands. Therefore, activity areas associated with these habitats are not expected within the Project Area.

Existing Tribal Cultural Resources

A request for a Sacred Lands File (SLF) Search was submitted to the California Native American Heritage Commission (NAHC) on July 9, 2020. The results returned on July 10, 2020, and were positive, indicating that sacred areas are known within or around the Project Area that may be impacted by Project development.

The County began the AB 52 Native American Consultation on August 30, 2021. The County submitted a Notice of Opportunity to consult to the following tribes that had previously requested notification on prior County projects and based on County and NAHC records:

- Twenty-Nine Palms Band of Mission Indians
- Colorado River Indian Tribes (CRIT)
- Morongo Band of Mission Indians (MBMI)
- Soboba Band of Luiseno Indians

The County received a response from CRIT via e-mail on January 24, 2022 indicating CRIT had an interest in the Project at the time. CRIT met with a County representative on February 14, 2022 at a Project Site visit where CRIT's Tribal Historic Preservation Officer (THPO) confirmed that the Project Site is a highly sensitive cultural resource area. As noted in CRIT's response to the Notice of Preparation (NOP) issued for the Project, CRIT met with the Western Area Power Administration (WAPA) (in-person) and the County (virtual) to discuss Section 106. Subsequent to the site visit, the County provided information to CRIT sample conditions of approval they may utilize. Prior to CRIT's Tribal Council Meeting on April 25, 2022, County Staff requested to know they type of topics to be discussed to ensure adequate and timely information was provided. Based upon the topics identified by CRIT, the County provided written responses. During the Tribal Council Meeting, CRIT members informed the County of their concerns regarding the Project's potential impacts and discussed the possibility for alternative sites, cultural

resources mitigation methods, treatment plans for cultural resources, tribal monitoring, and the County's timeline for CEQA review. CRIT did not provide written materials or maps subsequent to the two meetings.

The County received a response from MBMI in response to the NOP on June 1, 2022 wherein the MBMI noted that the Project is located near ancestral territory and traditional use area of the Cahuilla and Serrano people of the MBMI. The County provided a copy of the geotechnical report to MBMI for their review.

While CRIT and MBMI did not identify any known tribal cultural resources (as defined in PRC Section 21074) within the Project Site, mitigation measures to be implemented during Project construction are included below and in Section 4.4, *Cultural Resources*.

4.10.3 Regulatory Setting

Federal

Native American Graves Protection and Repatriation Act of 1990

The Native American Graves Protection and Repatriation Act of 1990 sets provisions for the intentional removal and inadvertent discovery of human remains and other cultural items from federal and tribal lands. It clarifies the ownership of human remains and sets forth a process for repatriation of human remains, associated funerary objects, and sacred religious objects to the Native American groups claiming to be lineal descendants or culturally affiliated with the remains or objects. It requires any federally funded institution housing Native American remains or artifacts to compile an inventory of all cultural items within the museum or with its agency and to provide a summary to any Native American tribe claiming affiliation.

National Park Service – National Register Bulletin 38

National Park Service has prepared guidelines to assist in the documentation of Traditional Cultural Properties (TCPs) by public entities. National Register Bulletin 38 is intended to be an aid in determining whether properties have traditional cultural significance and if they are eligible for inclusion in the National Register of Historic Places (National Register). It is also intended to assist federal agencies, State Historic Preservation Officers (SHPOs), Certified Local Governments, tribes, and other historic preservation practitioners who need to evaluate such properties when considering their eligibility for the National Register as part of the review process prescribed by the Advisory Council on Historic Preservation (ACHP).

TCPs are a broad group of places that can include:

- location associated with the traditional beliefs of a Native American group about its origins, its cultural history, or the nature of the world;
- rural community whose organization, buildings and structures, or patterns of land use reflect the cultural traditions valued by its long-term residents;
- an urban neighborhood that is the traditional home of a particular cultural group, and that reflects its beliefs and practices;

- location where Native American religious practitioners have historically gone, and are known or thought to go today, to perform ceremonial activities in accordance with traditional cultural rules of practice; and
- location where a community has traditionally carried out economic, artistic, or other cultural practices important in maintaining its historic identity.

State

Native American Heritage Commission (NAHC)

PRC Section 5097.91 established the NAHC, the duties of which include inventorying places of religious or social significance to Native Americans and identifying known graves and cemeteries of Native Americans on private lands. PRC Section 5097.98 specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner.

California Public Records Act

Sections 6254(r) and 6254.10 of the California Public Records Act (Government Code Section 6250 et seq.) were enacted to protect archaeological sites from unauthorized excavation, looting, or vandalism. Section 6254(r) explicitly authorizes public agencies to withhold information from the public relating to "Native American graves, cemeteries, and sacred places and records of Native American places, features, and objects…maintained by, …, the Native American Heritage Commission…." Section 6254.10 specifically exempts from disclosure requests for "records that relate to archaeological site information and reports maintained by, or in the possession of, the Department of Parks and Recreation, the State Historical Resources Commission, the State Lands Commission, the [NAHC], another state agency, or a local agency, including the records that the agency obtains through a consultation process between a California Native American tribe and a state or local agency."

Assembly Bill 52

AB 52 was approved by California State Governor Edmund Gerry "Jerry" Brown, Jr. on September 25, 2014. The act amended California PRC Section 5097.94, and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 applies specifically to projects for which a NOP or a Notice of Intent to Adopt a Negative Declaration or Mitigated Negative Declaration (MND) will be filed on or after July 1, 2015. The primary intent of AB 52 was to include California Native American Tribes early in the environmental review process and to establish a new category of resources related to Native Americans that require consideration under CEQA, known as tribal cultural resources. PRC Section 21074(a)(1) and (2) defines tribal cultural resources as "sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe" that are either included or determined to be eligible for inclusion in the California Register or included in a local register of historical resources, or a resource that is determined to be a tribal cultural resource by a lead agency, in its discretion and supported by substantial evidence. On July 30, 2016, the California Natural Resources Agency adopted the final text for tribal cultural resources update to Appendix G of the CEQA Guidelines, which was approved by the Office of Administrative Law on September 27, 2016.

PRC Section 21080.3.1 requires that within 14 days of a lead agency determining that an application for a project is complete, or a decision by a public agency to undertake a project, the lead agency provide formal notification to the designated contact, or a tribal representative, of California Native American Tribes that

are traditionally and culturally affiliated with the geographic area of the project (as defined in PRC Section 21073) and who have requested in writing to be informed by the lead agency (PRC Section 21080.3.1(b)). Tribes interested in consultation must respond in writing within 30 days from receipt of the lead agency's formal notification and the lead agency must begin consultation within 30 days of receiving the tribe's request for consultation (PRC Sections 21080.3.1(d) and 21080.3.1(e)). PRC Section 21080.3.2(a) identifies the following as potential consultation discussion topics: the type of environmental review necessary; the significance of tribal cultural resources; the significance of the project's impacts on the tribal cultural resources; project alternatives or appropriate measures for preservation; and mitigation measures. Consultation is considered concluded when either: (1) the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or (2) a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached (PRC Section 21080.3.2(b)).

If a California Native American tribe has requested consultation pursuant to Section 21080.3.1 and has failed to provide comments to the lead agency, or otherwise failed to engage in the consultation process, or if the lead agency has complied with Section 21080.3.1(d) and the California Native American tribe has failed to request consultation within 30 days, the lead agency may certify an EIR or adopt an MND (PRC Section 21082.3(d)(2) and (3)).

PRC Section 21082.3(c)(1) states that any information, including, but not limited to, the location, description, and use of the tribal cultural resources, that is submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public without the prior consent of the tribe that provided the information. If the lead agency publishes any information submitted by a California Native American tribe during the consultation or environmental review process, that information shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public.

Native American Historic Resource Protection Act

State law addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction, establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project, and establishes the NAHC to resolve disputes regarding the disposition of such remains. In addition, the Native American Historic Resource Protection Act (PRC Section 5097 et seq.) makes it a misdemeanor punishable by up to one year in jail to deface or destroy a Native American historic or cultural site that is listed or may be eligible for listing in the California Register of Historic Resources (CRHR).

Public Resources Code Sections 5097.98(b) and (e)

PRC Sections 5097.98(b) and (e) require a landowner on whose property Native American human remains are found to limit further development activity in the vicinity until he/she confers with the NAHC-identified Most Likely Descendants (MLDs) to consider treatment options. Once the MLD has been granted access to the site by the landowner and inspected the discovery, the MLD then has 48 hours to provide recommendations to the landowner for the treatment of the human remains and any associated grave goods. In the absence of MLDs or of a treatment acceptable to all parties, the landowner is required to reinter the remains elsewhere on the property in a location not subject to further disturbance.

California Health and Safety Code, Section 7050.5, 7501, and 7054

California Health and Safety Code (HSC) Sections 7050.5, 7051, and 7054 collectively address the illegality of interference with human burial remains as well as the disposition of Native American burials in archaeological sites. The law protects such remains from disturbance, vandalism, or inadvertent destruction and establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project, including the treatment of remains prior to, during, and after evaluation, and reburial procedures. California HSC Section 7050.5 requires that in the event human remains are discovered, the County Coroner be contacted to determine the nature of the remains. In the event the remains are determined to be Native American in origin, the Coroner is required to contact the NAHC within 24 hours to relinquish jurisdiction.

Local

San Bernardino County Countywide Plan/Policy Plan

The County adopted the Countywide Plan/Policy Plan (Policy Plan) in October 2020. The Policy Plan provides an update of the County's General Plan addressing physical, social and economic issues facing the unincorporated portions of the County. The Policy Plan also provides an expansion of the County's General Plan to address supportive service for adults and children, healthcare service, public safety, and other regional county services provided to both incorporated and unincorporated areas.

Relevant policies from the Cultural Resources Element are as follows:

Goal CR-1 Tribal cultural resources that are preserved and celebrated out of respect for Native American beliefs and traditions.

Policy CR-1.1 **Tribal notification and coordination.** We notify and coordinate with tribal representatives in accordance with state and federal laws to strengthen our working relationship with area tribes, avoid inadvertent discoveries of Native American archaeological sites and burials, assist with the treatment and disposition of inadvertent discoveries, and explore options of avoidance of cultural resources early in the planning process.

Policy CR-1.2 **Tribal planning.** We will collaborate with local tribes on countywide planning efforts and, as permitted or required, planning efforts initiated by local tribes.

Policy CR-1.3 **Mitigation and avoidance.** We consult with local tribes to establish appropriate project-specific mitigation measures and resource-specific treatment of potential cultural resources. We require project applicants to design projects to avoid known tribal cultural resources, whenever possible. If avoidance is not possible, we require appropriate mitigation to minimize project impacts on tribal cultural resources.

Policy CR-1.4 **Resource monitoring.** We encourage coordination with and active participation by local tribes as monitors in surveys, testing, excavation, and grading phases of development projects with potential impacts on tribal resources.

4.10.4 Thresholds of Significance

In accordance with Appendix G of the CEQA Guidelines, a project would have a significant impact related to tribal cultural resources if it would cause a substantial adverse change in the significance of a tribal cultural resource, defined in PRC Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

Threshold (a): Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k); or

Threshold (b): A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

4.10.5 Methodology

Chambers Group submitted a request for a search of the SLF housed at the California NAHC on July 9, 2020. The results of the search were returned on July 10, 2020. AB 52 consultation was initiated by the County and is described above.

4.10.6 Project Impact Analysis

Threshold (a): **Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place or object with cultural value to a California Native American tribe, and that is:**

(i) for listing in the California Register of Historical Resources, or in a local register of historical resources as define in Public Resources Code Section 5020.1(k), or

(ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth is subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.

Results from the NAHC SLF search were positive, indicating that sacred areas are known within or around the Project Area that may be impacted by Project development. As discussed in the Cultural Resources Report (Appendix E) and in Section 4.4, Cultural Resources, of this Draft EIR, the cultural resources (historic-period resources, prehistoric resources, and prehistoric isolates) identified are not recommended "historical resources" or "archaeological resources" under CEQA. As a result of the County's consultation efforts and other archival research, no known tribal cultural resources or tribal

cultural places have been identified within the Project Site or immediate vicinity. Therefore, the Project would result in no impacts to tribal cultural resources.

Nonetheless, the potential exists that there may be undiscovered tribal cultural resources that could be unearthed during ground-disturbing activities during Project construction. Therefore, as there is potential for ground-disturbing activities to encounter buried or unknown tribal cultural resources, impacts would be considered potentially significant. The Project would be required to implement **Mitigation Measures TCR-1 and TCR-2** to reduce potential impacts to tribal cultural resources to a less-than-significant level during Project construction.

4.10.7 Cumulative Impacts

Chapter 3.0, Environmental Setting, of this Draft EIR provides a list of related projects that would have the potential to be considered in a cumulative context with the Project's incremental contribution. These projects are summarized in **Table 3-2,** *Related Projects*, and shown in **Figure 3-1,** *Related Projects in the Planning Area*.

Ongoing development and growth in the broader area and in the Project vicinity may result in a cumulatively significant impact to tribal cultural resources due to the continuing disturbance of undeveloped areas, which could potentially contain significant, buried archaeological or tribal cultural resources, or transform an area related to tribal cultural history.

Because there is always a potential to encounter undiscovered tribal cultural resources during construction activities, no matter the location or sensitivity of a particular site**, Mitigation Measures TCR-1** and **TCR-2** have been included and would serve to protect, preserve, and maintain the integrity and significance of cultural or tribal cultural resources in the event of the unanticipated discovery of a resource.

The individual, Project-level impacts were found to be less than significant with implementation of **Mitigation Measures TCR-1** and **TCR-2**, and the Project would be required by law to comply with all applicable federal, State, and local requirements related to historical, archaeological and tribal cultural resources. Other related cumulative projects would similarly be required to comply with all such requirements and regulations, to be consistent with the provisions set forth by CEQA, and to implement all feasible mitigation measures should a significant project-related or cumulative impact be identified. Impacts would be less than significant in this regard and additional mitigation is not required.

4.10.8 Mitigation Measures

In order to minimize potential impacts to tribal cultural resources, the following mitigation measures would be implemented:

TCR-1 A Native American tribal monitor from an applicable Indian Tribe shall be contacted, as detailed in **Mitigation Measure CUL-1**, if any pre-contact and/or historic-era cultural resources are discovered during Project implementation and be provided information regarding the nature of the find so as to provide Tribal input with regards to significance and treatment. Should the discovery be deemed significant, as defined by the California Environmental Quality Act (CEQA), a Monitoring and Treatment Plan, as detailed in **Mitigation Measure CUL-2**, shall be created by a Qualified Archaeologist, in coordination with an applicable Indian Tribe and the County Planning Division, and all subsequent finds

shall be subject to this Plan. This Plan shall allow for a monitor to represent the applicable Indian Tribe for the remainder of the Project, should the applicable Indian Tribe elect to place a monitor on-site.

