

EXHIBIT E



Initial Study/ Mitigated Negative Declaration

Bear Valley Solar Energy Project

PREPARED FOR

EDF Renewables Distribution-Scale
Power

DATE

13 October 2025

REFERENCE

0739207



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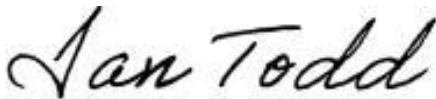


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Initial Study/ Mitigated Negative Declaration

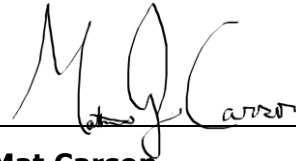
Bear Valley Solar Energy Project

0739207



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ACRONYMS AND ABBREVIATIONS

Acronym	Description
$\mu\text{g}/\text{m}^3$	Micrograms per cubic meter
AB	Assembly Bill
AC	Alternating current
AOC	Area of Concern
AQMD	Air Quality Management District
AQMP	Air Quality Management Plan
BAM	Best Available Maps
BBFD	Big Bear Fire Department
BMPs	Best Management Practices
BVES	Bear Valley Electric Service
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEPA	California Environmental Protection Agency
CALFIRE	California Department of Forestry and Fire Protection
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CDOC	California Department of Conservation
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFC	California Fire Code
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CO	Carbon monoxide
CO ₂	Carbon dioxide
CO ₂ e	Carbon dioxide equivalents
CORE	Community-oriented renewable energy
CPUC	California Public Utilities Commission
CRECs	Controlled Recognized Environmental Conditions
CRHR	California Register of Historic Resources

Acronym	Description
CRPR	California Rare Plant Rankings
CSD	Community Services District
CUP	Conditional Use Permit
CUPA	Certified Unified Program Agency
CWA	Clean Water Act
dBA	Decibel A
DOC	California Department of Conservation
DPM	Diesel particulate matter
DTSC	Department of Toxic Substances Control
DWR	Department of Water Resources
EAP	Energy Action Plan
EDFR-DSP	EDF Renewables Distribution-Scale Power
EIR	Environmental Impact Report
ERM	Environmental Resources Management, Inc.
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FMMP	Farmland Mapping and Monitoring Program
FPPA	Federal Farmland Protection Policy Act
GHG	Greenhouse gas
HAP	Hazardous Air Pollutants
HRECs	Historical Recognized Environmental Conditions
IWMPs	Integrated Waste Management Plans
LOS	Level of service
MBTA	Migratory Bird Treaty Act
MLD	Most likely descendant
mph	Miles per hour
MT	Metric tons
MTCO ₂ e	25,000 MT of CO ₂ e
MW	Megawatt
N	No
NAAQS	National Ambient Air Quality Standards
NCCP	Natural Community Conservation Pla

Acronym	Description
NFIP	National Flood Insurance Program
NO _x	Nitrogen oxide
NPDES	National Pollutant Discharge Elimination System
NRHP	or National Register of Historic Places
NWI	National Wetland Inventory
O&M	Operation and maintenance
PM ₁₀	Particulate matter with diameter 10 microns or less
PM _{2.5}	Particulate matter with diameter 2.5 United States microns or less
ppm	Parts per million
Project	Bear Valley Solar Energy Project
PV	Photovoltaic
RC	Resource Conservation
RCRA	Resource Conservation and Recovery Act
RECs	Recognized Environmental Conditions
RL	Rural Living
RGHGRP	Regional Greenhouse Gas Reduction Plan
RPS	Renewable Portfolio Standard
RS-1	Residential Single – 1-acre minimum
RWQCB	Regional Water Quality Control Board
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SF ₆	Sulfur hexafluoride
SMARA	Surface Mining and Reclamation Act of 1975
STLC	Soluble Threshold Limit Concentration
SWRCB	State Water Resources Control Board
SWPPP	Stormwater Pollution Prevention Plan
TAC	Toxic air contaminants
TTLC	Total Threshold Limit Concentration
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

Acronym	Description
Williamson Act	California Land Conservation Act of 1965
WOS	Waters of the State
WOUS	Waters of the United States
VMT	Vehicle miles traveled
VOC	Volatile organic compound
Y	Yes

1. INTRODUCTION

This form and the descriptive information in the application package constitute the contents of Initial Study pursuant to County Guidelines under Ordinance 3040 and Section 15063 of the State California Environmental Quality Act (CEQA) Guidelines.

1.1.1 PROJECT LABEL

APN:	0314-401-29	USGS Quad:	Big Bear City
Applicant:	EDF Renewables Distribution-Scale Power	T, R, Section:	T2N, R2E, Section 17
Location:	2151 Erwin Ranch Road Big Bear, California 92314		
Project No:	2024-00236	Community Action Guide:	Bear Valley
Rep:	Ian Todd/Environmental Resources Management, Inc.	LUC Zone:	Very Low Density Residential
Proposal:	A Conditional Use Permit to allow for the construction and operation of a 5-megawatt alternating current solar photovoltaic facility and a General Plan Amendment to rezone the Project site from Residential Single - 1 acre minimum to Rural Living or similar zone.	Overlays:	Zone of Suspected Liquefaction Susceptibility Zone of low to moderate generalized landslide susceptibility Shay Meadow Open Space Policy Area Biotic resource overlays including southern rubber boa and meadow habitat

1.2 PROJECT CONTACT INFORMATION

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Land Use Services Department
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San Bernardino, California 92415-0182

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2. PROJECT DESCRIPTION

The Bear Valley Solar Energy Project (Project) proposes to construct a new, approximately 5-megawatt (MW) alternating current (AC) solar photovoltaic (PV) facility. The Project is owned by Bear Valley Electric Service, Inc. (BVES; Applicant) and being designed, permitted, and developed by EDF Renewables Distribution-Scale Power (EDFR-DSP).

The Project is situated within a 29.53-acre parcel, referred to as Assessor's Parcel Number 031440129, located at 2151 Erwin Ranch Road, near the City of Big Bear Lake in unincorporated San Bernardino County, California (Project site). Appendix A includes a series of figures and maps relevant to the Project. Figure 1 indicates the Project site vicinity. Figure 2 provides preliminary Project site plans. Figure 3 displays the current zoning designation of the Project site and surrounding properties. Figure 4 provides a map of three Key Observation Points (KOPs) used for visual renderings, which are shown as a series of photographs (Figures 5 through 10) displaying the existing conditions and a visual rendering of the final Project at each KOP location.

The Project is anticipated to require a Conditional Use Permit (CUP) and General Plan Amendment to rezone the Project site from Residential Single – 1-acre minimum (RS-1) to Rural Living (RL) or similar zone.

2.1 SITE AND SURROUNDING USES

The Project site parcel is undeveloped land located in unincorporated San Bernardino County, California, approximately 0.15 miles southeast of the unincorporated community of Big Bear City. The parcel's zoning is RS-1¹. Local access is provided by Erwin Ranch Road and Lakewood Drive, and regional access is provided by State Route 38 (SR-38). The Project is in the United States Geological Survey (USGS) 7.5-minute quadrangle for Big Bear City, California, within Section 17 of Township 2 North, Range 2 East.

No current or historical uses of the Project site parcel have been identified. However, historic gold mining activities related to the Gold Hill Mine did occur within and adjacent to the Project site, as evidenced by existing small-scale infrastructure such as a ventilation shaft and production shaft. The Project site is relatively hilly on the northern boundary but is flat and gently sloping to the southwest. Wild donkeys also occasionally inhabit the Project site and graze.

The Project site is bounded on the north and east by undeveloped land, on the south by Erwin Ranch Road, and on the west by Lakewood Drive and two residences. Surrounding uses include dispersed rural residences zoned RS-1; undeveloped open space along the northern perimeter of the proposed Project site parcel zoned Resource Conservation (RC); and the Woodlands residential neighborhood to the south, which is zoned RS (accessed from SR-38) (Figure 3).

The proposed Project site parcel is visible from Erwin Ranch Road and Lakewood Drive and from the neighboring rural residences from the east, west, and south. The Project site is not visible from SR-38 or the Woodland residential neighborhood due to vegetation screening, topography, and existing residences.

¹ San Bernardino County. 2024. Code of Ordinances. Retrieved from: https://codelibrary.amlegal.com/codes/sanbernardino/latest/sanberncity_ca/0-0-0-146479.

Existing land uses and Land Use Zoning Districts on and adjacent to the proposed Project site are listed in Table 1.

TABLE 1 EXISTING LAND USE AND LAND USE ZONING DESIGNATIONS

Location	Existing Land Use	Land Use Zoning District
Project Site	Vacant	RS-1
North	Vacant/Open Space	RC
South	Erwin Ranch Road/Residential	RS-1
East	Vacant	RS-1
West	Lakewood Drive/Vacant/Residential	RS-1

2.2 LAND USE

The Project site occupies a parcel that is zoned as RS-1. The RS zoning district provides sites for single-family residential uses, incidental agricultural and recreational uses, and similar and compatible uses. Per the San Bernadino County Development Code², renewable energy facilities are not a permitted use at this site under its current zoning designation.

The Bear Valley Solar Energy Project requests a General Plan Amendment and rezone of the parcel to include the parcel in the Rural Living General Plan Land Use Designation and rezone the parcel to RL. San Bernadino County Development Code Section 84.29.020 Applicability and Land Use Zoning Districts lists RL as one of the zoning designations where San Bernadino County allows commercial renewable energy facilities.

The Renewable Energy and Conservation Element of the San Bernadino County General Plan (i.e., Countywide Plan)³ contains goals and policies related to the development of renewable energy sources within the unincorporated regions of the County. The following goals from the Countywide Plan demonstrate an alignment among the objectives of the County, BVES, and EDFR-DSP:

- *Goal RE-2. Renewable Energy Systems:* The County will be home to diverse and innovative renewable energy systems that provide reliable and affordable energy to our unique Valley, Mountain, and Desert regions.
- *Goal RE-3. Community-Oriented Renewable Energy:* Community-oriented renewable energy facilities will be prioritized to complement local values and support a high quality of life in unincorporated communities.

² San Bernardino County. 2024. Code of Ordinances. Retrieved from: https://codelibrary.amlegal.com/codes/sanbernardino/latest/sanbercncty_ca/0-0-0-146479.

³ San Bernardino County. 2020. Countywide Plan. Retrieved from: https://countywideplan.sbcounty.gov/wp-content/uploads/sites/125/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf?x23421.

- Policy RE 3.2: Encourage community-oriented renewable energy (CORE) generation that primarily serves local uses in the county.
- Policy RE 3.3: Promote an adaptive distributed energy infrastructure that sustains local communities and improves resiliency to grid failures and increasing energy prices.
- Policy RE 3.5: Incorporate resident, business owner, and stakeholder input into the development and implementation of County policies for renewable energy.
- *Goal RE-4. Environmental Compatibility*: 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.

Additionally, the Project site parcel and surrounding area are within the Bear Valley Community, a subsection of unincorporated San Bernadino County. The Bear Valley Community Action Guide⁴ contains values and action statements in order to provide a framework development within the local community. The following goal from the Community Action Guide represents another alignment between the goals of the community and the Project:

- *Community Focus Statement C*: Build human capital and promote enterprise, with a focus on environmentally friendly business, to strengthen the local economy and provide opportunities for residents and families to be self-reliant.

As the Project would be owned by BVES and connect to the local grid, the Project is consistent with these goals because it would provide local renewable energy generation, grid resiliency, and rate stability to residents and visitors. Therefore, to meet zoning and land use requirements, the Project is requesting a General Plan Amendment and rezone of the parcel to include the parcel in the Rural Living General Plan Land Use Designation and rezone the parcel to RL. Rezoning the parcel to RL will also allow the parcel to be used for future housing development after decommissioning the solar PV facility.

2.3 PROJECT OVERVIEW AND DESIGN

The Project would construct an approximately 5-MW AC distribution-scale solar PV facility, referred to as the Project. As the Applicant, BVES would own and operate the solar PV facility. One hundred percent of the power produced by the Project would be consumed locally, within BVES service territory.

The Project site would be accessed from Erwin Ranch Road. Facility setbacks, aboveground messenger wire system cabling or underground collection system cabling, and access drive designs would be designed in accordance with and comply with the San Bernardino County Building Department. An access drive within the Project site would be built to support construction and operation. Solar arrays would be arranged in a ground-mounted single-axis tracking system.

The development footprint would avoid the existing small-scale infrastructure from historic mining activities on the more sloped and wooded areas in the northern portion of the Project site

⁴ San Bernardino County. 2020. Bear Valley Community Action Guide. Retrieved from: https://countywideplan.com/wp-content/uploads/sites/68/2020/08/09_Bear-Valley_CAG_2020.pdf.

parcel. The solar PV facility and associated gravel access drive, switchboard, and step-up transformer would occupy approximately 21 acres of the 29.53-acre parcel.

The Project would use approximately 8,680 bi-facial solar PV modules, which would be mounted on single-axis sun tracking systems mounted in rows running north-south. The modules are wired together and connected to inverters, which convert direct current into electrical AC. The Project would use approximately 20, 250-kilowatt string inverters (or equivalent technologies). The single axis tracking PV panels are mounted on steel columns approximately 5 feet above grade and tilt to a maximum height of approximately 8 feet above grade. Some systems may require a higher leading edge ground clearance to accommodate snow loads in which case the height at max tilt may reach up to ten feet above grade. Transformers will be located on concrete pads/skids and medium-voltage (MV) AC electrical conductors will run underground from the Project to Erwin Ranch Road, where a series of interconnection poles and/or pad-mounted equipment pads containing monitoring and metering equipment will interconnect the Project to the local distribution system along Erwin Ranch Road. The number of modules and inverters is subject to change depending on the final design and equipment availability. These technologies are proven, highly efficient, and widely accepted within the industry.

2.3.1 CONSTRUCTION SCHEDULE

EDFR-DSP estimates it would take approximately 9 months to construct the Project, utilizing an estimated 35 workers per day on average, with a construction workforce of about 30-50 workers during the peak period of construction. It is anticipated that the Project would be operational by Quarter 4 2026.

Construction for the Project can be broken into five buckets:

- Site Preparation
- Foundations
- Module Install
- Electrical Install
- Commissioning

Stormwater features, perimeter fencing, and gravel access drive installation all occur during the Site Preparation stage. Foundation work includes the installation of support posts, single-axis trackers, and an above-ground messenger wire cable management system or trenching for underground electrical cable and collection system. Electrical cables will be installed via an above-grade messenger wire cable management system or in trenches which will then be backfilled. Once the support posts and trackers are installed, crews will mount modules to the tracking system and begin connecting cables. Inverters, pad-mounted transformers, and combiner boxes will be installed during the Electrical Install phase. Following mechanical completion, the Project will undergo system commissioning and testing.

The Project would interconnect to an existing BVES Circuit adjacent to the Project site.

Pre-functional testing would involve an American National Standards Institute/International Electrical Testing Association - Acceptance Testing Specifications acceptance test for applicable electrical equipment and systems (i.e., grounding), in addition to visual checks to assure that the

equipment and systems (i.e., mechanical, electrical, and communications) have been received in good condition and have been installed according to applicable codes, standards, and manufacturer's requirements. Depending on the test, either qualified contractor staff or qualified third parties would be used for the testing, with reports made available to BVES.

EDFR-DSP would adhere to all applicable San Bernadino County Development Code statutes and ordinances when designing and constructing the Project.

2.3.2 WATER SUPPLY

A minimal amount of water would be required during construction for earthwork operations, primarily related to dust control for road construction, grading, and other site work. Water will be applied via water truck during construction activities, anticipated to last nine months. A minimal amount of water would also be required for construction workers' needs (e.g., drinking water, sanitation facilities). Bottled water and portable sanitation units would be used during construction.

For operational and maintenance activities, water would be needed for initial watering of plants associated with vegetative screening of the site. The plants chosen would be local and drought tolerant and should not require watering once established (after 1 to 2 years). Water would be brought from offsite during operations and maintenance (including landscaping maintenance) to satisfy any water needs.

Overall, the amount of water required during construction and operation would be negligible.

2.3.3 SIGNAGE

No signs other than the Project contact information sign and those required for safety are being proposed.

2.3.4 PERIMETER FENCE AND LANDSCAPING

The perimeter of the Project site would be enclosed by a fixed knot "agricultural style" wooden fence with a proposed height of 7 feet and access provided through a rolling gate located at the proposed gravel driveway off Erwin Ranch Road. The fence would provide security of the facility while maintaining the rural aesthetic of the area. Approximately 6-inch gaps in the fence wiring will allow for the passage of small wildlife during operation. Based upon feedback received from the community, the Project also proposes the inclusion of a small gap (approximately 6 to 8 inches) along the bottom of the fence to further enable the passage of small wildlife during operation.

In addition to the perimeter fence, landscaping would be planted around the western, southern, and eastern boundaries of the Project site to limit views of the Project from nearby residences and drivers along Lakewood Drive and Erwin Road. Landscaping would consist of native and drought-tolerant plants that would reach the height of approximately 8 feet at full growth. A Landscape Plan is being prepared as part of the Project.

2.3.5 GROUND DISTURBANCES AND STORMWATER MANAGEMENT

The Project design requires minimal grading to maintain existing drainage patterns and site topography, which is relatively flat. However, stormwater management practices, which would include proposed stormwater detention basins in the northwestern corner and along the northern boundary of the Project site and other Stormwater Best Management Practices (BMPs), would contain stormwater flows onsite and manage water quality. Grading would generally only occur for stormwater management structures, along the interior access drives, and in the northeastern section of the site where the topography rises. Other ground disturbances include pile driving for the solar PV support structures to approximately 7-9 feet below grade, pending the final structural design, as well as trenching for underground electrical lines to approximately 42 inches below grade.

A Grading Plan is being prepared for approval by San Bernardino County prior to construction.

2.3.6 OPERATION AND MAINTENANCE

The Project would be operated on an autonomous, unstaffed basis and monitored remotely from an existing offsite facility. It is anticipated that maintenance requirements would be minimal, as the proposed Project's PV arrays would operate with limited moving parts. No full-time staffing would be required to operate the facility; however, roughly two employees are expected to visit the site approximately a few times per year for routine maintenance.

Operational activities are limited to monitoring plant performance and unscheduled, preventative maintenance of the facility. The Project would operate during daylight hours only. No heavy equipment would be used during routine Project operation. Operation and maintenance vehicles would include trucks (pickup, flatbed), forklifts, and loaders for routine and unscheduled maintenance. Large heavy-haul transport equipment may be brought to the site infrequently for equipment repair or replacement.

Any required maintenance would be scheduled to avoid peak electrical load periods, with unplanned maintenance activity as needed depending on the event. Preventative maintenance kits and certain critical spare components may be stored at the Project site near the equipment pads for the switchboard and step-up transformer, while all other necessary maintenance components would be available at an offsite location.

Existing vegetation is sparse with little potential for vegetative fuel buildup under the PV arrays. Minor weed mowing and other landscaping may be necessary occasionally. The Project would infrequently produce a small amount of waste associated with maintenance activities. Solar PV facility waste typically include broken and rusted metal, defective or malfunctioning modules, electrical materials, empty containers, and other miscellaneous solid materials including typical household type refuse generated by workers. These materials would be collected and disposed of in accordance with local, state, and federal regulations.

2.3.7 DECOMMISSIONING

At the end of the Project's operational term, the Applicant may determine that the site should be decommissioned and deconstructed after a lifecycle of approximately 35 years. When the solar

arrays, panels, fencing, etc. are removed after the Project's lifetime, the land would be largely restored to its pre-Project condition. The Project would utilize Industry BMPs to ensure the collection and recycling of solar arrays, panels, fencing, etc. to the extent feasible. Following the County's Development Code, a Closure, Revegetation, and Rehabilitation Plan that outlines the decommissioning process and its adherence to the requirements of other appropriate governing authorities, as well as other plans, permits, and management practices, would be prepared and submitted to the County prior to issuance of a Building Permit. Following the implementation of this plan, all equipment, foundations, and fencing would be removed, and the Project site would be restored to the pre-Project conditions. End uses would be consistent with the proposed zoning of RL.

3. EVALUATION FORMAT

This Initial Study is prepared in compliance with the CEQA pursuant to Public Resources Code (PRC) Section 21000, et seq. and the State CEQA Guidelines (California Code of Regulations [CCR] Section 15000, et seq.). Specifically, the preparation of an Initial Study is guided by Section 15063 of the State CEQA Guidelines. This format of the study is presented as follows. The Project is evaluated based on its effect on 20 major categories of environmental factors. Each factor is reviewed by responding to a series of questions regarding the impact of the Project on each element of the overall factor.

The Initial Study checklist provides a formatted analysis that provides a determination of the effect of the Project on the factor and its elements. Substantiation is then provided to justify each determination. One of the four following conclusions is then provided as a summary of the analysis for each of the major environmental factors.

Substantiation is then provided to justify each determination. One of the four following conclusions is then provided as a summary of the analysis for each of the major environmental factors.

1. **No Impact:** No impacts are identified or anticipated, and no mitigation measures are required.
2. **Less than Significant Impact:** No significant adverse impacts are identified or anticipated, and no mitigation measures are required.
3. **Less than Significant with Mitigation Incorporated:** Possible significant adverse impacts have been identified or anticipated, and the following mitigation measures are required as a condition of approval to reduce these impacts to a level below significant.
4. **Potentially Significant Impact:** Significant adverse impacts have been identified or are anticipated.

Any mitigation measures identified in this Initial Study would be compiled into a Mitigation Monitoring and Reporting Program for tracking during pre-construction, construction, and operation of the Project.

4. ENVIRONMENTAL DETERMINATION

4.1 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this Project involving at least one impact that is "Potentially Significant" as indicated by the checklist on the following pages.

	Aesthetics		Agriculture and Forestry Resources
	Air Quality	X	Biological Resources
X	Cultural Resources		Energy
X	Geology/Soils		Greenhouse Gas Emissions
	Hazards and Hazardous Materials		Hydrology/Water Quality
	Land Use/Planning		Mineral Resources
X	Noise		Population/Housing
	Public Services		Recreation
	Transportation	X	Tribal Cultural Resources
	Utilities/Service Systems		Wildfire
	Mandatory Findings of Significance		

4.2 DETERMINATION

On the basis of this initial evaluation:

- _____ I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- X I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the Project have been made by or agreed to by the proposed proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- _____ I find that the proposed Project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT (EIR) is required.
- _____ I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measure based on the earlier analysis as described on attached sheets. An EIR is required, but it must analyze only the effects that remain to be addressed.
- _____ I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been adequately analyzed in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable legal standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measure that are imposed upon the proposed Project, nothing further is required.

Signature _____ Date _____



5. EVALUATION OF ENVIRONMENTAL IMPACTS

5.1 AESTHETICS

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Have a substantial adverse effect on a scenic vista?				X
b. Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?			X	
c. In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?			X	
d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	

5.1.2 AESTHETICS SETTING

This aesthetics setting and impact analysis are based on the results of the Glare Analysis prepared by ERM in 2024 (Appendix B). The Project is in the San Bernardino Mountains, approximately 2.5 miles southeast of Big Bear City, California, and approximately 0.6 miles northwest of Erwin Lake. The Project site is bordered by the San Bernardino National Forest to the north and rural residences on the east, west, and south.

The existing site to be developed is open, flat land covered with low shrubs and bordered by hills on the north. Elevation ranges from approximately 6,770 to 6,790 feet above mean sea level. A forested hillside immediately north of the fenced area rises approximately 500 feet above the site. The Project vicinity features flat, open shrubland with scattered homes and ranches to the west, south, and east. The site is bordered to the west by Lakewood Drive and to the south by Erwin Ranch Road.

Viewers of the site would generally be nearby residences and drivers along Lakewood Drive and Erwin Ranch Road. Within the Project vicinity, an approximately 16-mile segment of SR-38 is a

designated scenic highway between South Fork Campground and State Lane; however, no line of sight is present between SR-38 and the Project site.

5.1.3 REGULATORY SETTING

5.1.3.1 STATE OF CALIFORNIA

California Scenic Highway Program⁵

California's Scenic Highway Program was created in 1963 to preserve and protect scenic highway corridors from change which would diminish the aesthetic value of lands adjacent to highways. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. A highway may be designated as "scenic" depending on how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the travelers' enjoyment of the view.

5.1.3.2 COUNTY OF SAN BERNARDINO

Countywide Plan/Policy Plan⁶

The Countywide Plan/Policy Plan contains the long-term goals and policies that will guide County decisions, investments, and improvements toward achieving the Countywide Vision. It serves as the County's General Plan for the unincorporated areas and includes policy direction for regional services the County administers in both incorporated and unincorporated areas. Relevant policies from the Countywide Plan/Policy Plan are summarized below.

Land Use Element

- *Goal LU-4 Community Design.* Preservation and enhancement of unique community identities and their relationship with the natural environment.
 - Policy LU-4.1 Context-sensitive design in the Mountain/Desert regions. We require new development to employ site and building design techniques and use building materials that reflect the natural mountain or desert environment and preserve scenic resources.
 - Policy LU-4.5 Community identity. We require that new development be consistent with and reinforce the physical and historical character and identity of our unincorporated communities.
 - Policy LU-4.7 Dark skies. We minimize light pollution and glare to preserve views of the night sky, particularly in the Mountain and Desert regions where dark skies are fundamentally connected to community identities and local economies.

Natural Resources Element

⁵ California Department of Transportation. 2024. Scenic Highways. Retrieved from: <https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways>

⁶ San Bernardino County. 2022. Countywide Plan. Retrieved from: https://countywideplan.com/wp-content/uploads/sites/68/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf

- *Goal NR-4 Scenic Resources.* Scenic resources that highlight the natural environment and reinforce the identity of local communities and the county.
 - Policy NR-4.1 Preservation of scenic resources. Consider the location and scale of development to preserve regionally significant scenic vistas and natural features, including prominent hillsides, ridgelines, dominant landforms, and reservoirs.
 - Policy NR-4.2 Coordination with agencies. Coordinate with adjacent federal, state, local, and tribal agencies to protect scenic resources that extend beyond the County's land use authority and are important to countywide residents, businesses, and tourists.

Renewable Energy and Conservation Element

- *Goal RE-4 Environmental Compatibility.* 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-4.4. Encourage siting, construction and screening of RE generation facilities to avoid, minimize or mitigate significant changes to the visual environment including minimizing light and glare.
 - RE 4.4.1. Reduce visual impacts through a combination of minimized reflective surfaces, context sensitive color treatments, nature-oriented geometry, minimized vegetation clearing under and around arrays, conservation of pre-existing native plants, replanting of native plants as appropriate, maintenance of natural landscapes around the edges of facility complexes, and lighting design to minimize night-sky impacts, including attraction of and impact to nocturnal migratory birds.

5.1.4 ENVIRONMENTAL EVALUATION

a. Would the project have a substantial adverse effect on a scenic vista?

No Impact. The proposed Project is located on a vacant site with relatively sparse vegetation. The surrounding landscape consists of undeveloped land on the north and east, the Woodlands residential neighborhood to the south and two rural residences on the west. There are no designated scenic vistas including prominent hillsides, ridgelines, dominant landforms, and reservoirs in the viewshed of the proposed Project per the Countywide Plan/Policy Plan.⁷ When comparing the existing conditions (Figure 9) to the proposed conditions (Figure 10) in proximity of the Project site (see photograph locations in Figure 4), adverse effects on surrounding landscape would be negligible within 1 mile, and viewers of the site would be limited to the nearby residences and drivers along Erwin Ranch Road and Lakewood Drive (see Figures 5 through 8). Landscape screening is proposed along Erwin Ranch Road and Lakewood Drive, as well as along the adjacent residences, to minimize visual effects of the proposed Project. Therefore, the Project would have no impact on scenic vistas.

⁷ San Bernardino County. 2022. Countywide Plan. Retrieved from: https://countywideplan.com/wp-content/uploads/sites/68/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf

b. Substantially damage scenic resources, including but not limited to trees, rock outcroppings, and historic buildings within a state scenic highway?

Less Than Significant Impact. The Project site is generally flat and contains no significant geologic features or vegetation that is particularly unique for the area, nor does it contain vegetation that would be considered scenic. Development of the Project would not involve the removal of visually significant trees, rock outcroppings, and/or historic buildings, as these features do not occur on the site. The existing historic mine infrastructure would remain on site.

The segment of SR-38 nearest to the Project site is a state designated scenic highway, and segments to the north are eligible for listing. However, there is currently no line of sight between the Project site and SR-38 due to intervening topography and structures, and no historic buildings between SR-38 and the site. Therefore, the Project would not damage any scenic resources, and impacts would be less than significant.

c. In nonurbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage points). If the project is in an urbanized area, would the Project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant Impact. The existing visual character of the site consists of nonurbanized, undeveloped open space with surrounding rural residences, open space, and recreational facilities. The visual quality of the Project site and surrounding lands is reduced due to the presence of numerous anthropogenic elements in the surrounding landscape, including scattered rural residential properties and existing transportation, mining, and energy infrastructure (e.g., roads, distribution poles, and historic mining equipment). Viewers of the site would be limited to the nearby residences and drivers along Erwin Ranch Road and Lakewood Drive.

The Project would involve both temporary and permanent changes to the nonurbanized, undeveloped open space visual character of the site (compare existing conditions versus proposed conditions in Figures 5 through 10). Temporary changes are associated with construction activities, including construction equipment, staging, construction fencing, and site construction. These visual impacts would be short term in nature and are therefore not considered significant.

Post-construction, the Project would change the nonurbanized, undeveloped open space visual character by developing the Project site as a PV solar facility. Although visual impacts to private residences are not considered an impact to aesthetics under CEQA, the Project would still be screened with vegetative screening and fencing that would limit aesthetic impacts on nearby residences and drivers (Figures 5 through 10). The Project would comply with all screening and fencing standards as stipulated in the San Bernardino County Development Code.

At the end of the Project's lifecycle (anticipated to be approximately 30 years), the Project would be decommissioned, and the Project site would be restored to its pre-construction undeveloped state.

Therefore, the Project would not substantially degrade the existing visual character or quality of public views and impacts would be less than significant.

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

Less Than Significant Impact. Unlike solar thermal facilities, which rely on large fields of mirrors to reflect light, the potential reflection from solar PV modules is inherently low since they are designed to capture and not reflect sunlight. PV panels have a lower index of refraction/reflectivity than common sources of glare in residential environments. The glare and reflectance levels from a given PV system are lower than the glare and reflectance levels of steel, snow, standard glass, plexiglass, and smooth water. The glare and reflectance levels of modules 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 the use of modern glass technology, Project PV panels would display overall low reflectivity. In addition, because tracker systems follow the sun, the underside of the PV panels and most of the structure supporting them are shadowed throughout the day.

Moreover, light reflected from the PV panels would travel above the line of sight of most, if not all, viewers. PV tracking systems position the array so that the sun’s rays are always perpendicular to the face of the panel. What light is reflected from the panels is reflected toward the sun. During midday conditions, when the sun is high in the sky, the rays of the sun are reflected directly upwards. When the sun is low on the horizon (near dawn or dusk), the sun’s angle in the sky is low; however, reflected rays would still be directed away from ground-level receptors because the maximum downward angle of the arrays would not be below 30 degrees. Similarly, and due to their low reflectivity, the panels are not expected to cause visual impairment for motorists on local roadways near the Project site.