If a pre-contact cultural resource is discovered during Project implementation, the following actions are required:

(a) Ground-disturbing activities shall be suspended 60 feet around the resource(s), and an Environmentally Sensitive Area (ESA) physical demarcation/barrier constructed;

(b) The Applicant shall develop a research design that shall include a plan to evaluate the resource for significance under CEQA criteria, and the County and applicable Indian Tribe shall review to indicate concurrence. Representatives from the applicable Indian Tribe, the Applicant, and the County shall confer regarding the research design, as well as any testing efforts needed to delineate the resource boundary. Following the completion of evaluation efforts, all parties shall confer regarding the resource's archaeological significance, its potential as a Tribal Cultural Resource (TCR), and avoidance (or other appropriate treatment) of the discovered resource.

Should any significant resource and/or TCR not be a candidate for avoidance or preservation in place, and the removal of the resource(s) is necessary to mitigate impacts, the research design shall include a comprehensive discussion of sampling strategies, resource processing, analysis, and reporting protocols/obligations. Removal of any cultural resource(s) shall be conducted with the presence of a Tribal monitor representing the Tribe unless otherwise decided by the applicable Indian Tribe. All plans for analysis shall be reviewed and approved by the Applicant and the applicable Indian Tribe prior to implementation, and all removed material shall be temporarily curated on-site. The applicable Indian Tribe shall indicate if it is the preference of the applicable Indian Tribe that removed cultural material be reburied as close to the original find location as possible. However, should reburial within/near the original find location during Project implementation not be feasible, then a reburial location for future reburial shall be decided upon by the applicable Indian Tribe, the landowner, and the County, and all finds shall be reburied within this location. Additionally, in this case, reburial shall not occur until all ground-disturbing activities associated with the Project have been completed, all monitoring has ceased, all cataloging and basic recordation of cultural resources have been completed, and a final monitoring report has been issued to the County, CHRIS, and the applicable Indian Tribe. All reburials are subject to a reburial agreement that shall be developed between the landowner and the applicable Indian Tribe outlining the determined reburial process/location and shall include measures and provisions to protect the reburial area from any future impacts (vis a vis project plans, conservation/preservation easements, etc.).

Should it occur that avoidance, preservation in place, and on-site reburial are not an option for treatment, the landowner shall relinquish all ownership and rights to this material and confer with the applicable Indian Tribe to identify an American Association of Museums (AAM)-accredited facility within the County that can accession the materials into their permanent collections and provide for the proper care of these objects in accordance with the 1993 CA Curation Guidelines. A curation agreement with an

appropriately qualified repository shall be developed between the landowner and museum that legally and physically transfers the collections and associated records to the facility. This agreement shall stipulate the payment of fees necessary for permanent curation of the collections and associated records and the Applicant's obligation to pay for those fees.

All draft records/reports containing the significance and treatment findings and data recovery results shall be prepared by the archaeologist and submitted to the County and the applicable Indian Tribe for their review and comment. After approval from all parties, the final reports and site/isolate records are to be submitted to the local CHRIS Information Center, the County, and the applicable Indian Tribe.

TCR-2 Any and all archaeological/cultural documents created as a part of the Project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the Applicant and County for dissemination to the applicable Indian Tribe. The County and/or Applicant shall, in good faith, consult with the applicable Indian Tribe throughout the life of the Project.

4.10.9 Level of Significance After Mitigation

With the implementation of **Mitigation Measures TCR-1** and **TCR-2**, the Project's impacts on tribal cultural resources would be reduced to less than significant.

CHAPTER 5 – ALTERNATIVES ANALYSIS

5.1 INTRODUCTION AND OVERVIEW

CEQA requires that an EIR describe a range of reasonable alternatives to the Project, or to the location of the Proposed Project, which could feasibly avoid or lessen any significant environmental impacts while substantially attaining the basic objectives of the Project. An EIR should also evaluate the comparative merits of the alternatives. This chapter describes potential alternatives to the Project that were considered, identifies alternatives that were eliminated from further consideration and reasons for dismissal, and analyzes available alternatives in comparison to the potential environmental impacts associated with the Project.

Key provisions of CEQA Guidelines Section 15126.6 pertaining to the alternatives analysis are summarized below:

- The discussion of alternatives shall focus on alternatives to the Proposed Project or its location that are capable of avoiding or substantially lessening any significant effects of the Proposed Project, even if these alternatives would impede to some degree the attainment of the Proposed Project objectives or would be more costly.
- The No Project Alternative shall be evaluated along with its impact. The No Project analysis shall discuss the existing conditions at the time the Notice of Preparation is published. Additionally, the analysis shall discuss what would be reasonably expected to occur in the foreseeable future if the Proposed Project were not approved, based on current plans and consistent with available infrastructure and community services.
- The range of alternatives required in an EIR is governed by a "rule of reason". Therefore, the EIR must evaluate only those alternatives necessary to permit a reasoned choice. Alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the Proposed Project.
- For alternative locations, only locations that would avoid or substantially lessen any of the significant effects of the Proposed Project need to be considered for inclusion in the EIR.
- An EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative.

The range of feasible alternatives is selected and discussed in a manner to foster meaningful public participation and informed decision-making. Among the factors that may be taken into account when addressing the feasibility of alternatives are environmental impacts, site suitability, economic viability, availability of infrastructure, general plan contingency, regulatory limitation, jurisdictional boundaries, and whether the proponent could reasonably acquire, control, or otherwise have access to the alternative site. An EIR need not consider an alternative whose effects cannot be reasonably identified, whose implementation is remote or speculative, and that would not achieve the basic Project Objectives.

5.2 PROJECT OBJECTIVES

The Project has the following objectives:

- Utilize property within the County to site photovoltaic (PV) solar power-generating facilities and energy storage near existing utility infrastructure.

- Support California's efforts to reduce greenhouse gas (GHG) emissions consistent with the timeline established by the California Global Warming Solutions Act under California Assembly Bill 32, as amended by Senate Bill 32, which requires that Statewide GHG emissions are reduced to at least 40 percent below the Statewide GHG emissions limit by 2030.
- Support California's aggressive Renewables Portfolio Standard (RPS) Program consistent with the timeline established by Senate Bill 100, which requires that by December 31, 2030, 60 percent of all electricity sold in the State shall be generated from renewable energy sources.
- Develop an economically feasible and commercially financeable power-generating facility and energy storage system.
- Provide solar-generated electricity to the California Independent System Operator (CAISO) grid and Western Area Power Administration (WAPA).
- Promote the County's role as the state's leading producer of renewable energy.
- Provide green jobs to the County and the state of California.
- Site and design the Project in an environmentally responsible manner consistent with current County guidelines.

5.3 ALTERNATIVES CONSIDERED BUT REJECTED

Several alternatives could be considered for the Project which address the Project size or development of a similar project elsewhere in the Project area. A range of alternatives that are "reasonable" for analysis have been defined by the Lead Agency and are discussed below in Section 5.4, Alternatives Analyzed. The following section describes alternatives or alternative concepts that were given consideration, but rejected from further analysis in the EIR due to their infeasibility.

Pursuant to CEQA Guidelines Section 15126.6(c), alternatives may be eliminated from detailed consideration in an EIR if they fail to meet most of the Project objectives, are infeasible, or do not avoid or substantially reduce any significant environmental effects. Alternatives that are remote or speculative, or the effects of which cannot be reasonably predicted, also do not need to be considered (CEQA Guidelines Section 15126(f)(2)). Though the Project would not result in any significant and unavoidable impacts, the County considered several alternatives that could reduce potential impacts associated with Project implementation. Per CEQA, the lead agency may make an initial determination as to which alternatives are feasible and warrant further consideration, and which are infeasible. The following alternatives were initially considered but were eliminated from further consideration in this EIR because they do not meet any Project objectives or were infeasible:

- Distributed Generation Alternative
- Fossil Fuel Power Plant Alternative

5.3.1 Distributed Generation Alternative

Distributed generation refers to the installation of small-scale solar energy facilities at individual locations at or near the point of consumption (e.g., use of solar PV panels on a business or home to generate electricity for on-site consumption). The generating capacity of a distributed generation source is significantly smaller than that of centrally located utility-scale energy generation sources and can range from generation at a single residence to larger installations for commercial or multi-unit housing

applications. Distributed generation systems typically generate less than 10 MW. The distributed generation alternative would require at least 16 separate renewable energy projects at 10 MW each to provide a level of energy generation comparable to the Project. Finding 16 or more separate sites for development of solar power is not feasible due to the time, expense, and site control requirements associated with selecting such a large number of locations.

In order to be a viable alternative to the Project, the applicant would need to own or control a sufficient amount of land to accommodate 160 MW of capacity. The applicant, however, does not currently own or control any other such sites or land in San Bernardino County. Therefore, this alternative would not meet the Project objectives, it was eliminated from further consideration in this EIR.

5.3.2 Fossil Fuel Power Plant Alternative

This alternative would involve the development of a natural gas-fired power plant (equivalent to 160 MW) on the Project Site. Fossil fuel-powered plants are designed on a large scale for continuous operation. However, byproducts of industrial power plant operation need to be considered in both design and operation. When waste heat that results from the finite efficiency of the power cycle is not recovered and used as steam or hot water, it must be released to the atmosphere, and often uses a cooling tower as a cooling medium (especially for condensing steam). The flue gas from combustion of the fossil fuels is discharged to the air and contains carbon dioxide and water vapor as well as other substances, such as nitrogen, nitrogen oxides, and sulfur oxides. Furthermore, unlike the Project, fossil fuel-powered plants are major emitters of GHG emissions. In addition, industrial power plants generally involve the construction of large structures, such as cooling towers and gas stacks, which would require the use of hazardous materials, including: fuels; air, water, and wastewater treatment chemicals; and equipment and facility maintenance chemicals. Gas fired power plants use water for the cooling towers to control the temperature of the machinery in the plant. Water is also lost to evaporation as part of this process. Accordingly, the development of an industrial power plant would typically result in greater adverse impacts related to: (1) aesthetics and the local visual setting of the Project area; (2) air quality and GHG emissions; and (3) water demand.

As noted above, some of the objectives for the Project are to develop a solar project that would help meet the increasing demand for clean, renewable electrical power as well as help California meet its statutory and regulatory goals of generating more renewable power with minimum potential for environmental effects. Alternatives may be eliminated from detailed consideration in an EIR if they fail to meet most of the Project objectives, are infeasible, or do not avoid or substantially reduce significant environmental effects. Therefore, this alternative was eliminated from further consideration because it would:

- Result in overall additional/greater impacts than the Project including aesthetics, air quality, GHG emissions, hazardous materials, noise, and water demand.
- Not contribute to the statewide renewable energy and GHG reduction objectives as this alternative would use non-renewable energy to produce electricity.

5.4 ALTERNATIVES ANALYZED

In accordance with CEQA Guidelines Section 15126.6(d), each alternative is evaluated in sufficient detail to determine whether the overall environmental impacts would be less, similar, or greater than the corresponding impacts of the Project. Furthermore, each alternative is evaluated to determine whether the Project objectives would be substantially attained by the alternative.

Alternatives analyzed in this section include:

- **Alternative 1 – No Project Alternative**. Under the No Project Alternative, CORE would not construct a PV and BESS facility and the Project's objectives would not be realized.

- **Alternative 2 – Reduced Acreage Alternative**. Under the Reduced Acreage Alternative, the Project Site would be reduced by 177 acres, and the Project's renewable energy generation capacity would be reduced by approximately 25 percent due to the installation of fewer PV panels.

- **Alternative 3 – Offsite Alternative**. Under the Offsite Alternative, the Offsite Alternative would be redesigned and relocated to approximately 1,100 acres of Bureau of Land Management (BLM)-administered land outside of the City of Blythe, which is designated as a Development Focus Area (DFA) for renewable energy in the Desert Renewable Energy Conservation Plan (DRECP).

5.4.1 Alternative 1 – No Project Alternative

CEQA Guidelines Section 15126.6(e) requires analysis of a No Project Alternative that (1) discusses existing site conditions at the time the Notice of Preparation (NOP) is prepared or the Draft EIR is commenced and (2) analyzes what is reasonably expected to occur in the foreseeable future based on current plans if the Project were not approved. Potential effects for the No Project Alternative were compared to the environmental topics that were analyzed as a part of this Draft EIR.

Aesthetics

Implementation of the No Project Alternative would not impact scenic resources, as the Project Site would remain in its current condition. Views of vacant and agricultural land, nearby geothermal facilities, and residences would remain. No new sources of light and glare would be constructed. The No Project Alternative would have no aesthetic impacts. The No Project Alternative would avoid the Project's less than significant impacts on visual quality. The No Project Alternative would have no impact on scenic resource or visual quality.

Air Quality

The No Project Alternative would not require vehicle or equipment use. Criteria air pollutant emissions would not increase and the risk to sensitive receptors would remain the same as baseline conditions. Ambient air quality of the Project Site would not be affected by the No Project Alternative. The No Project Alternative would avoid the proposed Project's potentially significant impacts on air quality resulting from construction of the proposed solar and energy storage facility.

Biological Resources

The No Project Alternative would not require ground-disturbing activities and would not affect special-status plant and wildlife species that may occur within the Project Site. No impacts on biological resources would occur, including no impacts to sensitive habitats or movement of species. The No Project Alternative would avoid the Project's potentially significant impacts on biological resources including special-status species and habitats that would result from construction of the proposed solar and energy storage facility.

Cultural Resources

The No Project Alternative would not involve ground-disturbing activities. The No Project Alternative would not impact historical or archaeological resources or disturb human remains. The No Project Alternative would avoid the Project's potentially significant impacts on historical and archaeological resources resulting from potential damage of buried historical or archaeological resources during construction of the solar and energy storage facility.

Geology and Soils

The No Project Alternative would not involve ground-disturbing activities and soil erosion and topsoil loss would continue at the same rate as baseline conditions in open space areas. Additionally, the No Project Alternative would not impact paleontological resources, and would avoid the Project's potentially significant impacts on paleontological resources resulting from potential damage of buried paleontological resources during construction of the solar and energy storage facility.

Greenhouse Gas Emissions

The No Project Alternative would not require construction of a new solar energy and storage facility. The existing greenhouse gas emissions from agricultural activities and existing agricultural use of the Project Site would continue. The No Project Alternative would not implement a renewable energy Project and would not help the State of California meet its for renewable energy generation targets to reduce GHG emissions. The No Project Alternative would avoid the Project's less than significant impacts from generation of GHG emissions during construction because no development would occur in the Project Site.

Hazards and Hazardous Materials

The No Project Alternative would not involve transportation or use of hazardous materials for construction of a solar and energy storage facility and would not introduce large batteries containing flammable materials. The risk of wildfire would not increase because the existing vegetation and use of the Project Site would remain. There would be no impacts related the hazards and hazardous materials. The No Project Alternative would not interfere with any emergency response or evacuation plans. The No Project Alternative would avoid the Project's less than significant impacts on hazards and hazardous materials because no development would occur in the Project Site.

Noise

No construction or operation of a solar and energy storage facility would occur under the No Project Alternative, and ambient noise levels on the Project Site would remain the same as existing conditions. The No Project Alternative would not result in excessive generation of groundborne noise or vibration levels. The No Project Alternative would not conflict with local noise standards or result in changes to the ambient noise levels either temporarily, periodically, or permanently. The No Project Alternative would avoid the Project's less than significant impacts on noise because no development would occur in the Project Site.

Transportation

No construction would occur with the implementation of the No Project Alternative. The No Project Alternative would not introduce new traffic to the area. Any existing agricultural use and vehicle traffic would remain on the Project Site. No new access roads, solar facilities, or gen-tie lines would be constructed, and the existing transportation and traffic conditions, including air traffic patterns, in the area would remain. The No Project Alternative would avoid the Project's less than significant impacts on transportation, because no development would occur in the Project Site.

Tribal Cultural Resources

The No Project Alternative would not involve ground-disturbing activities. The No Project Alternative would not impact tribal cultural resources. The No Project Alternative would avoid the Project's potentially significant impacts on tribal cultural resources resulting from potential damage of buried tribal cultural resources during construction of the solar and energy storage facility.

5.4.2 Alternative 2 – Reduced Acreage Alternative

The Reduced Acreage Alternative would reduce the Project Site by approximately 177 acres, or approximately 18 percent. The Reduced Acreage Alternative footprint was established by first excluding all jurisdictional waters (i.e., Waters of the State and Waters of the U.S.), expanding the boundaries to cover additional nearby cultural resources, and finally excluding any areas rendered un-developable (e.g., islanded, insufficient space, etc.). Construction of Project facilities would be restricted from the "Excluded Areas" shown in **Figure 5-1,** *Reduced Acreage Alternative*.

Under the Reduced Acreage Alternative, Project energy generation production would be diminished by approximately 25 percent, or 40 MW-AC, because a reduced number of PV panels would be installed due to reduced developable area and sub-optimal layout and siting options. Project renewable energy output would be reduced from 160 MW-AC to approximately 120 MW-AC (25 percent reduction). The proposed substation would also be relocated and access and maintenance road layout and placement would be revised. The proposed BESS system can be charged from both the proposed PV panels and the electrical grid. Therefore, no reduction in BESS capacity is anticipated.

Figure 5-1
Vidal Energy
Reduced Project Alternative

Project Location
Excluded Area

N

0 1,000 2,000 4,000
Feet

Name: 21232 CULT Fig 5-2 Reduced Acerage Alternative.Mxd
Print Date: 10/10/2022, Author: pcarlos

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Aesthetics

The Reduced Acreage Alternative would result in similar impacts to those of the Project. Although the Project Site would be reduced by 177 acres and fewer PV panels would be installed when compared to the Project, the reduction would occur mostly within the interior of the proposed Project Site. Implementation of the Reduced Acreage Alternative would result in less-than-significant impacts and would be similar those of the Project.

Air Quality

The Reduced Acreage Alternative would result in reduced impacts compared to those of the Project. Because the Reduced Acreage Alternative would require less ground disturbance and a shorter construction schedule, there would be less fugitive dust generated by Project construction. The Reduced Acreage Alternative would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is in non-attainment under an applicable federal or State ambient air quality standard. Furthermore, and similar to the Project, the Reduced Acreage Alternative would not conflict with any applicable air quality plans, local land use plans, or Mojave Desert Air Quality Management District (MDAQMD) Rules and Regulations, and would not result in an increase in the frequency or severity of existing air quality violations. As discussed in Section 4.2 Threshold (b), implementation of the Project (both construction and operation) would not result in criteria pollutants emissions that would exceed the MDAQMD annual thresholds and would, therefore, result in less than significant impacts. The Reduced Acreage Alternative would result in a reduced acreage by 177 acres, which would result in reduced emissions during construction and operation. However, similar to the Project, the Reduced Acreage Alternative would result in potential risk associated with Valley Fever due to ground disturbing activities associated with construction. Therefore, the Reduced Acreage Alternative would also be required to implement **Mitigation Measure AQ-1** to ensure worker safety through education and ensuring implementation of required OSHA safety measures. Overall, the Reduced Acreage Alternative would have reduced air quality impacts compared to the Project. While this alternative would generate fewer air quality emissions during construction and operation, it would not achieve the long-term benefits of the Project of generating as much renewable solar energy as the Project would generate.

Biological Resources

Implementation of the Reduced Acreage Alternative would result in reduced impacts to biological resources when compared to the Project-related impacts. The Reduced Acreage Alternative would avoid all on-site drainages determined to be jurisdictional waters of the State, resulting in a 24.66-acre reduction in impacts in the Project footprint when compared to the Project. This footprint reduction would avoid 14.45 acres that would be temporarily impacted and 10.21 acres that would be permanently impacted by construction activities associated with the Project. Overall, the Reduced Acreage Alternative would result in reduced impacts to biological resources when compared to the Project. Impacts would remain less than significant, but would still require implementation of **Mitigation Measures BIO-1** through **BIO-11** to reduce impacts to less than significant.

Cultural Resources

The Reduced Acreage Alternative would result in reduced impacts to cultural resources as compared to those of the Project. The Reduced Acreage Alternative would result in less impacts by avoiding approximately 32 of the 53 identified cultural resources, with an additional two resources being partially avoided (see **Table 5-1,** *Summary of Cultural Resources*). Under this Alternative, 18 identified cultural

resources would be impacted, 16 of which would be fully impacted, and the two partially impacted resources described above. The three resources identified as belonging to federal government entities would be avoided, similar to the Project, as a result of the nature of classification and associated federal protection.

Although the footprint would be reduced and fewer resources potentially impacted, the Reduced Acreage Alternative would not be able to avoid all known resources and would result in similar potentially significant impacts on unknown resources when compared to the Project. The Reduced Acreage Alternative would be required to implement **Mitigation Measures CUL-1** and **CUL-2** to reduce impacts to less than significant. The Reduced Acreage Alternative would result in reduced impacts compared to the Project.

Table 5-1: Summary of Cultural Resources

Resources Avoided		Resources Not Avoided	Government Property
PF-005	VS-031	PF-004	CA-SBR-016198
PF-008	VS-033	PF-009	VS-014
PF-013	VS-034	PF-011	VS-032
PF-016	VS-035	PF-012	–
PF-017	VS-036	PF-015	–
VS-001	VS-037	VS-002	–
VS-008	VS-038	VS-004	–
VS-010	VS-039	VS-006	–
VS-011	VS-040	VS-012	–
VS-016	VS-041	VS-013	–
VS-017	VS-042	VS-015	–
VS-019*	VS-043	VS-019*	–
VS-021	VS-044	VS-020	–
VS-026	VS-049	VS-023	–
VS-027	VS-050	VS-025	–
VS-028	VS-051*	VS-048	–
VS-029	–	VS-051*	–
VS-030	–	VS-052	–
*Resources partially excluded.			

Geology and Soils

The Reduced Acreage Alternative would result in similar geology and soils impacts to those of the Project. Similar to the Project, the Reduced Acreage Alternative would have a potentially significant impact on soil erosion and the loss of topsoil. The Reduced Acreage Alternative would be required to implement **Mitigation Measure GEO-1** to reduce erosion impacts to less than significant.

Since the Reduced Acreage Alternative would result in less ground disturbance during construction when compared to the Project, the potential to encounter paleontological resources would be slightly reduced. However, the Reduced Acreage Alternative would still be required to implement **Mitigation Measures GEO-2** and **GEO-3** to reduce impacts on paleontological resources to less than significant. Overall, the

Reduced Acreage Alternative would result in similar impacts to geology and soils when compared to the Project.

Greenhouse Gas Emissions

The Reduced Acreage Alternative would have reduced GHG emissions when compared to the Project due to the reduced Project footprint. Similar to the Project, the Reduced Acreage Alternative would have less than significant impacts on direct or indirect GHG emissions and plans, policies, and regulations related to GHG emissions. Overall, the Reduced Acreage Alternative would result in less GHG impacts when compared to the Project. However, the Reduced Acreage Alternative would result in less beneficial impacts related to GHGs when compared to the Project because it would produce less renewable energy. Impacts would be reduced compared to the Project. While this alternative would generate fewer GHG emissions during construction and operation, it would not achieve the long-term benefits of the Project of generating as much renewable solar energy as the Project would generate.

Hazards and Hazardous Materials

The Reduced Acreage Alternative would result in similar impacts to those of the Project. The Reduced Acreage Alternative would have a less than significant impact on hazards and would be required to be in compliance with the same listed regulations that are applicable to the Project. The Reduced Acreage Alternative's impacts would result in similar hazards and hazardous materials impacts when compared to the Project.

Noise

The Reduced Acreage Alternative would result in reduced impacts compared to those of the Project due to the reduced construction. Similar to the Project, the Reduced Acreage Alternative would only conduct construction activities and operational activities that produce higher levels of noise between the hours of 7 a.m. to 7 p.m., and noise levels at the nearest sensitive receptor would be below the County Development Code's 55 dBA limit during daytime hours of 7 a.m. to 10 p.m. However, the construction duration for the Reduced Acreage Alternative would be less than that of the Project. Vibration levels resulting from construction of the Reduced Acreage Alternative, similar to the Project, would likely be imperceptible at the lot line and would be well below the County's and the Federal Transit Administration's (FTA) threshold of 0.20 inches per second peak particle velocity (PPV). No excessive groundborne vibration or groundborne noise levels would be produced during the operations of the Project and the Reduced Acreage Alternative. Overall, the Reduced Acreage Alternative would result in reduced impacts to noise when compared to the Project.

Transportation

The Reduced Acreage Alternative would result in similar impacts compared to those of the Project. Although the acreage of the Reduced Acreage Alternative would be reduced when compared to the Project, the vehicle miles traveled (VMT) generated during construction and operation would be similar. Therefore, impacts to VMT for the Reduced Acreage Alternative would remain less than significant. Like the Project, the Reduced Acreage Alternative would not conflict with adopted policies and plans regarding public transit, bicycle, or pedestrian facilities. Overall, the Reduced Acreage Alternative would result in similar impacts to transportation when compared to the Project.

Tribal Cultural Resources

The Reduced Acreage Alternative would result in reduced impacts to tribal cultural resources as compared to those of the Project. The Reduced Acreage Alternative would result in less impacts due to the reduced footprint. However, the Reduced Acreage Alternative would be required to implement **Mitigation Measures TCR-1** and **TCR-2** to reduce potential impacts to tribal cultural resources to less than significant. Impacts under the Reduced Acreage Alternative would be reduced compared to the Project.

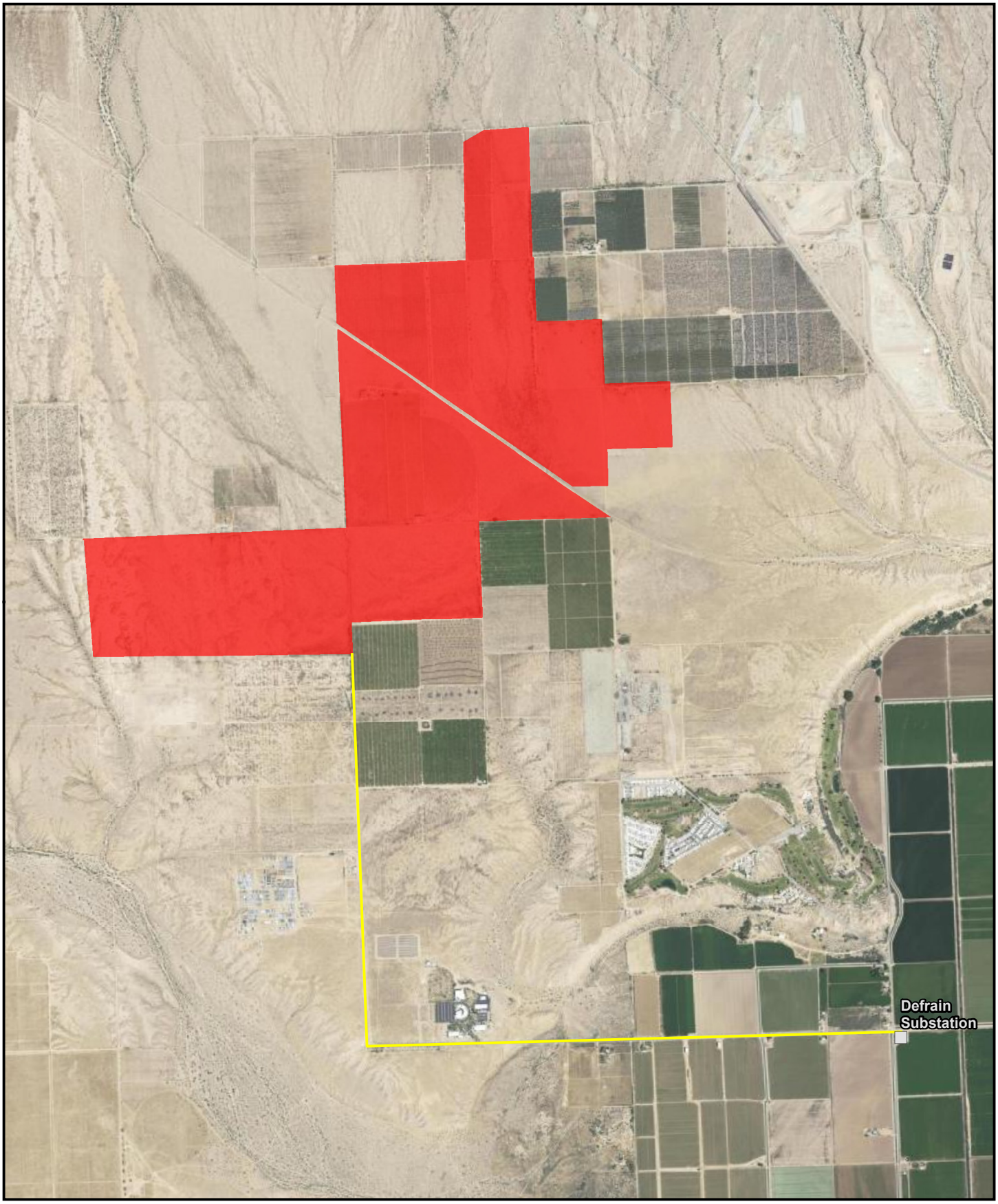
5.4.3 Alternative 3 – Offsite Alternative

The Offsite Alternative includes the use of approximately 1,100 acres on BLM administered land, located outside of the City of Blythe and entirely within the County of Riverside. Given the land area, this Alternative could allow for development of a utility-scale renewable energy facility with similar generation and storage capacity as the Project. The Alternative 3 site is designated as a DFA for renewable energy in the DRECP. A 3.55-mile gen-tie line would travel south along Neighbors Boulevard to 6th Avenue, and then east to the Defrain Substation. Palo Verde College is located north of 6th Avenue and Rancho Ventana RV Resort and Blythe Municipal Golf Course are located approximately one mile southeast from the Offsite Alternative. Additionally, at least two farms / farm worker houses are located within or on the boundaries of this alternative location. **Figure 5-2**, *Offsite Alternative*, shows the proposed Offsite Alternative location, and approximate gen-tie line route.