The glare analysis conducted by ERM (Appendix B) predicts the Project would generate green and yellow glare along Jensen Drive – Ringwood Trail to the intersection with Lakewood Drive near the northwest corner of the Project site. Along Erwin Ranch Road, green glare is predicted west of the intersection with Lakewood Drive. A negligible amount of yellow glare (1 minute per year) is predicted on Erwin Ranch Road. The analysis predicts green glare at the northern end of Lakewood Drive near Jensen Drive and green and yellow glare at several observation points located at the nearby residences. No yellow glare is predicted on Lakewood Drive, and no glare of any type is predicted along Central Lane, Cypress Lane, or Willow Lane.

Green glare indicates a low potential to cause after-image (flash blindness) while yellow glare indicates the potential to cause temporary after-image. Glare at these locations would be highly limited to certain times of year and day, with maximum daily durations of 3 to 31 minutes at certain observation points during those times. The range of daily duration corresponds to the length or size of glare along Jensen Drive – Ringwood Trail, rather than glare measured at a single point. Therefore, the potential for glare to negatively affect the surrounding area is minimal, and the Project impacts related to light and glare would be less than significant.

5.2 AGRICULTURE AND FOREST RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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 (FMMP) of the California Resources Agency, to non-agricultural use?				X
b. Conflict with existing zoning for agricultural use or a Williamson Act contract?				X
c. 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))?				X
d. Result in the loss of forest land or conversion of forest land to non-forest use?				X
e. 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 conversion of forest land to non-forest use?				X

5.2.1 AGRICULTURAL SETTING

The Project site currently consists of open space that is not used for agriculture and has not historically been used for agriculture or ranching activities. Wild donkeys graze the Project site. The Project site is not enrolled under a current Williamson Act contract⁸. According to the 2020 California Department of Conservation (DOC) Farmland Mapping and Monitoring Program (FMMP) database, the Project site does not carry a designation such as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or any other designation that would identify it as a critical agricultural resource⁹.

No forested land or designated forest resources are located on the Project site.

⁸ California Department of Conservation. 2024. Williamson Act Contracts. Retrieved from: <https://www.conservation.ca.gov/dlrp/wa/Pages/contracts.aspx>

⁹ California Department of Conservation. 2024. Farmland Mapping & Monitoring Program. Retrieved from: <https://www.conservation.ca.gov/dlrp/fmmp>

The Project site is located on a parcel zoned RS-1 under the San Bernardino County Development Code¹⁰. The RS zoning district supports primarily single-family residential uses, incidental agricultural uses, and compatible recreational uses. The Project seeks to rezone the site to RL, which allows for similar uses as RS zoning, plus solar PV facilities with a CUP.

5.2.2 REGULATORY SETTING

5.2.2.1 FEDERAL

Federal Farmland Protection Policy Act

The Federal Farmland Protection Policy Act (FPPA), managed by the Natural Resources Conservation Service, aims to minimize the conversion of farmland to non-agricultural uses. While the FPPA primarily addresses federal projects, the principles outlined support efforts to protect farmland from unnecessary development. Since the Project site is not designated as Prime Farmland, the FPPA does not apply directly but provides overarching guidance for farmland preservation.

5.2.2.2 STATE OF CALIFORNIA

California Land Conservation Act of 1965 (Williamson Act)

The Williamson Act aims to restrict the uses of agricultural and open space lands to farming and ranching uses during the length of the contract periods.

5.2.2.3 COUNTY OF SAN BERNARDINO

Countywide Plan/Policy Plan¹¹

The Natural Resources Element of the Countywide Plan/Policy Plan contains the long-term goals and policies applicable to the protection, preservation, and conservation of important agricultural lands in unincorporated areas. Relevant policies from the Countywide Plan/Policy Plan are summarized below.

Natural Resources Element

- *Goal NR-7 Agriculture and Soils.* The ability of property owners, farmers, and ranchers to conduct sustainable and economically viable agricultural operations.
 - Policy NR-7.1 Protection of agricultural land. We protect economically viable and productive agricultural lands from the adverse effects of urban encroachment, particularly increased erosion and sedimentation, trespass, and non-agricultural land development.
 - Policy NR-7.2 Preservation of important farmlands. We require project applicants seeking to develop 20 or more acres of farmland (classified as prime, of statewide importance, or unique farmland) to non-agricultural uses to prepare an agricultural resource evaluation prior to project approval. The evaluation shall use generally accepted methodologies to

¹⁰ San Bernardino County. 2024. Code of Ordinances. Retrieved from:

https://codelibrary.amlegal.com/codes/sanbernardino/latest/sanberncty_ca/0-0-0-146479

¹¹ San Bernardino County. 2022. Countywide Plan. Retrieved from: https://countywideplan.com/wp-content/uploads/sites/68/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf.

identify the potentially significant impact of the loss of agricultural land as well as the economic viability and sustainability of future agricultural use of the property, including long-term sustainability and economic viability of water resources. If the conversion is deemed significant, the County shall require mitigation at a 1:1 ratio of converted to preserved acreage through conservation easements, payment of its valuation equivalent if a fee mitigation program is established, or inclusion in a regional agricultural preservation program.

- Policy NR-7.3 Conservation and preservation incentives. We support programs and policies that provide tax and economic incentives to conserve existing productive agricultural lands or preserve farmland classified as prime, of statewide importance, unique, or of local importance. We support landowners in establishing new and maintaining existing California Land Conservation (Williamson Act) contracts.

5.2.3 ENVIRONMENTAL EVALUATION

a. **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?**

No Impact. According to the California DOC FMMP, the Project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Because the site's current use is not in active agricultural production, the Project does not present a conflict with existing or anticipated agricultural uses in the surrounding area. The absence of a significant farmland designation indicates that the site is not expected to contribute to regional or state agricultural productivity. The absence of these designations indicates that the site does not meet the criteria for significant agricultural land based on soil quality, irrigation status, or agricultural productivity potential. Consequently, the Project would not convert any mapped important farmland to non-agricultural use, and no impact on designated agricultural resources is anticipated.

b. **Conflict with existing zoning for agricultural use or a Williamson Act contract?**

No Impact. The Project site is not enrolled under a Williamson Act contract; therefore, no cancellation is required. Additionally, since the site is not designated for agricultural uses beyond what is incidentally allowed in the RS-1 zoning district, the Project does not conflict with current zoning for agricultural use or the Williamson Act. Additionally, the Project does not present a conflict with existing or anticipated agricultural uses in the proposed rezone to RL. Thus, development of the Project and rezoning the parcel will not result in potential impacts.

c. **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))?**

No Impact. Although the Project will be subject to a General Plan Amendment and rezone of the parcel from RS-1 to RL, the Project would avoid woodland areas and would not result in impacts to forest land, timberland, or timberland zoned for Timberland Production.

Additionally, rezoning the parcel to RL would prevent further adverse effects to forest land after the lifecycle of the Project. Therefore, the Project will not result in potential impacts.

d. Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The Project footprint will avoid development in the more sloped and wooded northern portion of the Project parcel. The solar PV facility and associated structures would only occupy the flat, open portions of the Project site south of the sloped and wooded northern portion. Therefore, development of the Project would not result in loss of forest land or the conversion of forest land to non-forest use.

e. 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 conversion of forest land to non-forest use?

No Impact. The Project would not result in changes to the environment that would result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. Therefore, no impact would occur.

5.3 AIR QUALITY

Would the Project*:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with or obstruct implementation of the applicable air quality plan?			X	
b. 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?			X	
c. Expose sensitive receptors to substantial pollutant concentrations?			X	
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	

* Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

5.3.2 AIR QUALITY SETTING

This analysis is based primarily on the Project’s Air Quality/Greenhouse Gas (GHG) Assessment prepared by ERM in 2024 (Appendix C). The Project is located within the South Coast Air Basin (SCAB). The SCAB is bounded by the San Gabriel and San Bernardino Mountains to the north and the San Jacinto Mountains to the east. Big Bear Valley has a climate characterized by warm summers and cold winters, with precipitation occurring as rainfall in the warmer months and snowfall in the colder months. Average daily summer temperatures range between 60 to 70



degrees Fahrenheit, and average daily winter temperatures range between 35 to 40 degrees Fahrenheit.¹² Average annual precipitation is 21 inches and ranges from 0.12 inches in June to 4.73 inches in February.¹³ The prevailing winds originate predominately from the west and southeast and have maximum speeds up to 12.8 miles per hour.¹⁴ The San Bernardino Mountains surrounding Big Bear Valley create a barrier to airflow, which can trap air pollutants in the valley during unfavorable meteorological conditions and temperature inversions. Air stagnation can occur when large high-pressure cells lie over the valley. The lack of surface wind during these periods and the reduced vertical flow caused by low surface heating reduces the influx of outside air and allows pollutants to become concentrated in the air. The surface concentrations of pollutants are highest when these conditions are combined with increased levels of smoke or when temperature inversions trap cool air, fog, and pollutants near the ground.

The South Coast Air Quality Management District (SCAQMD) identifies sensitive receptors as residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes. The Project site is bounded on the north and east by undeveloped land, on the south by Erwin Ranch Road, and on the west by Lakewood Drive. The site is in a rural area consisting mostly of ranches; however, there are residential ranch houses on the east, south, and west sides of the Project.

5.3.3 REGULATORY SETTING

5.3.3.1 FEDERAL

Clean Air Act¹⁵

The Clean Air Act (CAA) establishes the statutory framework for regulation of air quality in the United States. Pursuant to this act, the United States Environmental Protection Agency (USEPA) has established various regulations to achieve and maintain acceptable air quality, including the adoption of National Ambient Air Quality Standards (NAAQS), mandatory State Implementation Plan or maintenance plan requirements to achieve and maintain NAAQS, and emission standards for both stationary and mobile sources of air pollution. The NAAQS were established in 1970 for six criteria pollutants because they are considered the most prevalent air pollutants known to be hazardous to human health. If a region is designated as non-attainment for a NAAQS, the CAA requires the state to develop a State Implementation Plan to demonstrate how the standard will be attained, including the establishment of specific requirements for review and approval of new or modified stationary sources of air pollution. The CAA Amendments of 1990 directed the USEPA to set standards for toxic air contaminants (TAC) and required facilities to sharply reduce

¹² PRISM Climate Group, Oregon State University. 2024. Climate Data. Retrieved from: <https://prism.oregonstate.edu>.

¹³ United States Geological Survey (USGS). 2012. Geohydrology of Big Bear Valley, California phase 1—Geologic Framework, Recharge, and Preliminary Assessment of the Source and Age of Groundwater. Retrieved from: <https://pubs.usgs.gov/sir/2012/5100/pdf/sir20125100.pdf>.

¹⁴ South Coast Air Quality Management District (SCAQMD). 2024. AERMOD Table 1: Meteorological Sites. Retrieved from: <https://www.aqmd.gov/home/air-quality/meteorological-data/aermod-table-1>.

¹⁵ USEPA. 1970. Clean Air Act, 42 U.S.C. §7401 et seq. Accessed 20 December 2024. Retrieved from: [https://www.epa.gov/laws-regulations/summary-clean-air-act#:~:text=The%20Clean%20Air%20Act%20\(CAA,emissions%20of%20hazardous%20air%20pollutants.](https://www.epa.gov/laws-regulations/summary-clean-air-act#:~:text=The%20Clean%20Air%20Act%20(CAA,emissions%20of%20hazardous%20air%20pollutants.)

emissions. Table 2 summarizes the most stringent NAAQS/California Ambient Air Quality Standards (CAAQS) and the attainment status of the SCAB.

TABLE 2 MOST STRINGENT AMBIENT AIR QUALITY STANDARDS AND ATTAINMENT STATUS FOR THE SOUTH COAST AIR BASIN

Pollutant	Averaging Time	CAAQS Concentration	CAAQS Status	NAAQS Concentration	NAAQS Status
Ozone	8 hours	0.070 ppm	N	0.070 ppm	N
	1 hour	0.09 ppm	N	0.12 ppm ^a	N
Carbon Monoxide (CO)	8 hours	9 ppm	A	9 ppm	A
	1 hour	20 ppm	A	35 ppm	A
Nitrogen Oxides (NO _x)	1 hour	0.18 ppm	A	0.10	A
	Annual	0.03 ppm	A	0.053 ppm	A
Sulfur Dioxide	24 hours	0.04 ppm	A	—	—
	1 hour	—	—	0.075 ppm	A
Particulate Matter (PM ₁₀)	Annual	20 µg/m ³	N	—	—
	24 hours	50 µg/m ³	N	150 µg/m ³	N
Particulate Matter - Fine (PM _{2.5})	Annual	12 µg/m ³	N	9.0 µg/m ³	To be determined ^b
	24 hours	—	—	35 µg/m ³	N
Sulfates	24 hours	25 µg/m ³	A	—	—
Lead	Rolling 3-Month Average	—	—	0.15 µg/m ³	A
	30-day average	1.5 µg/m ³	N	—	—

A=Attainment; N=Non-attainment; - =Unclassified

ppm = parts per million; µg/m³ = micrograms per cubic meter

PM₁₀ = particulate matter with a diameter of 10 microns or less; PM_{2.5} = particulate matter with a diameter of 2.5 microns or less

- 1-hour ozone standard (0.12 ppm) was revoked, effective 15 June 2005; however, the Basin has not attained this standard and is still subject to anti-backsliding requirements.
- In February 2024 the USEPA strengthened the NAAQS for PM_{2.5} to 9.0 µg/m³. The USEPA has 2 years to designate areas as in attainment or non-attainment so current monitoring data is still being analyzed. However, the air basin was not in attainment with the previous standard of 12.0 µg/m³

and based on monitoring data for 2020-2022, the air basin will likely not be in attainment with the more stringent threshold either.

Another major component of the CAA is Hazardous Air Pollutants (HAPs). The 1977 CAA amendments required the USEPA to identify National Emission Standards for Hazardous Air Pollutants known as NESHAPs to protect public health and welfare. HAPs include certain volatile organic chemicals, pesticides, herbicides, and radionuclides that are expected to result in a decrease of public health, based on scientific studies of exposure to humans and other mammals. The 1990 CAA amendments required the USEPA to set standard permissible ceilings for 187 substances and chemical families. The amendments also required businesses to implement risk-management programs for dealing with potential releases of hazardous substances.

5.3.3.2 STATE OF CALIFORNIA

The California Air Resources Board (CARB) is the State agency responsible for California air quality management. It establishes CAAQS, TAC standards, mobile source emission standards, and GHG regulations, as well as oversight of regional air quality districts and preparation of implementation plans, including regulations for stationary sources of air pollution.

The CAAQS are generally more stringent than federal NAAQS, except for the 1-hour nitrogen dioxide and sulfur dioxide standards, and include more pollutants than the NAAQS (see Table 2). California specifies four additional criteria pollutants: visibility reducing particles, sulfates and hydrogen sulfide, and vinyl chloride. Similar to USEPA, CARB designates counties in California as being in attainment or non-attainment for the CAAQS.

State law has also established the framework for California's TAC identification and control program, which is generally more stringent than the federal HAP program and aimed at TACs that are a problem in California. According to section 39655 of the California Health and Safety Code, a TAC is "an air pollutant which may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health." CARB has formally identified over 200 substances and groups of substances as TACs, including diesel particulate matter (DPM). In addition, substances which have been listed as federal HAPs pursuant to section 7412 of Title 42 of the United States Code are TACs under California's air toxics program. CARB is adopting appropriate control measures for sources of these TACs. The following measures are required by California law to reduce DPM emissions:

- Fleet owners of mobile construction equipment are subject to the CARB Regulation for In-Use Off-Road Diesel Vehicles (Title 13 CCR, Chapter 9, Section 2449), the purpose of which is to reduce DPM and criteria pollutant emissions from in-use (existing) off-road diesel-fueled vehicles.
- All commercial diesel vehicles are subject to Title 13, Section 2485 of the CCR, limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to 5 minutes; electric auxiliary power units should be used whenever possible.

5.3.3.3 REGIONAL

The Project site is located within the jurisdiction of the SCAQMD. The SCAQMD is the regional air agency charged with preparing, adopting, and implementing emission control measures and standards for stationary sources of air pollution pursuant to delegated state and federal authority. Because the Project would not involve construction of new stationary sources, and most equipment that will be used for construction is classified as mobile sources and is thus exempt from stationary source permit requirements, there are no relevant air permitting regulations. The SCAQMD has published CEQA guidelines for analysis and mitigation of impacts from projects within its jurisdiction, and established thresholds of significance for construction impacts as well as impacts from operation of non-permitted equipment and activities.

Under the CAA, the SCAQMD is required to develop an air quality plan to achieve and/or maintain compliance with federal and state non-attainment criteria pollutants within its air district. The SCAQMD has taken action and developed attainment plans, namely the 2022 Air Quality Management Plan (AQMP) and the SCAB Attainment Plan for the 2012 Annual PM_{2.5} Standard, to achieve and/or maintain compliance with the federal and state ozone, particulate matter with a diameter of 10 microns or less (PM₁₀) and particulate matter with a diameter of 2.5 microns or less (PM_{2.5}) standards.¹⁶

Notification Requirements under SCAQMD Rule 403¹⁷

Rule 403 (Fugitive Dust) prohibits creation of dust plumes that are visible beyond the property line of the emission source and requires all active operations to implement applicable best available control measures. Enhanced dust control and notification requirements apply if the project is considered a "large operation" under this rule, which is any active operation on property that contains 50 or more acres of disturbed surface area. As the total parcel is approximately 30 acres with the disturbed area under 21 acres, enhanced dust control and notification requirements are not applicable.

5.3.3.4 COUNTY OF SAN BERNARDINO

In accordance with CEQA requirements and the CEQA review process, the County assesses the air quality impacts of new development projects, requires mitigation of potentially significant air quality impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation. The applicable San Bernardino County's Countywide Plan goals and policies and Development Code regulations are listed below.

Countywide Plan/Policy Plan¹⁸

¹⁶ South Coast Air Quality Management District (SCAQMD). 2024. Localized Significance Thresholds. Retrieved from: <https://www.aqmd.gov/home/rules-compliance/ceqa/air-quality-analysis-handbook/localized-significance-thresholds>.

¹⁷ South Coast Air Quality Management District (SCAQMD). 2024. Rule 403 Dust Control Information. Retrieved from: [https://www.aqmd.gov/home/rules-compliance/compliance/rule-403-dust-control-information#:~:text=Form%20403N%20\(Large%20Operation%20Notification,Plan%20with%20the%20associated%20fee.](https://www.aqmd.gov/home/rules-compliance/compliance/rule-403-dust-control-information#:~:text=Form%20403N%20(Large%20Operation%20Notification,Plan%20with%20the%20associated%20fee.)

¹⁸ San Bernardino County. 2022. Countywide Plan. Retrieved from: https://countywideplan.com/wp-content/uploads/sites/68/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf.

The Natural Resources Element and the Renewable Energy Element of the Countywide Plan/Policy Plan contain the following Goals and Policies applicable to air quality.

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-1.3 Coordination on air pollution. We collaborate with air quality management districts and other local agencies to monitor and reduce major pollutants affecting the county at the emission source.
 - Policy NR-1.6 Fugitive dust emissions. We coordinate with air quality management districts on requirements for dust control plans, revegetation, and soil compaction to prevent fugitive dust emissions.
 - Policy NR-1.8 Construction and operations. We invest in County facilities and fleet vehicles to improve energy efficiency and reduce emissions. We encourage County contractors and other builders and developers to use low-emission construction vehicles and equipment to improve air quality and reduce emissions.

Renewable Energy Element

- *Goal RE-4 Environmental Compatibility.* 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. 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, and cultural, archaeological, paleontological, and scenic resources.
 - Policy RE 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.

San Bernardino County Development Code¹⁹

Section 83.01.040

- (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 15 January 2009:
- 1) On-Road Diesel Vehicles. On-road diesel vehicles are regulated by the State of California Air Resources Board.

¹⁹ San Bernardino County. 2024. Code of Ordinances. Retrieved from: https://codelibrary.amlegal.com/codes/sanbernardino/latest/sanbercncty_ca/0-0-0-146479.

- 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 DPM 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; Idling for testing, servicing, repairing or diagnostic purposes;
 - (III) Idling necessary to accomplish work for which the vehicle was designed (such as operating a crane);
 - (IV) Idling required to bring the machine system to operating temperature; and;
 - (V) 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 USEPA or that pre-dates USEPA 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.

Section 84.29.035

(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 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) Onsite vehicle speed will be limited to 15 mph.

5.3.4 ENVIRONMENTAL EVALUATION

a. Conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant Impact. For the Project area, the SCAQMD and CARB ensure implementation of California's AQMPs, known collectively as the State Implementation Plan. State-level air quality planning strategies to attain CAAQS are implemented through rules, regulations, and programs adopted by SCAQMD and CARB to control ozone precursors, PM₁₀, and PM_{2.5}. All construction and Project development-related activities, including operation and maintenance and eventual decommissioning, would comply with the applicable rules, regulations, and programs. Strategies and control measures identified within the SCAQMD 2016 AQMP, and the updated 2022 AQMP, apply directly to Project activities as promulgated through SCAQMD's rules and regulations.

All construction and operational activities and eventual decommissioning would comply with SCAQMD's Rule 402 and 403, which prevent nuisances and regulate fugitive dust emissions. The Project would also conform to the federal and state CAA requirements by complying with the rules and regulations that are contained in the air quality plan.

A project could be inconsistent with the applicable AQMP or attainment plan if it causes population and/or employment growth or growth in vehicle-miles traveled in excess of the growth forecasts included in the attainment plan. The Project would be operated remotely and employ no more than two part-time positions for ongoing operation and maintenance (O&M) related activities. The construction workforce would involve only temporary employment for a period of approximately 6 to 9 months. Accordingly, Project construction and operation would not result in activities that would permanently increase population and/or employment growth that would result in vehicle-miles traveled. Therefore, the Project would not conflict with or obstruct implementation of the applicable air quality plan, and this impact would be less than significant.

b. 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?

Less Than Significant Impact. Construction-related activities of the proposed Project will most likely require approximately 6 to 9 months of continuous activity involving six overlapping phases during normal working hours, 5 days per week. Although CalEEMod was used to calculate emissions associated with the planned 6-month schedule, delays could extend construction to approximately 9 months. In the event that construction extends to 9 months, it is unlikely that maximum daily emissions would see a significant increase as there would be no change in the equipment runtime over a timeline of 9 months rather than 6 months. It is noted that construction-related activities that emit air emissions will be a mix of short-term, intermittent, and temporary durations and will vary by phase and from equipment type usage.

Construction-related activities of the proposed Project will generate air pollutant emissions from entrained dust, off-road equipment use, and vehicle emissions. Offsite emissions will be generated by construction worker daily commute trips and heavy-duty diesel haul and vendor truck trips. Construction-related emissions could vary substantially from day to day, depending on the level of activity, the specific type of operation, and, for dust, the prevailing weather conditions. Exhaust emissions include ozone precursors (volatile organic compounds and nitrogen oxides [NO_x]), CO, and particulate matter (including PM₁₀ and PM_{2.5}). Fugitive dust includes particulate matter from soil eroded by ground-disturbing activities and by travel on unpaved surfaces and on paved road surfaces. Dust control and engine exhaust would be subject to SCAQMD rules and regulations to avoid adverse levels of air pollutant concentrations.

As shown in Table 3, all maximum daily construction-related emissions would be well below the SCAQMD daily thresholds for construction. These emissions were estimated in CalEEMod without any controls, such as the SCAQMD and San Bernardino County dust control and off-road equipment measures. Application of SCAQMD and San Bernardino County dust control and off-road equipment emissions controls such as limiting onsite vehicle speeds on unpaved roads to 15 mph²⁰ and limiting construction equipment idling beyond regulation requirements²¹, would further reduce the construction emissions of NO_x and PM₁₀ below the SCAQMD thresholds. As such, 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 standards, and the impact would be less than significant.

²⁰ SCAQMD. 2007. TABLE XI-A MITIGATION MEASURE EXAMPLES: FUGITIVE DUST FROM CONSTRUCTION & DEMOLITION. Retrieved from:

<https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.aqmd.gov%2Fdocs%2Fdefault-source%2Fceqa%2Fhandbook%2Fmitigation-measures-and-control-efficiencies%2Ffugitive-dust%2Ffugitive-dust-table-xi-a.doc%3Fsfvrsn%3D2&wdOrigin=BROWSELINK>

²¹ SCAQMD. 2010. Quantifying Greenhouse Gas Mitigation Measures. Retrieved from: <https://www.aqmd.gov/docs/default-source/ceqa/handbook/mitigation-measures-and-control-efficiencies/quantifying-greenhouse-gas-mitigation-measures.pdf?sfvrsn=0>

TABLE 3 MAXIMUM DAILY CONSTRUCTION EMISSIONS

Pollutant	Emissions (max lb/day)	SCAQMD Air Quality Significance Thresholds	Below Threshold (Y/N)
VOC	2.45	75 lb/day	Y
NO _x	20.8	100 lb/day	Y
CO	23.0	550 lb/day	Y
SO _x	0.04	150 lb/day	Y
PM ₁₀ Total	63.3	150 lb/day	Y
PM _{2.5} Total	6.67	55 lb/day	Y

CO = carbon monoxide; lb/day = pounds per day; N = no; NO_x = nitrogen oxides; lb/day = pounds per day; PM₁₀ = particulate matter 10 micrometers or less in diameter; PM_{2.5} = particulate matter 2.5 micrometers or less in diameter; SO_x = sulfur oxides; VOC = volatile organic compounds; Y = yes

c. Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. Sensitive receptors are those individuals more susceptible to the effects of air pollution. Although the site is located in a rural region, there are several residences surrounding the property to east, west, and south. While these residences are in proximity to the Project site, construction emissions are well below thresholds and would be short duration in nature; therefore, sensitive receptors would not be exposed to substantial pollutants concentrations.

As noted previously, operations would entail infrequent maintenance activities, as needed, resulting in minimal emissions from maintenance vehicles and equipment. Therefore, operations would not expose existing sensitive receptors to substantial pollutant concentrations.

Other emissions may include TACs or HAPs identified by the state and federal government, respectively. The greatest potential for TAC emissions during construction would be DPM emissions from heavy equipment operations and heavy-duty trucks. As shown in Table 3, maximum daily particulate matter (PM₁₀ or PM_{2.5}) emissions generated by construction equipment operation, combined with fugitive dust generated by equipment operation, would be well below the SCAQMD significance thresholds. During operation, the Project would include minimal sources of TAC emissions, potentially including use of pressure washers for occasional panel washing. Given the minor increase in emissions, operational activities are not expected to be a significant source of DPM or associated potential health impacts.

Given that the estimated Project emissions are well below significance thresholds as shown in Table 3, any potential impacts from exposure to substantial pollutant concentrations during construction and Project operations would be less than significant.

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

Less Than Significant Impact. Typical odor nuisances include hydrogen sulfide, ammonia, chlorine, and other sulfide-related emissions. No significant sources of these odor-causing pollutants would exist during construction. An additional potential source of odor is diesel engine emissions. During construction, diesel exhaust produced by off-road construction equipment could generate odors; however, several pieces of construction equipment would need to operate concurrently in a relatively small area to generate a constant plume of diesel exhaust that could cause objectionable odors for a substantial number of people. These circumstances are not expected to occur as part of the Project because construction equipment would not all operate at the same time. In addition, with respect to Project operations, no odor-generating activities are expected to occur.

As described, because few sources of odor and TACs would exist and they would be short term in nature, the Project would not result in other emissions adversely affecting a substantial number of people and impacts due to other emissions would be less than significant.

5.4 BIOLOGICAL RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?		X		
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?			X	
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X	
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?			X	

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?				X

5.4.1 BIOLOGICAL SETTING

This biological setting and impact analysis are based on the results of the Biological Resources Assessment prepared by ERM in 2024 (Appendix D). The Project site is located within the Southern California Montane Conifer Forest, part of the USEPA’s Level IV Ecoregion 8f²². This region spans the igneous-dominated mountains of the eastern Transverse Range and the Peninsular Ranges. The site lies within the Big Bear Valley, falling under the Baldwin Lake Sub-Watershed and the Baldwin Hydrologic Subarea, which are managed by California’s Regional Water Quality Control Board (RWQCB)²³. The Project site’s terrain includes a sloped pinyon-juniper woodland in the north, a minor topographic depression in the northwest to north-central section, and a flat sagebrush plant community in the southern portion. The sloped pinyon-juniper woodland features slopes between 30 percent and 50 percent at elevations ranging from approximately 6,785 to 6,875 feet above sea level. The minor topographic depression has gentle slopes of 0 percent to 2 percent, sitting at elevations between 6,780 and 6,785 feet. Similarly, the flat sagebrush community in the southern part of the site has slopes between 0 percent and 2 percent, with an elevation range of 6,785 to 6,790 feet. The topographic depression is bordered by slight elevation changes, marking the base of the woodland in the north, with Lakewood Drive to the west, a nearby equestrian facility to the southwest, and an abandoned 5-foot by 5-foot mineshaft and other mining remnants to the east. The area’s historical land use includes past mining activities, evidenced by aerial photographs from the 1940s to the 1960s. The remains of mining features, such as a partially backfilled excavation site, further emphasize the region's past disturbances.

5.4.1.1 AQUATIC RESOURCES

The United States Fish and Wildlife Services (USFWS) National Wetland Inventory (NWI)²⁴ imagery depicts a seasonally flooded, riverine intermittent stream bed (R4SBC) approximately 65 feet from the northwestern area of the parcel, a semi-permanently flooded riverine system with an unconsolidated bottom (R5UBF) approximately 125 feet from the northwestern area of the Project site, and a seasonally saturated palustrine emergent wetland (PEM1B) approximately 290 feet from the northwestern area of the Project site. Historic aerial imagery from 1938 indicates inundation and surface hydrologic connectivity may have occurred between the northern sections

²² US Environmental Protection Agency (USEPA). 2024. Ecoregion Download Files by Region. Retrieved from: <https://www.epa.gov/eco-research/ecoregion-download-files-region#pane-09>.

²³ US Geological Survey (USGS). 2015. USGS Water Resources Links for: 160503010207 - Baldwin Canyon. Retrieved from: <https://water.usgs.gov/lookup/getwbd?160503010207>.

²⁴ United States Fish and Wildlife Service (USFWS). 2024. National Wetlands Inventory (NWI). Retrieved from: <https://www.fws.gov/program/national-wetlands-inventory>.



of the Project site and the adjacent seasonally saturated palustrine emergent wetland; however, all subsequent aerial imagery and observations at the site indicate that there is no evidence of hydrologic connectivity, due to Lakewood Drive. Despite the presence of hydric soils in the northwestern section of the Project site and soil surface cracks in the southern section of the Project site, the absence of hydrophytic vegetation throughout the entirety of the Project site suggests that this site is not subject to United States Army Corps of Engineers (USACE) jurisdiction under the current definition of the Waters of the United States (WOUS) or Waters of the State (WOS). Moreover, the Project is not subject to a California Department of Fish and Wildlife (CDFW) streambed jurisdiction due to the absence of aquatic features containing a defined bed, bank, channel, or high-water mark within the Project site.