Aesthetics

The Offsite Alternative would include development of a utility scale solar and energy storage facility within a previously undisturbed desert area. There are two farms immediately adjacent to the Offsite Alternative site. Similar to the Project, the Offsite Alternative would replace views of the open desert with views of a utility scale solar and energy storage facility. In addition to the renewable energy facility, a gen-tie line would travel south along Neighbors Boulevard, and east along 6th Avenue to connect to the Defrain Substation.

Similar to the Project, the Offsite Alternative would introduce new features consistent with solar and energy storage facilities. The solar panels would have a uniform color, texture, and form, which would moderately contrast with the color and form of the desert vegetation and landscape. Construction of the Alternative would be similar to the Project and introduce construction lighting if required for night work, and construction lighting would be directed away from adjacent residences and toward active construction areas. Additionally, similar to the Project, the Offsite Alternative lighting would be shielded and directed downward to minimize light trespass onto surrounding properties, and lighting within the battery storage containers would be motion-activated. Substation lighting would normally be off unless activated by on-site personnel. Due to the relatively similar size, layout, and materials, implementation of the Offsite Alternative would result in less-than-significant impacts. However, because these impacts would be experienced by more people given the location, the Offsite Alternative would have a greater aesthetics impact than the Project.



Offsite Alternative

Proposed Gen-Tie Line

Existing Substation

N

0 1,000 2,000 4,000

Feet

Figure 5-2
Vidal Energy
Offsite Alternative

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Air Quality

The Offsite Alternative would involve the use of construction equipment and vehicles that would result in temporary construction emissions. This Alternative is largely similar in size and topography to the Project. Therefore, construction emissions would be similar to those of the Project and would be less than significant. This Alternative is closer to more existing development, including Palo Verde College, Rancho Ventana RV Resort, and the Blythe Municipal Golf Course. Additionally, this location has several farms / farm worker housing, including two houses located either side of Neighbor Road and within the half-mile sensitive receptor boundary. However, as discussed in Section 4.2 Threshold (b), implementation of the Project (both construction and operation) would not result in criteria pollutants emissions that would exceed the MDAQMD annual thresholds and would, therefore, result in less than significant impacts. However, similar to the Project, the Offsite Alternative would result in potential risk associated with Valley Fever due to ground disturbing activities associated with construction. Therefore, the Offsite Alternative would be similarly required to implement **Mitigation Measure AQ-1** to ensure worker safety through education and ensuring implementation of required OSHA safety measures. Since this Alternative would be similar size and operation as the Project, impacts would be similar to those of the Project.

Biological Resources

The Offsite Alternative is within the planning area of several adopted local plans, including the Countywide Plan and the DRECP. The Offsite Alternative would be located in an area designated by the BLM as a DFA in the BLM adopted DRECP. The BLM has identified DFAs for renewable energy projects as a way to concentrate large utility scale renewable energy projects in areas that are outside of the California Desert Conservation Area Plan Boundary. This Alternative would be consistent with these plans. However, a location within a DFA does not necessarily mean impacts are avoided. According to the DRECP Environmental Impact Statement (EIS), the Offsite Alternative location has a high occurrence of Burrowing Owls and has had an occurrence of a Mountain Plover.[1] Additionally, this Offsite Alternative location does feature some Riverine features near the northeastern portion of the Offsite Alternative site, and would result in approximately 2.20 acres of impacts to riverine habitat. Similar mitigation measures identified for the Project (**Mitigation Measures BIO-1** through **BIO-11**) would be implemented to reduce impacts to a less than significant level. Therefore, the Offsite Alternative would result in similar impacts to those of the Project, and impacts would be reduced to less than significant.

Cultural Resources

The DRECP EIS evaluated cultural resources within the entire DRECP plan area and noted a total of 16,002 listed, eligible, not evaluated, and unknown status of cultural resources including prehistoric, historic, multi-component, unknown type, and isolate in the plan area. While the locations of these cultural resources are not specifically noted, the potential remains for buried historic or archaeological resources or human remains to be unearthed during ground disturbing activities. The potential for disturbing these resources on the Offsite Alternative site would be similar to the potential at the Project Site and gen-tie line route, because both sites have been mostly undisturbed and are relatively the same size. Implementation of the Offsite Alternative would result in similar potential impacts on cultural resources compared to the Project due to the undeveloped nature of the Offsite Alternative site. Implementation

[1] Bureau of Land Management, Desert Renewable Energy Conservation Plan Environmental Impact Statement, 2015. Available at https://eplanning.blm.gov/eplanning-ui/project/66459/570. Accessed October 16, 2022.

of **Mitigation Measures CUL-1** and **CUL-2** would reduce impacts to less than significant levels. Impacts from the Offsite Alternative would be similar to the Project.

Geology and Soils

The Offsite Alternative would also require preparation of a Stormwater Pollution Prevention Plan (SWPPP) as part of the grading permit submittal package. The SWPPP would consider the full range of erosion control best management practices (BMPs) with consideration for any additional site-specific and seasonal conditions, as appropriate. Additional recommendations to minimize the potential for soil erosion to occur during construction, including limiting certain construction activities to dry weather, covering exposed excavated dirt during periods of rain, and protecting excavated areas from flooding with temporary berms. Additionally, the Offsite Alternative would require implementation of **Mitigation Measure GEO-1** to prepare a Final Geotechnical Report to support final project design and accommodate for soils underlaying the development footprint and gen-tie line.

Regarding paleontological resources, the Offsite Alternative location is located in an area of low or undetermined sensitivity for paleontological resources. However, the Offsite Alternative would still require implementation of **Mitigation Measures GEO-2** and **GEO-3** to reduce impacts to paleontological resources to less than significant. Therefore, impacts under the Offsite Alternative would be similar to those of the Project.

Greenhouse Gas Emissions

Offsite Alternative construction would involve construction equipment and vehicles that would result in construction GHG emissions, which would be short-term and temporary. The Offsite Alternative would be of similar size to the Project and would similarly not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment. Construction emissions are likely to be the same as the Project. Therefore, impacts would be less than significant. Impacts from the Offsite Alternative would be similar to those of the Project.

Hazards and Hazardous Materials

The Offsite Alternative would result in similar impacts to those of the Project. This Alternative would involve use of the same hazardous materials as the Project. Project construction activities would occur in accordance with all applicable standards for handling and transport of hazardous materials set forth by Riverside County, State, and federal regulations. The Offsite Alternative site has never been developed or used for agricultural purposes and as a result does not have any contaminated soils from past pesticide use or previous solar development. Access to the site would be provided by Midland Road that connects to Neighbors Boulevard and provides direct access to the site. The Project site for this Alternative is not located within a CAL FIRE designated Very High Fire Severity Zone (VHFSZ). Similar to the Project, the BESS creates potential for accidental release of hazardous substances during a fire event. However, this Alternative would comply with the applicable federal, State, and regional regulations and codes. While the Offsite Alternative has no hazardous waste sites on Geotracker, according to the California Department of Toxic Substances Control EnviroStor database search, there are three inactive Military Evaluation sites that need evaluation within a 0.25 mile distance of the Offsite Alternative site.

This Alternative would require the same use of hazardous materials as the Project and would have the same less than significant impact related to the potential for wildfires. This Alternative would require decommissioning after the life cycle of the project, similar to the Project. However, the Offsite Alternative

does have a potential to conflict with a nearby hazardous waste site, and for that reason, this Alternative's impacts would be greater than the Project. However, with compliance with all applicable regulations, impacts would be less than significant.

Noise

Alternative 3 has the potential to exceed Riverside County's 45-dBA noise standards both during construction and operations. Additionally, two residential properties are located immediately adjacent to the Alternative site, and vibration levels could exceed the Riverside County and FTA vibration thresholds and require mitigation measures to reduce impacts to a level less than significant. Blythe Airport is located approximately 4.3 mile southeast of this alternative and is not located within the boundaries of any airport land use compatibility plan, nor is it within any airport's noise impact zone. Noise impacts associated with the implementation of the Offsite Alternative would be greater than the Project and would require mitigation measures to reduce impacts to less than significant.

Transportation

Alternative 3 would produce a similar level of VMT during construction and operation, and would have to utilize local roads including Neighbors Boulevard and Midland Road. Like the Project, the Offsite Alternative would not result in inadequate emergency access or conflict with adopted policies and plans regarding public transit, bicycle, or pedestrian facilities. Any new access roads constructed for the Alternative would be designed to achieve Riverside County standards and would not increase hazards due to a design feature. No closures to Midland Road or Neighbors Boulevard would occur that may affect emergency access in the vicinity of the Alternative. Under the Offsite Alternative, impacts on transportation would be less than significant, but would be similar to the transportation impacts under the Project.

Tribal Cultural Resources

It is currently unknown what tribal cultural resources may be undiscovered on the Offsite Alternative site. While the County of Riverside General Plan does not show any identified cultural resources on the site, a potential remains for buried historic or archaeological resources to be unearthed during ground disturbing activities. Implementation of this Alternative would result in similar potential impacts on tribal cultural resources compared to the Project due to the undeveloped nature of the Alternative site, and mitigation measures would be required to reduce potential impacts to less than significant.

5.4.4 Comparison of Alternatives

Table 5-2, *Comparison of Alternatives – Project Objectives,* identifies Project objectives consistency for the Project alternatives.

Table 5-2: Comparison of Alternatives – Project Objectives

Project Objectives	Ability of Alternatives to Meet Project Objectives		
	Alternative 1 – No Project Alternative	Alternative 2 – Reduced Acreage Alternative	Alternative 3 – Offsite Alternative
Objective 1: Utilize property within the County to site PV solar power-generating facilities and energy storage near existing utility infrastructure.	Does not meet	Does meet	Does not meet
Objective 2: Support California's efforts to reduce greenhouse gas (GHG) emissions consistent with the timeline established by the California Global Warming Solutions Act under California Assembly Bill 32, as amended by Senate Bill 32,which requires that Statewide GHG emissions are reduced to at least 40 percent below the Statewide GHG emissions limit by 2030.	Does not meet	Does meet at reduced capacity	Does meet
Objective 3: Support California's aggressive Renewables Portfolio Standard (RPS) Program consistent with the timeline established by Senate Bill 100, which requires that by December 31, 2030, 60 percent of all electricity sold in the State shall be generated from renewable energy sources.	Does not meet	Does meet at reduced capacity	Does meet
Objective 4: Develop an economically feasible and commercially financeable power-generating facility and energy storage system.	Does not meet	Does meet at reduced capacity	Does meet
Objective 5: Provide solar-generated electricity to the California Independent System Operator (CAISO) grid and WAPA.	Does not meet	Does meet at reduced capacity	Does meet
Objective 6: Promote the County's role as the State's leading producer of renewable energy.	Does not meet	Does meet at reduced capacity	Does not meet
Objective 7: Provide green jobs to the County and the state of California.	Does not meet	Does meet	Does meet at reduced capacity
Objective 8: Site and design the Project in an environmentally responsible manner consistent with current County guidelines.	Does not meet	Does meet	Does not meet

Table 5-3, *Comparison of Environmental Issues,* summarizes potential impacts of the alternatives evaluated in this EIR when compared with potential impacts of the Project. Several criteria are considered for each resource topic and the conclusion considers the aggregate impact of the alternative (Reduced, Similar, or Greater) relative to the impacts of the Project.

Table 5-3: Comparison of Environmental Issues

Environmental Issue Area	Project	Alternative 1 – No Project Alternative	Alternative 2 - Reduced Acreage Alternative	Alternative 3 – Offsite Alternative
Aesthetics	Less than Significant	Reduced (No Impact)	Similar (Less than Significant)	Greater (Less than Significant)
Air Quality	Less than Significant with Mitigation	Reduced (No Impact)*	Reduced (Less than Significant with Mitigation)*	Similar (Less than Significant with Mitigation)
Biological Resources	Less than Significant with Mitigation	Reduced (No Impact)	Reduced (Less than Significant with Mitigation)	Similar (Less than Significant with Mitigation)
Cultural Resources	Less than Significant with Mitigation	Reduced (No Impact)	Reduced (Less than Significant with Mitigation)	Similar (Less than Significant with Mitigation)
Geology and Soils	Less than Significant with Mitigation	Reduced (No Impact)	Similar (Less than Significant with Mitigation)	Similar (Less than Significant with Mitigation)
Greenhouse Gas Emissions	Less than Significant	Reduced (No Impact)*	Reduced (Less than Significant)*	Similar (Less than Significant)
Hazards and Hazardous Materials	Less than Significant	Reduced (No Impact)	Similar (Less than Significant)	Greater (Less than Significant)
Noise	Less than Significant	Reduced (No Impact)	Reduced (Less than Significant)	Greater (Less than Significant with Mitigation)
Transportation	Less than Significant	Reduced (No Impact)	Similar (Less than Significant)	Similar (Less than Significant)
Tribal Cultural Resources	Less than Significant with Mitigation	Reduced (No Impact)	Reduced (Less than Significant with Mitigation)	Similar (Less than Significant with Mitigation)

*While this alternative would consume less energy and generate fewer air quality and GHG emissions during construction and operation, it would not achieve the long-term benefits of the Project of generating as much renewable solar energy as the Project would generate.

5.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that an environmentally superior alternative be identified, which is an alternative resulting in the fewest or least significant environmental impacts. If the No Project Alternative is the environmentally superior alternative, CEQA Guidelines Section 15126.6(e)(2) requires that another alternative that could feasibly attain most of the Project's basic objectives be chosen as the environmentally superior alternative.

The No Project Alternative is the environmentally superior alternative. However, in accordance with CEQA Guidelines Section 15126.6(e)(2), a secondary alternative must be chosen since the No Project Alternative is environmentally superior.

Alternative 2, the Reduced Acreage Alternative, is conservatively considered as the environmentally superior alternative, because it would incrementally reduce certain impacts associated with the Project due to the reduced footprint (e.g., air quality, biological resources, cultural resources, and GHG emissions)

and not result in any significant and unavoidable impacts. As such, environmental impacts would be less than significant for all resource areas under either the Project or Alternative 2. Further, Alternative 2 would not realize certain environmental benefits and would not meet the Project objectives to the same extent as the Project. Alternative 2 would leave undeveloped underutilized land that has been planned for a solar energy facility, within an existing fenced area surrounded by similar renewable energy development. Alternative 2 would also contribute less than the Project in assisting California reach its renewable energy generation goals under SB 100. Alternative 2 would attain most of the Project Objectives, although it would not do so to the same extent as the Project.

CHAPTER 6 – OTHER CEQA CONSIDERATIONS

This chapter presents the evaluation of other types of environmental impacts required by the California Environmental Quality Act (CEQA) Guidelines Section 15126, which requires that all aspects of a project must be considered when evaluating its impacts on the environment, including planning, acquisition, development, and operation.

6.1 CEQA REQUIREMENTS

As part of the analysis, an EIR must identify: (1) the growth-inducing impacts of the proposed project; (2) significant environmental effects of the proposed project; (3) significant irreversible environmental changes that would result from implementation of the proposed project; and (4) energy conservation. Each of these topics is discussed below.

6.2 GROWTH-INDUCING IMPACTS

CEQA Guidelines Section 15126.2(d) requires that an EIR discuss a project's potential to foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. The CEQA Guidelines also indicate that it must not be assumed that growth in any area is necessarily beneficial, detrimental or of little significance to the environment. This section analyzes such potential growth-inducing impacts, based on criteria suggested in the CEQA Guidelines.

The San Bernardino County Countywide Plan/Policy Plan recognizes that certain forms of growth are beneficial, both economically and socially. CEQA Guidelines Section 15126.2(d) provides the following guidance on growth-inducing impacts:

> *A project is identified as growth-inducing if it "would foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment*."

Growth-inducing impacts fall into two general categories: direct and indirect. Direct growth-inducing impacts are generally associated with providing urban services to an undeveloped area. Indirect, or secondary growth-inducing impacts, consist of growth induced in the region by additional demands for housing, goods, and services associated with the population increase caused by, or attracted to, a new project.

Growth inducement can be a result of new development that requires an increase in employment levels, removes barriers to development, or provides resources that lead to secondary growth. With respect to employment, construction workers would be working in the area temporarily and are not expected to relocate to the area with their families. It is anticipated that the construction workforce would commute to the Project Site each day from local communities, and the majority would likely come from the existing labor pool as construction workers travel from site to site as needed. Construction staff not drawn from the local labor pool would stay in any of the local hotels in Vidal or other local communities. Temporary construction workers are not expected to generate a demand for services that would require an extension of infrastructure into areas that have not previously been served by public facilities (e.g., new water mains, sewer mains, or roadways).

Also, the Project would not induce substantial unplanned population growth in the Project area, either directly or indirectly. The Project would not include the extension of utility infrastructure or construction

of new roadways other than that for the Project itself, that could induce development in the area. The Project would assist California in meeting its air quality and greenhouse gas (GHG) emissions reduction goals. As such, the Project would not directly induce growth related to provision of additional electric power.

Although the Project would contribute to the energy supply, which supports growth, the development of power infrastructure is a response to increased market demand. Rather, energy demand, as determined by the California Public Utilities Commission with input from the California Energy Commission (CEC), drives generation procurement. Procurement does not drive an increase in either utility customers or energy consumption. It does not induce new growth. San Bernardino County (County) planning documents already permit and anticipate a certain level of growth in the area of the Project and in the State as a whole, along with attendant growth in energy demand. It is this anticipated growth that drives energy-production projects, not vice versa. The Project would supply energy to accommodate and support existing demand and projected growth, but it would not foster any new growth. Therefore, any link between the Project and growth in the County would be speculative.

6.3 SIGNIFICANT UNAVOIDABLE ENVIRONMENTAL IMPACTS

CEQA Guidelines Section 15126.2(b) requires that an EIR discuss any significant impacts associated with a project.

Sections 4.1 through 4.10, and Section 6.5, Effects Found Not to be Significant, of this Draft EIR describe the potential environmental impacts of the Project and recommend mitigation measures to reduce impacts to a less than significant level where feasible. The Executive Summary includes **Table ES-1**, *Summary of Significant Impacts and Mitigation Measures*, which summarizes the impacts, mitigation measures, and levels of significance before and after mitigation.

After thorough study and environmental review, as provided in this Draft EIR, it was determined that Project-level and cumulative impacts would not result in any significant and unavoidable impacts.

6.4 IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA Guidelines Section 15126.2(c) defines an irreversible impact as an impact that uses nonrenewable resources during the initial and continued phases of the Project. Irreversible impacts can also result from damage caused by environmental accidents associated with the Project. Irretrievable commitments of resources should be evaluated to ensure that such consumption is justified.

Project buildout would commit nonrenewable resources during Project construction and operation. During Project construction, nonrenewable resources such as oil, gas, and other fossil fuels would be consumed, primarily in the form of production of Project facilities and transportation fuel for construction workers.

The Project would operate a solar energy facility that would generate 160 megawatts (MW) of renewable energy. Solar energy generation is considered a renewable process because its source is the almost unlimited amount of energy from the sun itself. However, the Project would generate minimal periodic operational vehicle trips internal to the Project Site for required maintenance activities, 40 trips per year for solar panel washing, and may require materials for replacement parts/repairs over the course of facility operations. Therefore, an irreversible commitment of nonrenewable resources would occur as a result of short-term Project construction and long-term Project operations. However, assuming that those

commitments occur in accordance with the adopted goals, policies, and implementation measures of the San Bernardino Countywide Plan/Policy Plan, as a matter of public policy, those commitments have been determined to be acceptable. The San Bernardino County Countywide Plan/Policy Plan ensures that any irreversible environmental changes associated with those commitments will be minimized. Furthermore, the Project will provide a new source of renewable energy that would reduce the need for future consumption of nonrenewable fossil fuels for energy use.

At the end of the Project's operation term, the Applicant may determine that the Project should be decommissioned and deconstructed. Should the Project be decommissioned, the Project Applicant is required to restore land to its pre-Project state. Consequently, some of the resources on the Project Site could potentially be retrieved after the Project Site has been decommissioned. Concrete footings, foundations, and pads would be removed and recycled at an off-site location. All remaining components would be removed, and all disturbed areas would be reclaimed and recontoured. The Applicant anticipates using the best available recycling measures at the time of decommissioning.

6.5 EFFECTS NOT FOUND TO BE SIGNIFICANT

In addition to the environmental impact thresholds analyzed in detail in this Draft EIR, the County has determined during the Notice of Preparation (NOP) and early review of the Project that the construction and operation of the Project would not result in potentially significant impacts to the environmental impact topics discussed below. CEQA Guidelines Section 15128 requires a brief description of any possible significant effects that were determined not to be significant and were not analyzed in detail within the environmental analysis.

The discussion below presents the analysis of the effects related to aesthetics, agricultural and forestry resources, air quality, biological resources, energy, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, transportation, utilities and service systems, and wildfire were found to not be significant. Any thresholds or topics not addressed in this section are addressed in Section 4, Environmental Impact Analysis, of this Draft EIR.

6.5.1 Aesthetics

Threshold (a): Would the Project have a substantial adverse effect on a scenic vista?

The Natural Resources Element of the San Bernardino Countywide Plan/Policy Plan includes goals and policies to preserve significant scenic vistas and natural features. Policy NR-4.1 states that consideration will be provided for the location and scale of development to preserve regionally significant scenic vistas and natural features.

The County is divided into Mountain Region, Valley Region, and Desert Region according to the Countywide Plan/Policy Plan. The Project Site is within the Desert Region of the County. While there are scenic vistas in the Desert Region, including views across desert landscapes, toward mountains, ridgelines, and rock formations, no designated scenic views, scenic vistas, or scenic resources are known to occur in the vicinity of the Project. The Project Site has views of mountain foothills to the southeast. However, the solar equipment proposed to be constructed on the Project Site is low in profile, including PV modules mounted on fixed-tilt foundations or tracker units and associated electrical equipment that would display a height of approximately 12 feet. The Project would also include overhead collection lines, access roads,

and a 6-foot chain-link perimeter fence. Although the Project would alter the existing character of the Project Site, the introduction of Project components would not substantially obstruct or interrupt views of the surrounding mountains which would remain visually prominent. Less than significant impacts on scenic vistas are expected to occur, and no further analysis is required.

Threshold (b): Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

The Project Site is generally flat and contains no significant geologic features or vegetation unique to the area that could be considered scenic. Elements of the Project would be visible for motorists traveling along U.S. Route 95, including solar racks, perimeter fencing, access roads, and overhead collection lines. However, this route is not a County- or State-designated scenic highway. The closest eligible State scenic highway is Interstate 40 from Barstow to Needles, approximately 50 miles north of the Project Site.[1] Therefore, the Project would not be visible within this viewshed. Additionally, construction of the Project would not entail the removal of trees, rock outcroppings, and/or historic buildings, as these features do not occur on the Project Site. Impacts would be less than significant, and no further analysis is required.

6.5.2 Agricultural and Forest Resources

Threshold (a): 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 non-agricultural use?

The Project Site is vacant desert land with scattered abandoned residences nearby. According to the Department of Conservation's Important Farmland Finder, no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance is designated within the Project Site.[2] The closest designated farmland is approximately 20 miles south of the Project Site. No impact would occur, and no further analysis is warranted.

Threshold (b): Would the Project conflict with existing zoning for agricultural use, or a Williamson Act contract?

The Project Site is vacant desert land with scattered residences nearby. According to the Department of Conservation's Williamson Act Contract Land Map, no farmland is enrolled in a Williamson Act contract within the Project Site. The closest land enrolled in a Williamson Act Contract is approximately 20 miles south of the Project Site. The Project Site is zoned Resource Conservation (RC) which does permit agricultural uses. Additionally, the Project is compatible with the current zoning designation of RC, upon approval of a Conditional Use Permit (CUP). No impact would occur, and no further analysis is warranted.

[1] California Department of Transportation (Caltrans), California State Scenic Highway Systems Map. Available at https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa. Accessed September 30, 2022.

[2] California Department of Conservation, California Important Farmland Finder. Available at https://maps.conservation.ca.gov/DLRP/CIFF/. Accessed September 30, 2022.

Threshold (c): 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 Site is currently mostly vacant desert land and is not forested. As such, the Project Site is not designated as forest land or timberland. The Project Site is zoned RC which does not include timberland or forest land uses. The Project would not include timberland production uses. No impact would occur, and no further analysis is warranted.

Threshold (d): Would the Project result in the loss of forest land or conversion of forest land to non-forest use?

As mentioned above, the Project Site is currently vacant land and does not include forest land and has not been zoned for forest land or timberland uses. The Project would not result in the loss of forest land or conversion of forest land to non- forest use. Therefore, the Project would not conflict with the existing/future zoning for, or cause rezoning of, forest land, timberland, or timberland zoned Timberland Production as there is none. No impact would occur, and no further analysis is warranted.

Threshold (e): Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or the conversion of forest land to non-forest use?

The Project Site is surrounded by vacant desert land and would not convert Farmland to non-agricultural use or convert forest land to non-forest use. No impact would occur, and no further analysis is warranted.

6.5.3 Air Quality

Threshold (d): Would the Project result in other emissions (such as those leading to odors adversely affecting a substantial number of people)?

Odors would be generated from vehicles and equipment exhaust emissions during construction of the Project. Odors produced during construction are typically attributable to tailpipes of construction equipment. These odors would be temporary and intermittent throughout the Project Site. CARB's *CEQA Air Quality Handbook* indicates that land uses typically associated with odor complaints include agricultural uses, wastewater treatment plants, food processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding. The Project is a land use that is not consistent with those labeled in CARB's Handbook as being associated with odorous complaints and any odors produced would be minimal and easily dispersed into the atmosphere.

Additionally, the Project is not located near any uses that are sensitive to odors and no other high-odor-producing use. Therefore, the Project would not result in odors, and no impacts would occur. No further environmental analysis is required.

6.5.4 Biological Resources

Threshold (c): Would the Project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

The Project is located within the Vidal Wash and Upper Parker Valley-Colorado River watersheds. One small Freshwater Forested/Shrub Wetland feature was identified on National Wetland Inventory maps in the center of the Project Site.[3] However, no wetlands or wetland features were identified within the Project Site during survey efforts. Therefore, there would be no impacts to state or federally protected wetlands, and no further investigation is required.

Threshold (f): 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 Project is not located within an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or State habitat conservation plan and would, therefore, have no impact on these areas. The Project is within the Desert Renewable Energy Conservation Plan. However, the Desert Renewable Energy Conservation Plan applies only to the Federal Bureau of Land Management (BLM)-administered lands and does not apply to the Project because it is on private land. The Project is not located within critical habitat designated by the U.S. Fish and Wildlife Service (USFWS). Therefore, there would be no impact on critical habitat. No further investigation is required.

6.5.5 Energy

Threshold (a): Would the Project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

The Project would increase the demand for electricity and gasoline at the Project Site during construction, but usage would be minimal during Project operations. The energy needs for the Project construction would be temporary and are not anticipated to require additional capacity or increase peak or base period demands for electricity or other forms of energy. Construction equipment use and associated energy consumptions would be typical for that associated with the construction projects of this size. Thus, the Project's energy consumption during the construction phase would not be considered wasteful, inefficient, or unnecessary.