5.4.1.2 VEGETATIVE COMMUNITIES AND LAND COVER TYPES

The Project site contains three vegetation communities, including Big Sagebrush (*Artemisia tridentata* Shrubland Alliance), Upland Mustards of Star-Thistle Fields (*Brassica nigra* – *Centaurea [solstitialis, melitensis]* Herbaceous Semi-Natural Alliance), and Singleleaf Pinyon – Utah Juniper Woodlands (*Pinus monophyla [Juniperus osteosperma]* Woodland)²⁵; however, none are considered sensitive by the CDFW.

5.4.1.3 SPECIAL-STATUS SPECIES

Definitions of special-status species—such as federally and state-listed endangered and threatened species, California Species of Special Concern, Fully Protected species, and California Rare Plant Rankings (CRPR) by the California Native Plant Society²⁶. The presence or absence of special-status plant and wildlife species observed or with potential to occur on-site is summarized below. In total, 15 special-status species are present or have a moderate to high potential to occur within the Project site, including five plant species and 10 wildlife species.

Plants

During the 2024 field surveys, two special-status plants were observed onsite: Big Bear Valley milk-vetch (*Astragalus lentiginosus var. Sierrae*) and Baldwin Lake linanthus (*Linanthus killipii*). Big Bear Valley milk-vetch was observed within flat terrain (Aquents-Grunney complex), which will be developed by the Project; Baldwin Lake linanthus was observed on sloping habitat (Goldmountain-Deadmansridge-Deadpan complex) consisting of pinyon-juniper woodland, which will not be affected by Project activities. In addition, three additional special-status plants have been identified as having a moderate to high potential to occur within the Project's habitats; however, they were not observed onsite during the 2024 field surveys during their blooming season. These species include Pinyon rockcress (*Boechea dispar*), Parish's rockcress (*Boechea parishii*), and San Bernardino Mountains dudleya (*Dudleya abramsii ssp. affinis*).

Wildlife

²⁵ California Native Plant Society. 2024. A Manual of California Vegetation, Online Edition. Retrieved from: <http://www.cnps.org/cnps/vegetation/>

²⁶ California Native Plant Society. 2024. California Rare Plant Ranks. Retrieved from: <https://www.cnps.org/rare-plants/california-rare-plant-ranks>

No special-status wildlife species were observed onsite during the surveys. However, the following special-status wildlife species have been identified as having moderate potential to occur within the Project site: golden eagle (*Aquila chrysaetos*), lawrence's goldfinch (*Spinus lawrencei*), San Bernardino golden-mantled ground squirrel (*Callospermophilus lateralis bernardinus*), southern rubber boa (*Charina umbratica*), townsend's big-eared bat (*Corynorhinus townsendii*), western small-footed myotis (*Myotis ciliolabrum*), long-eared myotis (*Myotis volans*), fringed myotis (*Myotis thysanodes*), long-legged myotis (*Myotis Volans*), and coast horned lizard (*Phrynosoma blainvillii*). Wild donkeys were observed grazing at the site during the biological resources survey.

5.4.2 REGULATORY SETTING

5.4.2.1 FEDERAL

Clean Water Act²⁷

Section 404 of the Clean Water Act (CWA) regulates the discharge of dredged or fill material into WOUS. Recently adopted 2023 federal regulations implementing the CWA (40 Code of Federal Regulations [CFR] Part 120.2(a) define WOUS to include waters currently or historically used in commerce, tidal waters, territorial seas, interstate waters, impoundments, tributaries, and adjacent wetlands with a continuous surface connection).

Endangered Species Act²⁸

The federal Endangered Species Act (ESA) provides protection for species listed as threatened or endangered and regulates activities affecting these species. The ESA establishes a legal framework for adding and removing species from these lists and sets out recovery plans. Interagency cooperation is required to avoid the "take" of listed species, and permits for incidental take are issued when necessary. Section 7 of the ESA applies to federal projects that may affect listed species, requiring consultation with the USFWS.

Migratory Bird Treaty Act²⁹

The Migratory Bird Treaty Act (MBTA) (16 United States Code Section 703 et seq.) prohibits the take (including killing, capturing, selling, or transporting) of protected migratory birds without prior authorization from the USFWS. The MBTA protects all raptors and their nests under California Fish and Game Code (CFG) Section 3503.5.

Bald and Golden Eagle Protection Act³⁰

This act provides additional protection for bald and golden eagles, prohibiting the take, possession, or sale of these species (16 USC Section 668 et seq.).

²⁷United States Environmental Protection Agency (USEPA). 2024. Summary of the Clean Water Act. Retrieved from: <https://www.epa.gov/laws-regulations/summary-clean-water-act>

²⁸ United States Fish & Wildlife Service (USFWS). 1973. Endangered Species Act. Retrieved from: <https://www.fws.gov/law/endangered-species-act>

²⁹ United States Fish & Wildlife Service (USFWS). 2024. Migratory Bird Treaty Act of 1918. Retrieved from: <https://www.fws.gov/law/migratory-bird-treaty-act-1918>

³⁰ United States Fish & Wildlife Service (USFWS). Bald and Golden Eagle Protection Act. Retrieved from: <https://www.fws.gov/law/bald-and-golden-eagle-protection-act#:~:text=The%20Bald%20and%20Golden%20Eagle,%20nests%20or%20eggs.>

5.4.2.2 STATE OF CALIFORNIA

California Endangered Species Act³¹

The California Endangered Species Act (CESA) protects California's native species at risk of extinction. The CDFW administers CESA and oversees compliance. For projects affecting both federally and state-listed species, the federal incidental take authorization may satisfy CESA if determined consistent by CDFW (Section 2080.1). For state-listed species only, a project proponent must obtain an incidental take permit under CFGC Section 2081(b).

California Native Plant Society Rare or Endangered Plants³²

Species with a CRPR of 1 or 2 must be considered in CEQA analyses. CRPR 3 or 4 species may be considered if they are locally rare or at the edge of their range. Methods to avoid impacts include reconfiguring project design, protecting sensitive areas, or using conservation easements.

California Fish and Game Code³³

The CFGC contains the following Sections relevant to bald and golden eagle protection and nesting birds.

- Section 1602: Regulates activities that substantially divert or obstruct the natural flow of—or substantially change or use any material from—the bed, channel, or bank of any river, stream, or lake. Such activities may require a Lake and Streambed Alteration Agreement with the CDFW.
- Section 3503.5 (Birds of Prey): Prohibits the take, possession, or destruction of raptors, their nests, or eggs.
- Section 3511 (Fully Protected Species): Protects fully protected species, including golden eagles, from take, even with an incidental take permit.

Native Plant Protection Act³⁴

The Native Plant Protection Act (CFGC Sections 1900-1913) protects 64 species of rare plants, subspecies, and varieties of plants prohibiting their take, except under specified conditions, such as agricultural practices or emergencies (CFGC Section 1913).

Natural Community Conservation Planning Act³⁵

The Natural Community Conservation Planning Act supports ecosystem-level conservation planning aimed at protecting biological diversity while allowing for compatible land use. Plants

³¹ California Legislative Information. 2024. Chapter 1.5 Endangered Species. Retrieved from: https://leginfo.legislature.ca.gov/faces/codes_displayexpandedbranch.xhtml?tocCode=FGC&division=3.&title=&part=&chapter=1.5.&article=

³² California Native Plant Society (CNPS). 2024. CNPS Inventory of Rare Plants. Retrieved from: <https://www.cnps.org/rare-plants/cnps-inventory-of-rare-plants>

³³ California Legislative Information. 2024. Division 4: Birds and Mammals. Retrieved from: https://leginfo.legislature.ca.gov/faces/codes_displayexpandedbranch.xhtml?tocCode=FGC&division=4.&title=&part=&chapter=&article=&nodetreepath=6

³⁴ California Legislative Information. 2024. Chapter 10: Native Plant Protection. Retrieved from: https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?division=2.&chapter=10.&lawCode=FGC

³⁵ California Department of Fish and Wildlife Natural Community Conservation Planning (NCCP). Retrieved from: <https://wildlife.ca.gov/Conservation/Planning/NCCP>

protected under an approved Natural Community Conservation Plan (NCCP) may be "taken" during project activities but are also subject to conservation measures.

Porter-Cologne Water Quality Control Act³⁶

Under the Porter-Cologne Water Quality Control Act, the State Water Resources Control Board (SWRCB) regulates stormwater discharges from construction sites to prevent pollutant mobilization into waterbodies. Activities subject to this regulation include clearing, grading, and excavation. Projects disturbing one or more acres of soil, or part of a larger development plan that affects one or more acres, must obtain coverage under the National Pollutant Discharge Elimination System (NPDES) Construction Stormwater General Permit associated with construction and land disturbance. This regulation aims to protect and restore California's water resources.

CWA Section 401 requires an applicant pursuing a federal permit to conduct any activity that may result in a discharge of a pollutant to obtain a water quality certification (or waiver) from the applicable RWQCB. The RWQCBs primarily implement basin plan policies through issuing waste discharge requirements for waste discharges to land and water. The RWQCBs have also been delegated responsibility for administering the NPDES permit program, which is designed to manage and monitor point and nonpoint source pollution.

5.4.2.3 COUNTY OF SAN BERNARDINO

Countywide Plan/Policy Plan³⁷

The Natural Resources Element of the Countywide Plan/Policy Plan includes one goal and several policies related to the protection of biological resources, with a focus on biodiversity, habitat conservation, and resource management. Key policies include:

Natural Resources Element

- ***Goal NR-5 Biological Resources.*** An interconnected landscape of open spaces and habitat areas that promotes biodiversity and healthy ecosystems, both for their intrinsic value and for the value placed on them by residents and visitors.
 - ***Policy NR-5.1. Coordinated habitat planning.*** Coordinate with public and private habitat conservation efforts to promote certainty for species conservation and land development.
 - ***Policy NR-5.2. Capacity for resource protection and management.*** Collaborates with agencies to seek funding for protecting, restoring, and maintaining open spaces and wildlife corridors.
 - ***Policy NR-5.3. Multiple-resource benefits.*** Prioritizes conservation actions that offer multiple benefits, including biological, hydrological, and cultural resource preservation.
 - ***Policy NR-5.4. Off-base recovery efforts.*** Facilitates off-base recovery efforts for threatened and endangered species.

³⁶ California Water Board. 2024. Porter-Cologne Water Quality Control Act. Retrieved from: Porter-Cologne Water Quality Control Act - 2024 Version

³⁷ San Bernardino County. 2022. Countywide Plan. Retrieved from: https://countywideplan.com/wp-content/uploads/sites/68/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf.

- Policy NR-5.5. Mitigation and future responsibilities. Ensures new development addresses habitat conservation responsibilities without shifting them to military properties.
- Policy NR-5.6. Mitigation banking. Encourages the proactive assemblage of lands for conservation through mitigation banking, requiring sufficient funding for long-term management.
- Policy NR-5.7. Development review, entitlement, and mitigation. Complies with federal and state regulations on protected species during development review and entitlement processes.
- Policy NR-5.8. Invasive species. Requires the use of non-invasive species in new development and promotes the management of existing invasive species.

Renewable Energy and Conservation Element

- **Goal RE-4 Environmental Compatibility.** 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-4.7. RE 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.
 - Policy RE-4.8. Encourage mitigation for RE generation facility projects to locate habitat conservation offsets on public lands where suitable habitat is available.
 - RE 4.8.1. Collaborate with appropriate state and federal agencies to facilitate mitigation/habitat conservation activities on public lands.
 - Policy RE-4.9. Encourage RE facility developers to design projects in ways that provide sanctuary (i.e., a safe place to nest, breed and/or feed) for native bees, butterflies and birds where feasible and appropriate, according to expert recommendations.

5.4.3 ENVIRONMENTAL EVALUATION

- 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?**

Less Than Significant with Mitigation. In total, 15 special-status species are present or have a moderate to high potential to occur within the Project site, including five plant species and 10 wildlife species, as well as nesting birds protected under the MBTA.

Two of the five special-status plants were observed on-site: Baldwin Lake linanthus (*Linanthus killipii*) and Big Bear Valley milk-vetch (*Astragalus lentiginosus* var. *sierrae*). Baldwin Lake linanthus was observed on sloping habitat (Goldmountain-Deadmansridge-Deadpan complex) consisting of pinyon-juniper woodland, which will not be affected by Project activities. Big Bear Valley milk-vetch was observed within flat terrain (Aquents-Grunney complex), which will be developed. However, only a single population of two individual Big Bear Valley milk-vetch was observed and the loss of two individuals would not significantly affect the species' long-term survival. Additionally, because the site is disturbed, heavily grazed, and only represents a small proportion of suitable habitat available, special-status plants not observed within the Project site but noted as having a moderate potential are unlikely to occur within this site and would not be adversely impacted. Therefore, the potential for adverse effects to special-status plants is less than significant.

Of the 10 special-status wildlife species, fringed myotis, townsend's big-eared bat, and southern rubber boa, as well as nesting birds protected under MBTA, have the potential to occur within the Project site; however, none were observed during the 2024 field survey. Potential roosting habitat for special-status bats within the Project site include the flooded mineshaft within the Project site, the mineshaft on the south-facing slope near the northeast corner of the Project site, and within logs or snags and under exfoliating bark on that same hillslope. However, the upper 10-15 feet of the flooded mineshaft would provide only low-quality, short-term bat roosting habitat for roosting bats. The loss of short-term bat roosting habitat provided by the flooded mineshaft would not be significant given that mines similar to Gold Hill Mine occur throughout the area surrounding Baldwin Lake. The Project site does contain habitat features that are consistent with suitable habitat for southern rubber boa, such as rock outcrops, surface rock, logs, forest litter, and rodent burrows. However, these features are generally limited to the south-facing hillslope which would not be impacted. Additionally, southern rubber boa is nocturnal, and any individual that would pass through the site would do so when no construction activities were occurring. Therefore, the potential for ground-disturbing activities and vehicle traffic during construction or vehicle traffic during operations to harm or kill a southern rubber boa would be limited. MM BIO-1 and MM BIO-2 as described below would further mitigate any impacts to southern boa. Birds protected by the MBTA have the potential to nest within or near the development footprint and therefore could be affected by Project activities; however, pre-construction clearance surveys would be conducted as outlined in MM BIO-1 to identify and avoid any potential nesting birds.

Therefore, development of the Project may result in potential impacts to special-status wildlife species, such as southern rubber boa, and nesting birds protected under the MBTA. However, implementation of the identified mitigation measures would reduce potential impacts to less than significant levels.

Mitigation Measures

MM BIO-1: Pre-construction clearance surveys

- A qualified biologist will conduct pre-construction surveys for nesting birds (including raptors) on and closely adjacent to the Project site no more than 10 days prior to any ground disturbance, if ground disturbance is to occur during the breeding season (1 February through 31 August). If an active nest is detected, a 100-foot work avoidance

buffer will be implemented for non-raptors and a 500-foot work avoidance buffer will be implemented for raptors. Nesting buffers may be reduced based upon the judgment of the biological monitor and should be monitored to detect any behavioral changes due to the reduced buffer. If behavioral changes are observed, the buffer will be restored to the original radius.

- A qualified biologist will conduct pre-construction surveys for southern rubber boa within all disturbance areas plus a 100-foot buffer no more than 3 days prior to any ground disturbance during the active/breeding season (1 April through 31 October). Should southern rubber boa be observed, work shall be halted within 100 feet of the individual until it has moved out of area.
- Prior to construction, the applicant shall construct a reptile exclusion fence around the perimeter of the Project area to avoid potential impacts to rubber boa. Additionally, the contractor shall shield and angle any necessary lighting away from the adjacent undeveloped land to the north of the Project site to avoid disturbing wildlife, including rare bats.

MM BIO-2: Construction monitoring

- A qualified biologist will conduct an education program for construction personnel. Topics to be discussed will include occurrence and distribution of special-status plants, rubber boa, and bats; take avoidance measures being implemented during the Project, reporting requirements if incidental take occurs; and applicable definitions and prohibitions under the CESA. A fact sheet conveying this information will be prepared for distribution to Project personnel.
- A qualified biologist shall be onsite to conduct daily (pre-work) sweeps for rubber boa during ground-disturbing activities initiated between 1 April and 31 October. Once a reptile exclusion fence around the perimeter of the Project is constructed, daily (pre-work) sweeps would not be required. In the event of unanticipated discovery of rubber boa within the site, construction personnel shall follow the guidance within the worker education program, including but not limited to halting construction and contacting a qualified biologist, etc.
- Project-related vehicles will observe a daytime speed limit of 15 mph throughout the entire Project site, except on county roads and state and federal highways. Off-road traffic outside of designated Project site will be prohibited.
- To prevent inadvertent entrapment of wildlife during the construction phase of the Project, all excavated, steep-walled holes or trenches more than 2 feet deep will be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks will be installed. Before such holes or trenches are filled, they will be thoroughly inspected for trapped animals.
- All food-related trash items such as wrappers, cans, bottles, and food scraps will be disposed of in securely closed containers and removed at least once a week from the Project site.
- No firearms will be allowed on the Project site, excluding law enforcement personnel.

- No pets, such as dogs or cats, will be permitted on the Project site.
- All spills of hazardous materials will be cleaned up immediately.
- Use of rodenticides and herbicides in the Project site will be restricted.
- Should any vertical tubes, such as solar mount poles, chain link fencing poles, or any other hollow tubes or poles be utilized on the Project site, the poles will be capped immediately after installation to prevent entrapment of birds.

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?

Less Than Significant Impact. The Project site and construction activities would not result in a significant impact to vegetation communities or other special-status habitats. The Project site does not contain any sensitive natural communities as designated by CDFW, and it also does not overlap with any federally designated critical habitat. Therefore, impacts to riparian habitat or other sensitive natural communities would be less than significant.

c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant Impact. According to the aquatic delineation, the Project site is not a federally protected wetland as defined by Section 404 of the CWA. Despite the presence of hydric soils in the northwestern section of the Project site and soil surface cracks in the southern section of the Project site, the absence of hydrophytic vegetation throughout the entirety of the Project site suggests that this site is not subject to USACE jurisdiction under the current definition of the WOUS or WOS. Moreover, the Project is not subject to a CDFW streambed jurisdiction due to the absence of aquatic features containing a defined bed, bank, channel, or high-water mark within the Project site. Therefore, the potential for adverse effects to federally protected wetlands and other aquatic resources is less than significant.

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?

Less Than Significant Impact. The Project is located within historically disturbed lands previously used for mining and grazing and continues to provide habitat for wild donkeys, although it has regained some of its natural characteristics. The Project site is bounded by Lakewood Drive to the west, Erwin Ranch Road to the south, an unpaved access drive to the east, and San Bernardino National Forest to the north. Residential development occurs immediately south, west, and east of the Project site, with the residence bordering to the southwest also containing an equestrian facility. Existing uses surrounding the site would largely remain unchanged. The temporary reptile exclusion fence meant to prevent rubber boa from entering the site during construction would be removed after construction to allow safe passage of wildlife through the fixed-knot "agricultural style" wooden fence. The fence would incorporate a small gap of about 6 to 8 inches along the bottom for safe wildlife passage of

other small wildlife. Although fencing and vegetative screening would be required for the design of the Project and for security, the fencing would not impede the natural migratory wildlife corridors or native nursery sites. Additionally, the adjacent pinyon pine habitat will remain unfenced and accessible. Therefore, the potential for adverse effects due to development of the Project to wildlife movement or migration corridors would be less than significant.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant Impact. The only trees within the Project site are located on the hill situated on the northern boundary. Because the solar PV array and associated facilities would be constructed on the flat portion of the Project site south of the hill, no trees would be damaged or removed due to development or implementation of the Project. Therefore, the potential for adverse effects would be less than significant.

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The Project site is not located within an area subject to a Habitat Conservation Plan, NCCP, or other local, regional, or state habitat conservation. Therefore, there is no potential for impacts.

5.5 CULTURAL RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?			X	
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?		X		
c. Disturb any human remains, including those interred outside of formal cemeteries?		X		

5.5.1 CULTURAL RESOURCES SETTING

This cultural resources setting and impact analysis are based on the results of the Cultural Resources Assessment prepared by ERM in 2024 (Appendix E), as well as information provided by the Yahaaviatam of San Manuel Nation, the Morongo Band of Mission Indians, and the Twenty-Nine Palms Band of Mission Indians (collectively referred to as Consulting Tribes) during the government-to-government tribal consultation under Assembly Bill (AB) 52.

The Project site is in the San Bernardino Mountains, which provide a clear line of demarcation between the high deserts to the north and the coastal and inland valleys to the south. To the west



of Project site is a major prehistoric trade route known as the Mojave Trail, which linked the cultures of the Colorado River and Mojave Desert regions with those of the Pacific Coast. Given this association, the prehistoric cultural development of both regions is important for understanding the potential for cultural resources within the San Bernardino Mountains. Moreover, the Project site is located within the Serrano ancestral territory and within the area of three named places of cultural significance, with several precontact sites within the Project site's vicinity. Based on the results of a desktop investigation, no previously recorded cultural resources have been recorded in the Project site. However, seven archaeological sites, six of which are associated with the Gold Hill Mine District, are located within a 0.25-mile radius of the Project site. The seventh archaeological site consists of one pre-contact isolate. The resources noted above overlook the Project site on a rocky low-lying hill, which runs northwest-southeast immediately north of the Project site. Eligibility of these seven sites for California Register of Historic Resources (CRHR) or National Register of Historic Places (NRHP) designation is unknown. Moreover, 10 cultural resource investigations have been conducted within a 0.25-mile radius.

During the field survey, ERM's archaeologist recorded one historic resource (ERM-Site-001) within the northeastern section of the Project site, but did not observe or record any pre-contact resources within the Project site. The historic resource comprises of three associated activity areas (loci), Locus 1, Locus 2, and Locus 3, inclusive of seven historical features and two refuse concentrations (defined as a scatter of historic-age trash, refuse, debris, etc.), as well as two historical access drives, all summarized below:

- Locus 1 includes three historical features (Feat-1 through Feat-3) and one refuse concentration (Concentration 1). Feat-1 appears to be an abandoned mineshaft lined with plaster, measuring 5 by 5 feet, and with an unknown depth. Water was noted at a depth of approximately 10 feet. The opening of the abandoned mineshaft is covered with two robust wooden planks. Feat-2 consists of a metal pipe, about 5 inches in diameter, extending south from the abandoned mineshaft. Feat-3 is located immediately north of the abandoned mineshaft and consists of a foundation and wall segments. Concentration 1 includes a refuse concentration of wood and concrete debris.
- Locus 2 includes two historical features (Feat-4 and Feat-5) and one refuse concentration (Concentration 2). Feat-4 consists of a ventilation shaft and remnants of an ore chute. Feat-5 is a metal pipe protruding out from the hillside. It must be noted that the equipment, such as ore chute, pipe, and milled lumber are located within a collapsed portion of the hillside, and only a small portion of these objects were observed during the survey. Concentration 2 consists of refuse containing wood and metal debris and is located approximately 130 feet north of Locus 1.
- Locus 3 is located immediately north, uphill, and includes two historical features (Feat-6 and Feat-7). Feat-6 is a collapsed mine adit. The entrance to the mine features a wooden facade that has partially collapsed. Feat-7 consists of mining equipment observed within the mine; however, it was difficult to recognize the type of equipment due to the collapsed adit. Additionally, a cable was noted extending out from the mine. Debris and tailing piles were noted immediately outside of the adit. Moreover, additional tailing piles were noted

immediately north and northeast of the mine adit. The easternmost tailing piles, however, are located outside of the Project area.

- Two historical roads were observed southwest and northwest of the mine adit. The road southwest of the mine extends from the foot of the hill to the mine adit. This road is approximately 330 feet in length and 10 feet wide and cut into the face of the hillside. The road is in fair condition. The sides are lined with trees and undergrowth and little vegetation on the actual road. A small segment of the road, approximately 50 feet, is graded, while the rest of the road is not. The road northwest of the mine adit spans approximately 480 feet in an east-west direction. The western segment of this road appears to have been washed out, given that it vanishes into the rocky hillside.

Although, the results of ERM's field survey indicate this site is located outside of the previously mapped boundaries for the Gold Hill Mine District, it is very likely that the remains of the cultural resources site are associated with the Gold Hill Mine District. The overall condition of the site is poor to fair, and it has been subjected to severe disturbances related to the demolition of structures and removal of equipment after the mining activities ceased, as well as erosion and a partial collapse of the hillside below the mining shaft. Modern trash was also observed scattered throughout the area and mixed in with the historical refuse.

5.5.2 REGULATORY SETTING

5.5.2.1 FEDERAL

National Historic Preservation Act³⁸

The National Historic Preservation Act (NHPA) establishes a partnership between federal agencies and state, tribal, and local governments. Specifically, Section 106 of the NHPA requires federal agencies to assess the potential effects of their actions or undertakings on historic properties and aims to identify historic properties potentially affected by such actions. Section 106 requires such undertakings to assess their effects and to implement avoidance, minimization, or mitigation measures to reduce adverse effects to historic properties. Responsibility for compliance with NHPA lies with the federal agency funding the project or action.

5.5.2.2 STATE OF CALIFORNIA

California Register of Historical Resources³⁹

As provided in PRC Section 5020.4, the California Legislature established the CRHR in 1992. The CRHR is used as a guide by state and local agencies, private groups, and citizens to identify the state historical resources and to include which properties are to be protected, to the extent prudent and feasible, from substantial adverse change. The CRHR, as instituted by the PRC, automatically includes all California properties already listed in the NRHP. It also includes those formally determined to be eligible for listing in the NRHP (Categories 1 and 2 in the State

³⁸ House – Resources and Senate – Energy and Natural Resources Committees. 2000. Retrieved from: <https://www.congress.gov/bill/106th-congress/house-bill/834/text>.

³⁹ State of California, Legislative Council Bureau. 1992. California Register of Historic Resources. Retrieved from: https://ohp.parks.ca.gov/?page_id=21238.

Inventory of Historical Resources), as well as specific listings of the State Historical Landmarks and in the State Inventory of Historical Resources, as well as specific listings of State Historical Landmarks and State Points of Historical Interest. The CRHR may also include other types of historical resources that meet the criteria for eligibility, including the following:

- Individual historic resources
- Resources that contribute to a historic district
- Resources identified as significant in historic resource surveys

Resources with a significance rating of Categories 3 through 5 in the State Inventory (Categories 3 and 4 refer to potential eligibility for the NRHP; Category 5 indicates a property with local significance). The CRHR follows the NRHP in using the 50-year threshold. A resource is usually considered for its historical significance after it reaches the age of 50 years. This threshold is not absolute but was selected as a reasonable span of time after which a professional evaluation of historical value and importance can be made. The cultural investigation of the Project site was conducted pursuant to CEQA, PRC Chapter 2.6, Sections 21083.2 and 21084.1; and the Title 14 CCR, Chapter 3, Article 5, Section 15064.5.

A resource shall be considered to be historically significant if it meets the criteria for listing on the CRHR (PRC Section 5024.1, Title 14 CCR, Section 4852), including the following:

- It is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States (Criterion 1).
- It is associated with the lives of persons important to local, California, or national history (Criterion 2).
- It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values (Criterion 3).
- It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation (Criterion 4).

In addition to the above criteria, a resource must retain integrity to be considered historically significant. Integrity must also be evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR, if it maintains the potential to yield significant scientific or historical information or specific data.

An adverse effect on a cultural resource is defined as follows:

- Substantial adverse change in the significance of a historical resource by physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings.
- Demolishes or materially alters those physical characteristics of a historical resource that convey its significance and that justify its inclusion in, or eligibility for inclusion in, the CRHR, or inclusion in a local register.

California Health and Safety Code⁴⁰

The discovery of human remains is always a potential during ground disturbing activities. Federal and state laws require immediate reporting when human remains are discovered. California state law (California Health and Safety Code Section 7050.5) and federal law and regulations (Archaeological Resources Protection Act, 54 United States Code [USC] 300101 and 43 CFR 7; Native American Graves Protection and Repatriation Act [NAGPRA], 25 USC 3001 and 43 CFR 10; and Public Lands, Interior, 43 CFR 8365.1-7) identify defined protocols for the treatment of human remains regardless of whether the remains are modern or archaeological. All discovered human remains will be treated with respect and dignity. If human remains are encountered during construction, all work within 200 feet (61 meters) of the discovery shall cease immediately. The area shall be secured, and county coroner shall be notified immediately.

If the remains are located on state, local, or private property, a protocol defined by California state law (California Health and Safety Code 7050.5 and PRC 5097.98) is required to determine if the uncovered remains are modern or archaeological. If the coroner determines that the human remains are of Native American descent, the coroner shall notify the California Native American Heritage Commission, who shall then identify the most likely descendant (MLD). The MLD will be consulted to determine the best course of action for treatment and/or repatriation of the human remains, be granted access to examine the remains, and have 48 hours to provide recommendations. If the MLD does not make a recommendation within 48 hours of being given access to the human remains, the land manager can rebury the human remains in a location that will not be subject to future ground disturbing activities.

5.5.2.3 COUNTY OF SAN BERNARDINO

Countywide Plan/Policy Plan⁴¹

The Countywide Plan/Policy Plan contains the following goals, objectives, and policies related to cultural resources that are relevant to the Project:

Cultural Resources Element

- *Goal CR-2 Historical 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. Encourage the preservation of archaeological sites and structures of state or national significance in accordance with the Secretary of Interior's standards.

⁴⁰ State of California, Legislative Council Bureau. 1987. Section 7050.5 Health and Safety Code. Retrieved from:

[https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=HSC§ionNum=7050.5.#:~:text=\(a\)%20Every%20person%20who%20knowingly,of%20the%20Public%20Resources%20Code.](https://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=HSC§ionNum=7050.5.#:~:text=(a)%20Every%20person%20who%20knowingly,of%20the%20Public%20Resources%20Code.)

⁴¹ San Bernardino County. 2022. Countywide Plan. Retrieved from: https://countywideplan.com/wp-content/uploads/sites/68/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf

- Policy CR-2.2. Local historic resources. 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. 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. 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. 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. 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.

5.5.3 ENVIRONMENTAL EVALUATION

a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?

Less Than Significant Impact. Based on the results of the Cultural Resources Assessment, six historic resources were recorded within a 0.25-mile buffer around the Project site, all of which are associated with the Gold Hill Mine District. Additionally, one historical resource site (ERM-Site-001) was recorded within the Project site during the field survey and is also likely associated with the Gold Hill Mine District. However, Gold Hill Mine District is not currently listed by the State Historic Resources Commission in the CRHR nor listed on a local register of historic resources.