As stated above, the Project would not increase the demand for electricity or natural gas at the Project Site during operations. The Project does not include any permanent components that would significantly increase demand for existing sources of energy with the exception of gasoline usage for bimonthly maintenance visits totaling up to six to eight times per year, and operations of security lighting on site. The Project development of a solar energy and battery storage facility would provide a new secure and reliable electricity supply, improve community infrastructure, and support sustainable electricity generation. By building the Project, a clean, reliable resource would be gained to help integrate renewable

[3] United States Fish and Wildlife Service (USFWS), National Wetland Inventory. Available at https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/. Accessed September 30, 2022.

energy sources, reduce dependence on gas-fired generation, eliminate ocean water for cooling, reduce freshwater consumption, and reduce greenhouse gas (GHG) emissions and criteria air pollutant emissions. Impacts to energy resources during construction would be less than significant, and the Project would create a beneficial impact during operations.

Threshold (b): Would the Project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Many of the regulations regarding energy efficiency are focused on increasing the energy efficiency of buildings and renewable energy generation, as well as reducing water consumption and reliance on fossil fuels. The Project, which comprises the building of a solar energy and battery storage facility, would be part of a sustainable solution to enable increasing amounts of renewable energy-generating sources to be accessed. Renewable energy is a focus of the County's Countywide Plan/Policy Plan and Renewable Energy and Conservation Element. Therefore, the Project would be in alignment with the County's energy goals identified below.

Policy RE 2.1 Support solar energy generation, solar water heating, wind energy and bioenergy systems that are consistent with the orientation, siting and environmental compatibility policies of the Countywide Plan/Policy Plan.

Policy RE 2.1.1 Utilize renewable energy development standards in the Development Code to minimize impacts on surrounding properties.

Policy RE 2.2 Promote use of energy storage technologies that are appropriate for the character of the proposed location.

Policy RE 2.2.1 Encourage onsite energy storage with RE generation facilities, consistent with County Development Code requirements.

Policy RE 2.2.2 Encourage and allow energy storage facilities as an accessory component of RE generation facilities.

Policy RE 2.2.3 Establish thresholds for conditions under which energy storage facilities are a primary use and subject to separate permit processes.

Policy RE 2.2.4 Periodically review and encourage appropriate technology types for energy storage facilities.

Policy RE 2.2.5 Support state policies and efforts by utility companies to plan for and develop energy storage technologies through legislative advocacy and coordination with utility companies.

No conflicts with renewable energy or energy efficiency plans would occur. Impacts to energy resources would be less than significant, and no further analysis is required.

6.5.6 Geology and Soils

Threshold (a): Would the Project directly or indirectly cause potential substantial adverse effects, including risk of loss, injury, or death involving:

i) 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? Refer to Division of Mines and Geology Special Publication 42?

Southern California is a seismically active region subject to strong ground acceleration from earthquake events along major regional faults. However, according to the County's Geologic Hazard Overlay maps, the Project Site is not in the vicinity of a known earthquake fault. The closest earthquake fault line, the Chemehuevi graben fault, is approximately two miles long, and located approximately 30 miles north of the site and adjacent to Lake Havasu. The Project would not require substantial ground disturbance that could induce seismic activity and would not include any habitable structures. Nonetheless, the design of any structures on the Project Site would be designed to accommodate seismic loading, pursuant to the 2019 California Building Code. Specific standards that may be used for the Project include but are not limited to, anchoring (or other means of securing application structures), use of appropriate materials, and flexible joints where appropriate. Therefore, impacts from proximity to fault zones are considered less than significant, and no further analysis is required.

ii) Strong seismic ground shaking?

As mentioned above, Southern California is a seismically active region, but the Project Site is 30 miles north of the nearest earthquake fault, and no habitable structures are proposed as part of the Project. The Project components would be designed to resist structural collapse to the greatest extent possible through incorporation of design guidelines from the California Building Standards Code and the County Development Code. Impacts are considered less than significant, and no further analysis is required.

iii) Seismic-related ground failure, including liquefaction?

According to the County's Geologic Hazard Overlay maps, the Project Site is not located in the vicinity of any areas prone to liquefaction, with the closest area being approximately 30 miles north. (County 2007b). Therefore, the potential for liquefaction at this Project Site is considered to be low. Furthermore, the design of the Project would incorporate requirements of the California Building Code that would address potential seismic-related effects such as liquefaction, settlement, and lateral spreading. With incorporation of applicable standards, the Project would not result in potential impacts associated with seismic-related ground failure, and impacts would be less than significant. No further analysis is required.

iv) Landslides?

The County's Geologic Hazard Overlay maps identify no areas prone to landslide in the vicinity of the Project Site, with the closest area prone to landslide more than 100 miles west of the Project Site. Additionally, the Project area is relatively flat terrain where landslides have not historically been an issue. No impacts would occur, and no further analysis is required.

Threshold (c): 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?

As previously discussed, the Project Site is not identified as an area prone to landslides or liquefaction and is not in the vicinity of such an area. According to the Land Subsidence Potential map from the Countywide Plan, there is insufficient data of the estimated potential subsidence of the area. Subsidence is commonly caused by the removal of subsurface water and underground mining. The Project does not propose any mining activities or removal of subsurface water. Further, no significant grading is proposed as part of the Project, and only minor ground disturbance is anticipated. Therefore, the impact to geologic stability would be less than significant and no further analysis is required.

Threshold (d): Would the Project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

As previously discussed, the County's Geologic Hazard Overlay maps do not identify areas prone to landslide to be in the vicinity of the Project Site. The closest areas prone to landslides are more than 100 miles west of the Project Site. According to the Countywide Plan, the Desert Regions of the County have low to moderate levels of expansive soils. Because of the remote location, the U.S. Department of Agriculture Soil Map is unable to classify the soil composition of the Project Site. However, the Project would be unmanned, and design of the Project would incorporate requirements of the California Building Code that would address potential seismic-related effects. With incorporation of applicable standards, the Project would not result in potential impacts associated with expansive soil, and impacts would be less than significant. Therefore, no further analysis is required.

Threshold (e): 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 Project would be unmanned and does not propose to use septic tanks or alternative wastewater disposal systems. Therefore, the Project would not result in impacts relative to wastewater. No impacts would result, and no further investigation is required.

6.5.7 Hazards and Hazardous Materials

Threshold (a): Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction would involve short-term use of hazardous substances such as fuels, lubricants, adhesives, and solvents. The potential risk associated with the accidental discharge during use and storage of such construction-related hazardous materials is considered low because the use, storage, transport, and disposal of hazardous materials used in construction of the facility would be carried out in accordance with federal, state, and County regulations. These regulations include those set forth by the County Fire Department's Hazardous Materials Division (HMD), California Division of Occupational Safety and Health (Cal/OSHA), the California Accidental Release Prevention (CalARP) Program, the California Health and Safety Code, and the Environmental Protection Agency's (EPA) Hazardous Waste Control Act. Additionally, the Project would implement best management practices (BMPs) pursuant to the National Pollutant

Discharge Elimination System (NPDES) Construction General Permit. Safety Data Sheets (SDSs) for all applicable materials present on the Project Site would be made readily available to personnel as required by the San Bernardino County Fire Department Hazardous Materials Division. During construction of the facility, non-hazardous construction debris would be generated and disposed of in local landfills. Sanitary waste would be managed using portable toilets, with waste being disposed of at approved sites.

The AC/DC collection system would be installed in shallow subsurface trenches. If explosives are to be used, the applicant would be required to obtain all necessary permits and approvals through the San Bernardino County Fire Department HMD. This may include preparing a Business Emergency Contingency Plan and securing a Certified Unified Program Agency (CUPA) Permit for hazardous materials handling and/or hazardous waste generation, as required by the HMD. Explosives would be transported, handled and used in accordance with all applicable laws and regulations.

Operation of the Project would include limited chemical use such as mineral oil in the substations and lithium ion in the battery structures. The Project is designed to comply with the requirement of Chapter 6.95 of the Health and Safety Code, including containment provisions for potential spills by containing the materials within boxed components and mounting these on concrete foundations. All materials would be used in stable applications and contained in accordance with applicable regulatory requirements, which include the Hazardous Materials Transportation Act, International Fire Code, and Title 22 and Title 27 of the California Code of Regulations. Impacts would be less than significant, and no further investigation is warranted.

Threshold (c): 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.

As previously indicated, the nearest schools in the area are Blake Primary School, Wallace Elementary School, Wallace Junior High School, and Parker High School, located approximately nine miles from the Project site in Parker, Arizona. Therefore, the Project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing proposed school. There would be no impact and no further analysis is required.

Threshold (d): 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 it create a significant hazard to the public or the environment?

The Project Site is not located on a known site or in the vicinity of a known site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, the Project would result in no impacts associated with hazardous materials sites, and no further analysis is required.

Threshold (e): For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The Project Site is not located within an airport land use plan or within two miles of an airport. The Project Site is approximately eight miles southeast of the Vidal Junction Airport and ten miles southwest of Parker Municipal Airport in Arizona. The closest airport where a Comprehensive Land Use Plan has been adopted is Needles Municipal Airport, approximately 50 miles to the north. Additionally, the Project Site would be

unmanned and operated, monitored, and dispatched remotely on a day-to-day basis. No impacts would occur, and no further analysis is required.

6.5.8 Hydrology and Water Quality

Threshold (a): Would the Project violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or ground water quality?

The Project would be required to obtain a NPDES General Permit for Discharges of Storm Water Associated with Construction and Land Disturbance Activities. Compliance with the General Construction Permit requires the development of a Stormwater Pollution Prevention Plan (SWPPP) by a qualified SWPPP developer, the elimination or reduction of non-stormwater discharge off site into storm drainage systems or other water bodies, and the implementation of BMPs throughout the Project construction period. Stormwater BMPs would be required to limit erosion, minimize sedimentation, and control stormwater runoff water quality during Project construction activities. The SWPPP requires a description of the Project Site; identification of sources of sediment and other pollutants that may affect the quality of stormwater discharges; and a list of BMPs to provide sediment and erosion control, waste handling measures, and non-stormwater management. The specific BMPs that would be implemented with the Project would be identified during development of the SWPPP, which would occur concurrently with final Project design and be completed prior to construction. Typical construction BMPs include, but are not limited to, watering soil, soil cover of inactive areas, gravel bags, and fiber rolls. Compliance with the SWPPP would ensure that construction activities would not degrade the surface water quality of receiving waters to levels that would exceed the standards considered acceptable by the Colorado River Regional Water Quality Control Board (RWQCB) or other regulatory agencies.

Maintenance of the Project would include cleaning, inspections, drive motor repair, tracker repair, electrical connection repair, and panel replacement. Cleaning of the solar panels is expected to be conducted up to two times per year, and water used would not contain any cleaning agents or other additives. Maintenance of the proposed on-site substation would involve substation and line inspections, electrical connection repair, and communications repair. No on-site operations and maintenance buildings are proposed, and all facilities would be unmanned. Therefore, the Project would not violate any water quality standards or waste discharge requirements. Impacts would be less than significant, and no further analysis required.

Threshold (b): Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

The Project may obtain construction and operational water either by purchasing it from a local purveyor or by using existing on-site wells or a combination of both. The closest groundwater basin to the Project Site is the Calzona Valley Groundwater Basin, which is managed by the Metropolitan Water District of Southern California. The total storage capacity is estimated at 1,500,000 acre-feet. Natural recharge is estimated at approximately 400 acre-feet per year with an annual extraction of 45 acre-feet. Primary source of recharge to the groundwater basin is runoff from surrounding mountain ranges (Department of Water Resources 2004). Water demand during construction is estimated at a total of 10 to 15 acre-feet, which would be trucked in or obtained from a local purveyor. Regardless of source, most (89 percent) of the ground surface within the Project area would be permeable, and operational water use would be small, estimated at approximately 1 acre-foot per year or less. The small amount of water to be used and

the large amount of permeable surface within the Project Site would not deplete groundwater supplies or interfere substantially with groundwater recharge such that a net deficit in aquifer volume or a lowering of the local groundwater table level would result. Impacts would be less than significant, and no further analysis is required.

Threshold (c): 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 through the addition of impervious surfaces, in a manner which would:

i) result in substantial erosion or siltation on- or off-site;
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources or polluted runoff; or

As previously mentioned, the Project would not result in substantial erosion or siltation, as BMPs would be implemented during construction in compliance with the SWPPP and the General Construction Permit issued for the Project, which would ensure that erosion and siltation do not result in any off-site water quality impacts. The County Development Code Chapter 85.11 requires that the Project implement site design measures, source control, and/or permanent post-construction pollutant and hydro-modification control BMPs to reduce sediment from erosion or siltation to the maximum extent practicable from entering stormwater runoff during operations. The incremental amount of impervious surface that would be introduced by the Project would be small and would not substantially interfere with surface runoff. As such, the Project would not substantially alter the existing drainage pattern of the Project Site or substantially increase the rate or amount of surface runoff in a manner that would result in substantial erosion or siltation on or off site. Impacts would be less than significant, and no further analysis is required.

iv) Impede or redirect flood flows?

According to the Federal Emergency Management Agency (FEMA) Flood Map Service Center, the Project is not located within a special flood hazard area and is designated as Zone D. Zone D is designated for areas where there are possible but undetermined flood hazards.[4] Impacts would be less than significant, and no further analysis is required.

Threshold (d): Would the Project in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

The Project Site is not located within a dam inundation zone and is located approximately 200 miles east of the Pacific Ocean and therefore is not at risk of tsunami. The Colorado River Floodway is located approximately 0.2 miles east from the Project. However, according to the FEMA Flood Map Service Center, the Project is not located within a special flood hazard area and is designated as Zone D. Zone D is designated for areas where there are possible but undetermined flood hazards. Impacts would be less than significant, and no further analysis is required.

[4] Federal Emergency Management Agency (FEMA), FEMA Flood Map Service Center. Available at https://msc.fema.gov/portal/home. Accessed September 30, 2022.

Threshold (e): Would the Project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As mentioned above, the Project would be unmanned during operations, with no habitable structures or restroom facilities. Any operational water that may be required for routine maintenance would be trucked in from off site or sourced by a new service from a local purveyor. The majority of the Project would consist of gravel infill and remain pervious to allow infiltration of precipitation. The incremental amount of impervious surface that would be introduced by the Project would be small and would not substantially interfere with groundwater recharge. As a result, the Project would not conflict with or obstruct implementation of the County's Desert Groundwater Management Ordinance or a future water quality control plan or sustainable groundwater management plan and would not conflict with the 2015 Mojave Water Agency Urban Water Management Plan. Impacts would be less than significant, and no further analysis is required.

6.5.9 Land Use and Planning

Threshold (a): Would the Project physically divide an established community?

Existing development in the area includes rural access roads and scattered rural residences. The Project Site is located in an unincorporated part of the County that has sparse residential development in the immediate area. The Project Site is primarily bordered by undeveloped land. Therefore, the Project would not divide an established community. No impact would occur, and further analysis is not warranted.

Threshold (b): Would the Project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The Project would not conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project adopted for the purpose of avoiding or mitigating an environmental effect. The current land use designation for the Project Site is RC, which allows development of electrical power generation facilities with a CUP. The Project would be required to comply with all CUP conditions of approval. Because the Project would be consistent with the existing land uses, impacts would be less than significant, and no further analysis is required.

6.5.10 Mineral Resources

Threshold (a): 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?

Threshold (b): 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?

According to maps produced by the California Department of Conservation (DOC), the Project Site is classified as Mineral Resource Zone (MRZ) 4, which defines areas where geologic information does not rule out either the presence or absence of mineral resources. No mines are in close proximity to the Project Site, with the closest being a gypsum open pit mine approximately 27 miles southwest. According to the San Bernardino Countywide Plan EIR, the Project Site is not located within MRZ 2 or 3 which are

areas identified and have the potential to have significant resources. Additionally, the Project does not involve extensive grading or excavation that would preclude the extraction of any potential mineral resources in the future. According to the DOC Well Finder, there are no oil or gas wells located within the Project Site. No impact would occur, and no further analysis is needed.

6.5.11 Noise

Threshold (c): For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public us airport, would the Project expose people residing or working in the project area to excessive noise levels?

The Project Site is approximately eight miles southeast of the Vidal Junction Airport and ten miles southwest of Parker Municipal Airport in Arizona, but neither of these airports has adopted land use plans. The closest airport where a Comprehensive Land Use Plan has been adopted is Needles Municipal Airport, approximately 50 miles to the north. Therefore, the Project Site is outside the airport's noise contours. Additionally, the Project Site would be unmanned and operated, monitored, and dispatched remotely on a day-to-day basis. No impact would occur, and no further analysis is required.

6.5.12 Population and Housing

Threshold (a): Would the Project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and business) or indirectly (for example, through extension of roads or other infrastructure)?

The Project Site encompasses 21 mostly vacant, undeveloped parcels with scattered structures associated with an abandoned rural residence, garage (storage) areas, and several WAPA towers. Considering the Project is a solar energy facility with battery energy storage, it does not involve development of residential units. This physical change would not induce substantial population growth in the area because the Project does not propose extension of new major infrastructure. The extended roadways would only traverse the Project Site. The Project would not construct other infrastructure into previously unserved areas, and no regulatory changes are proposed that would allow increased population growth.

Construction of the Project would temporarily increase the number of persons present at the Project Site. However, these workers would only be present at the Project Site during construction of the Project Site. Once operational, the Project Site would not require the same amount of staff needed during construction. The Project Site would be unmanned and would only require minimum staff for inspection and maintenance and would not introduce a significant amount of employment that would require additional permanent housing within the area. Impacts would be less than significant, and no further analysis is needed.

Threshold (b): Would the Project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The Project would displace housing. However, it would not be significant because the current properties are vacant/abandoned, and replacement housing would not be required. The homes neighboring the Project Site are abandoned and unfit for residency. Impacts would be less than significant, and no further analysis is required.

6.5.13 Public Services

Threshold (a): Would the Project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:

i) Fire Protection?

The Project Site is not located within a CAL FIRE designated Very High Fire Severity Zone (VHFSZ). However, equipment associated with the Project such as transformers, capacitors, electric transmission lines, substations, vehicles, and gas- or electric-powered small hand tools may be potential sources of ignition during construction, operation, and maintenance. To combat potential fire risks, the Project will be required to comply with the San Bernardino County Fire Protection District (SBCFPD) Fire Code, 2019 California Fire Code, National Fire Code, and International Fire Code. These regulations implement state-of-the-art development and performance standards that ensure the safe installation, operations, and maintenance of utility scale BESS. The Project would also implement fire and safety features at the *Module Level*, *BESS Container Level, Site Level,* and *Operational Level* which are described below.

Module Level: The first priority in fire safety is to prevent an event from ever occurring and limit the extent of that fire if it does occur. Pursuant to the National and International Fire Codes, the voltages, currents, and temperatures of battery modules would be required to be monitored and controlled 24/7 to ensure every cell remains within its safe operating parameters. These monitoring and control systems are required to transmit an alarm signal if potentially hazardous temperatures or other conditions such as short circuits, over voltage or under voltage, are detected. If a module-level system failure is detected, the system automatically controls and isolates individual modules from the rest of the system preventing the conditions that could lead to an event. Furthermore, battery manufacturers must prove that battery modules, if they catch fire, will not cause a fire to propagate to other modules, racks, or other enclosures. As part of this process, manufacturers must show that their batteries can pass rigorous UL 1973 and UL 9540A testing and certification. This testing includes demonstration of adequate system controls and alarms, separations between equipment, protections such as fire-retardant barriers and coatings, fire suppression systems, and ventilation systems to limit failure to a single battery module.

Container Level: The National and International Fire Codes contain safety standards for construction of battery enclosures include: mounting, elevation of enclosures from the ground, materials, fire resistant barriers as well as requirements addressing insulation, wiring, switches, transformers, spacing and grounding; safety standards for performance, such as tests for temperature, volatility, impact, overload of switches, and an impact drop test; as well as standards for manufacturing, ratings, markings, and instruction manuals. In addition to the many individual standards referenced, a Failure Mode and Effects Analysis (FMEA) must be performed for each system enclosure and requires a test to ensure safe compatibility of the system's parts. The Project would also be equipped with integrated fire and safety systems, such as air cooling/conditioning systems, deflagration, gas-ventilation, gas, heat and smoke detection and alarms, and fire extinguishing and suppression systems within each container.

Site Plan Level: The Project Site layout is designed for operational safety pursuant to SBCFPD Fire Code requirements, including fire access routes, setbacks, fire hydrants, and fire-resistant perimeter walls.

These site design elements would be reviewed and approved by the SBCFPD as part of the CUP Site Plan review.

Operational Level: The Project would obtain an operational permit and would be operated in accordance with the SBCFPD Fire Code's standards for commissioning, inspection, repair, and decommissioning. This will include the creation and implementation of an Emergency Response Plan that will govern coordination and response to a fire emergency at the Project Site. The County's Emergency Response Plan contains protocols to ensure that first responders are adequately trained to control a fire emergency at the Project Site during both Project development and operation.

Compliance with the SBCFPD Fire Code, 2019 California Fire Code, National Fire Code, and International Fire Code, as well as inclusion of the Project's fire and safety features, would reduce the potential for a fire event. Further, the Project would be subject to the Public Safety Services Impact Fee of the County's Development Code Section 84.29.040(c)) to ensure that the Project would not affect fire performance objectives. Therefore, the Project would maintain acceptable service ratios, response times, and other performance objectives for fire protection services. Impacts to fire protection would be less than significant, and no further analysis is required.

ii) Police Protection?

The Project Site and other unincorporated portions of the County are served by the San Bernardino County Sheriff's Department. The nearest San Bernardino County Sheriff's Station is located approximately 100 miles west of the Project Site. Due to the large expanse that the deputies cover, they regularly assist and are assisted by the California Highway Patrol, Barstow Police Department, and the BLM Rangers. The Project would be unmanned, remotely monitored, and fenced for security. The Project would include motion activated lighting installed to help with site security. And as previously stated, the Project would not introduce additional permanent residences to the Project Site that would require increased demand for public services including police protection. Therefore, the Project would not impact service ratios, response times, or other performance objectives related to police protection. Additionally, the Project would be subject to the payment of Public Safety Services Impact Fees in conformance with San Bernardino County Development Code Section 84.29.040(c) for solar facilities to ensure that the Project would not adversely affect the provision of police protection services in the area. Therefore, the Project would not result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any police protection services. Impacts would be less than significant and no further analysis is required.

iii) **Schools?**

The Project does not include residential uses, would be unmanned and would not increase demand on school facilities. Construction of the Project would introduce a temporary increase in workers, but they would not be anticipated to relocate to the area or bring their families for the construction, as the workers would be sourced from San Bernardino or surrounding counties and/or be active for only a few months. During operations, the Project Site would be unmanned and would only require minimum staff for inspection and maintenance on a monthly or bimonthly basis. Employees would be traveling from an existing area to the Project, and would not require expansion of public services, including expanding school services to the area to service new residences.

As such, the Project would not result in an increase in population in the area that would necessitate additional schooling services. No impacts would result from the Project, and no further analysis is required.

iv) Parks?

The Project does not include residential uses, would be unmanned and would not increase demand on park facilities. Construction of the Project would introduce a temporary increase in workers, but they would not be anticipated to relocate to the area or bring their families for the construction, as the workers would be active only for the duration of the construction phase. As stated in the previous section, the Project Site would be unmanned and require minimum staff on a monthly or bimonthly basis for inspection and maintenance. Staff would be traveling from an existing area to the Project. As such the Project would not result an increase in population into the area that would necessitate additional park services. No impacts would result from the Project, and no further analysis is required.

v) Other Public Facilities?

The Project does not include residential uses would be unmanned and would not increase demand on other public facilities. Construction of the Project would introduce a temporary increase in workers, but they would not be anticipated to relocate to the area. As such, the Project would not cause an increase in population in the area that would necessitate addition of other public facilities (such as libraries). No impacts would result from the Project, and no further analysis is required.

6.5.14 Recreation

Threshold (a): Would the Project increase the use of the existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

The Project involves construction of a solar energy facility in a highly rural area of the County. No parks are in the vicinity, and the closest recreational facility is the Big River RV Park approximately five miles northeast of the Project Site. The Project does not propose any residential uses that may increase the use of existing neighborhood and regional parks or other recreational facilities in the vicinity. The Project would include additional employment during construction. However, the employees would only be present during the construction phase. As discussed in the previous section, the Project Site would be unmanned and would only require minimum staff for inspection and maintenance on a monthly or bimonthly basis. Employees would be traveling from an existing area to the Project and therefore, would not require expansion of the RV Park or other nearby recreation areas. Impacts would be less than significant, and no further analysis is necessary.

Threshold (b): Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse effect on the environment?

As mentioned above, the Project does not include recreational facilities or require the construction or expansion of recreational facilities. Therefore, the construction or expansion of recreational facilities would not have an adverse physical effect on the environment. No impact would occur, and no further analysis is needed.

6.5.15 Transportation

Threshold (c): Would the Project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)?

The Project would not substantially increase driving hazards, as the on-site access road would be used only by maintenance staff and emergency responders in the event of an emergency, and alterations to U.S. Route 95 are not proposed. The on-site access road would accommodate large trucks and vehicles, including fire trucks, per County regulations and would provide a clear line of sight and merging capabilities to U.S. Route 95. Therefore, the Project would not significantly increase hazards due to design features or incompatible uses. Impacts would be less than significant, and no further analysis is required.

Threshold (d): Would the Project result in inadequate emergency access?

The Project would not generate traffic volumes that would impede emergency access to the Project Site and would not result in a significant and permanent delay for emergency vehicles accessing U.S. Route 95. The Project would comply with emergency access requirements, per the SBCFPD Fire Code, including turning radius and maneuverability of large emergency vehicles such as fire trucks and ambulances. Therefore, the Project would not result in inadequate emergency access, and impacts would be less than significant. No further analysis is required.

6.5.16 Utilities and Service Systems

Threshold (a): Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities, the construction or expansion of which could cause significant environmental effects?

The Project involves solar power generation, storage, and transmission to the WAPA transmission system via an overhead or underground gen-tie line. Water would be used during construction for dust suppression; and operational water would be required for routine maintenance, including panel washing up to two times per year. Water needed would be trucked in from off site and stored in storage tanks or sourced by a new service. As discussed in Section 6.5.8, Hydrology and Water Quality, above, water demand during construction is estimated at a total of 10 to 15 acre-feet, which would be trucked in or obtained from a local purveyor and operational use would be estimated to be 1 acre-foot per year. The projected water demands within the MWA service area is estimated to be 148,366 acre-feet per year for 2020 and 170,700 acre-feet per year for 2040, which is an approximate 20,000 acre-feet increase.

Since no habitable structures would be constructed as part of the Project and the panel washing would require minimal water usage, the operational water required for the Project would not require the need for new or expanded water or wastewater facilities. The Project does not require construction or expansion of wastewater treatment facilities as minimal wastewater would be produced during panel washing. No natural gas or telecommunications facilities would be required. According to the U.S. Energy Mapping System, two electric transmission lines and a substation are within the 10-mile radius from the Project Site. One transmission line crosses the eastern portion of the Project Site, while the other transmission line is approximately 2 miles northwest from the Project Site (Azusa Light and Power). The Big River Substation is located approximately 4 miles northeast from the Project Site. The Project would

tie in with the existing WAPA transmission line and would generate more electricity that what would be used. The Project would not interfere with or affect the northwestern transmission line or Big River Substation. Therefore, the Project would not require the construction of new or expanded facilities, and impacts would be less than significant. No further analysis is required.

Threshold (b): Would the Project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal dry and multiple dry years?

The MWA UWMP provided anticipated acre-feet per year water supplies during single-dry and multi-dry year conditions. The projected average normal year water supplies for 2020 is estimated to be 168,781 acre-feet per year and 178,582 acre-feet per year for 2040. The projected water demand for 2020 is 148,366 acre-feet per year and 170,700 for 2040. As discussed in Section 6.5.8, Hydrology and Water Quality above, the Project's water demand during construction is estimated at a total of 10 to 15 acre-feet, and operational use would be estimated to be 1 acre-foot per year. Because the Project Site would be unmanned, the Project would not require restroom facilities that would result in an increased demand for water supplies. Therefore, the Project would have sufficient water supplies available to serve the Project, and impacts would be less than significant. Impact levels would be less than significant, and no further analysis is required.

Threshold (c): Would the Project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

The Project would be remotely operated with no full-time employees at the Project Site. Therefore, no restroom or septic facilities would be required. Minimal wastewater would be produced as a result of the panel washing for Project maintenance. As such, the Project would not interfere with any wastewater treatment provider's service capacity. Impacts would be less than significant, and no further analysis is required.