ERM-Site-001 does not meet the criteria to be eligible for inclusion on the CRHR based on the following considerations:

- Evaluation under Criterion 1: Cultural resources identified here include refuse concentrations and mining features. These cultural resources represent brief use areas and single-episode dump sites. They are not significantly associated with important events related to the development of the region and California. Therefore, ERM-Site-001 is not eligible to qualify for the CRHR under Criterion 1.
- Evaluation under Criterion 2: Cultural resources identified here are not associated with the lives of persons significant in our past. Therefore, ERM-Site-001 is not eligible to qualify for the CRHR under Criterion 2.
- Evaluation under Criterion 3: Cultural resources identified here do not embody the distinctive characteristics of a type, period, or method of construction, nor represent the work of a master, possessing high artistic values, or represent a significant and distinguishable entity whose components lack individual distinction. Additionally, ERM-Site-001 is located near historic mining districts and is not regarded as a unique occurrence. Therefore, ERM-Site-001 is not eligible to qualify for the CRHR under Criterion 3.

- Evaluation under Criterion 4: Cultural resources identified here do not yield nor are likelihood to yield information important to understanding the prehistory or history of the Project Area. These heavily disturbed resources exhibit the small-scale mining activities that commonly occurred at this location, and the single-episode refuse concentrations appear to be related to the demolition of the structures and on-going erosion activities. Thus, the site is not likely to yield information important in prehistory or history. Therefore, ERM-Site-001 is not eligible to qualify for the CRHR under Criterion 4.

Based on this evaluation, cultural site (ERM-Site-001) is not eligible to be listed under the CRHR and is not a historically significant cultural resource under the CEQA. Additionally, the presence of previously undiscovered historic resources is unlikely given the prior disturbance of the site. Therefore, the potential for impacts to significant historic resources is less than significant.

Despite the cultural site not being considered significant under CEQA, the Project design would still avoid the mining features on site to maintain the historic features, if considered safe during construction of the Project.

b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less Than Significant Impact with Mitigation. Based on the results of the Cultural Resources Assessment, one prehistoric archaeological resource, a precontact isolate, was recorded within a 0.25-mile buffer around the Project site. No additional prehistoric archaeological resources were discovered within the Project site during the cultural resources survey. However, the Project site is located within the Serrano ancestral territory and within the area of three named places of cultural significance, with several precontact sites within the Project site's vicinity. Therefore, previously undiscovered archaeological resources may be present within the Project site and could be impacted during ground-disturbing activities. Implementation of the following mitigation measures would reduce potential impacts to archaeological resources to a less-than-significant level.

MM CR 1: Retention of a Qualified Project Archaeologist (on-call basis)

- Prior to issuance of the grading permit associated for the Project, the Project Applicant shall retain a Project Archaeologist who meets the Secretary of the Interior's Professional Qualifications Standards (36 CFR Part 61) in archaeology, to provide cultural resources support on an on-call basis.

The Consulting Tribes shall work directly with the retained Project Archaeologist to collaboratively develop a Cultural Resources Monitoring and Treatment Plan (CRMTP) that reflects the mitigation measures for cultural resources and Tribal cultural resources appropriate to the scope and implementation of this Project. The CRMTP shall be informed by the knowledge, perspectives, and recommendations of the Consulting Tribes from the outset of its development. This plan shall also include a research design and outline procedures for archaeological and Tribal monitoring, unanticipated discoveries protocol, resource evaluation, and treatment procedures to ensure regulatory alignment with PRC §21083.2(i) and consistent with CEQA Guidelines. Once a draft has been prepared, it shall

be submitted to the Lead Agency for review and dissemination to the Consulting Tribes. The Lead Agency shall provide the Consulting Tribes with the final, approved version of the CRMTP to ensure agreement of the same document. Following Lead Agency approval, the CRMTP shall be formally adopted prior to issuance of the grading permit for the Project. All cultural resource discoveries and treatment procedures shall be carried out in accordance with the protocols established in the approved CRMTP.

Additional cultural resources personnel (e.g., archaeological field technicians, monitors, specialists) may be retained to assist with identification, evaluation, mitigation, monitoring, and other related activities. All cultural resources staff shall possess a minimum of a Bachelor's degree in anthropology, archaeology, history, or a related field, and demonstrate relevant field experience.

MM CR-2: Worker Environmental Awareness Program

- Prior to and throughout the duration of Project activities, all new personnel involved in ground-disturbing work shall complete a Worker Environmental Awareness Program (WEAP). The training shall be developed by the Project Archaeologist in concurrence with the Consulting Tribes and include information on applicable cultural resource laws, details on archaeological and Tribal cultural resources, respectful appropriate behavior and treatment of resources and sacred sites, and procedures for reporting discoveries. The training may be delivered in-person or via video and may include participation by a presenter from the Consulting Tribes. Each worker shall sign an acknowledgment form confirming completion of the training, and a sticker shall be placed on their hard hat to indicate compliance. Training records shall be maintained and submitted to the CEQA Lead Agency upon request

MM CR-3: Archaeological Monitoring (on-call basis)

- A qualified archaeologist, under the supervision of the Project Archaeologist, shall be retained to provide on-call support to respond to and address any inadvertent discoveries identified during ground disturbing activities. All monitoring activities shall be documented on a daily monitoring form and completed at the end of day. A final cultural resources technical report that encapsulates the support provided will be prepared in accordance with the California Office of Historic Preservation's Archaeological Resource Management Reports (ARMR) guidelines. Reports shall be submitted to the Lead Agency and Consulting Tribes for review and approval, prior to submittal to the appropriate Information Center.

c. Disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant with Mitigation. Ground-disturbing activities for the development of the Project could potentially result in the disturbance of buried human remains. This potential impact would be reduced to less than significant levels through implementation of the following mitigation measure:

MM CR-4: Protection of Buried Human Remains

- If human remains are encountered during any phase of ground-disturbing activities, all work in the immediate vicinity (within a 100-foot buffer of the find) shall cease, and the

County Coroner shall be notified immediately, in accordance with California Health and Safety Code §7050.5. No further disturbance shall occur until the Coroner has made a determination regarding the nature of the remains, which must occur within two working days of notification.

If the Coroner determines that the remains are or may be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, as required by Public Resources Code §5097.98. The NAHC will identify the Most Likely Descendant (MLD), who shall be granted access to the site and allowed 48 hours to make recommendations regarding the treatment and disposition of the remains, in consultation with the County and the Project Archaeologist.

All activities in the vicinity of the discovery shall remain suspended until the remains have been appropriately treated and the lead agency has authorized the resumption of work.

5.6 ENERGY

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			X	
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?				X

5.6.1 ENERGY SETTING

In 2002, the state of California enacted Senate Bill (SB) 1078, a Renewable Portfolio Standard (RPS)⁴² Program that mandates the percentage of energy that the state utilities must receive from renewable sources. The RPS has been revised and continues to be used to enforce the use of renewables and mandate the threshold of clean energy required. The California Public Utilities Commission (CPUC) implements the state’s compliance with RPS, and the California Energy Commission (CEC) certifies facilities as eligible renewable sources for the program. Following the implementation of the RPS, the CPUC, CEC, and California Power Authority released the Energy Action Plan (EAP)⁴³ in 2003, setting goals for the future of California’s energy usage and highlighting the need for affordable, reliable, and renewable energy. The EAP has been revised and continues to be a guiding principle for California energy regulations.

⁴² California Public Utilities Commission. 2024. Renewables Portfolio Standard Program. Retrieved from: [https://www.cpuc.ca.gov/rps#:~:text=The%20CPUC%20implements%20and%20administers,community%20choice%20aggregators%20\(CCA\)s](https://www.cpuc.ca.gov/rps#:~:text=The%20CPUC%20implements%20and%20administers,community%20choice%20aggregators%20(CCA)s).

⁴³ California Public Utilities Commission. 2024. Energy Action Plan. Retrieved from: <https://www.cpuc.ca.gov/industries-and-topics/natural-gas/energy-action-plans>

AB 32, the California Global Warming Solutions Act⁴⁴, enacted in 2006 and further quantified by SB 32 in 2016, requires the CARB to implement measures that reduce GHG emissions, furthering the push towards clean energy and alignment with the EAP. The California Global Warming Solutions Act now requires a 40 percent reduction in 1990 levels of GHG emissions by 2030. In 2018, the California Governor signed SB 100⁴⁵ that sets a goal of 100 percent clean energy by the 2045. It jointly requires the CPUC, CEC, and CARB to submit a report outlining their energy usage every four years for the legislature to understand the barriers in meeting the target laid out in SB 100. SB 100 was further refined in the Clean Energy, Jobs, and Affordability Act of 2022 (SB 1020)⁴⁶ which set tiered targets every 5 years for achieving 100 percent renewable energy in 2045.

Currently, most electricity delivered to the Big Bear Valley region comes from off-mountain sources through one of two transmission lines that are subject to Public Safety Power Shutoff (PSPS) events. Because all power generated by the proposed Project would be consumed locally, the proposed Project would support grid reliability and mitigate interruptions from emergency or capacity-constraining situations like high wind events, wildfires or other situations that may result in a complete or significant loss of power from off-mountain resources. California's RPS requires BVES to serve 60 percent of its electric retail sale from renewable sources by 2030, with interim targets. This Project is crucial to supporting this requirement, and would help BVES meet these requirements cost-effectively, reducing the need to purchase more expensive Renewable Energy Certificates (RECs). By generating emission-free power, the proposed Project would reduce reliance on the gas-fired Bear Valley Power Plant and would improve local air quality for both residents and tourists. Development of the Project also would meet the County's commitment to CORE generation that would provide local, reliable, renewable energy to the grid within the Bear Valley Community. The Project is consistent with the federal, state, and local agency goals for renewable energy generation, grid resiliency, and rate stability.

5.6.2 REGULATORY SETTING

5.6.2.1 STATE OF CALIFORNIA

SB 350: The Clean Energy and Pollution Reduction Act ⁴⁷

The Clean Energy and Pollution Reduction Act administers ambitious goals to be fulfilled by 2030 including the establishment of clean energy and air along with the reduction of GHG Emissions. The Act involves upgrading the renewable energy procurement goal to 50 percent in 2030, from

⁴⁴ California Air Resources Board. 2018. AB 32 Global Warming Solutions Act of 2006. Retrieved from: <https://ww2.arb.ca.gov/resources/fact-sheets/ab-32-global-warming-solutions-act-2006>

⁴⁵ California Energy Commission. 2024. SB 100 Joint Agency Report. Retrieved from: <https://www.energy.ca.gov/sb100>

⁴⁶ California Legislative Information. 2024. SB-1020 Clean Energy, Jobs, and Affordability Act of 2022. Retrieved from:

https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB1020#:~:text=This%20bill%20would%20revise%20that,customer%20by%20December%2031%2C%202040%2C

⁴⁷ California Energy Commission. 2024. Clean Energy and Pollution Reductions Act – SB 350. Retrieved from: <https://www.energy.ca.gov/rules-and-regulations/energy-suppliers-reporting/clean-energy-and-pollution-reduction-act-sb-350#:~:text=What%20Does%20SB%20350%20Do,%2C%20biomass%2C%20geothermal%20and%20other> S.

the original 33 percent in 2020. In addition to the increase in emissions reduction goals, the Act aims to double the energy efficiency savings in electricity and natural gas.

Assembly Bill 32 and SB 32: California Global Warming Solutions Act

AB 32, also known as the Climate Change Scoping Plan, was enacted in 2006, establishing a limit on GHG emissions statewide to 1990 levels by 2020. The bill required CARB to adopt regulations that rigorously decreased GHG emissions as much as possible. In 2016, SB 32 was enacted to quantify and revamp the goals in AB 32, requiring a 40 percent reduction in 1990 levels of greenhouse gas emissions levels by 2030.

California Renewables Portfolio Standard

The RPS Program was enacted in 2002 via SB 1078, which required investor-owned utilities to source 20 percent of their energy from renewable energy by 2010. This number increased to 50 percent by 2030 with the enactment of SB 350. In 2018, Governor Gerry Brown signed SB 100 which increased the RPS to 60 percent by 2030 and 100 percent by 2045. To aid in achieving this goal, the bill requires the CPUC, CEC, and CARB to intermittently submit a report of their energy usage to better understand the barriers and strengths to achieving 100 percent clean energy.

5.6.2.2 COUNTY OF SAN BERNARDINO

Countywide Plan/Policy Plan⁴⁸

The Countywide Plan/Policy Plan contains the following goals and policies related to energy that are relevant to the Project.

Infrastructure and Utilities Element

- *Goal IU-5: Power and communication.* Unincorporated area residents and businesses have access to reliable power and communication systems.
 - Policy IU-5.2. Electricity and natural gas service. We partner with other public agencies and providers to improve the availability and stability of electricity and natural gas service in unincorporated communities.
 - Policy IU-5.3. Underground facilities. We encourage new and relocated power and communication facilities to be located underground when feasible, particularly in the Mountain and Desert regions.

Renewable Energy and Conservation Element

- *Goal RE-1: Energy Conservation and Efficiency.* The County will pursue energy efficiency tools and conservation practices that optimize the benefits of renewable energy.
 - Policy RE-1.1. Continue implementing the energy conservation and efficiency measures identified in the County of San Bernardino Greenhouse Gas Emissions Reduction Plan.

⁴⁸ San Bernardino County. 2022. Countywide Plan. Retrieved from: https://countywideplan.com/wp-content/uploads/sites/68/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf

- *Goal RE-2: Renewable Energy Systems.* The County will be home to diverse and innovative renewable energy systems that provide reliable and affordable energy to our unique Valley, Mountain, and Desert regions.
 - 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 General Plan.
- *Goal RE-3: Community-Oriented Renewable Energy.* Community-oriented renewable energy facilities will be prioritized to complement local values and support a high quality of life in unincorporated communities.
 - Policy RE-3.2. Encourage CORE generation that primarily serves local uses in the county.
 - RE 3.2.1. Specific standards shall be established and maintained for CORE generation facilities appropriate to the Valley, Desert, and Mountain regions.
 - RE 3.2.2. Encourage through the regulatory system the establishment of local and regional organizations to pursue CORE production and storage.
 - RE 3.2.3. CORE facilities shall be designed primarily to meet the needs of the local users, with an adequate overage margin to meet peak demands and defray the cost of the systems.
 - RE 3.2.5. Encourage utilization of micro-grid technologies to support the principle of “local production primarily for local consumption,” to enhance local energy security and to improve local costs of living and commerce.
 - RE 3.2.6. Apply minimal discretion in the permit approval process for CORE facilities.
 - RE 3.2.7. Encourage infrastructure, net metering, and regulatory systems that support CORE facilities.
 - Policy RE-3.3. Promote an adaptive distributed energy infrastructure that sustains local communities and improves resiliency to grid failures and increasing energy prices.

County of San Bernardino Greenhouse Gas Emissions Reduction Plan⁴⁹

In response to the passage of Assembly Bill 32, San Bernardino County adopted the GHG Emissions Reduction Plan in 2011. The plan originally set a goal of reducing GHG emissions to 15 percent under the baseline by 2020, a goal that the county achieved by 2016. In 2021, San Bernardino County released Greenhouse Gas Emissions Development Review Process Screening Tables determined that a 40 percent reduction from the 2016 emissions levels by 2030 would put the County in alignment with the State standard set forth in SB 32.

⁴⁹ San Bernardino County Transportation Authority. 2021. Regional Greenhouse Gas Reduction Plan. Retrieved from: <https://www.gosbcta.com/plan/regional-greenhouse-gas-reduction-plan/>.

5.6.3 ENVIRONMENTAL EVALUATION

a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant Impact. During the construction phase of the Project, energy consumption would be temporary, lasting for a span of 6 to 9 months. The use of energy would not be wasteful, inefficient, or unnecessary and would only require consumption within the regular standard for an industrial construction project. This includes energy used to power construction equipment and fuels for the vehicles transporting workers and materials to the Project area, which would not require energy use beyond that of standard industrial construction projects. The workforce will be pulled from local sources, therefore having a minor effect on the consumption of fuel countywide. Additionally, new construction is required to follow all local, state, and federal building codes which include the conservation of energy resources.

The operation of the Project would help progress California's renewable energy goals by implementing a new, local solar facility that will generate renewable energy, resulting in a net positive impact towards the State's goal of 100 percent clean energy by 2045 and will help the State meet the interim goals set leading into 2045. The Project also aligns with the County's CORE generation goals.

Therefore, the Project would have a less than significant impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during Project construction or operation.

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. At the local level, the Countywide Plan outlines several policies and goals in alignment with the Project, advocating for the implementation and increase of local, CORE generation. Goal RE-1 and Goal RE-2 and their associated policies highlight the drive toward clean energy and directly encourage renewable energy sources including solar power. Goal RE-3 and Goal RE-4 promote the implementation of renewable energy in a way that is beneficial for both the community and the environment. The Project meets and exceeds the goals outlined in the Renewable Energy and Conservation Element of the Countywide Plan and further progresses the County's clean energy targets.

At the state level, the implementation of a new solar facility aids California in meeting the mandates of the Climate Change Scoping Plan. AB 32 required the State to achieve 1990 levels of GHG emissions by 2020 and SB 32 requires a 40 percent reduction in GHG emission from 1990 levels. SB 350 increased the requirement to mandate 50 percent of the energy use to be renewable by 2030. SB 100 further increased the RPS to 60 percent by 2030 and 100 percent by 2045. The Project operations foster the State's advancement toward clean energy and will be an asset in helping California achieve the State's renewable energy goals. California's RPS requires BVES to serve 60 percent of its electric retail sale from renewable sources by 2030, with interim targets. This Project is crucial to supporting this requirement, and would help BVES meet these requirements cost-effectively, reducing the need to purchase more expensive RECs. The potential site options for a distribution-scale solar PV facility within

BVES’s territory are limited, particularly due to the regions surrounding mountains and steep topography. Characteristics of this Project site including its flat topography, its existing condition of undeveloped and open space land, its proximity to local distribution infrastructure, and proximity to load, as well as being owned by a landowner with the desire to host a solar project make it an ideal site to develop the proposed Project.

Therefore, the Project would not conflict with or obstruct state or local plan for renewable energy efficiency and would not be considered an impact.

5.7 GEOLOGY AND SOILS

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Expose people or structures to 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.			X	
ii. Strong seismic ground shaking?		X		
iii. Seismic-related ground failure, including liquefaction?		X		
iv. Landslides?		X		
b. Result in substantial soil erosion or the loss of topsoil?			X	
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?		X		
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?		X		
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 waste water?			X	

f. Directly or indirectly destroy a unique paleontological resource or site or geologic feature?			X	
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5.7.1 GEOLOGY AND SOILS SETTING

The Project area is located within Bear Valley on the southside of a small, tectonically uplifted mountain block that divides Baldwin Lake on the north from Erwin Lake on the east-southeast. The Bear Valley is an internally draining basin nestled in the San Bernardino Mountains of the greater Transverse Ranges Geomorphic Province, a province of east-wide-trending, fault-bound mountain blocks that were rotated from transverse movement along the San Andreas Fault.⁵⁰ The mountain on the northern boundary of the Project area consists of quartzite of Wildhorse Meadows, which was historically mined for its gold at the Gold Hill Mine. The rest of the Project area south of the hill where the solar PV panels and infrastructure would be constructed contains alluvial deposits.⁵¹

Soil Types and Properties

Soils⁵² within the Project area consist of the following:

- Aquents-Grunney complex, 0 to 4 percent slopes (2dvmq):** This complex of poorly drained soils is comprised of Aquents and Grunney soils. Aquents soils formed in mixed alluvium and occur in floodplains and treads. They are typically comprised of sandy loam, have an occasional frequency of flooding, and are characterized as hydric soils. Grunney soils formed in mixed alluvium and occur in floodplains and treads. They are typically comprised of muck, mucky loam, and sandy loam, have an occasional frequency of flooding and ponding, range from non-saline to very slightly saline, and are characterized as hydric soils.
- Moonridge-Shayroad-Cariboucreek complex, 0 to 4 percent slopes (2dvn1):** This complex of well-drained soils is comprised of Moonridge, Shayroad, and Cariboucreek soils. Moonridge soils formed in alluvium derived primarily from granite and related rocks and occur within alluvial fans and treads. They are typically comprised of loam, have an occasional frequency of flooding, and are not characterized as hydric soils. Shayroad soils formed in alluvium derived primarily from granite and related rocks and occur within alluvial fans and treads. They are typically comprised of sandy loam, range from non-saline to very slightly saline, and are not characterized as hydric soils. Cariboucreek soils formed in mixed alluvium and occur within alluvial fans and treads. They are typically comprised of loam and clay loam, have an occasional frequency of flooding, and are not characterized as hydric soils.

⁵⁰ Norris, R.W., and R.W. Webb. 1990. *Geology of California*, 2nd Edition. John Wiley & Sons, Inc. New York, New York.

⁵¹ Miller, F.K., and P.M. Cossette. 2004. Preliminary geologic map of the Big Bear City 7.5' quadrangle, San Bernardino County, California. U.S. Geological Survey, Open-File Report OF-2004-1193, scale 1:24,000.

⁵² U.S. Department of Agricultural. 2024. National Resources Conservation District, Web Soil Survey Database. Retrieved from: <https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>.



- **Goldmountain-Deadmansridge-Deadpan complex, 30 to 50 percent slopes (2dvn6):** This complex of well-drained is comprised of Goldmountain, Deadmansridge, and Deadpan soils. Goldmountain soils formed in colluvium derived from metasedimentary rock and occur on mountain slopes. They are typically comprised of very gravelly loam to extremely gravelly loam with lithic bedrock restriction at approximately 20 and 30 inches of depth and are not characterized as hydric soils. Deadmansridge soils formed in colluvium derived from igneous and metamorphic rock and occur on mountain slopes. They are typically comprised of very gravelly loam to very cobbly loam and are not characterized as hydric soils. Deadpan soils formed in formed in colluvium derived from igneous and metamorphic rock and occur on mountain slopes. They are typically comprised of cobbly loam to cobbly clay loam and are not characterized as hydric soils.

The 2024 field investigations confirmed hydric soils within the entire extent of the minor topographic depression in the northwestern to north-central portion of the Project area, corresponding with the Aquents-Grunney complex mapped by NRCS.

Expansive soils are those that contain a high percentage of certain kinds of clay particles that are capable of absorbing large quantities of water. Exposure to natural or human-sourced water during or after development results may result in expansion.⁵³ Soils within the Project area are mostly clayey to sandy loam (Aquents-Grunney complex and Moonridge-Shayroad-Cariboucreek complex). Given the location of the Project and soils encountered, the potential for shrinkage and swelling of soils are low at the Project site.

Seismic and Geologic Hazards

The geologic history of the San Bernardino Mountains region is largely influenced by movement along the San Andreas Fault. The San Bernardino Mountains segment of the San Andreas Fault has an average slip rate of 24 millimeters per year, with an average recurrence interval of 146 years, and paleoseismic studies have indicated at least six surface-rupturing earthquakes on this segment of the San Andreas Fault since 1192, the last five of which occurring every approximately 106 years, the most recent of which was in 1812. Other named faults in the vicinity of the Project area capable of producing an earthquake of a magnitude 7 include the Helendale Fault (6 miles away) and the North Frontal Fault Zone (7 miles away), as well as several unnamed faults within the Big Bear Valley, one of which produced a 6.4 magnitude earthquake in 1992.⁵⁴

A query of the USGS ANSS Comprehensive Earthquake Catalog indicates at least 19 recorded seismic events with the magnitude of 5.5 have occurred within a 62-mile-radius of the Project site.⁵⁵

Fault Rupture and Ground Shaking

⁵³ Colorado Geological Survey. 2024. Expansive Soil and Rock. Retrieved from: <https://coloradogeologicalsurvey.org/hazards/expansive-soil-rock/>.

⁵⁴ City of Big Bear Lake. 1999. General Plan: Environmental Hazards/Geotechnical. Retrieved from: https://www.citybigbearlake.com/images/DOWNLOADS/CITY_DEPARTMENTS/BUSINESS/PLAN_CHECKS/GENERAL_PLAN_ELEMENTS/Environmental%20Hazards%20Element.pdf.

⁵⁵ U.S. Geological Survey (USGS). 2025. ANSS Comprehensive Earthquake Catalog (ComCat). Retrieved from: <https://earthquake.usgs.gov/data/comcat/>

Seismically induced ground rupture occurs at a result of differential movement across a fault. The California Geological Survey (CGS) defines "active" faults as those that have exhibited displacement within the last 11,000 years (i.e., Holocene age), "potentially active" faults as those that have exhibited displacement within the last 1.6 million years but have not been active during the Holocene age, and "inactive" faults as those that have not experienced displacement within the last 2.58 million years (i.e., prior to the Pleistocene). The California Earthquake Hazards Zone Application ("EQ Zapp") compiled by the CGS does not map the Project area within an Alquist-Priolo Fault Zone.⁵⁶ Although not mapped within an Alquist-Priolo Fault Zone, the Project site is located in an area where regional (i.e., those less than 10 miles away) "active" faults have caused several recent earthquakes, ranging from 6 to 7 magnitude, which could result in seismically induced ground shaking.

Liquefaction

Liquefaction is a seismic phenomenon in which young, saturated soils lose their structure/strength when subjected to high-intensity ground shaking due to shallow groundwater, low-density non-plastic soils, and high-intensity ground motion. Liquefaction primarily occurs in loose, granular soils like sand, especially when they are poorly compacted or consist of uniform particle sizes. Seismic shaking of loose, granular soil can also cause settling and compaction of soils, which can negatively affect, stress, or damage foundations and other built structures, resulting in fractures or displacement.

Field observations indicate that groundwater depths range between 4 feet and 18 feet across the site. This depth range corresponds with normal conditions observed by DWR periodic groundwater level measurements; however, the typical depth to groundwater fluctuates between approximately 20 to 30 feet during the summer growing season with seasonal spikes to between approximately 3 to 8 feet in spring melt seasons following years of high levels of winter precipitation.

The Project area contains moderately to well compacted soils derived from the weathering and erosion of poorly sorted (i.e., well-graded) alluvial clay, silt, sand, and gravel deposits that are only hydric in the northwestern corner of the Project area due to local drainage patterns. Although the EQ Zapp map does not classify this Project area as being in an area of potential liquefaction hazards, the County's geologic hazards overlay classifies the Project area as being in a Zone of Susceptibility for Liquefaction.⁵⁷ Additionally, high groundwater levels could indicate high soil saturation during wetter years. Field observations collected during a geologic hazards and geotechnical investigation of the Project site by ANS Geo, Inc. in 2025 indicate that soils across the proposed Project site might experience liquefaction at isolated locations during an earthquake; however, seismically induced settlement of the soils is expected to be negligible (i.e., seismically induced settlement values are expected to be 0.15 inch or less) according to the results of

⁵⁶ California Geological Survey (CGS). 2024. California Earthquake Hazards Zone Application ("EQ Zapp"). Retrieved from: <https://maps.conservation.ca.gov/cgs/informationwarehouse/eqzapp/>.

⁵⁷ County of San Bernardino. 2009. Geologic Hazard Map for Big Bear City (Bear Valley). Retrieved from: https://www.sbcounty.gov/Uploads/lus/GeoHazMaps/FI10C_20100309.pdf

geotechnical investigation liquefaction modelling⁵⁸. Therefore, there is low to moderate potential for liquefaction and seismic settlement.

Landslides and Slope Instability

Earthquakes and other seismically induced disturbances, as well as large precipitation, could result in landslides, instability, and/or mass wasting along slopes. The EQ Zapp map compiled by the CGS does not map the Project area within an area susceptible to landslides or slope instability. Review of the County's geologic hazards overlay indicates that the mountain along the northeastern boundary has a low to moderate generalized landslide susceptibility. During the 2024 site visits, ERM noted that the northeastern Project area boundary along the mountain slope exhibits evidence of minor slope instability based on the surface deposits and a dislodged retaining wall constructed of wooden logs associated with the Gold Hill Mine. Additionally, the 2025 geologic hazards and geotechnical report by ANS Geo, Inc. notes an over-steepened slope at the northeastern corner of the Project area. However, the mining operations were discontinued in the late 1960's, and the stability of the slope should have settled and stabilized over the past 55 years. The relatively flat area immediately below this over-steepened slope is mapped as an Area of Concern (AOC). The current Project design includes the proposed solar PV array and ancillary structures within the AOC.

Paleontological Setting

Paleontological potential, or "paleontological sensitivity," refers to the likelihood that a geological unit contains scientifically significant (i.e., "unique") paleontological resources. The Society of Vertebrate Paleontology (SVP) defines four categories of paleontological sensitivity: high, low, undetermined, and no potential.⁵⁹ Based on geologic mapping within the Project area, the surface contains late Holocene (recent) to late Pleistocene (126,000 years ago) alluvial deposits, which are underlain at shallow depth by quartzite, exposed at the surface on the slope along the northern boundary of the Project area. Late Holocene deposits present at the surface are often too young to contain significant paleontological resources, and although surficial alluvial deposits may transition to middle Holocene to late Pleistocene deposits in the shallow surface that may be old enough to yield significant paleontological resources, the proximity to the adjacent mountain and shallow depth to the underlying quartzite suggests a low potential for the alluvial deposits to preserve intact paleontological resources. Additionally, quartzite is a metamorphic rock that formed from the melting and recrystallizing of quartz-rich (sandy) sedimentary rocks. Any fossil that may have been present in the original sedimentary rock has likely been physically or chemically destroyed or altered to an extent that any fossil remaining would no longer be scientifically significant. Therefore, the alluvial deposits within the Project area have low paleontological sensitivity, and the quartzite bedrock in the subsurface and along the northern boundary has no paleontological sensitivity.

⁵⁸ ANS Geo, Inc. 2025. Geotechnical Data Report for the Bear Valley Erwin Ranch Solar Project. Dated April 2, 2025. Prepared for EDF Renewables for the Bear Valley Solar Energy Project.

⁵⁹ Society of Vertebrate Paleontology (SVP). 2010. Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. Retrieved from: https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines.pdf.

5.7.2 REGULATORY SETTING

5.7.2.1 FEDERAL

Earthquake Hazards Reduction Act

The Earthquake Hazard Reduction Act aims to minimize risk to life and property caused by earthquakes by creating a comprehensive earthquake hazards reduction program. It includes detailed responsibilities for agencies to prepare for and mitigate seismic risks.

5.7.2.2 STATE OF CALIFORNIA

Alquist-Priolo Earthquake Fault Zoning Act

Alquist-Priolo Earthquake Fault Zoning Act provides a mechanism for reducing losses from surface fault rupture on a statewide basis. The intent of the act is to ensure public safety by prohibiting the siting of most structures for human occupancy across traces of active faults that constitute a potential hazard to structures from surface faulting or fault creep. This act groups faults into categories of active (Historic faults), potentially active (Holocene and Pleistocene faults), and inactive (pre-Pleistocene).

Seismic Hazards Mapping Act

The Seismic Hazard Mapping Act directs the CGS to delineate Seismic Hazard Zones as effort to reduce the threat to public health and safety and to minimize loss of life and property. The act requires identification and mitigation of seismic hazards. State and local agencies are directed to use seismic hazard zone maps developed by the CGS in land use planning and permitting review and approvals. The act requires project-specific geotechnical investigations be performed prior to permitting developments in seismic hazard zones.

California Building Code

The California Building Code (CBC), Title 24, Part 2 provides building codes and standards for the design and construction of structures in California. The most recent version of the CBC is based on the 2018 International Building Code with more provisions relevant to seismic and structural hazards. The CBC requires addressing soil-related hazards, such as treating hazardous soil conditions involving removal, proper fill selection, and compaction, prior to construction. In cases where soil remediation is not feasible, the CBC requires structural reinforcement of foundations to resist the forces of expansive soils.

PRC, Section 5097.5

Requirements for paleontological resource management are included in PRC Division 5, Chapter 1.7, Section 5097.5, which states:

No person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor.

These statutes prohibit the removal, without permission, of any paleontological site or feature from land under the jurisdiction of the state or any city, county, district, authority, or public corporation, or any agency thereof. Consequently, local agencies are required to comply with PRC 5097.5 for their own activities, including construction and maintenance, as well as for permit actions (e.g., encroachment permits) undertaken by others. PRC Section 5097.5 also establishes the removal of paleontological resources as a misdemeanor and requires reasonable mitigation of adverse impacts to paleontological resources from developments on public (state, county, city, and district) land.

5.7.2.3 COUNTY OF SAN BERNARDINO

Countywide Plan/Policy Plan⁶⁰

The Natural Resources Element, Renewable Energy and Conservation Element, Cultural Resources Element (for paleontological resources), Hazards Element, and Personal and Property Protection Element of the Countywide Plan/Policy Plan contains goals and policies applicable to geology and soil resource issues.

Natural Resources Element

- *Goal NR-2 Water Quality.* Clean and safe water for human consumption and the natural environment.
 - Policy NR-2.5 Stormwater discharge. We ensure compliance with the County's Municipal Stormwater NPDES Permit by requiring new development and significant redevelopment to protect the quality of water and drainage systems through site design, source controls, stormwater treatment, runoff reduction measures, best management practices, low impact development strategies, and technological advances. For existing development, we monitor businesses and coordinate with municipalities.

Renewable Energy and Conservation Element

- *Goal RE-4 Environmental Compatibility.* 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-4.2. Ensure that renewable energy facilities do not disrupt, degrade, or alter the local hydrology and hydrogeology.
 - RE 4.2.1. Require a groundwater impact assessment that evaluates the short and long-term impacts to groundwater usage.
 - Policy RE-4.3. Require construction and operation of all renewable energy facilities to minimize negative effects and optimize benefits to unincorporated communities.

⁶⁰ San Bernardino County. 2022. Countywide Plan. Retrieved from: https://countywideplan.com/wp-content/uploads/sites/68/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf

- RE 4.3.1. Define measures required to minimize ground disturbance, soil erosion, flooding, and blowing of sand and dust, with appropriate enforcement mechanisms in the County's Development Code.

Cultural Resources Element

- *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-2.3 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

- *Goal HZ-1 Natural Environmental Hazards.* Minimized risk of injury, loss of life, property damage, and economic and social disruption caused by natural environmental hazards and adaptation to potential changes in climate.
 - 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.
 - 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)
 - 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-1.9 Hazard areas maintained as open space. We minimize risk associated with flood, geologic, and fire hazard zones or areas by encouraging such areas to be preserved and maintained as open space.
- *Goal HZ-2 Human-Generated Hazards.* People and the natural environment protected from exposure to hazardous materials, excessive noise, and other human-generated hazards.
 - Policy HZ-2.11 Legacy abandoned mine lands. We inventory legacy abandoned mines and require private property owners to eliminate hazardous conditions that could

threaten human life and environmental contamination. We pursue funding to address legacy abandoned mines on County-owned property.

Personal and Property Protection Element

- *Goal PP-4 Emergency Preparedness and Recovery.* A reduced risk of and impact from injury, loss of life, property damage, and economic and social disruption resulting from emergencies, natural disasters, and potential changes in climate.
 - Policy PP-4.1 Emergency management plans. A reduced risk of and impact from injury, loss of life, property damage, and economic and social disruption resulting from emergencies, natural disasters, and potential changes in climate.

San Bernardino County Development Code⁶¹

The following sections apply to geologic and soil hazards within the County:

1. Title 8, Division 2, Section 82.15.040 (Development Standards for Geologic Hazard Overlay):
 - Requires human-occupancy structures to be at least 50 feet away from active earthquake faults.
 - Allows reduced setbacks in specific cases with approval based on geologic investigations.
2. Title 8, Division 5, Section 85.11.030 (Erosion Control Plan Requirements):
 - Prohibits land disturbance or construction without prior approval of erosion control measures.
 - Requires site inspections for compliance with erosion control measures.
 - Mandates Stormwater Pollution Prevention Plans (SWPPP) for projects disturbing over one acre.
 - Ensures ongoing maintenance of approved erosion control features during and after construction.

5.7.3 ENVIRONMENTAL EVALUATION

a. Expose people or structures to 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.**

Less than Significant Impact. The Project is not located within an Alquist-Priolo Earthquake Zone, and no active faults that could result in rupture of the ground surface

⁶¹ San Bernardino County. 2024. Code of Ordinances. Retrieved from: https://codelibrary.amlegal.com/codes/sanbernardino/latest/sanbercncty_ca/0-0-0-146479

have been identified within the bounds of the Project area. The nearest Alquist-Priolo Earthquake Hazard Fault Zone is Northern Frontal Thrust System, which runs along the northern boundary of the San Bernardino Mountains. The closest section of this fault system to the Project site is approximately 6.3 miles northeast of the Project site. Impacts related to fault rupture would be less than significant.

II. Strong seismic ground shaking?

Less than Significant Impact with Mitigation. Although not mapped within an Alquist-Priolo Fault Zone, the Project site is located in an area where regional (i.e., those less than 10 miles away) "active" faults have caused several recent earthquakes, ranging from 6 to 7 magnitude, which could result in seismically induced ground shaking at the Project site. Construction of the Project would be temporary and brief (i.e., 6 months), and the Project would be unmanned during operations, except for occasional maintenance. The design of the Project must conform to the mandatory standards of the CBC, which contains specific requirements to reduce damage from seismically induced ground shaking/ground motions during a seismic event. Implementation of MM GEO-1 that adheres to CBC requirements would reduce potential impacts to less than significant levels.

Mitigation Measures

MM GEO-1: Seismic design parameters

- Prior to the issuance of grading permits, the applicant shall retain a California-registered and licensed engineer to design the proposed Project to withstand probable seismically induced ground shaking at the Project site. 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 seismic recommendations of the California-registered and licensed professional engineer and consistent with the recommendations in the Geotechnical Recommendations Report prepared by ANS Geo, Inc. in 2025.

III. Seismic-related ground failure, including liquefaction?

Less than Significant Impact with Mitigation. The Project area contains moderately to well compacted soils (i.e., not loose) derived from the weathering and erosion of poorly sorted alluvial clay, silt, sand, and gravel deposits that are only hydric in the northwestern corner of the Project area due to local drainage patterns. The County's geologic hazards overlay classifies the Project area as being in a Zone of Susceptibility for Liquefaction, and the site is subject to shallow groundwater levels during wetter years. Soils across the proposed Project site may be susceptible to liquefaction in isolated areas during a seismic event of magnitude of 6.88 or greater. Despite the Project's location in a seismically active region, overall conditions of the site indicate a low to moderate potential for liquefaction or seismic settlement; however, implementation of MM GEO-1 would reduce potential impacts to less than significant levels.

IV. Landslides?

Less than Significant Impact with Mitigation. Although the EQ Zapp map compiled by the CGS does not map the Project area within an area susceptible to landslides or slope instability, the northeastern corner of the Project area along the mountain slope exhibits

evidence of minor slope instability based on the surface deposits and a dislodged retaining wall constructed of wooden logs associated with the Gold Hill Mine. Additionally, the 2025 geologic hazards and geotechnical investigation report maps an over-steepened slope at the northeast corner of the Project area. The relatively flat area immediately below this over-steepened slope is mapped as an AOC.

The current Project design includes small portions of the proposed solar PV array and ancillary structures within the AOC; however, the solar facility would be unoccupied during operation aside from a few O&M visits per year, and only the northeastern most PV arrays could be affected if on-site conditions would result in a landslide. If Project-related structures in the northeastern corner of the Project area cannot be designed to be sited outside of the AOC, then implementation of MM GEO-2, which includes a desktop-level slope stability assessment and, if necessary, a field-based slope stability analysis, would reduce potential impacts to less than significant levels.

Mitigation Measures

MM GEO-2: Slope stability assessment

- If the Project cannot be designed to avoid the construction of structures or PV arrays in the northeastern corner identified as an AOC for slope stability in the 2025 geologic hazards and geotechnical investigation by ANS Geo, Inc., then a desktop-level slope stability assessment conducted by licensed geotechnical engineers shall be required. If the results of the slope stability assessment indicate significant potential for landslides, slope failure, or instability, then a field-based slope stability analysis shall be conducted. The recommendations from the slope stability assessment, and if necessary from the slope stability analysis, shall be incorporated into the final design prior to issuance of grading and building permits.

b. Result in substantial soil erosion or the loss of topsoil?

Less than Significant Impact. The solar PV array would be constructed on the flat portion of the parcel. Construction activities, which would include minimal grading, vegetation removal, and road installation may loosen soils, increasing the risk of erosion during storms. Additionally, water used for dust suppression could result in runoff that carries sediment. The Project will be required to comply with the NPDES Construction Stormwater General Permit. This includes the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP), which will outline site-specific Stormwater BMPs to reduce soil erosion and loss of topsoil. Stormwater BMPs include but are not limited to source control BMPs; treatment control BMPs; and implementation improvements, such as training, inspections, and maintenance. Water quality features intended to reduce construction-related erosion impacts would be clearly noted on the grading plans for implementation by the construction contractor. Additionally, construction activities are temporary (approximately 6-9 months) and landscaping around the perimeter of the Project area would minimize erosion. With conformance to applicable federal, state, and local regulations, and implementation of appropriate Stormwater BMPs, the Project would not result in substantial soil erosion or the loss of topsoil and impacts would be less than significant.

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?

Less than Significant Impact with Mitigation. The Project area contains moderately to well compacted soils (i.e., not loose) derived from the weathering and erosion of poorly sorted alluvial clay, silt, sand, and gravel deposits that are only hydric in the northwestern corner of the Project area due to local drainage patterns. Additionally, the 2025 geologic hazards and geotechnical investigation report notes an over-steepened slope at the northeastern corner of the Project area that has potential slope instability. The relatively flat area immediately below this over-steepened slope is mapped as an AOC. The County's geologic hazards overlay classifies the Project area as being in a Zone of Susceptibility for Liquefaction, and the site is subject to shallow groundwater levels during wetter years. Conditions of the site indicate a low to moderate potential for liquefaction or seismic settlement. Additionally, the Project would not be constructed in soils subject to lateral spreading or collapse, and the quartzite basement rock underlying the alluvial deposits within the subsurface of the Project area are unlikely to be affected by tectonic subsidence.

The Project will be designed to avoid the steep sloped area for slope stability. If the Project's design cannot avoid construction within the relatively flat AOC, implementation of MM GEO-1 and MM GEO-2 would reduce potential impacts to less than significant levels.

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

Less than Significant Impact with Mitigation. Given the location of the Project and soils encountered, the potential for shrinkage and swelling of soils are low at the Project site. Thus, a geotechnical investigation was required to assess the potential for expansive soils. A geotechnical investigation report has been prepared for the Project by ANS Geo, Inc. in 2025. During the building permit application process, County staff will verify that the type of construction proposed is consistent with the actual soils present based on the results and recommendations within the geotechnical investigation. Implementation of MM GEO-1 would reduce potential impacts to less than significant levels.

e. 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 wastewater?

Less than Significant Impact. Because sanitary facilities and wastewater disposal systems would only be needed during construction, no permanent wastewater disposal systems or supporting use of septic tanks would be constructed on site. Temporary wastewater facilities would remain on site until the end of construction and would be removed following construction. No wastewater disposal systems are needed for landscaping, which would rely on temporary irrigation systems, or operations and maintenance since no permanent workers will be on site. Additionally, the Project will be required to comply with the NPDES Construction Stormwater General Permit, including implementation of a SWPPP and Stormwater BMPs. Therefore, impacts would be less than significant.

f. Directly or indirectly destroy a unique paleontological resource or site or geologic feature?

Less than Significant Impact. The Project area contains geologic units of low to no paleontological sensitivity. Construction for the Project would involve minimal grading, except for what would be needed for Stormwater BMPs, excavating for the stormwater detention basins, pile driving for the solar support structures, trenching for collector lines, and leveling the northeastern portion of the site where the topography rises. Such activities would likely only impact sediments too young to contain paleontological resources, which are immediately underlain by quartzite, typically too metamorphosed to contain intact fossils. Additionally, the Project area contains no known “unique” paleontological resources, sites, or geologic features. Therefore, impacts would be less than significant.

5.8 GREENHOUSE GAS EMISSIONS

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			x	
b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?				x

5.8.1 GREENHOUSE GAS EMISSIONS SETTING

Gases that trap heat in the atmosphere are called GHGs. The major concern in releasing excess GHG to the atmosphere is global climate change. Global climate change is a change in the average climate on Earth that can be measured by wind patterns, storms, precipitation, and temperature. Human activity directly contributes to emissions of six primary anthropogenic GHGs: carbon dioxide (CO₂), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride (SF₆).⁶² The most important and widely occurring anthropogenic GHG is CO₂, primarily from the use of fossil fuels as a source of energy.

Research by California’s Office of Environmental Health Hazard Assessment documents climate change indicators by categorizing the effects as: changes in California’s climate; impacts to physical systems including oceans, lakes, rivers, and snowpack; and impacts to biological systems including humans, vegetation, and wildlife. The primary observed changes in California’s climate include increased annual average air temperatures, more-frequent extremely hot days and nights, and increased severity of drought. Impacts to physical systems affected by warming temperatures and changing precipitation patterns show decreasing snowmelt runoff, shrinking glaciers, and rising sea levels. Impacts to terrestrial, marine, and freshwater biological systems, with resulting

⁶² California Air Resources Board (CARB). 2018. AB 32 Global Warming Solutions Act of 2006 Assembly Bill 32 Overview. Retrieved from: <https://ww2.arb.ca.gov/resources/fact-sheets/ab-32-global-warming-solutions-act-2006>.



changes in habitat, agriculture, and food supply are occurring in conjunction with the potential to impact human well-being.⁶³

The electricity sector in California has achieved substantial GHG emissions reductions through renewable and zero-carbon energy deployment. Moving forward, a clean, affordable, and reliable electricity grid will serve as a backbone to support deep decarbonization across California's economy. Decarbonizing the electricity sector is a crucial pillar of achieving carbon neutrality, and CARB anticipates that the role of electricity in powering the economy will continue to grow while electric loads increase.⁶⁴ California continues to add zero-carbon energy resources to replace fossil-fuel generation and support growing demand. Moving to zero-carbon resources is critical to reducing GHG emissions and addressing the long-term impacts of climate change.⁶⁵

In 2016, San Bernardino County generated approximately 16 million metric tons (MT) of carbon dioxide equivalents (CO₂e).⁶⁶ The largest portion of these emissions (51 percent) is attributed to on-road vehicles, while the second largest portion (35 percent) is due to building energy. In 2030, San Bernardino County is forecast to generate approximately 17.6 million tons of CO₂e, a GHG emissions increase of 15 percent. The largest portion of these emissions (51 percent) is attributed to on-road vehicles, while the second largest portion (38 percent) is due to building energy.

5.8.2 REGULATORY SETTING

5.8.2.1 FEDERAL

Clean Air Act⁶⁷

The Supreme Court decision in *Massachusetts et al. v. Environmental Protection Agency et al.* (Supreme Court Case 051120) found that the USEPA has the authority to list GHGs as pollutants and to regulate emissions of GHGs under the federal-level CAA. On 17 April 2009, USEPA found that CO₂, methane, NO_x, hydrofluorocarbons, perfluorocarbons, and SF₆ may contribute to air pollution and may endanger public health and welfare. The USEPA has established reporting regulations that require specific facilities and industries to report their GHG emissions annually. *40 Code of Federal Regulations Part 98, Mandatory Reporting of Greenhouse Gases Rule* requires mandatory reporting of GHG emissions for facilities that emit more than 25,000 MT of CO₂e (MTCO₂e) per year.

⁶³ Office of Environmental Health Hazard Assessment, California Environmental Protection Agency. 2018. Indicators of Climate Change in California. Retrieved from: <https://oehha.ca.gov/climate-change/document/indicators-climate-change-california#:~:text=The%202018%20report%20compiles%2036,change%20on%20biological%20systems%20%E2%80%93%20humans%2C>.

⁶⁴ California Air Resources Board. 2022. California's Scoping Plan for Achieving Carbon Neutrality. Retrieved from: <https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf>.

⁶⁵ California Energy Commission. 2022. Final 2021 Integrated Energy Policy Report (IEPR), Volume II - Ensuring Reliability in a Changing Climate. Retrieved from: <https://efiling.energy.ca.gov/GetDocument.aspx?tn=241583>.

⁶⁶ San Bernardino County Transportation Authority. 2021. San Bernardino County Regional Greenhouse Gas Reduction Plan. Appendix A. Retrieved from: https://www.gosbcta.com/wp-content/uploads/2019/09/San_Bernardino_Regional_GHG_Reduction_Plan_Appendices_Mar_2021.pdf.

⁶⁷ USEPA. 1970. Clean Air Act, 42 U.S.C. §7401 et seq. Accessed 20 December 2024. Retrieved from: [https://www.epa.gov/laws-regulations/summary-clean-air-act#:~:text=The%20Clean%20Air%20Act%20\(CAA,emissions%20of%20hazardous%20air%20pollutants](https://www.epa.gov/laws-regulations/summary-clean-air-act#:~:text=The%20Clean%20Air%20Act%20(CAA,emissions%20of%20hazardous%20air%20pollutants).

5.8.2.2 STATE OF CALIFORNIA

Assembly Bill 32: Global Warming Solutions Act of 2006⁶⁸

In 2006, the California State Legislature signed the Global Warming Solutions Act of 2006 (AB 32). AB 32 provides the framework for regulating GHG emissions in California. This law requires the CARB to design and implement emission limits, regulations, and other measures such that statewide GHG emissions are reduced in a technologically feasible and cost-effective manner to 1990 levels by 2020.

The bill also requires CARB to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective GHG emission reductions. The bill authorizes CARB to adopt market-based compliance mechanisms. The bill additionally requires the state board to monitor compliance with and enforce any rule, regulation, order, emission limitation, emissions reduction measure, or market-based compliance mechanism adopted by the state board, pursuant to specified provisions of existing law. The bill also authorizes CARB to adopt a schedule of fees to be paid by regulated sources of GHG emissions. Because the bill requires CARB to establish emissions limits and other requirements, the violation of which would be a crime, this bill would create a state-mandated local program. Under AB 32, by 30 June 2007, CARB was to identify a list of discrete early action GHG reductions that will be legally enforceable by 2010. By 1 January 2008, CARB was also to adopt regulations that will identify and require selected sectors to report their statewide GHG emissions. By 1 January 2011, CARB must adopt rules and regulations to achieve the maximum technologically feasible and cost-effective reductions in GHG reductions. CARB is authorized to enforce compliance with the program that it develops.

State Executive Orders on GHG Emissions

State Executive Order S-3-05 (June 2005) established the initial GHG reduction targets for the State of California. The targets called for a reduction of GHG emissions to 2000 levels by 2010; a reduction of GHG emissions to 1990 levels by 2020; and a reduction of GHG emissions to 80 percent below 1990 levels by 2050.

In April 2015, Governor Brown signed Executive Order B-30-15, establishing the intermediate target of reducing GHG emissions to 40 percent below 1990 levels by 2030, to ensure the state meets its target of reducing GHG emissions to 80 percent below 1990 levels by 2050 (Executive Order S-3-05). On 8 September 2016, Governor Brown signed SB 32 and AB 197, which codified the 2030 GHG emissions reduction target of 40 percent below 1990 levels and provided additional direction for updating the scoping plan.

In September 2018, Executive Order B-55-18 established a new statewide goal to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter. CARB was directed to develop the framework for implementing the goal of carbon neutrality.

⁶⁸ California Air Resources Board. 2018. AB 32 Global Warming Solutions Act of 2006. Retrieved from: <https://ww2.arb.ca.gov/resources/fact-sheets/ab-32-global-warming-solutions-act-2006>

Renewables Portfolio Standard (RPS) Program and SBs 350 & 100⁶⁹

On 10 September 2018, Governor Brown signed SB (SB) 100, establishing that 100 percent of all electricity in California must be obtained from renewable and zero-carbon energy resources by 31 December 2045. Specifically, the bill increases required energy from renewable sources for both investor-owned utilities and publicly owned utilities from 50 percent to 60 percent by 2030. Incrementally, these energy providers must also have a renewable energy supply of 33 percent by 2020, 44 percent by 2024, and 52 percent by 2027. California must procure 100 percent of its energy from carbon-free energy sources by the end of 2045.

SB 100 also creates new standards for the RPS goals established by SB 350 in 2015. The Clean Energy and Pollution Reduction Act of 2015 (SB 350) established California's state policy objectives on long-term energy planning and procurement as signed into law on 7 October 2015.

Cap-and-Trade Program (17 CCR 95801 to 96022)

The California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms Regulation (Cap-and-Trade Program) was initially approved by CARB in 2011. The Cap-and-Trade Program applies to covered entities that fall within certain source categories, including suppliers of transportation fuels, retail providers of electricity, and operators of electricity generating facilities. The program is triggered when facility emissions exceed 25,000 MTCO_{2e} in a year. The covered entities must hold compliance instruments sufficient to cover the actual GHG emissions, as evidenced through CARB's Mandatory Reporting Regulation requirements. This means that transportation fuel suppliers bear the GHG compliance obligation in the Cap-and-Trade Program for the GHG emissions from motor vehicle and off-road equipment fuels used by construction workforces and crews. No specific reporting requirements apply to electric power generation from solar resources.

SBs 97 and 743

SB 97, enacted in 2007, amended the CEQA statute to establish that GHG emissions and their effects are a prominent environmental issue that require analysis and identification of feasible mitigation under CEQA. GHG emissions were incorporated into the CEQA guidelines on 18 March 2010.

With the passing of SB 743 in 2013, the Governor's Office of Planning and Research further amended the State CEQA Guidelines providing alternative criteria to level of service for evaluating transportation impacts. One of the goals of the new criteria is to promote the reduction of GHG.

Emission Reductions of SF₆ From Gas Insulated Equipment (17 CCR 95350 to 95359)

Electric power gas-insulated equipment and switchgear used in transmission and distribution systems are subject to this regulation for reducing or phasing-out SF₆ emissions and leaks. The regulation, initially adopted by CARB in 2010 and amended in 2022, requires owners of such gas-insulated equipment or switchgear to phase out use of SF₆, maintain records and inventories of

⁶⁹ California Legislative Information. 2024. SB 100 California Renewables Portfolio Standard Program: emissions of greenhouse gases. https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB100.

their gas-insulated equipment and capacities, and report CO_{2e} emissions to demonstrate compliance with annual limits set by the rule.

Climate Change Scoping Plan

CARB published a Climate Change Scoping Plan in December 2022 that outlines reduction measures to lower the state's GHG emissions and achieve an 85 percent reduction from 1990 levels as required by AB 1279.⁷⁰ Key elements for reducing California's GHG emissions to 85 percent of 1990 levels by 2045 include:

- Direct emission reduction for sources covered by the AB 32 Inventory
- Reducing demand for petroleum fuels
- Carbon capture and sequestration for petroleum refineries and manufacturing facilities
- Electrification of industrial, commercial, and residential energy use

5.8.2.3 REGIONAL

On 5 December 2008, the SCAQMD Governing Board adopted the staff proposal for an interim GHG significance threshold for projects where the SCAQMD is lead agency. This interim guidance includes a numeric threshold to determine significance for industrial projects where SCAQMD is the lead agency.⁷¹ This interim guidance has continued to be used and is repeated in SCAQMD's Air Quality Significance thresholds that were published in March 2023.⁷²

5.8.2.4 COUNTY OF SAN BERNARDINO

Countywide Plan/Policy Plan⁷³

Local jurisdictions, such as the County of San Bernardino, have the authority and responsibility to reduce GHG emissions through their police power and decision-making authority. Specifically, the County is responsible for the assessment and mitigation of GHG emissions resulting from its land use decisions. In accordance with CEQA requirements and the CEQA review process, the County assesses the global climate change potential of new development projects, requires mitigation of potentially significant global climate change impacts by conditioning discretionary permits, and monitors and enforces implementation of such mitigation.

The *Greenhouse Gas Emissions Development Review Processes*, prepared for the County of San Bernardino March 2015, provides project level direction on how the County plans to achieve the reduction in GHG Emissions.⁷⁴ Further, the San Bernardino Policy Plan⁷⁵ includes goals and policies

⁷⁰ California Air Resources Board. 2022 Scoping Plan Documents. <https://ww2.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents>

⁷¹ South Coast Air Quality Management District (SCAQMD). 2008. SCAQMD Governing Board Agenda Item 31. Retrieved from: [https://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-\(ghg\)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2](https://www.aqmd.gov/docs/default-source/ceqa/handbook/greenhouse-gases-(ghg)-ceqa-significance-thresholds/ghgboardsynopsis.pdf?sfvrsn=2)

⁷² South Coast Air Quality Management District (SCAQMD). 2023. SCAQMD Air Quality Significance Thresholds. Retrieved from: <https://www.aqmd.gov/docs/default-source/ceqa/handbook/south-coast-aqmd-air-quality-significance-thresholds.pdf?sfvrsn=25>

⁷³ San Bernardino County. 2022. Countywide Plan. Retrieved from: https://countywideplan.com/wp-content/uploads/sites/68/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf

that all new projects are required to comply with, as applicable. The following goals and policies are applicable to this community-oriented Project:

- *Goal NR 1.7. Greenhouse gas reduction targets.* We strive to meet the 2040 and 2050 GHG emission reduction targets in accordance with state law.
- *Goal 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 General Plan.
- *Goal RE 3.2.* Encourage CORE generation that primarily serves local uses in the county.

San Bernardino County 2014 Regional Greenhouse Gas Reduction Plan (RGHGRP)

In addition, the County participated with San Bernardino Associated Government's regional planning efforts in the adoption of the San Bernardino County 2014 Regional Greenhouse Gas Reduction Plan (RGHGRP). The 2014 RGHGRP was developed to meet the requirements of AB 32 and SB 375 and includes a regional GHG emissions inventory, summarizes actions that participating jurisdictions have selected to reduce GHG emissions to 1990 levels by 2020, and provides specific reduction goals for each participating jurisdiction. In March 2021, San Bernardino Council of Governments prepared an update to the 2021 RGHGRP in order to address SB 32, which mandates a 40 percent reduction in GHG emissions from 1990 levels by 2030. The 2021 RGHGRP was prepared in accordance with the GHG reduction measures provided in California's 2017 Climate Change Scoping Plan, November 2017.⁷⁶

5.8.3 ENVIRONMENTAL EVALUATION

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant Impact. Construction and eventual decommissioning activities would cause GHG emissions resulting from fossil-fuel combustion in the engines of construction equipment and the vehicles carrying construction materials and workers to and from the site. Diesel fuel or gasoline will be used in mobilizing the heavy-duty construction equipment during all six phases of the Project: site preparation, pile and skid foundations, module install, electrical install, and commissioning.

The Project would be operated on an autonomous, unstaffed basis, and monitored remotely from an existing offsite facility. It is anticipated that maintenance requirements will be minimal as the proposed Project's PV arrays will operate with limited moving parts. Operational activities are limited to monitoring plant performance, periodic mowing, and unscheduled, preventative maintenance. The Project will operate during daylight hours only, and no heavy equipment will be used during routine Project operation. Default operational emissions from CalEEMod are based on land type, land amount, and local area precipitation. There is not an appropriate land use type in CalEEMod for solar facilities, so Industrial was selected as a conservative overestimate of operational emissions. The major contributor to GHG emissions is

⁷⁶ California Air Resources Board (CARB). 2018. Final Staff Report Proposed Update to the SB 375 Greenhouse Gas Emission Reduction Targets. Retrieved from: https://ww2.arb.ca.gov/sites/default/files/2020-06/SB375_Updated_Final_Target_Staff_Report_2018.pdf.

the default water use number of 20 million gallons annually, based on the equation used in Department of Water Resources Model Water Efficient Landscape Ordinance. These operational emissions are a gross over-assumption as native drought tolerant plants will be used; however, these default values are used to be conservative.

Equipment and vehicle use over the duration of construction would amount to approximately 143 MTCO_{2e} of GHG emissions. For assessing the overall rate of Project GHG emissions, San Bernardino County, as CEQA lead agency, allows short-term construction GHG emissions to be included with operational emissions by averaging construction effects over a 30-year life of the Project, as recommended by SCAQMD. The overall construction GHG emissions amortized over 30 years would be equivalent to an annualized rate of 5 MTCO_{2e} per year. It is assumed that decommissioning activities would be similar in nature and duration to construction activities, so decommissioning emissions are assumed to be the same and would be equivalent to an annualized rate of 5 MTCO_{2e} per year. Decommissioning is typically faster than construction, so this is a conservative assumption. During the operational life of the project, direct on-site O&M activities would contribute an additional 46.2 MTCO_{2e} per year. The emissions of O&M activities are shown with the one-time and annualized GHG emissions rates of construction in Table 4.

The data provided in Table 4 shows that the proposed Project would create a total of 56 MTCO_{2e} per year, which is well within the SCAQMD threshold of 10,000 MTCO_{2e} per year. Even if the construction schedule slipped, and GHG emissions were doubled, it would still be well below thresholds.

TABLE 45.8 BEAR VALLEY ESTIMATED GREENHOUSE GAS EMISSIONS

Category	Total (MTCO _{2e})
Total Construction Emissions	143
Amortized Construction Emissions (30 years)	4.77
Amortized Decommissioning Emissions (30 years)	4.77
Annual Operational Emissions	46
Total Annual Emissions (includes operational and amortized construction and decommissioning activities)	55.54
SCAQMD Annual Threshold	10,000
Below Threshold (Y/N)	Y

MTCO_{2e} = metric tons of carbon dioxide equivalent; N = no; SCAQMD = South Coast Air Quality Management District; Y = yes

Further, operation of the solar facility will offset GHG emissions by displacing power produced by carbon-based fuels that would otherwise be used to meet electricity demand. The power displaced is incremental power provided by generators elsewhere on the grid, typically from

natural gas power plants. The Project will generate an estimated 13,987 MW-hours of solar-generated electricity each year that will be added to the power grid and be used in place of electricity generated by fossil-fuel sources. One hundred percent of the power produced by the Project will be consumed locally within BVES service territory.

Therefore, because GHG emissions from the Project are well below the threshold and because this Project would displace conventional fossil-fueled electricity generation, a less than significant generation of GHG emissions would occur from development of the proposed Project. Impacts to the environment would be less than significant.

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

No Impact. The Project would produce electricity in a manner that improves California’s ability to supply renewable energy to end-use customers and to achieve statewide renewable energy goals. Electricity from the solar generating station would be used to serve the needs of California’s customers and would facilitate compliance with California’s RPS and CARB’s 2022 Climate Change Scoping Plan.