Threshold (d): Would the Project, generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Construction of the Project would result in the generation of various waste materials including soil, vegetation, and sanitation waste resulting from portable toilets. Soil excavated for the Project Site would either be used as fill or disposed of off site at an appropriately licensed waste facility. Sanitation waste (i.e., human-generated waste) would be disposed of according to sanitation waste management practices. In order to satisfy California's green building standards, the 2019 CALGreen Code, the Project would submit a Construction Waste Management Plan (CWMP) to the County with the submission of the building permit. Part 1 of the CWMP would estimate the tonnage to be disposed and diverted during construction and plan where the materials would end up before the Project begins. Part 2 would show the actual tonnage amount of the waste materials generated from the Project through receipts from recycling facilities, landfills, or a reuse certification. In addition, the plan would include methods to meet Assembly Bill (AB) 341's 75 percent recycling goal for the State of California to reduce GHG emissions. During operations, the Project would be unmanned and is expected to generate minimal solid waste that would be sent to a publicly owned permitted landfill/disposal site. The County has nine publicly owned permitted landfills/disposal sites as listed below:

- Municipal: California Street Sanitary Landfill;
- County: Barstow, Colton, Landers, Mid-Valley, San Timoteo, and Victorville;
- Federal: Fort Irwin and 29 Palms U.S. Marine Corps Base.

According to the Countywide Integrated Waste Management Plan published in 2016, the County landfill system has permitted refuse capacity in excess of 15 years (2031). Expansion of the Barstow, Landers, and Victorville landfills dramatically increased the capacity for the Desert Region of the County within the past decade. Therefore, existing permitted solid waste capacity in the County is sufficient should future needs for solid waste disposal ever arise. The Project would not impair the attainment of solid waste reduction goals as minimal solid waste is currently expected. Impacts would be less than significant, and do not require further analysis.

Threshold (e): Would the Project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

As previously mentioned, Project construction would result in the generation of waste materials such as soil, vegetation, and sanitation waste resulting from portable toilets, although all waste would be disposed of off-site at an appropriately licensed waste facility using BMPs. The Project would require preparation of a CWMP outlining how contractors plan to dispose of solid waste and how much waste is actively being disposed, recycled, or reused during construction. The Project would also be required to comply with AB 341 which requires a 75 percent diversion of construction materials. During operations, the Project would be unmanned and would generate minimal solid waste. Additionally, the County landfill system has permitted refuse capacity in excess of 15 years (2031). The Project would deposit all solid waste at a permitted solid waste facility and, therefore, would comply with federal, State, and local statutes and regulations related to solid waste. Impacts would be less than significant, and do not require further analysis.

6.5.17 Wildfire

Threshold (a): Would the Project, if located in or near state responsibility areas or lands classified as very high fire hazard severity zones, substantially impair an adopted emergency response plan or emergency evacuation plan?

According to Fire Hazards Severity Zone (FHSZ) maps produced by CALFIRE, the Project Site is not located within an area prone to wildfire. Most of the eastern side of the County is considered to have low or negligible wildfire risk, with the closest area with a moderate to severe risk located approximately 100 miles west of the Project Site. The County General Plan's Hazards Overlay map for the southeast portion of the County shows no areas within the Fire Safety Overlay District boundary.

The County Emergency Operations Plan identifies wildfire risks and provides direction for wildfire mitigation efforts in the planning area. The Project would not prevent the execution of these mitigation efforts, and the Project would be designed to conform with State law and local regulations and in coordination with the SBCFPD. The Project would comply with emergency access requirements, per Section 503 of the SBCFPD Fire Code, including turning radius and maneuverability for large emergency vehicles such as fire trucks and ambulances. Fire access roads would meet the requirements as stated by the Fire District. Further, the Project would be subject to the Public Safety Services Impact Fee of the County's Solar Ordinance (Development Code Section 84.29.040(c)) to ensure that the Project would not affect fire performance objectives.

Equipment onsite such as transformers, capacitors, electric transmission lines, substations, vehicles, and gas- or electric-powered small hand tools may be potential sources of ignition during construction, operation, and maintenance. Nonetheless, the Project will be required to comply with the SBCFPD Fire Code, 2019 California Fire Code, National Fire Code, and International Fire Code. These regulations implement state-of-the-art development and performance standards that ensure the safe installation, operations, and maintenance of utility scale BESS. The Project would also implement fire and safety features at the Module Level, BESS Container Level, Site Level, and Operational Level all of which are detailed in Section 6.5.13, Public Services, Threshold a.i.

Compliance with the SBCFPD Fire Code, 2019 California Fire Code, National Fire Code, and International Fire Code, as well as inclusion of the Project's fire and safety features, would not impair the execution of an adopted emergency response plan or emergency evacuation plan. Impacts would therefore be less than significant, and no further analysis is required.

Threshold (b): Would the Project, if located in or near state responsibility areas or lands classified as very high fire hazard severity zones, due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Threshold (c): Would the Project, if located in or near state responsibility areas or lands classified as very high fire hazard severity zones, require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

As mentioned above, the FHSZ maps produced by CALFIRE do not identify the Project Site as an area prone to wildfire. The closest area to the Project Site with moderate to severe fire risk is approximately 100 miles west and the County General Plan's Hazards Overlay map for the southeast portion of the County shows no areas within the Fire Safety Overlay District boundary.

The Project Site does not contain any steep slopes and contour lines. The Project Site generally slopes downward toward the southeast, with elevations at or around approximately 500 feet above mean sea level. The County however experiences Santa Ana winds, which can pose a fire hazard. Additionally, equipment on-site such as transformers, capacitors, electric transmission lines, substations, vehicles, and gas- or electric-powered small hand tools may be potential sources of ignition during construction, operation, and maintenance. To reduce the potential for a fire event, the Project will be required to comply with the SBCFPD Fire Code, 2019 California Fire Code, National Fire Code, and International Fire Code. These regulations implement state-of-the-art development and performance standards that ensure the safe installation, operations, and maintenance of utility scale BESS. The Project would also implement fire and safety features at the Module Level, BESS Container Level, Site Level, and Operational Level all of which are detailed in Section 6.5.13, Public Services, Threshold a.i.

Compliance with the SBCFPD Fire Code, 2019 California Fire Code, National Fire Code, and International Fire Code, as well as inclusion of the Project's fire and safety features, would prevent the Project from exacerbating wildfire risks and releasing pollutant concentrations. Impacts would therefore be less than significant, and no further analysis is required.

Threshold (d): Would the Project, if located in or near state responsibility areas or lands classified as very high fire hazard severity zones, expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability or drainage changes?

The Project Site topography is relatively flat but slopes gently toward the southeast. The Project Site is in an extremely rural area with sparse residences and is not located within an area prone to wildfire. The potential for landslides at the Project Site is low due existing flat topography of the Project Site that would be maintained. Therefore, impacts from downslope or downstream flooding or landslides as a result of runoff, post-fire slope instability, or drainage changes would be less than significant, and no further analysis is required.

CHAPTER 7 – REFERENCES

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CHAPTER 9 – ACRONYMS AND ABBREVIATIONS

Term	Definition
AAM	Annual Arithmetic Mean
AB	Assembly Bill
AC	Alternating Current
ACHP	Advisory Council on Historic Preservation
ADT	Annual Daily Traffic
AF	Acre-Feet
ALUC	Airport Land Use Commission
APN	Assessor Parcel Number
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
ASTM	American Society for Testing and Materials
BESS	Battery Energy Storage System
BLM	Bureau of Land Management
B.P.	Before Present
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CAISO	California Independent Service Operator
CALFIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CAP	Climate Action Plan
CARB	California Air Resources Board
CBC	California Building Code
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CF_4	Tetrafluoromethane
CFR	Code of Federal Regulations
CGS	California Geological Survey
CH_4	Methane
CHP	California Highway Patrol
CIP	Capital Improvement Plan

CMP	Congestion Management Program
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalence Levels
CNPS	California Native Plant Society
CNPSEI	California Native Plan Society's Electronic Inventory
CNRA	California Natural Resources Agency
CO	Carbon Monoxide
CO_2	Carbon Dioxide
County	San Bernardino County
CP	Cultural Resources Preservation
CR	Commercial Retail
CRHR	California Register of Historic Resources
CRPR	California Rare Plant Rank
CTMP	Construction Traffic Management Plan
CTP	Countywide Transportation Plan
CUP	Conditional Use Permit
CUPA	Certified Unified Program Agencies
CWA	Clean Water Act
CWMP	Construction Waste Management Plan
DC	Direct Current
DEIR or Draft EIR	Draft Environmental Impact Report
DOC	California Department of Conservation
DOT	Department of Transportation
DPM	Diesel Particulate Matter
DPR	Department of Parks and Recreation
DRECP	Desert Renewable Energy Conservation Plan
DSLR	Digital Single-Lens Reflex
DTC	Desert Training Center
DTSC	Department of Toxic Substances Control
DWR	California Department of Water Resources
EIA	Environmental Impact Assessment
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EMFAC	Emission Factor Model
EO	Executive Order
EPA or USEPA	United States Environmental Protection Agency
ES	Executive Summary
ESA	Environmental Site Assessment

FAA	Federal Aviation Administration
FEMA	Federal Emergency Management Agency
FESA	Federal Endangered Species Act
FHSZ	Fire Hazard Severity Zone
FHWA	Federal Highway Administration
FMEA	Failure Mode and Effects Analysis
FP	Fully Protected
FR	Federal Register
FTA	Federal Transit Administration
FTIP	Federal Transportation Improvement Program
GCC	Global Climate Change
GCP	General Conservation Plan
GHG	Greenhouse Gas
GIS	Geographic Information System
GPS	Global Positioning Systems
GWP	Global Warming Potential
HCM	Highway Capacity Manual
HCP	Habitat Conservation Plan
HMD	San Bernardino County Fire Department's Hazardous Materials Division
HUC	Hydrologic Unit Code
HVAC	Heating, Ventilation, and Air Conditioning
HWCL	Hazardous Waste Control Law
HWY	United States Highway
IBC	International Building Code
IPCC	Intergovernmental Panel on Climate Change
IS	Initial Study
ITP	Incidental Take Permit
IWMB	Integrated Waste Management Board
KOP	Key Observation Point
LCFS	Low Carbon Fuel Standard
Ldn	Day-Night Average Sound Level
LED	Light-Emitting Diode
LLG	Linscott, Law & Greenspan, Engineers
LOS	Level of Service
MBTA	Migratory Bird Treaty Act
MDAB	Mojave Desert Air Basin
MDAQMD	Mojave Desert Air Quality Management District
MERV	Minimum Efficiency Reporting Values

MLD	Most Likely Descendant
$MMTCO_2e$	Metric Tons of Carbon Dioxide Equivalent
MPH	Miles per Hour
MPO	Metropolitan Planning Organization
MRZ	Mineral Resource Zone
MT	Metric Ton
MVA	Megavolt-Amperes
MW	Megawatt
MW-AC	Megawatts of Alternating Current
MWh	Megawatt-hour
MWA	Mojave Water Agency
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NAHC	Native American Heritage Commission
NASA	National Aeronautics and Space Administration
NCCP	Natural Community Conservation Planning
ND	No Data
NDCAG	North Desert Communities Action Guide
NEHRPA	National Earthquake Hazards Reduction Program
NEMA	National Electric Manufactures Association
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
N_2O	Nitrous Oxide
NO	Nitric Oxide or Nitrogen Monoxide
NO_2	Nitrogen Dioxide
NOx	Nitrogen Oxides
NOAA	National Oceanic and Atmospheric Administration
NOI	Notices of Intent
NOP	Notice of Preparation
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NPS	National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NW	Northwest
NWI	National Wetlands Inventory
O_3	Ozone
OEHHA	Office of Environmental Health Hazard Assessment

OHV	Off-Highway Vehicle
OHWM	Ordinary High-Water Mark
OITC	Outdoor-Indoor Transmission Class
ONAC	Federal Office of Noise Abatement and Control
ONC	California Department of Health Services Office of Noise Control
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Administration
PCE	Passenger Car Equivalent
PCS	Power Conversion Stations
PFC	Perfluorochemicals
PM	Particulate Matter
PM2.5	Particulate Matter with diameters equal to or less than 2.5 micrometers
PM10	Particulate Matter with diameters equal to or less than 10 micrometers
ppb	Parts per Billion
ppm	Parts per Million
Ppt	Parts per Trillion
PPV	Peak Particle Velocity
PRC	Public Resources Code
PRMMP	Paleontological Resources Monitoring and Mitigation Plan
PV	Photovoltaic
Q	Younger Alluvium
Qoa	Older Alluvium
RC	Resource Conservation Zone
RCRA	Resource Conservation and Recovery Act
REA	Risk/Exposure Assessment
RGHGRP	Regional Greenhouse Gas Reduction Plan
ROW	Right-of-Way
RPS	Renewable Portfolio Standards
RR	Regulatory Requirements
RTP	Regional Transportation Plan
RV	Recreational Vehicle
RWQCB	Regional Water Quality Control Board
SANBAG	San Bernardino Associated Governments
SB	Senate Bill
SBCFD	San Bernardino County Fire Department
SBCFPD	San Bernardino County Fire Protection District
SBCOG	San Bernardino Council of Governments
SBCTA	San Bernardino County Transportation Authority

SBFPD	San Bernardino County Fire Department
SCADA	Supervisory Control and Data Acquisition System
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SCS	Sustainable Communities Strategy
SDS	Safety Data Sheet
SEIR	Subsequent Environmental Impact Report
SF_6	Sulfur Hexafluoride
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SLCP	Short-Lived Climate Pollutant
SLF	Sacred Lands File
SO_2	Sulfur Dioxide
SR	State Route
SSC	California State Species of Special Concern
STC	Sound Transmission Class
SVP	Society of Vertebrate Paleontology
SW	Southwest
SWPPP	Stormwater Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	Toxic Air Contaminant
TISG	Transportation Impact Study Guidelines
TNW	Traditional Navigable Water
TPA	Transit Priority Area
UBC	Uniform Building Code
UMTA	Urban Mass Transit Administration
UNFCCC	United Nations' Framework Convention on Climate Change
US	United States of America
USACE	United States Army Corps of Engineers
USC	United States Code
USDA	United States Department of Agriculture
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
USPS	United States Postal Service
UST	Underground Storage Tank

UV	Ultraviolet Radiation
UWMP	Urban Water Management Plan
VHFSZ	Very High Fire Severity Zone
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
WAPA	Western Area Power Administration
WDR	Waste Discharge Report
WEAP	Worker Environmental Awareness Program
WOUS	Waters of The United States
WRCC	Western Regional Climate Center
ZEV	Zero Emission Vehicle
°C	Degrees Celsius
µg/m^3	Micrograms per cubic meter

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