The San Bernardino County 2021 RGHGRP includes GHG inventories, and local GHG reduction strategies for each partnership jurisdiction including the unincorporated areas of San Bernardino County. The RGHGRP demonstrates how unincorporated San Bernardino County could achieve its selected goal of reducing its GHG emissions to 40 percent below its 2020 GHG emissions level by 2030. The majority (approximately 80 percent) of unincorporated San Bernardino County’s GHG reduction goal will be achieved through state efforts such as 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 needed 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).”

Further, the proposed Project is consistent with the GHG goals and policies in the San Bernardino Policy Plan, specifically NR-1.7, RE 2.1, RE 4.1 and RE 4.3.1.

The Project is consistent with the County’s RGHGRP and County Policy Plan goal to encourage renewable energy, including solar facilities. The Project would be consistent with state and regional plans to reduce GHG emissions and would result in no impact.

5.9 HAZARDS AND HAZARDOUS MATERIALS

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?			X	



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?			X	
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				X
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, would it create a significant hazard to the public or the environment?				X
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, would the project result in a safety hazard or excessive noise for people residing or working in the project area?				X
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?			X	

5.9.1 HAZARDS AND HAZARDOUS MATERIALS SETTING

This hazards and hazardous materials setting and impact analysis are based on the results of the Phase I Environmental Site Assessment and Limited Phase II Environmental Site Assessment prepared by ERM in 2024 (Appendix F and G, respectively). ERM staff conducted a site visit and interview with the property owners in July 2024. According to the landowners there are no other structures or storage tanks onsite besides the old mining equipment and associated structures, and they were unaware of any prior occupants. During ERM’s site visit, a partially backfilled excavation approximately 5 feet by 5 feet wide and 10 feet deep was observed on the northeastern portion of the Project area. The excavation appears to be an abandoned mineshaft. The opening of the shaft is covered with highly weathered and degraded wooden planks. A small tailing pile was observed adjacent to the mineshaft. A former ventilation shaft within a 10-foot by 10-foot concrete slab and production shaft with subgrade machinery were also observed approximately 250-300 feet northeast of the mineshaft. The ventilation shaft was capped, and the production shaft was backfilled with soil and covered with a metal grate. The production shaft had a small portion of the remaining wooden structure that was still intact. Southwest of the



production shaft was a pile of approximately 50, 10-foot-long logs, that were cut and shaped. The logs were similar in size and shape to the remaining structure.

According to the Environmental Data Resources, Inc. (EDR)® Radius Map™ Report (EDR report), the Gold Hill Mine located approximately 200-feet west of the Project area is listed in the MINES Mineral Resources Data System (MRDS) database. The listing indicates that the adjacent property was historically utilized as a gold mine. No additional information was provided in the EDR report. However, after additional review of historical aerials and onsite observations, it appears that the Project area is at least partially associated with the former Gold Hill Mine operations. According to “The Diggings” website, Gold Hill Mine is closed and there are no plans for reopening. During its active period, the mine was considered to have a relatively small production size. The operations at the Gold Hill Mine included both surface and underground workings. In addition, the mine reportedly extends to a maximum depth of approximately 54 feet below ground surface, and the ore body extends approximately 10 feet in thickness. The gold bearing host rock most prevalent in this area is quartzite.

A variety of environmental impacts are commonly associated with former mining activities. Each of the different types of mineral processing operations generates its own specific waste streams. Environmental concerns specifically associated with gold mining and processing are mineral dusts, tailings, acid mine drainage, and other mineral processing wastes. Contaminants of concern include, but are not limited to, heavy metals (e.g., mercury, lead, nickel, copper, cadmium, zinc, and arsenic). To determine the potential for contaminants of concern at depths of potential ground disturbance (see Section 2.3.5 Ground Disturbance and Stormwater Management), ERM conducted a limited Phase II Environmental Site Assessment (Appendix G), which included assessing soil samples for contaminants of concern in the northwestern portion of the Project area near the mining facilities. Soil samples were obtained from seven hand-augered borings that extended to depths of 5 feet below ground surface where possible. Soil samples were tested for heavy metals via USEPA Method 6010B, and for total mercury by Method 7471A and were compared to Soluble Threshold Limit Concentration (STLC) and Total Threshold Limit Concentration (TTLC). All analyzed compounds detected above their respective laboratory method detection limit were below their respective STLC/TTLC Regulatory Limits, indicating that the compounds detected are not considered hazardous waste.

The Phase I Environmental Site Assessment (Appendix F) revealed the following recognized environmental conditions, controlled recognized environmental conditions, and/or significant data gaps in connection with the Project area:

- **Recognized Environmental Conditions (RECs).** The land adjacent to the east of the Project area is listed under Gold Hill Mine in the MINES MRDS database in the EDR report. The listing indicates that the adjacent property was historically utilized as a gold mine. No additional information was provided in the EDR report. However, after additional review of historical aerials and onsite observations, it appears as though the Project area was also associated with the former Gold Hill Mine operations.
- **Controlled Recognized Environmental Conditions (CRECs).** No CRECs were identified in connection with the Project area.

- **Historical Recognized Environmental Conditions (HRECs).** No HRECs were identified in connection with the Project area.
- **De Minimis Conditions.** Big Bear has historically had wild donkeys since the 1860s. During the site visit, the Project area had approximately 20 wild donkeys on site. Given the long duration of animal waste (manure), the potential exists that methane, nitrates, and ammonia are found in soil. However, based on the proposed land use (solar) particulates from animal waste are not considered a REC, but a de minimis condition.

Construction of the Project may result in potential soil disturbances that could expose construction workers to heavy metals from the previous mining use of the site. However, the limited Phase II Environmental Site Assessment (Appendix G) soil sampling did not indicate the presence of specific mine-related hazardous compounds detected above regulatory limits. Additionally, mine-related structures currently situated on-site would be avoided and left on-site to minimize disturbance and potential hazard exposure.

5.9.2 REGULATORY SETTING

5.9.2.1 FEDERAL

Hazardous Materials Transportation Act

Regulates the safe transport of hazardous materials under Title 49 of the CFR, with enforcement primarily by the California Highway Patrol and the California Department of Transportation, which handle permits and emergency responses related to transportation incidents involving hazardous materials.

Resource Conservation and Recovery Act

Federal law overseeing hazardous waste from “cradle-to-grave”—from creation through to recycling, reuse, or disposal. This law is administered in California by the Department of Toxic Substances Control (DTSC) in coordination with the state’s Hazardous Waste Control Law.

Occupational Safety and Health Administration

Ensures worker safety by establishing standards, including training and protective measures for employees involved in hazardous waste operations. Standards in Title 29 CFR Section 1910 require Health and Safety Plans for land-use proposals to address potential hazards and prescribe training for employees working with hazardous materials.

Title 40 CFR Part 273

Standards for Universal Waste Management: Federal regulations that govern the handling, storage, and labeling of universal waste types such as batteries, lamps, and aerosol cans. Regulations differ by handler size (small vs. large quantity) and apply specific storage and transportation guidelines without the need for hazardous waste transporters.

5.9.2.2 STATE OF CALIFORNIA

California Environmental Protection Agency

Established to coordinate California's environmental protection efforts, California Environmental Protection Agency (CalEPA) oversees agencies like the DTSC and the SWRCB. It enforces hazardous materials management and waste laws, including the Hazardous Waste Control Law, the Hazardous Substances Information and Training Act, and the Air Toxics Hot Spots and Emissions Inventory Law.

Strategic Fire Plan for California

A guide from CAL FIRE that establishes fire prevention, natural resource management, and suppression goals. The plan's 2019 update emphasizes these goals to enhance public and environmental safety.

California Occupational Safety and Health Administration

Sets standards for safe handling and exposure to hazardous chemicals in the workplace, including stringent training, safety equipment availability, and accident prevention requirements beyond federal Occupational Safety and Health Administration standards.

Hazardous Waste Control Act

Implements California's stringent hazardous waste management protocols under Title 26 CCR. The Act covers waste identification, generation, transportation, disposal and requires detailed record-keeping and staff training.

Title 8, CCR, Section 2700 et seq. – High Voltage Safety Orders

Defines safety protocols for working with high-voltage electrical installations and specifies safe working distances and operational practices.

Title 14, CCR, Sections 1250-1258 Fire Prevention Standards for Electric Utilities

Sets standards for fire prevention and requires utilities to maintain clearances around power lines and minimize risks from conductor sparks and other electrical hazards.

5.9.2.3 COUNTY OF SAN BERNARDINO

Countywide Plan/Policy Plan⁷⁷

The Hazards Element, Personal and Property Protection Element, Transportation and Mobility Element, and Renewable Energy and Conservation Element of the Countywide Plan/Policy Plan contain the following goals and policies applicable to minimizing hazards and hazard exposures.

Hazards Element

- *Goal HZ-2 Human-Generated Hazards.* Flood: 100-year flood zone, dam/basin inundation area.

⁷⁷ San Bernardino County. 2022. Countywide Plan. Retrieved from: https://countywideplan.sbcounty.gov/wp-content/uploads/sites/125/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf?x23421.

- Policy HZ-2.2. Database of hazardous materials. We maintain up-to-date databases of the storage, use, and production of hazardous materials, based on federally- and state-required disclosure and notification, to appropriately respond to potential emergencies.
- Policy HZ-2.3. Safer alternatives. We minimize the use of hazardous materials by choosing and by encouraging others to use non-toxic alternatives that do not pose a threat to the environment.
- Policy HZ-2.4. Truck routes for hazardous materials. We designate truck routes for the transportation of hazardous materials through unincorporated areas and prohibit routes that pass through residential neighborhoods to the maximum extent feasible.
- Policy HZ-2.5. Community education. We engage with residents and businesses to promote safe practices related to the use, storage, transportation, and disposal of hazardous materials.
- Policy HZ-2.11. Legacy abandoned mine lands. We inventory legacy abandoned mines and require private property owners to eliminate hazardous conditions that could threaten human life and environmental contamination. We pursue funding to address legacy abandoned mines on County-owned property.

Personal and Property Protection Element

- *Goal PP-3 Fire and Emergency Medical.* Reduced risk of death, injury, property damage, and economic loss due to fires and other natural disasters, accidents, and medical incidents through prompt and capable emergency response.
 - 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-3.7. Fire safe design. We require new development in the Fire Safety Overlay to comply with additional site design, building, and access standards to provide enhanced resistance to fire hazards.
- *Goal PP-4 Emergency Preparedness and Recovery.* A reduced risk of and impact from injury, loss of life, property damage, and economic and social disruption resulting from emergencies, natural disasters, and potential changes in climate.
 - Policy PP-4.1. Emergency management plans. A reduced risk of and impact from injury, loss of life, property damage, and economic and social disruption resulting from emergencies, natural disasters, and potential changes in climate.

Renewable Energy and Conservation Element

- *Goal RE-4 Environmental Compatibility.* 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-4.6. Mandate recycling of electronic/toxic materials according to the Basel Convention or similar standards.

5.9.3 ENVIRONMENTAL EVALUATION

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. The soil sampling and analysis conducted as part of the limited Phase II Environmental Site Assessment did not indicate the presence of specific mine-related hazardous compounds detected above regulatory limits. Thus, the Project's potential to exhume potentially hazardous soils that would require removal, transport, and off-site disposal are minimal. The solar PV arrays and ancillary structures would use minimal quantities of hazardous materials necessary for its construction, operation, and decommissioning phases. Solar panels, as utilized in this Project, have been shown to present minimal environmental hazards when properly manufactured and installed. According to the National Renewable Energy Laboratory,⁷⁸ the lifecycle impacts of solar PV systems, including their decommissioning, are significantly lower than those associated with conventional energy sources. This indicates that the construction and operation of solar facilities generally do not contribute to substantial environmental hazards.

The proposed Project is designed to operate within safe limits regarding hazardous materials, and the associated risks remain well within acceptable parameters, reaffirming that no significant hazards to public safety or environmental integrity are anticipated. Given these limited quantities, the Project is not anticipated to pose a significant risk to public health or the environment through the routine transport, use, or disposal of hazardous substances. Therefore, potential impacts would be less than significant.

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?

Less Than Significant Impact. During the construction phase, the Project poses a low risk for accidental release of limited quantities of hazardous materials, including fuels and chemicals. During operation, oils would be fully contained within the transformers, and no fuel or lubricants would be stored on site. Any potentially hazardous materials would be managed or stored following stringent safety standards, including secondary containment and fire safety protocols in accordance with applicable state and federal standards. In decommissioning, materials, including PV modules would be recycled or disposed of following all federal and state regulations, ensuring minimal landfill impact. Consequently, impacts from hazardous material handling across all Project phases are anticipated to remain at a less-than-significant level.

c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

⁷⁸ National Renewable Energy Laboratory. 2024. Rural Transportation Options. Retrieved from: <https://www.nrel.gov/>

No Impact. The McDonald Learning Center is the closest school to the Project and is located more than half a mile from the site, located north. 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 or proposed school. No impacts would result from the proposed Project.

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, would it create a significant hazard to the public or the environment?

No Impact. The Project is not located on a site included on a list of hazardous materials sites pursuant to Government Code Section 65962.5. As determined in the Phase I Environmental Site Assessment prepared for the Project, the Project site was not identified in any relevant databases, including those pursuant to Government Code Section 65962.5.

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, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?

No Impact. The Big Bear Airport is over 3 miles from the proposed Project site. The Project is not located within the Airport Influence Area of any nearby airport and is not included in any Airport Land Use Compatibility Plan. Overall, due to the distance between the Project and nearby airports, the Project would not interfere with airport operations or result in a safety hazard or excessive noise for people residing or working in the area. No impact would occur.

f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. Minor increases in traffic congestion related to construction vehicle traffic and equipment deliveries would not impact an emergency response plan or emergency evacuation plan. During construction and operation, all vehicles and stationary equipment will be staged within the Project site and off of Erwin Ranch Road, ensuring that emergency access routes remain unobstructed. Traffic control measures may be required during construction which would further limit any impacts to emergency response. Consequently, the implementation of the Project is not expected to substantially impair any adopted emergency response or evacuation plans, and less than significant impacts would occur.

g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less Than Significant Impact. Although the Project is located within a high-risk fire zone, a site fence/screen would be required with a 25-foot setback along Lakewood Drive and Erin Ranch Road and the residence (and 20-foot setback along the northern boundary). The setback would provide a defensible buffer around the Project footprint. The Project is also setback from the open space north of the Project site. Furthermore, the Project does not entail the construction of habitable structures or permanent facilities. Therefore, the Project will not expose people or structures to a significant risk of loss, injury, or death due to wildland fires.

5.10 HYDROLOGY AND WATER QUALITY

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?			X	
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or the addition of impervious surfaces, in a manner which would:			X	
I. Result in substantial erosion or siltation on- or off-site?			X	
II. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?			X	
III. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or			X	
IV. Impede or redirect flood flows?			X	
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?				X

5.10.1 HYDROLOGY AND WATER QUALITY SETTING

This hydrology and water quality setting and impact analysis are partially based on the results of the Aquatic Resources Delineation Report prepared by ERM in 2024 (Appendix H). The Project site is located within the Santa Ana watershed (HUC8 18070203) and the Baldwin Lake sub-watershed (HUC12 180702030101).⁷⁹ Baldwin Lake is an intermittent, alkali lake with no known surface

⁷⁹ US Geological Survey (USGS). 2015. USGS Links for HUC 180702030101 - Baldwin Lake. Retrieved from: <https://water.usgs.gov/lookup/getwbd?180702030101>.



water drainage outlet or confirmed subsurface connectivity to Big Bear Lake. The site is within the Bear Valley Groundwater Basin, with groundwater recharge occurring primarily from precipitation, runoff, and subsurface flow from fractured rocks.⁸⁰ Based on the California Department of Water Resources (DWR) Best Available Maps (BAM) Awareness⁸¹, typical depth to groundwater fluctuates between approximately 20 to 30 feet during the summer growing season with seasonal spikes to between approximately 3 to 8 feet in spring melt seasons following years of high levels of winter precipitation. The abandoned mining shaft in the north central area of the site contained standing water at an approximate depth of 10 to 15 feet (Appendix H).

The USFWS NWI⁸² imagery depicts a seasonally flooded, riverine intermittent stream bed (R4SBC) approximately 65 feet from the northwestern area of the parcel, a semi-permanently flooded riverine system with an unconsolidated bottom (R5UBF) approximately 125 feet from the northwestern area of the Project site, and a seasonally saturated palustrine emergent wetland (PEM1B) approximately 290 feet from the northwestern area of the Project site. Historic aerial imagery indicates inundation and surface hydrologic connectivity between the northern sections of the Project site and the adjacent seasonally saturated palustrine emergent wetland. There is currently no connection via culvert from the Project site west under Lakewood Drive. Despite the presence of hydric soils in the northwestern section of the Project site and soil surface cracks in the southern section of the Project site, the absence of hydrophytic vegetation throughout the entirety of the Project site suggests that this site is not subject to USACE jurisdiction under the current definition of the WOUS or WOS. Moreover, the Project is not subject to a CDFW streambed jurisdiction due to the absence of aquatic features containing a defined bed, bank, channel, or high-water mark within the Project site.

The Federal Emergency Management Agency (FEMA)⁸³ floodplain map classifies the entire Project site as an area of minimal flood hazard. However, the California DWR BAM Awareness⁸⁴ dataset mapped the northwestern area of the parcel as within a 100-year floodplain. While DWR BAM Awareness 100-year floodplains are not intended to replace FEMA regulatory floodplains, these maps identify areas where storm flows have a 1 percent chance of being equaled or exceeded in any year.

⁸⁰ California Department of Water Resources (DWR). 2004. Hydrologic Region South Coast, Bear Valley Groundwater Basin. Bulletin 118. Retrieved from: https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Bulletin-118/Files/2003-Basin-Descriptions/8_009_BearValley.pdf.

⁸¹ California Department of Water Resources (DWR). 2024. Best Available Maps (BAM) 100-Year Floodplain Awareness Dataset. Retrieved from: <https://gis.bam.water.ca.gov/bam/>. Accessed July 2024.

⁸² United States Fish and Wildlife Service (USFWS). 2024. National Wetlands Inventory (NWI). Retrieved from: <http://www.fws.gov/wetlands>.

⁸³ Federal Emergency Management Agency (FEMA). 2024. National Flood Hazard Layer (NFHL) Viewer. Retrieved from: <https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529aa9cd>.

⁸⁴ California Department of Water Resources (DWR). 2024. Best Available Maps (BAM) 100-Year Floodplain Awareness Dataset. Retrieved from: <https://gis.bam.water.ca.gov/bam/>.

5.10.2 REGULATORY SETTING

5.10.2.1 FEDERAL

Clean Water Act

Section 404 of the CWA regulates the discharge of dredged or fill material into WOUS. Recently adopted 2023 federal regulations implementing the CWA (40 CFR Part 120.2(a) define WOUS to include waters currently or historically used in commerce, tidal waters, territorial seas, interstate waters, impoundments, tributaries, and adjacent wetlands with a continuous surface connection).

Section 402 mandates that certain types of construction activity comply with the requirements of USEPA's NPDES stormwater program. The USEPA has delegated responsibility for implementation of portions of the CWA, including water quality control planning and control programs, such as the NPDES Program, to the SWRCB and the RWQCB. Construction activities that disturb one or more acres of land must obtain coverage under the NPDES Construction Stormwater General Permit, which is issued by Santa Ana Regional Water Quality Control Board (see detailed discussion on NPDES permit requirements below).

National Flood Insurance Program

The National Flood Insurance Program (NFIP), established by Congress in 1968 and periodically updated, aims to reduce the impact of flooding through federal regulation. Executive Order 11988 (1973) strengthened floodplain management to limit development in flood-prone areas. FEMA administers the NFIP, mapping floodplains and determining flood elevations. FEMA's flood insurance rate maps identify special flood hazard areas, including 100-year floodplains, with a 1 percent annual flood risk. Federal regulations (Title 44, Part 60 CFR) require municipalities participating in the NFIP to adopt standards for construction in these floodplains to mitigate flood hazards.

5.10.2.2 STATE OF CALIFORNIA

Porter-Cologne Water Quality Control Act

Under the Porter-Cologne Water Quality Control Act, the SWRCB regulates stormwater discharges from construction sites to prevent pollutant mobilization into waterbodies. Activities subject to this regulation include clearing, grading, and excavation. Projects disturbing one or more acres of soil, or part of a larger development plan that affects one or more acres, must obtain coverage under the NPDES Construction Stormwater General Permit for Stormwater Discharges associated with construction and land disturbance. This regulation aims to protect and restore California's water resources.

CWA Section 401 requires an applicant pursuing a federal permit to conduct any activity that may result in a discharge of a pollutant to obtain a water quality certification (or waiver) from the applicable RWQCB. The RWQCBs primarily implement basin plan policies through issuing waste discharge requirements for waste discharges to land and water. The RWQCBs have also been delegated responsibility for administering the NPDES permit program, which is designed to manage and monitor point and nonpoint source pollution.

Sustainable Groundwater Management Act

On September 16, 2014, Governor Jerry Brown signed into law the Sustainable Groundwater Management Act (SGMA), creating California's first framework for sustainable, groundwater management. SGMA empowers local agencies to form Groundwater Sustainability Agencies (GSAs) to manage basins sustainably. The legislation requires those GSAs to adopt Groundwater Sustainability Plans (GSPs) for crucial groundwater basins in California.

Several agencies worked together to develop a GSP for the Bear Valley Basin. The GSP was approved by the Bear Valley Basin GSA on June 21, 2022. The Project site is located within the Bear Valley Basin GSA.

5.10.2.3 COUNTY OF SAN BERNARDINO

Countywide Plan/Policy Plan⁸⁵

The Countywide Plan/Policy Plan contains goals and policies applicable to hydrology and water quality that are relevant to the Project, which include the following:

Infrastructure and Utilities Element

- *Goal IU-3. Stormwater Drainage.* A regional stormwater drainage backbone and local stormwater facilities in unincorporated areas that reduce the risk of flooding.
 - Policy IU-3.1. Regional Flood Control. We maintain a regional flood control system and regularly evaluate the need for and implement upgrades based on changing land coverage and hydrologic conditions in order to manage and reduce flood risk. We require any public and private projects proposed anywhere in the county to address and mitigate any adverse impacts on the carrying capacity and stormwater velocity of regional stormwater drainage systems.
 - Policy IU-3.2. Local Flood Control. We require new development to install and maintain stormwater management facilities that maintain predevelopment hydrology and hydraulic conditions.
 - Policy IU-3.3. Recreation Use. We prefer that stormwater facilities be designed and maintained to allow for regional open space and safe recreation use without compromising the ability to provide flood risk reduction.
 - Policy IU-3.4. Natural Floodways. We retain existing natural floodways and watercourses on County-controlled floodways, including natural channel bottoms, unless hardening and channelization is the only feasible way to manage flood risk. On floodways not controlled by the County, we encourage the retention of natural floodways and watercourses. Our priority is to reduce flood risk, but we also strive to protect wildlife corridors, prevent loss of critical habitat, and improve the amount and quality of surface water and groundwater resources.

Natural Resources Element

⁸⁵ San Bernardino County. 2022. Countywide Plan. Retrieved from: https://countywideplan.com/wp-content/uploads/sites/68/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf

- **Goal NR-2 Water Quality.** Clean and safe water for human consumption and the natural environment.
 - Policy NR-2.2. Water Management Plans. We support the development, update, and implementation of ground and surface water quality management plans emphasizing the protection of water quality from point and non-point source pollution.
 - Policy NR-2.5. Stormwater Discharge. We ensure compliance with the County's Municipal Stormwater NPDES Permit by requiring new development and significant redevelopment to protect the quality of water and drainage systems through site design, source controls, stormwater treatment, runoff reduction measures, best management practices, low impact development strategies, and technological advances. For existing development, we monitor businesses and coordinate with municipalities.

Hazards Element

- **Goal HZ-1. Natural Environmental Hazards.** Minimized risk of injury, loss of life, property damage, and economic and social disruption caused by natural environmental hazards and adaptation to potential changes in climate.
 - 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.
 - Policy HZ-1.3. Floodplain Mapping. We require any new lots or subdivisions partially in, and any new development partially or entirely in, 100-year flood zones or 100-year flood awareness areas to provide detail floodplain mapping for 100- and 200-year storm events as part of the development approval process.
 - Policy HZ-1.9. Hazard Areas Maintained as Open Space. We minimize risk associated with flood, geologic, and fire hazard zones or areas by encouraging such areas to be preserved and maintained as open space.

Renewable Energy and Conservation Element

- **Goal RE-4. Environmental Compatibility.** 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-4.2. Ensure renewable energy facilities do not disrupt local hydrology.
 - Policy RE-4.2.1. Require groundwater impact assessments for short- and long-term impacts of renewable energy projects.

5.10.3 ENVIRONMENTAL EVALUATION

a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact. Construction activities, which will include minimal ground disturbances, such as trenching to approximately 42 inches below grade and pile driving due an approximate depth of 7-9 feet below grade (pending final structural design); vegetation removal; and road installation, may loosen soils and increase the risk of erosion during storms. Additionally, water used for dust suppression could result in runoff that carries sediment and dissolved solids. The use of construction equipment may lead to accidental releases of hazardous materials, such as fuels and oils, which could affect surface and groundwater quality.

The Project will be required to comply with the NPDES Construction Stormwater General Permit. This includes the development and implementation of a SWPPP, which will outline site-specific Stormwater BMPs to reduce erosion and prevent stormwater pollution. Stormwater BMPs include but are not limited to source control BMPs; treatment control BMPs; and implementation improvements such as training, inspections, and maintenance. Hazardous materials like fuels and oils will be handled according to Stormwater BMPs and the Project's Spill Prevention, Control, and Countermeasure Plan, ensuring accidental releases are minimized. With these controls, impacts on water quality during construction are expected to be temporary and less than significant.

Additionally, runoff will be managed with the implementation of these site-specific Stormwater BMPs and further managed under the Water Quality Management Plan. Thus, the water quality impacts during operations would be less than significant.

Decommissioning, expected to occur after approximately 35 years, will involve similar activities to the construction phase, including potential for erosion, sedimentation, and pollutant release. These activities will also require compliance with federal, state, and local water quality regulations, including the NPDES Construction Stormwater General Permit and the preparation of a SWPPP. Stormwater BMPs will be required to control erosion, sedimentation, and construction-related pollutants and include but are not limited to source control BMPs, treatment control BMPs, and implementation improvements such as training, inspections, and maintenance. These BMPs would ensure that water quality impacts during decommissioning are temporary and less than significant.

b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

Less Than Significant Impact. Minimal grading and vegetation removal are planned to maintain existing drainage patterns and site topography. The detention basins that would be constructed as part of the Project would retain stormwater onsite to allow infiltration of water into the groundwater basin. The new proposed access drive on the Project site would be gravel, and impedance to groundwater recharge from access drives and foundations would be negligible. Therefore, the Project's potential to deplete groundwater or interfere with groundwater recharge would be less than significant.

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or the addition of impervious surfaces, in a manner which would:

I. Result in substantial erosion or siltation on- or off-site?

Less Than Significant Impact. Construction activities, which will include minimal grading, vegetation removal, and road installation may loosen soils, increasing the risk of erosion during storms. Additionally, water used for dust suppression could result in runoff that carries sediment. However, the Project design along with compliance measures during construction (e.g., SWPPP) incorporates stormwater management practices to preserve existing drainage patterns and to minimize surface erosion or siltation. Through these practices, the Project's potential to cause substantial surface erosion or siltation would be less than significant.

II. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

Less Than Significant Impact. Runoff would be managed onsite by the proposed detention basins and Stormwater BMPs. Therefore, the Project would not substantially increase the rate or amount of surface runoff that would result in a change in flooding on or offsite, and impacts would be less than significant.

III. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

No Impact. There are no stormwater drainage systems in the vicinity of the Project. Runoff would be managed onsite with proposed detention basins and Stormwater BMPs during operations. Stormwater BMPs include but are not limited to source control BMPs, treatment control BMPs, and implementation improvements such as training, inspections, and maintenance. Therefore, the Project runoff would not exceed existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff and impacts would be less than significant.

IV. Impede or redirect flood flows?

No Impact. There are no flood flows on the site. Currently water ponds and infiltrates into soils. The Project would maintain these conditions with the proposed detention basins. No impact from impeding or redirecting flood flows would occur.

b. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less than Significant Impact. The Project site is not located in a tsunami or seiche zone. The Project site is in a mapped California DWR BAM Awareness⁸⁶ zone. While DWR BAM Awareness 100-year floodplains are not intended to replace FEMA regulatory floodplains, these maps identify areas where storm flows have a 1 percent chance of being equaled or exceeded

⁸⁶ California Department of Water Resources (DWR). 2024. Best Available Maps (BAM) 100-Year Floodplain Awareness Dataset. Retrieved from: <https://gis.bam.water.ca.gov/bam/>.

in any year. However, the Project would retain stormwater with the construction of the proposed detention basins. Therefore, there is no impact related to pollutant release.

d. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant Impact. The proposed Project is located within the Bear Valley Groundwater Basin, which has been designated very low priority by the Sustainable Groundwater Management Act (SGMA). The SGMA empowers local agencies to form Groundwater Sustainability Agencies (GSAs) to manage basins and requires GSAs to adopt Groundwater Sustainability Plans (GSPs) for crucial groundwater basins in California⁸⁷. The SGMA “requires governments and water agencies of high and medium priority basins to halt overdraft and bring groundwater basins into balanced levels of pumping and recharge. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, that will be 2040. For the remaining high and medium priority basins, 2042 is the deadline.”⁸⁸ Given that the Project is located within a basin that is considered very low priority, no conflict or obstruction of a water quality control plan or sustainable groundwater management plan is anticipated. As such, the Project would not conflict with a sustainable groundwater management plan. Water consumption and effects in the basin indicates that the proposed Project’s water demand is considered to be minimal. By controlling water quality during construction and operations through implementation of Stormwater BMP’s at the site and adherence to the Water Quality Management Plan, no potential for conflict or obstruction of the Regional Board’s water quality control plan has been identified. Stormwater BMPs include but are not limited to source control BMPs, treatment control BMPs, and implementation improvements such as training, inspections, and maintenance. Therefore, impacts would be less than significant.

5.11 LAND USE AND PLANNING

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Physically divide an established community?				X
b. 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?			X	

⁸⁷ Big Bear Area Regional Wastewater Agency. 2025. Bear Valley Basin Groundwater Sustainability Agency. Retrieved from: <https://www.bbarwa.org/bear-valley-basin-groundwater-sustainability-agency>.

⁸⁸ California Department of Water Resources. 2025. Sustainability Groundwater Management Act (SGMA). <https://water.ca.gov/Programs/Groundwater-Management/SGMA-Groundwater-Management>.



5.11.1 LAND USE AND PLANNING SETTING

The Project site consists of undeveloped land located in unincorporated San Bernardino County, California, approximately 0.15 miles southeast of the unincorporated community of Big Bear City. The parcel's zoning is RS-1. The RS zoning district provides sites for single-family residential uses, incidental agricultural and recreational uses, and similar and compatible uses.

The Project site is bounded on the north and east by undeveloped land, on the south by Erwin Ranch Road and developed land, and on the west by Lakewood Drive and two residences. Surrounding uses include dispersed rural residences zoned RS-1; undeveloped open space along the northern perimeter of the proposed Project site parcel zoned RC; and the Woodlands residential neighborhoods to the south, which is zoned RS (accessed from SR-38) (Figure 3).

The Project site and surrounding area are within the Bear Valley Community, a subsection of unincorporated San Bernardino County.

The Project would require a General Plan Amendment to rezone the parcel as RL, which allows for similar single-family residential uses, agricultural, and recreation, as well as solar facilities with an approved CUP.

5.11.2 REGULATORY SETTING

5.11.2.1 STATE OF CALIFORNIA

California Planning and Zoning Laws

California Government Code Section 65300 et seq. establishes the obligation of cities and counties to adopt and implement general plans. A general plan is a comprehensive, long-term document that describes plans for the physical development of a city or county and of any land outside its boundaries that, in the city's or county's judgment, bears relation to its planning.

The general plan addresses a broad range of topics, including, at a minimum, land use, circulation, housing, conservation, open space, noise, and safety. In addressing these topics, the general plan identifies the goals, objectives, policies, principles, standards, and plan proposals that support the city's or county's vision for the area. The general plan is a long-range document that typically addresses the physical character of an area over a 20-year period or more. The State Zoning Law (California Government Code Section 65800 et seq.) establishes that zoning ordinances, which are laws that define allowable land uses within a specific zone district, are required to be consistent with the general plan and any applicable specific plans.

California Codes

The California Codes are 29 legal codes enacted by the State Legislature, which together form the general statutory law for the state. Unlike the United States Code or other state legal codes, the California Codes have never been consolidated into a single unified code. The official codes are maintained by the California Legislative Counsel for the Legislature.

California Government Code Section 53091(d) states, "Building ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, wastewater, or electrical energy by a local agency."

Furthermore, Section 53091(e) states, "Zoning ordinances of a county or city shall not apply to the location or construction of facilities for the production, generation, storage, treatment, or transmission of water, or for the production or generation of electrical energy, facilities that are subject to Section 12808.5 of the Public Utilities Code, or electrical substations in an electrical transmission system that receives electricity at less than 100,000 volts. Zoning ordinances of a county or city shall apply to the location or construction of facilities for the storage or transmission of electrical energy by a local agency, if the zoning ordinances make provision for those facilities."

5.11.2.2 COUNTY OF SAN BERNARDINO

Countywide Plan/Policy Plan⁸⁹

The Countywide Plan/Policy Plan contains the long-term goals and policies that will guide County decisions, investments, and improvements toward achieving the Countywide Vision. It serves as the County's General Plan for the unincorporated areas and includes policy direction for regional services the County administers in both incorporated and unincorporated areas.

The County recently adopted a Renewable Energy and Conservation Element for inclusion in the San Bernardino County General Plan in August 2017. The element contains goals and policies related to the development of renewable energy sources within the unincorporated regions of the County. The Renewable Energy and Conservation Element include the following relevant goals and policies:

- *Goal RE-2: Renewable Energy Systems.* The County will be home to diverse and innovative renewable energy systems that provide reliable and affordable energy to our unique Valley, Mountain, and Desert regions.
- *Goal RE-3: Community-Oriented Renewable Energy.* Community-oriented renewable energy facilities will be prioritized to complement local values and support a high quality of life in unincorporated communities.
- *Goal RE-4: Environmental Compatibility.* 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.

San Bernardino County Development Code⁹⁰

Chapter 84.29, Renewable Energy Generation Facilities, of the County Development Code is an ordinance that regulates the construction, operation, and decommissioning of renewable energy generation facilities in the County. Specifically, Section 84.29.040 includes the County's development standards for commercial solar energy generation facilities. These development standards include setbacks of energy-generating equipment and mounting structures from the property line; design features to preclude glare on any residential land use zoning district, residential parcel, or public right-of-way as well as night lighting, public safety services impact

⁸⁹ San Bernardino County. 2022. Countywide Plan. Retrieved from: https://countywideplan.com/wp-content/uploads/sites/68/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf.

⁹⁰ San Bernardino County. 2024. Code of Ordinances. Retrieved from: https://codelibrary.amlegal.com/codes/sanbernardino/latest/sanbercncty_ca/0-0-0-146479.

fees, special use permit, and project notices. Additionally, Section 84.29.070 includes the County's decommissioning requirements for all renewable energy generation facilities.

The ordinance also requires that the County make findings for solar renewable energy projects prior to approving such projects. The findings require that prior to approval of a commercial solar facility, it must be determined that the location of the proposed commercial facility is appropriate in relation to the desirability and future development of communities, neighborhoods, and rural residential uses. Additionally, the ordinance requires that the Planning Commission 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 in a city or unincorporated territory, or on state or federal land.

5.11.3 ENVIRONMENTAL EVALUATION

a. Physically divide an established community?

No Impact. The Project site parcel consists of vacant and undeveloped land located in unincorporated San Bernardino County, in zoning district RS-1. The Project site is bounded on the north and east by undeveloped land, on the south by Erwin Ranch Road and developed land, and on the west by Lakewood Drive and two residences. The Project would maintain all existing access routes and no new public roadways or other structural elements that would limit existing circulation patterns or that would have the potential to isolate or create a division between existing communities are proposed. Although a few scattered residences exist within the vicinity of the Project, the Project would not cause a physical division of an established community. Additionally, when the Project is decommissioned, the site would return to existing conditions of open land. Therefore, no impact would occur.

b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the Project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for purpose of avoiding or mitigating an environmental effect?

Less Than Significant Impact. The Project site occupies a parcel that is zoned as RS-1. The RS zoning district provides sites for single-family residential uses, incidental agricultural and recreational uses, and similar and compatible uses. Per the San Bernadino County Development Code, renewable energy facilities are not a permitted use within the RS-1 zoning district.

As such, the Project is requesting a General Plan Amendment and rezone of the parcel to include the parcel in the Rural Living General Plan Land Use Designation and rezone the parcel to RL. San Bernadino County Development Code Section 84.29.020 Applicability and Land Use Zoning Districts lists RL as one of the zoning designations where San Bernadino County allows commercial renewable energy facilities with the approval of a Conditional Use Permit. The rezone of the parcel to the RL zoning district would allow for future development (e.g., housing) at the site when the Project is decommissioned.

The Project is consistent with goals included in the County’s General Plan Renewable Energy and Conservation Element and the Bear Valley Community Action Plan, including prioritizing community-oriented renewable generation to complement local values and support a high quality of life in unincorporated communities. The Project would be owned and operated by BVES and would provide renewable energy and resiliency to the local BVES grid.

For the reasons stated above, the Project would not conflict with any applicable land use plan, policy, or regulation, and impacts would be less than significant.

5.12 MINERAL RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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?				X
b. 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?				X

5.12.1 MINERAL RESOURCES SETTING

Historic gold mining activities related to the Gold Hill Mine did occur within the Project site, as evidenced by existing small-scale infrastructure, such as a ventilation shaft and production shaft. The Phase 1 Environmental Site Assessment Report (Appendix F) indicates that during its active period the mine was considered to have a relatively small production size. The operations at the Gold Hill Mine included both surface and underground workings. In addition, the mine reportedly extends to a maximum depth of approximately 54 feet below ground surface and the ore body extends approximately 10 feet in thickness. The gold bearing host rock most prevalent in this area is quartzite. The Gold Hill Mine is closed and there are no plans for reopening.

The San Bernardino County Mineral Resources Zones Policy map indicates that the proposed Project is not located within an area containing delineated mineral resources.⁹¹

No Mineral Resource Zones have been identified within the Project site, nor has the Project site been mapped or classified with respect to the availability of aggregate resources by the California Department of Conservation (CDOC) or the California Geological Survey Information Warehouse.⁹²

⁹¹ San Bernardino County. 2022. Countywide Plan. Retrieved from: https://countywideplan.sbcounty.gov/wp-content/uploads/sites/125/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf?x23421.

⁹² California Department of Conservation (CDOC). 2023. Mines and Mineral Resources. Retrieved from: <https://maps.conservation.ca.gov/mineralresources/>.



5.12.2 REGULATORY SETTING

5.12.2.1 STATE

State Surface Mining and Reclamation Act of 1975⁹³

The Surface Mining and Reclamation Act of 1975 (SMARA) (PRC §2710 et seq.) was enacted by the California Legislature to address the need for a continuing supply of mineral resources and to prevent or minimize the negative impacts of surface mining to public health, property and the environment. Pursuant to its provisions, the State Mining and Geology Board receives classification information from the State Geologist, and then prioritizes and designates lands containing mineral deposits of regional or statewide significance. Areas which are generally given highest priority for classification are those areas within the state which are subject to urban expansion or other irreversible land uses which would preclude mineral extraction. Mineral lands are mapped according to jurisdictional boundaries (i.e., counties), mapping all mineral commodities at one time in the area using the California Mineral Land Classification System.

5.12.2.2 LOCAL

Countywide Plan/Policy Plan⁹⁴

The following policies have been identified in the Natural Resources Element of the San Bernardino County General Plan and are relevant to this analysis:

- *Goal NR-6 Mineral Resources.* Mineral resource zones that allow extraction industries to continue supporting the regional and national economy while minimizing negative impacts on the public and natural environment.
 - Policy NR-6.1 Mineral Resource areas. We prioritize the conservation of land area with mineral resources by prohibiting or discouraging development of land that would substantially preclude the future development of mining facilities in areas classified as Mineral Resource Zone 2a, 2b, or 3a.
 - Policy NR-6.2 Mining operations and reclamation. We require and monitor mineral extraction activities to ensure that the operation and reclamation of mined lands is consistent with the state SMARA.
 - Policy NR-6.3 Conservation of construction aggregate. We encourage the continued operation of existing mining facilities and streamline the permitting of new mining facilities (consistent with the Policy Plan and other local, state, and federal regulations) to establish aggregate resources that are sufficient to satisfy 50 years of county demand.

⁹³ California Department of Conservation (CDOC). 2024. Surface mining and Reclamation Act (SMARA) Statutes and Regulations. Retrieved from: <https://www.conservation.ca.gov/dmr/lawsandregulations>.

⁹⁴ San Bernardino County. 2022. Countywide Plan. Retrieved from: https://countywideplan.sbcounty.gov/wp-content/uploads/sites/125/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf?x23421.

5.12.3 ENVIRONMENTAL EVALUATION

a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact. There is currently no mining activity on or around the Project site. According to the CDOC, the closest active SMARA designated Mineral Lands Classification is the Smart Ranch Limestone Property, approximately 4 miles northeast of the Project site. Historic gold mining activities related to the Gold Hill Mine did occur within the Project site; however, the Gold Hill Mine is closed and there are no plans for reopening. Due to relative distance from any active mining sites, the Project would not result in the loss of availability of mineral resources that would be of value to the region and the residence of the State. No impact would occur.

b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?

No Impact. The Project site is not delineated as a locally important mineral resource recovery site in the Countywide Plan/Policy Plan. The Project site is also not located in a Mineral Resource Zone classified by the CDOC or the California Geological Survey Information Warehouse. As the Project site does not fall within any mineral resource recovery site boundaries on any local plan, the Project would not result in the loss of availability of a locally important mineral resource recovery site delineated on a general plan, specific plan, or other land use plan; therefore, no impacts would occur.

5.13 NOISE

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. 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?		X		
b. Generation of excessive ground borne vibration or ground borne noise levels?		X		
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?				X

5.13.1 NOISE SETTING

The proposed Project site is zoned as RS-1 along with the eastern, southern, and western surrounding parcels and would be rezoned to RL as part of the Project. There are no residences



directly on the property, but there are scattered nearby residences to 475 feet east, 106 feet south, and 211 feet west of the Project.

5.13.2 REGULATORY SETTING

5.13.2.1 COUNTY OF SAN BERNARDINO

Countywide Plan/Policy Plan⁹⁵

The Hazards Element of the Countywide Plan/Policy Plan contains the following goals and policies applicable to the Project:

- *Goal HZ-2 Human-Generated Hazards.* People and the natural environment protected from exposure to hazardous materials, excessive noise, and other human-generated hazards.
 - 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.

Despite these goals and policies, the Countywide Plan contains no nearby noise sensitive land use types.

San Bernardino County Development Code⁹⁶

Chapter 83.01.080 of the County's Development Code states that RS areas have a noise standard for stationary noise sources of 55 A-weighted decibel (dB[A]) from 7:00am to 10:00pm and a standard of 45 dBA from 10:00pm to 7:00am. Chapter 83.01.080 of the Development Code does not explicitly restrict noise levels during construction or demolition of a project, nor does it call out specific noise standards for the RL zone (though, Open Areas have a noise standard of 65 dBA).

The County's Development Code Section 83.01.090 Vibration states:

- *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.
- *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.

⁹⁵ San Bernardino County. 2022. Countywide Plan. Retrieved from: https://countywideplan.sbcounty.gov/wp-content/uploads/sites/125/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf?x23421.

⁹⁶ San Bernardino County. 2024. Code of Ordinances. Retrieved from: https://codelibrary.amlegal.com/codes/sanbernardino/latest/sanberncity_ca/0-0-0-146479.

- *Exempt Vibrations.* The following sources of vibration shall be exempt from the regulations of this Section.
 - Motor vehicles not under the control of the subject use.
 - Temporary construction, maintenance, repair, or demolition activities between 7:00 a.m. and 7:00 p.m., except Sundays and Federal holidays.

5.13.3 ENVIRONMENTAL EVALUATION

a. **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 with Mitigation Incorporated. The construction equipment utilized would differ from phase to phase but would include a track hoe, skid steer, roller, dump truck and a forklift. A pile driver will also be utilized for an approximate one-month period. The diesel-powered equipment typically generates noise levels of approximately 85 decibel A (dBA) at 50 feet. The pile driver is a louder noise source, generating approximately 100 dBA at 50 feet.

General construction-related noise levels will be lower than pile driving noise levels. The Project site covers a relatively large area, and the noise levels experienced at any residences will vary depending on what areas of the site are being constructed at any given time. It is important to note that all of the equipment listed is not used in all phases of construction. Further, the equipment used generally is not operated continuously, nor is the equipment always operated simultaneously or at full load conditions.

Construction is a temporary activity, and there are no identified regulatory noise limits applicable to construction. Exhaust noise from diesel engines that power the equipment is usually the predominant source of construction equipment noise. Overall, construction activities do have the potential of temporarily increasing ambient noise levels, in particular when pile driving is occurring. Although there are no standards established in the local general plan or noise ordinance, construction related noise could result in temporary impacts. Implementation of MM NOI-1 would reduce those temporary impacts to less than significant levels.

During operations, solar panels themselves do not emit sound; the solar inverters and transformers are the primary component of a solar project that produce sound and only produce sound during the daylight when they are operating. The Project inverters would generate a sound level of 67 dBA at 10 feet,⁹⁷ and Project transformers would emit a sound level of 62 dBA at 3 feet away from sound source. The transformers would be sited far from the parcel boundary, resulting in sound attenuation to noise receptors. Additionally, sound would be obstructed by other panels and the landscaping plan. Sound levels would be reduced to 55 dBA (the daytime noise level limit for residential locations in the County Code) at a distance of 40 feet, and further reduced to 45 dBA (the nighttime noise level limit) at a distance of 125 feet. Implementation of MM NOI-2 would ensure all Project inverters are at least 40 feet from any residences and would reduce potential impacts less than significant

⁹⁷ [Yaskawa Solectria Solar - Leading Commercial PV Inverter Supplier - Yaskawa – Solectria Solar](#)

levels. Additionally, inverters and transformers do not generate noise during nighttime hours. The Project will contain approximately 20 inverters although they will be spread out over the Project site. Thus, the cumulative noise would be negligible. Operational noise levels will be well below the applicable noise level limits. Therefore, the operations of the Project would not generate a permanent increase in ambient noise levels in excess of standards established in the Countywide Plan or noise ordinance in the vicinity of the Project.

Mitigation Measures

MM NOI-1: Construction activity limits

- Construction activities (excluding activities that would result in a safety concern to the public or construction workers) shall be limited to between the hours of 7:00 a.m. and 7:00 p.m., Monday through Saturday, where possible. Construction activities are prohibited on Sundays and legal holidays. In the event concrete pouring is necessitated during nighttime hours due to ambient air temperatures that are too hot to cure the concrete during daytime hours, appropriate notice will be provided to nearby occupants by the Applicant.
- Construction equipment shall be properly maintained and equipped with exhaust mufflers and engine shrouds in accordance with manufacturers' recommendations.

MM NOI-2: Inverter placement

- All Project inverters shall be at least 40 feet from any residences.

b. Generation of excessive ground borne vibration or ground borne noise levels?

Less than Significant Impact with Mitigation. Project construction would be completed in six work stages. Pile driving, which would take place in stage 2 and is expected to last 1 month to 2 months, would generate the highest vibration level. Some ground borne vibration is expected during general construction from vehicles and grading. Ground borne vibration associated with temporary construction activity is exempt from the limits in the County Code, provided that it occurs between 7:00 a.m. and 7:00 p.m., and not on Sundays or Federal holidays. Inverters and solar arrays do not generate ground borne vibration during operations. No vibration impacts would occur during operations. Therefore, implementation of MM NOI-1 and MM NOI-2 would reduce potential impacts to less than significant levels.

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?

No Impact. The Project site is not located within the vicinity of a private airstrip or an airport land use plan, or an area where such a plan has not been adopted, or within 2 miles of a public airport or public use airport. The closest airport is Big Bear Airport located approximately 2.8 miles northwest of the Project site. The Project would not expose people to excessive airport-related noise levels. Therefore, no impact would occur.

5.14 POPULATION AND HOUSING

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?				X
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?			X	

5.14.1 POPULATION AND HOUSING SETTING

There are no residences or buildings on the Project site. The site is surrounded by properties in the RS-1 zoning district to the east, south, and west, and would directly border two residences to the southwest. The property to the north is in the RC zoning district and consists of open space. The Project site would be rezoned to RL. Building housing is an allowable use in the RL zoning district. Therefore, the rezone for the Project would not eliminate the option of building housing after it is decommissioned.

According to the 2020 U.S. Census Bureau report, the population of Big Bear Lake city was 5,046, with a 0.5 percent increase from 2010.⁹⁸ In 2020, the U.S. Census Bureau reported a population of 2,181,654 within San Bernardino County, with a 7 percent increase from 2010.⁹⁹

5.14.2 REGULATORY SETTING

5.14.2.1 COUNTY OF SAN BERNARDINO

Countywide Plan/Policy Plan¹⁰⁰

The Land Use Element and the Housing Element of the Countywide Plan/Policy Plan contain considerations related to population and housing and infrastructure that supports local neighborhoods.

Land Use Element

Land Use Zone RS-1 is not included in the list of zoning districts that allow renewable energy generation facilities. The RS-1 zoning district provides sites for single-family residential uses, incidental agricultural and recreational uses, and similar and compatible uses. As previously discussed, to develop a solar PV facility at the proposed Project site, a General Plan Amendment and rezone would need to be approved by the County Board of Supervisors to change the Project

⁹⁸ U.S. Census Bureau. 2020. Big Bear Lake city, California 2020 Census Report. Retrieved from: https://data.census.gov/profile/Big_Bear_Lake_city,_California?g=160XX00US0606434.

⁹⁹ U.S. Census Bureau. 2020. San Bernardino County, California 2020 Census Report. Retrieved from: <https://data.census.gov/all?q=San%20Bernardino%20County,%20California>.

¹⁰⁰ San Bernardino County. 2022. Countywide Plan. Retrieved from: https://countywideplan.com/wp-content/uploads/sites/68/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf.

site's zoning district to one that permits the development of renewable energy generation facilities (e.g., RL).

Housing Element

The Housing Element contains the following goals and policies:

- *Goal H-1. Housing Production and Safety.* A broad range of housing types in sufficient quantity, location, and affordability levels that meet the lifestyle needs of current and future residents, including those with special needs.
 - Policy H-1.1. Appropriate range of housing. We encourage the production and location of a range of housing types, densities, and affordability levels in a manner that recognizes the unique characteristics, issues, and opportunities for each community.
 - Policy H-1.3. Income-restricted multifamily. Where infrastructure and public services are available, we encourage the production of affordable multifamily housing by providing assistance and incentives for projects that include new affordable units reserved for lower income, moderate income, or special needs households.
- *Goal H-2. Development Regulations.* An efficient administrative process that recognizes the need for efficient and timely review of residential projects while also ensuring and valuing the need for quality design, environmental review, and planning.
 - Policy H-2.3. Flexible standards and incentives. We maintain development incentives and allow flexibility in the application of residential and mixed-use development standards to gain benefits such as exceptional design quality, economic advantages, sustainability, or other benefits that would not otherwise be realized.
 - Policy H-2.5. Critical infrastructure. We ensure that the efficient provision of critical infrastructure accompanies residential development and the building of complete communities, and ensure that the costs are fairly apportioned to the development community.
- *Goal H-3. Housing and Neighborhood Quality.* Neighborhoods that protect the health, safety, and welfare of the community, and enhance public and private efforts in maintaining, reinvesting in, and upgrading the existing housing stock.
 - Policy H-3.1. Public services, amenities, and safety. We support the provision of adequate and fiscally sustainable public services, infrastructure, open space, non-motorized transportation routes, and public safety for neighborhoods in the unincorporated area.

5.14.3 ENVIRONMENTAL EVALUATION

- a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

No Impact. The Project would involve a temporary construction workforce of about 30-50 workers during the peak period of construction. These construction workers are expected to be drawn from the existing labor pool in the region. For construction management staff and specialized workers who may reside outside the area, there is an ample supply of temporary lodging in nearby Big Bear Lake. Therefore, construction of the Project would not directly induce population growth within the area.

The Project would be unstaffed and would not include a residential component. Operational and maintenance staff would likely originate from the Big Bear Area or within San Bernardino County.

The Project would not result in the extension of roads or urban utilities (e.g., water and sewer) to lands not currently served by urban infrastructure, and thus would not induce unplanned urban development into the rural area of the County. Therefore, the Project would not induce indirect growth through extension of urban infrastructure.

b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

Less than Significant Impact. There is no existing housing on the Project site. There are approximately five residences located to the southwest of the Project site. None of these residences would be removed or relocated as a result of construction or operation of this Project. The Project would involve the development of a solar facility and rezone of the Project area to RL, allowing for housing to be built after the decommissioning of the Project. Moreover, the development of a community-oriented renewable energy (i.e., "CORE") solar PV facility would add local, energy reliability and resiliency for the local community and future development in the greater Bear Valley area.

Therefore, the Project would result in less than significant impacts to current people or housing, necessitating the need for construction or replacement housing.

5.15 PUBLIC SERVICES

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a. 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 these public services:				
I. fire protection?			X	
II. police protection?			X	
III. schools?				X



IV. parks?				X
V. other public facilities?				X

5.15.1 PUBLIC SERVICES SETTING

Fire Protection Services

Fire protection for the Project site is provided locally by Big Bear Fire Department (BBFD) and regionally by the San Bernardino County Fire Protection District (SBCFPD). BBFD operates six fire departments, including the headquarters office at 41090 Big Bear Boulevard.

BBFD Station 283 is approximately 2.1 miles west of the Project site at 550 Maple Lane in Big Bear Lake. Response time from the nearest station would be approximately 6 to 11 minutes. The second nearest fire station is Big Bear Station 282 at 301 West Big Bear Boulevard, 3.5 miles northwest of the Project site. Response time would range from 8 to 13 minutes.

BBFD’s other responsibilities include review of building plans for compliance with fire safety requirements, emergency medical response, and implementation of the County’s emergency management plan. Each station conducts assessments of proposed industrial and business facilities to assure compliance with safety and design capacity requirements.

The Project falls within a “very high” zone within the California Department of Forestry and Fire Protection (CALFIRE) Fire Hazard Severity Zones in State Responsibility Area, last updated 29 September 2023.¹⁰¹

Law Enforcement Services

Law enforcement services in the Project site are provided by the San Bernardino County Sheriff’s Department. The nearest sheriff’s department station is in Big Bear Lake, approximately 6 miles west of the Project site at 477 Summit Boulevard. The San Bernardino County Sheriff’s Department has over 4,200 employees, including deputies and civilian employees. The department serves over 2.1 million residents and has 15 patrol stations. The information isn’t published, but based on general police response time standards and the County’s large geographical area, it is likely to be around 10 to 15 minutes for non-emergency calls, with faster response times for high-priority emergency situations.

Other Public Services and Facilities

There is a community park containing a playground, tennis courts, basketball courts, a dog park, and a large parking lot approximately .2 miles southwest of the project site. Other public services provided in the Project site include schools, parks and recreation, libraries, and social services, which are located in more urbanized areas of the City of Big Bear.

¹⁰¹ California Department of Forestry & Fire Protection. 2024. Fire Hazard Severity Zones. Retrieved from: <https://osfm.fire.ca.gov/what-we-do/community-wildfire-preparedness-and-mitigation/fire-hazard-severity-zones>.

5.15.2 REGULATORY SETTING

5.15.2.1 COUNTY OF SAN BERNARDINO

Countywide Plan/Policy Plan¹⁰²

The Countywide Plan/Policy Plan includes the following goals, objectives and policies related to public services that are relevant to the Project:

- *Goal PP-1: Law Enforcement.* Effective crime prevention and law enforcement that leads to a real and perceived sense of public safety for residents, visitors, and businesses.
 - Policy PP-1.1. Law enforcement services. The Sheriff's Department provides law enforcement services for unincorporated areas and distributes resources geographically while balancing levels of service and financial resources with continuously changing needs for personal and property protection.
 - Policy PP-1.6. Agency partnerships. The Sheriff's Department partners with other local, state, and federal law enforcement agencies and private security providers to enhance law enforcement service.
 - Policy PP-1.7. Community partnerships. The Sheriff's Department establishes and maintains partnerships to help identify public safety needs, strengthen community confidence, and improve service to our communities.
 - Policy PP-1.8. Public awareness. The Sheriff's Department engages the media and our communities to improve the public's perception and awareness of personal and property protection and safety.
- *Goal PP-3: Fire and Emergency Medical.* Reduced risk of death, injury, property damage, and economic loss due to fires and other natural disasters, accidents, and medical incidents through prompt and capable emergency response.
 - Policy PP-3.1. Fire and emergency medical services. We maintain a sufficient number and distribution of fire stations, up-to-date equipment, and fully-trained staff to respond effectively to emergencies.
 - Policy PP-3.2. Fire District. We support the expansion of the Fire District to serve additional incorporated jurisdictions, and the use of special funding and financing mechanisms to augment Fire District revenues to improve service and coverage.
 - 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.
 - Policy PP-3.6. Concurrent protection services. We require that fire department facilities, equipment, and staffing required to serve new development are operating prior to, or in conjunction with new development.

¹⁰² San Bernardino County. 2022. Countywide Plan. Retrieved from: https://countywideplan.com/wp-content/uploads/sites/68/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf.

- Policy PP-3.7. Fire safe design. We require new development in the Fire Safety Overlay to comply with additional site design, building, and access standards to provide enhanced resistance to fire hazards.
- Policy PP-3.8. Fire-adapted communities. We inform and prepare our residents and businesses to collaboratively plan and take action to more safely coexist with the risk of wildfires.
- Policy PP-3.9. Street and premise signage. We require adequate street signage and premise identification be provided and maintained to ensure emergency services can quickly and efficiently respond.
- Policy PP-3.12. Fire protection and emergency medical resource allocation. We use fire and emergency services data analysis and professional expertise to allocate resources, reduce fire risks, and improve emergency response.

5.15.3 ENVIRONMENTAL EVALUATION

a. 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 these public services:

I. Fire protection?

Less than Significant Impact. Fire protection services for the Project site are provided locally by the BBFD and regionally by the SBCFPD. Wildfire protection services are further discussed in Section 5.20, Wildfire.

The Project would be designed and operated in compliance with applicable federal, state, and local worker safety and fire protection codes and regulations to minimize the potential for occurrence of fire. The Project would not result in development that would generate new population in the area that would potentially increase demand for fire protection, as no residential uses are proposed.

Project construction, operation, and maintenance could introduce potential ignition sources such as distribution lines, maintenance vehicles, and gas- or electric-powered machinery used for maintenance of the facilities. However, the potential for fire risk from these sources is considered low. The Project would be designed and constructed in conformance with BBFD and SBCFPD requirements (e.g., as conditions of approval) and the National Fire Protection Association Code.

In addition, the Applicant would be required to pay Public Safety Services Impact Fees of \$157 per acre annually in conformance with County Development Code Section 84.29.040(d) based on acreage to help offset any potential increase in fire protection services.

With appropriate construction and maintenance techniques, and required fees, the Project would not result in significant service ratios, response times, or other performance objectives for fire protection services. Therefore, potential impacts to fire protection public services would be less than significant.

II. Police protection?

Less than Significant Impact. The Project area is served by the San Bernardino County Sheriff's Department. The Project would not result in development that would generate a new population that could potentially increase demand for police protection, as no residential uses are proposed. Project construction and operation activities would not substantially increase demand for police protection services in the area. The facility would be secured with landscaped fencing and access gates at entry points. It is not anticipated that the Project would result in activity that would warrant additional police protection.

As mentioned above, the Applicant would be required to pay Public Safety Services Impact Fees of \$157 per acre annually in conformance with County Development Code Section 84.29.040(d) based on acreage. Alternatively, the developer of an approved commercial solar energy generation facility shall pay an annual public services impact fee on a per acre basis based on a Project-specific study of the Project's public safety services impacts, which study shall be paid at the developer's expense, using a consultant approved by the County.

With implementation of security measures and fees, the proposed Project would not result in substantial changes to acceptable service ratios, response times, or other performance objectives for police protection services. Therefore, potential impacts to police protection public services would be less than significant.

III. Schools?

No Impact. The nearest schools to the Project site are Chautauqua High School, Big Bear High School, Garfield High School, and Baldwin Lane Elementary School, all located approximately 2 miles west.

As previously discussed, construction workers for the Project will primarily be sourced from San Bernardino County and surrounding counties within California. It is not anticipated that commuting construction workers would permanently relocate to the local area, resulting in a potential increase in school-age children. Therefore, there would not be a need for additional school services. The proposed Project would not result in potential impacts to maintain acceptable service ratios, response times, or other performance objectives for schools.

IV. Parks?

No Impact. Project construction may result in a temporary increase in construction workers in the area; however, construction workers would either be from the area already and/or would not be anticipated to permanently relocate locally. The Project is not anticipated to generate sufficient population growth to increase demand for park facilities or other recreational services in the area. Therefore, the proposed Project would not result in the need for new or altered recreational facilities.

V. Other public facilities?

No Impact. The Project is not anticipated to cause permanent or temporary population increases in the area. As such, the Project would not increase demand for other public

facilities (e.g., libraries). Therefore, the proposed Project would not result in potential impacts to public facilities.

5.16 RECREATION

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b. Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X

5.16.1 RECREATION SETTING

Currently, there are no official recreational uses tied to the Project site. It is likely the current open space is used for hiking or other open space recreational activities. There is also a community park containing a playground, tennis courts, basketball courts, a dog park, and a large parking lot approximately 0.2 miles southwest of the Project site.

5.16.2 REGULATORY SETTING

5.16.2.1 COUNTY OF SAN BERNARDINO

Countywide Plan/Policy Plan¹⁰³

The Natural Resources Element of the Countywide Plan/Policy contains one goal and several policies applicable to recreation and open space.

Natural Resources Element

- *Goal NR-3: Open Space, Parks, and Recreation.* A system of well-planned and maintained parks, trails, and open space that provides recreation opportunities for residents, attracts visitors from across the region and around the country, and preserves the natural environment.
 - Policy NR-3.1. Open space preservation. We regulate land use and coordinate with public and nongovernmental agencies to preserve open space areas that protect natural resources, function as a buffer against natural hazards or between land uses, serve as a recreation or tourist destination, or are central to the identity of an unincorporated community.

¹⁰³ San Bernardino County. 2022. Countywide Plan. Retrieved from: https://countywideplan.com/wp-content/uploads/sites/68/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf.



- Policy NR-3.3. Management of designated areas. We coordinate with public and nongovernmental agencies to sustainably manage and conserve land within or adjacent to locally-, state-, or federally designated open space or resource conservation areas.
- Policy NR-3.4. Land exchange. We coordinate with state and federal agencies to exchange publicly owned lands in order to provide additional areas for open space, recreation, and resource protection. We also request the right of first refusal on publicly owned lands made available for purchase to the public.
- Policy NR-3.5. Private conservation efforts. We support nongovernmental organizations and private entities who purchase, own, maintain, and expand areas for conservation and preservation. We also support the voluntary transition of privately held lands within a larger boundary designated by the state or federal government for open space and resource conservation to public ownership.
- Policy NR-3.8. Regional trail system. We coordinate with incorporated jurisdictions, state and federal agencies, and other regional and not-for-profit entities to maintain and improve a regional trail system. We prioritize the maintenance and improvement of the Santa Ana River Trail, followed by the creation of trails in unincorporated areas that connect to existing trails in incorporated areas and to state- and federally maintained trails.
- Policy NR-3.9. Local parks, trails, and recreation. We support the provision of local and community parks, trails, and recreational programs and facilities in unincorporated areas when a locally approved funding and financing mechanism is established to pay for acquisition, construction, maintenance, and operations. We encourage unincorporated communities to apply for funding and cooperate with them in their funding applications for local trails that are identified in a non-motorized transportation plan that is accepted or adopted by the County. We also encourage, where feasible, local trails to be separated from vehicular traffic to improve the safety of trail users.

5.16.3 ENVIRONMENTAL EVALUATION

a. Would the Project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. No residential uses are proposed as part of this Project. As previously mentioned, population and housing growth would not result from the Project operations or construction; therefore, an increased use of existing neighborhood and regional parks or other recreational facilities is not anticipated.

b. Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. The Project would not include any recreational facilities as the Project site would be private property owned and operated by BVES. The Project would also not require any new construction or expansion of recreational facilities as the Project does not eliminate any current recreational facilities.

5.17 TRANSPORTATION

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?			X	
b. Conflict with or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?				X
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment?)			X	
d. Result in adequate emergency access?			X	

5.17.1 TRANSPORTATION SETTING

State Highway 38 is the nearest highway to the Project and is located approximately 0.5 mile to the southwest. State Highway 38 is called Greenspot Boulevard at the point closest to the Project. State Highway 18 is located approximately 1.5 miles to the northwest of the Project at the nearest point. State Highway 18 serves as the primary route from Big Bear to communities in the northern portion of San Bernardino County including Barstow and Lucerne Valley and provides access to urban areas such as the City of San Bernardino to the west. The Project is located at the intersection of Lakeview Drive and Erwin Ranch Road, with the entrance being located on Erwin Ranch Road, an unpaved, two-way road, which will serve as the primary access drive to the Project site. Lakewood Drive and Erwin Ranch Road are rural roadways and traffic is generally limited to local residents.

Big Bear Mountain Transit Red Line has the nearest transit stop, located at the intersection of State Lane and Woodland Drive, approximately 0.5 miles south of the Project site. The closest airport to the Project is Big Bear Airport, located approximately 2.5 miles to the northwest of the Project site. San Bernardino International Airport is located approximately 24 miles to the southwest of the Project, located within the greater San Bernardino area. The nearest railroad is BNSF Railway a large commercial railway, approximately 9.4 miles to the northwest. It runs east to west and terminates about 7.2 miles north of Big Bear City.

5.17.2 REGULATORY SETTING

5.17.2.1 STATE OF CALIFORNIA

SB 375 (SB 375) Sustainable Communities and Climate Protection Act¹⁰⁴

¹⁰⁴ Southern California Association of Governments. 2009. SB 375 Factsheet. Retrieved from: [https://scag.ca.gov/sites/main/files/file-attachments/scag_sb375_factsheet.pdf?1605558391#:~:text=SB%20375%20\(Steinberg\)%20is%20California,from%20cars%20and%20light%20trucks.](https://scag.ca.gov/sites/main/files/file-attachments/scag_sb375_factsheet.pdf?1605558391#:~:text=SB%20375%20(Steinberg)%20is%20California,from%20cars%20and%20light%20trucks.)



Enacted in 2008, the Sustainable Communities and Climate Protection Act leverages the objectives in the California Global Warming Solutions Act. SB 375 aims to reduce GHG emissions through the land use and transportation planning to reduce vehicle miles traveled (VMT). It sets emissions targets for each of the State's metropolitan planning organizations, which are required to establish Sustainable Communities Strategies in order to achieve the emissions targets set by the Act.

SB 743 (SB 743)¹⁰⁵

SB 735 was enacted in 2013, reforming the way that transportation-induced emissions are evaluated under the CEQA. This reform involves eliminating the traditional use of the level of service (LOS) metric in determining vehicle emissions, which evaluated project impacts based on congestion of intersections and nearby highways that the Project may cause. SB 743 updated the guidelines to implement the use of VMT instead of LOS to quantify the impact that a project may have on the surrounding roads.

5.17.2.2 COUNTY OF SAN BERNARDINO

Countywide Plan/Policy Plan¹⁰⁶

The Transportation and Mobility Element of the San Bernardino County Countywide Plan/Policy Plan contains the following goals and policies applicable to transportation:

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-1.1 Roadway Level of Service. We require our roadways to be built to achieve the following minimum level of service standards during peak commute periods (typically 7:00-9:00 AM and 4:00-6:00 PM on a weekday):
 - LOS D in the Mountain Region.
 - Policy TM-1.8 Emergency access. When considering new roadway improvement proposals for the Capital Improvements Program or Regional Transportation Plan 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.
- *Goal TM-3 Vehicle Miles Traveled.* A pattern of development and transportation system that minimizes VMT.
- *Goal TM-5 Goods Movement.* A road, rail, and air transportation system that supports the logistics industry and minimizes congestion in unincorporated areas.

¹⁰⁵ California Governor's Office of Land Use and Climate Innovation. 2024. Transportation Impacts (SB 743). Retrieved from: <https://lci.ca.gov/ceqa/sb-743/>.

¹⁰⁶ San Bernardino County. 2022. Countywide Plan. Retrieved from: https://countywideplan.com/wp-content/uploads/sites/68/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf.

- Policy TM-5.6 Unincorporated truck routes. We establish local truck routes in unincorporated areas to efficiently funnel truck traffic to freeways while minimizing impacts on residents. We establish routes where trucks are prohibited in unincorporated environmental justice focus areas and to avoid overlaps or conflicts with safe routes to schools.

San Bernardino County Transportation Impact Study Guidelines¹⁰⁷

The guidelines set forth in this document, released in July of 2019, outlines the evaluation process required for projects in San Bernadino County. It addressed the implementation of SB 743 and the requirement of completing a VMT evaluation but continues to stress the equal importance of the vehicle LOS metric, as outlined in the Countywide Plan. The Guidelines stipulate that "Any study roadway segment in the Valley or Mountain regions that is operating at an LOS D or better without project traffic in which the addition of project traffic causes the segment to degrade to an LOS E or F should identify improvements to achieve LOS D."

The guidelines further elaborated on the CEQA requirements outlined in SB 743. The guidelines state that projects that "serve the local community and have the potential to reduce VMT should not be required to complete a VMT assessment," one of which is relevant to the Project:

- Projects located within a low VMT generating area as determined by the analyst (e.g. development in efficient areas of the County will reduce VMT per person/employee and is beneficial to the region).

5.17.3 ENVIRONMENTAL EVALUATION

a. Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?

Less than Significant Impact. During the construction period, there will be a temporary increase in Project-related traffic on Erwin Ranch Road, Lakewood Drive and State Highway 18. This increase in traffic would take place as the workers both arrive at and depart from the Project site at peak commute hours and would also occur due to equipment deliveries. The temporary impact of construction-related traffic will last for 6 to 9 months. There are 35 to 50 construction workers anticipated to be frequenting the area each day during this period.

Based on the policies listed in the Countywide Plan, the Project must meet the threshold for LOS D. The construction duration of 6 to 9 months and the average of 35 to 50 workers traveled to and from the Project site per day is not expected to have a significant effect on LOS. As this is an unmanned facility during operations, there will very limited trips to the Project site once built, aside from irregular maintenance activities and inspections.

The significant distance between the Project and the nearest transit stops, airport, bikeway routes, and pedestrian routes minimizes the impacts that a minor and temporary increase in traffic flow on Erwin Ranch Road or nearby roadways may have. The Project will not impact bicycle facilities nor pedestrian routes as the access drive adjacent to the Project is not located

¹⁰⁷ San Bernardino County. 2019. Transportation Impact Study Guidelines. Retrieved from: <https://www.sbcounty.gov/uploads/DPW/docs/Traffic-Study-Guidelines.pdf>.

along bicycle, pedestrian routes, or the nearest transit stop. Therefore, potential impacts to circulation system would be less than significant.

b. Conflict with or be inconsistent with CEQA Guidelines § 15064.3, subdivision (b)?

No Impact. The CEQA Guidelines as established in SB 743 shifts the transportation metric from LOS to VMT. As outlined in the San Bernardino County Transportation Impact Study Guidelines, certain projects that “serve the local community and have potential to reduce VMT” are exempt from a full quantitative VMT Analysis. The exemption includes “Projects generating less than 110 daily vehicle trips”. The Project would be well under this threshold, producing a conservative estimate (i.e., worst-case scenario) of 40 daily vehicle trips from on-site workers, inspectors, and delivery crews during construction, with most days having even fewer. During operations, approximately two employees are expected to visit the site approximately one day per quarter for routine maintenance. In addition to the Project being exempt from VMT analysis as stipulated in the County Transportation Impact Study Guidelines, the Project would generate very limited trips during construction and operation, and therefore limited VMT. The Project is compliant with CEQA Guidelines § 15064.3, subdivision (b). Therefore, no impact would occur.

c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment?)

Less Than Significant Impact. The most notable potential hazard would be the proposed access point off of Erwin Ranch Road. The access drive is designed according to all applicable local, state, and federal standards. The access drive is located along Erwin Ranch Road, which is an infrequently traveled rural roadway with very limited traffic and related hazards. The access drive would be visible from Erwin Ranch Road and vehicles traveling along Erwin Ranch Road would have ample ability to see vehicles entering/exiting. Similarly, vehicles exiting the access drive would have clear visibility of vehicles traveling on Erwin Ranch Road. The Project would not introduce any incompatible uses to nearby roadways. Therefore, the Project will not substantially increase hazards due to a geometric design feature (e.g. sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Therefore, the Project will have a less than significant impact.

d. Result in adequate emergency access?

Less Than Significant Impact. The construction traffic from the Project would be contained to weekdays and Saturdays, and will be temporary in duration, lasting approximately 6 to 9 months. Peak construction is expected to involve approximately 35 to 50 workers along with equipment and construction deliveries. Additional traffic congestion related to the Project is expected to be minimal and would not impede emergency access.

The Project will be subject to traffic control measures as stipulated in the Construction Management Plan, further reducing any obstruction to emergency access. Although the site is located along Erwin Ranch Road, an unpaved, two-lane road, where vehicles will regularly be driving slower, the Project is not expected to significantly impact the flow of traffic to a point that obstructs emergency access significantly, and adequate emergency access within the Project site would be maintained via the gravel access drive within the site. Thus, impacts related to emergency access would be less than significant.

5.18 TRIBAL CULTURAL RESOURCES

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 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 defined in Public Resources Code section 5020.1(k)?		X		
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 § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?		X		

5.18.1 TRIBAL CULTURAL RESOURCES SETTING

This tribal cultural resources setting and impact analysis is based on the results of the Cultural Resources Assessment prepared by ERM in 2024 (Appendix E), as well as information provided by the Yahaaviatam of San Manuel Nation, the Morongo Band of Mission Indians, and the Twenty-Nine Palms Band of Mission Indians (collectively referred to as Consulting Tribes) during the government-to-government tribal consultation under AB 52.

Based on the results of this investigation, no previously recorded cultural resources have been recorded in the Project site. However, seven archaeological sites, six of which are associated with the Gold Hill Mine District, are located within a 0.25-mile radius of the Project site. The seventh archaeological site consists of one pre-contact isolate. These archaeological sites are not eligible for listing in the CRHR or NRHP. The overall condition of the site is poor to fair in terms of the preservation potential of intact archaeological or Tribal cultural resources, and the site has been subjected to severe disturbances related to the demolition of structures and removal of equipment after the mining activities ceased, as well as erosion and a partial collapse of the hillside below the

mining shaft. Modern trash was also observed scattered throughout the area and mixed in with the historical refuse.

According to the Native American Heritage Commission, the results of the SLF search were positive and provided a consultation list of Tribes culturally affiliated with the Project site. The list included contact information to nine individuals, representing five Tribal organizations, with only the Consulting Tribes (listed above) responding to the County's request for AB 52 consultation. The Consulting Tribes noted that the Project is within the Serrano ancestral territory and within the area of three named places of cultural significance, with several precontact sites within the Project site's vicinity. Thus, the Project site may contain unknown Tribal cultural resources and holds cultural significance to the Consulting Tribes.

5.18.2 REGULATORY SETTING

5.18.2.1 FEDERAL

National Historic Preservation Act¹⁰⁸

The NHPA establishes a partnership between federal agencies and state, tribal, and local governments. Specifically, Section 106 of the NHPA requires federal agencies to assess the potential effects of their actions or undertakings on historic properties and aims to identify historic properties potentially affected by such actions, including tribal cultural resources. Section 106 requires such undertakings to assess their effects and to implement avoidance, minimization, or mitigation measures to reduce adverse effects.

5.18.2.2 STATE OF CALIFORNIA

Assembly Bill 52¹⁰⁹

AB 52 provides protections for tribal cultural resources. As of July 1, 2015, all lead agencies approving projects under CEQA are required, if formally requested by a culturally affiliated California Native American Tribe, to consult with such tribe regarding the impacts of a project on tribal cultural resources prior to the release of any negative declaration, mitigated negative declaration, or a notice of preparation for an EIR.

PRC, Section 21074 and 21084.3

Under PRC Section 21074, tribal cultural resources include site features, places, cultural landscapes, sacred places, or objects that are of cultural value to a tribe that are eligible or listed on the CRHR or a local historic register or that the lead agency has determined to be a significant tribal cultural resource.

Tribal consultation is to continue until mitigation measures are agreed to, unless the tribe or the lead agency concludes in good faith that an agreement cannot be reached. In the case of agreement, the lead agency is required to include the mitigation measures in the environmental

¹⁰⁸ State of California, Legislative Council Bureau. 1992. California Register of Historic Resources. Retrieved from: https://ohp.parks.ca.gov/?page_id=21238.

¹⁰⁹ California Legislative Information. 2014. AB-52 Native Americans: California Environmental Quality Act. Retrieved from: https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB52.

document along with the related Mitigation Monitoring and Reporting Program (see PRC Section 21084.3). If no agreement is reached, the lead agency must still impose all feasible measures necessary for a project to avoid or minimize significant adverse impacts on tribal cultural resources (PRC Section 21084.3).

5.18.3 ENVIRONMENTAL EVALUATION

a. Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code § 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 defined in Public Resources Code section 5020.1(k)?

Less Than Significant Impact with Mitigation. Based on the results of the Cultural Resources Assessment, one prehistoric archaeological resource, a precontact isolate, was recorded within a 0.25-mile buffer around the Project site. Although the eligibility status of the isolate is unknown, it is not eligible for CRHR or local register since it does not meet the significance criteria.

No additional prehistoric archaeological resources were discovered within the Project site during the survey. The Project site is located within the Serrano ancestral territory and within the area of three named places of cultural significance, with several precontact sites within the Project site's vicinity. Although the Project site has cultural significance to the Consulting Tribes, the Project site is unlikely to yield new, previously unidentified Tribal cultural resources that would be eligible for listing in the CRHR or local register based on the level of site disturbance from previous historic mining activities, absence of prehistoric resources, regular flooding of portions of the site, and grazing use of the Project site. If unanticipated discovery of Tribal cultural resources would occur, potential impacts would be mitigated through the implementation of mitigation measure CR 1, CR 2, and CR 3 (noted above in Section 5.5.3). Therefore, the potential for adverse effects to Tribal cultural resources with eligibility to be listed in the CRHR or local register would be less than significant with mitigation.

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 § 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code § 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less Than Significant Impact with Mitigation. Although no Tribal cultural resources were identified within the bounds of the Project site during the cultural resources assessment, the results of the SLF search were positive and the Consulting Tribes note that the Project site contains cultural significance. Implementation of the following mitigation

measures would reduce potential impacts to Tribal cultural resources to a less-than-significant level.

MM TR 1: Tribal Monitoring

- Due to the heightened cultural sensitivity of the Project site, a Tribal monitor authorized to represent the Consulting Tribes shall be present during all ground-disturbing construction activities in native soil. Monitoring activities shall be conducted in a manner that protects Tribal cultural resources as outlined in the approved CRMTP and complies with applicable construction safety protocols. The scheduling and implementation of monitoring shall be determined collaboratively by the Consulting Tribes and the Project Applicant (or its authorized representative) to ensure appropriate monitoring coverage and responsiveness. The Tribal monitor shall have the authority to recommend halting or redirecting construction if a potentially significant resource is encountered, pending evaluation and treatment in accordance with the approved CRMTP. Monitoring activities shall be documented using a standardized monitoring form, completed at the end of each workday, and incorporated into the final cultural resources technical report

MM TR 2: Treatment of Cultural Resources During Project Implementation

- If a pre-contact cultural resource is discovered during Project implementation, ground-disturbing activities shall be suspended 60 feet around the resource(s), and an Environmentally Sensitive Area (ESA) physical demarcation/barrier be established.

The significance of the resource shall be assessed collaboratively by the Consulting Tribes and the Project Archaeologist, in consultation with the Lead Agency, and in accordance with the procedures outlined in the approved CRMTP.

Avoidance of resources determined significant is preferred. If avoidance is not feasible, treatment measures shall be implemented in accordance with the CRMTP and applicable CEQA regulations, including PRC §21083.2(i). All removal, analysis, reburial, or curation of cultural materials shall follow the protocols established in the CRMTP and curation guidelines established by the California Office of Historic Preservation (OHP).

Final documentation, including evaluation results and treatment outcomes, shall be submitted to the Lead Agency, Consulting Tribes, and the appropriate CHRIS Information Center, as specified in the CRMTP.

MM TR 3: Inadvertent Discoveries of Human Remains

- If human remains are encountered during any phase of ground-disturbing activities, all work in the immediate vicinity (within a 100-foot buffer of the find) shall cease, and the County Coroner shall be notified immediately, in accordance with California Health and Safety Code §7050.5. No further disturbance shall occur until the Coroner has made a determination regarding the nature of the remains, which must occur within two working days of notification.

If the Coroner determines that the remains are or may be Native American, the Native American Heritage Commission (NAHC) shall be notified within 24 hours, as required by Public Resources Code §5097.98. The NAHC will identify the Most Likely Descendant (MLD), who shall be granted access to the site and allowed 48 hours to make recommendations regarding the treatment and disposition of the remains, in consultation with the County and the Project Archaeologist.

All activities in the vicinity of the discovery shall remain suspended until the remains have been appropriately treated and the lead agency has authorized the resumption of work.

5.19 UTILITIES AND SERVICE SYSTEM

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment of storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?				X
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c. 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?				X
d. 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?			X	
e. Comply with federal, state, and local statutes related to solid waste?				X

5.19.1 UTILITIES AND SERVICE SYSTEM SETTING

No public utilities currently service the Project site. The Project site is within the service area of Big Bear City Community Services District (CSD)¹¹⁰. The region does not import any of its water, and therefore have water conservations in practice to sustain the supply. In terms of wastewater collection and treatment, there is a sewer line along Erwin Ranch Road, also managed by CSD.

¹¹⁰ Big Bear City Community Services District (CSD). 2024. Bear Valley Basin Boundary Map. Retrieved from: <https://www.bbcsd.org/index.php>.



The CSD also provides solid waste services to the region. For additional solid waste, there is a landfill approximately 20 miles from the Project site, Lander's Landfill,¹¹¹ that accepts construction debris, among many other types of solid waste. As for stormwater runoff, there are no existing stormwater drainage facilities on the Project site. Additionally, the Project site is relatively flat, with about a 0.1 percent grade draining to the north of the parcel at the base of the hill to the north of the property. BVES provides electric services to the greater Bear Valley area. The limits of the service area include Big Bear Lake, Baldwin Lake, Erwin Lake, and Lake Williams, providing service to over 23,000 customers throughout the greater area. Southwest Gas¹¹² is the provider of natural gas services in the greater Bear Valley area.

5.19.2 REGULATORY SETTING

5.19.2.1 FEDERAL

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) was enacted in 1976 to manage the disposal of solid waste in order to ensure health and safety. The RCRA gives authority to the states in developing a waste management system up to federal standards. It addresses both hazardous and non-hazardous wastes, including recycling and waste reduction. Compliance with this act is enforced by both the USEPA and state agencies, and the act grants the ability to enforce penalties for lack of compliance.

5.19.2.2 STATE OF CALIFORNIA

Sustainable Groundwater Management Act

The Sustainable Groundwater Management Act was enacted in 2014 targeting the conservation of groundwater resources in California. The act defines groundwater basins throughout the state and encourages the management of groundwater on a local level and promotes the development of groundwater sustainability plans.

California Integrated Waste Management Act

The California Integrated Waste Management Act was enacted in 1989 with the intention of establishing a sustainable waste management system in the state of California. The act requires Integrated Waste Management Plans (IWMPs) to be implemented at the local level. The IWMPs target an increase in recycling in place of waste.

5.19.2.3 REGIONAL

National Pollutant Discharge Elimination System

The San Bernardino RWQCB enforced the NPDES, requiring wastewater treatment facilities acquire a permit to prove compliance with standards laid out in relation to discharging treated wastewater into surface water.

¹¹¹ San Bernardino County. 2024. Waste Disposal Sites. Retrieved from: <https://dpw.sbcounty.gov/solid-waste-management/waste-disposal-sites/>.

¹¹² Southwest Gas Corporation. 2022. Service Areas. Retrieved from: <https://www.swgas.com/7200000200599/SWG-Territory-Map-03-2022.pdf>.

5.19.2.4 COUNTY OF SAN BERNARDINO

Countywide Plan/Policy Plan¹¹³

The Infrastructure and Utilities Element of the Countywide Plan/Policy Plan includes goals and policies applicable to the Project:

Infrastructure and Utilities Element

- ***Goal IU-1 Water Supply.*** Water supply and infrastructure are sufficient for the needs of residents and businesses and are resilient to drought.
 - ***Policy IU-1.1. Water supply.*** We require that new development be connected to a public water system or a County-approved well to ensure a clean and resilient supply of potable water, even during cases of prolonged drought.
 - ***Policy IU-1.7. Areas vital for groundwater recharge.*** We allow new development on areas vital for groundwater recharge when stormwater management facilities are installed onsite and maintained to infiltrate predevelopment levels of stormwater into the ground.
 - ***Policy IU-1.8. Groundwater management coordination.*** We collaborate with watermasters, groundwater sustainability agencies, water purveyors, and other government agencies to ensure groundwater basins are being sustainably managed. We discourage new development when it would create or aggravate groundwater overdraft conditions, land subsidence, or other “undesirable results” as defined in the California Water Code. We require safe yields for groundwater sources covered by the Desert Groundwater Management Ordinance.
- ***Goal IU-3 Stormwater Drainage.*** A regional stormwater drainage backbone and local stormwater facilities in unincorporated areas that reduce the risk of flooding.
 - ***Policy IU-3.2. Local flood control.*** We require new development to install and maintain stormwater management facilities that maintain predevelopment hydrology and hydraulic conditions.
- ***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.
- ***Goal IU-5 Power and Communications.*** Unincorporated area residents and businesses have access to reliable power and communication systems.
 - ***Policy IU-5.1. Electricity and natural gas service.*** We partner with other public agencies and providers to improve the availability and stability of electricity and natural gas service in unincorporated communities.
 - ***Policy IU-5.3. Underground facilities.*** We encourage new and relocated power and communication facilities to be located underground when feasible, particularly in the Mountain and Desert regions.

¹¹³ San Bernardino County. 2022. Countywide Plan. Retrieved from: https://countywideplan.com/wp-content/uploads/sites/68/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf.

- 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.

5.19.3 ENVIRONMENTAL EVALUATION

a. Require or result in the relocation or construction of new or expanded water, wastewater treatment of storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

No Impact. The Project consists of a solar PV facility, which will tie into the local electric distribution system within the BVES service territory via existing distribution facilities. Although the proposed solar PV facility would be a new electric power generating facility, its construction would not require the need for additional facilities, as the Project would interconnect to an adjacent BVES distribution line. No water or wastewater treatment facilities, natural gas, or telecommunication facilities are needed, and excess stormwater runoff would be captured on site via the proposed detention basins. Therefore, relocation or expansion of utility facilities is not necessary and no significant environmental impact would occur.

b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less than Significant Impact. The Project is within the service area of CSD. There are no existing connections to water at the site and the operations of the Project would not require access to water as it would be an unmanned facility. Construction may require temporary water storage for dust mitigation, and it is expected that water trucks would bring water from off-site. Landscape planting irrigation would be required for the first approximately 2 years until landscaping is established, and it is expected that water would be brought from offsite. These temporary impacts to water supply would only be required during these initial Project stages. Operation of the site would result in very limited, if any, water usage, and no routine panel washing is being proposed as part of on-going maintenance. There would be no need for a permanent water supply. Therefore, the Project would have sufficient water supplies available and new or expanded entitlements are not needed. Impacts would be less than significant.

c. 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?

No Impact. There is no need for nor are there existing sanitary hook ups at the Project site. During construction, a portable toilet would be brought to the site to serve the construction workers, and wastewater would be hauled and disposed of off-site. Construction wastewater is anticipated to be minimal. Wastewater will not be generated during operations, and the Project will not be using the relevant wastewater treatment provider for operations. There will be no impact in relation to wastewater treatment providers.

d. 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?

Less Than Significant Impact. Lander’s Landfill, located about 20 miles outside of the City of Big Bear, accepts construction debris and has a permitted capacity of 13,983,500 cubic yards, with a remaining capacity of 11,148,100 cubic yards. This puts the landfill at a closing date of January 2072. The Project would have access to a landfill with sufficient permitted capacity. Construction-related solid waste that would be generated from the Project would have a less than significant impact on the capacity of the landfill.

The operations of the Project would not produce solid waste on a regular basis. There may be a minor generation of solid waste sporadically during normal Project operations and maintenance over the life of the solar PV facility. The Lander’s Landfill has capacity for the next approximately 50 years.

Decommissioning of the Project is expected to be initiated in approximately 30 years, reflecting the average lifespan of a solar PV facility. The Project would follow all applicable laws and regulations for recycling of Project infrastructure. Lander’s Landfill is expected to still have capacity for waste upon closure of the Project for all other waste that could be produced by decommissioning.

Therefore, the Project will have access to a landfill that has permitted capacity and potential impacts would be less than significant.

e. Comply with federal, state, and local statutes related to solid waste?

No Impact. Solid waste would be primarily construction-generated. Operations of the Project would result in very minimal solid waste. Any waste generated at the site would be disposed of in compliance with local, state, and federal regulations, and no impact would occur.

5.20 WILDFIRES

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	
b. 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?			X	
c. 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?			X	



d. 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?			X	
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5.20.1 WILDFIRES SETTING

The Project is located within a State Responsibility Area and is categorized as Very High Fire Hazard Severity Zone.¹¹⁴ State Highway 18/Big Bear Boulevard and State Highway 38 have been delineated as emergency evacuation routes by San Bernardino County.¹¹⁵

5.20.2 REGULATORY SETTING

5.20.2.1 STATE OF CALIFORNIA

California Government Code General Plan Guidelines

Government Code §65302(g), states local governments must include “a review of the safety of development in fire hazard zones.” New development must adhere with these safety standards and consider appropriate mitigation measures to minimize fire risks.

California Department of Forestry & Fire Protection/California Fire Code

The California Fire Code (CFC) (Title 24, Part 9) establishes specific regulations for fire mitigation, including requirements for defensible space as outlines in CFC §4907.

State Responsibility Area Fire Prevention Regulations

PRC §4101 defines the responsibilities of state agencies in fire prevention and suppression.

California Risk Reduction Plan

The plan emphasizes strategies for reducing wildfire risk, including the need for community-level planning. California Wildfire Risk Reduction Strategy encourages “integrated land use planning to minimize risks associated with wildfires.”

5.20.2.2 COUNTY OF SAN BERNARDINO

Countywide Plan/Policy Plan¹¹⁶

Both the Land Use Element and the Hazards Element of the Countywide Plan/Policy Plan provide goals and policies applicable to the Project, which are outlined below:

Land Use Element

¹¹⁴ Board of Forestry and Fire Protection. 2017. State Responsibility Area Viewer. Retrieved from: <https://calfire-forestry.maps.arcgis.com/apps/webappviewer/index.html?id=468717e399fa4238ad86861638765ce1>.

¹¹⁵ San Bernardino County. Nd. San Bernardino County Evacuation Status. Retrieved from: <https://sbcounty.maps.arcgis.com/apps/webappviewer/index.html?id=35f8f75a490f4007bc983b39c208a629>.

¹¹⁶ San Bernardino County. 2022. Countywide Plan. Retrieved from: https://countywideplan.com/wp-content/uploads/sites/68/2021/01/CWP_PolicyPlan_HardCopy_MainText_Tables_2022_Sept_Adopted.pdf.



- *Goal LU-4 Community Design.* Preservation and enhancement of unique community identities and their relationship with the natural environment.
 - Policy LU-4.2. Fire-Adapted Communities. New developments in high or very high fire hazard zones must use fire-resistant design techniques, including fuel modification areas, fire-resistant landscaping, and materials.
 - Policy LU-4.3. Native or Drought-Tolerant Landscaping. New developments outside high fire hazard zones are required to install drought-tolerant landscaping and encourage the use of native plant species.

Hazards Element

- *Goal HZ-1 Natural Environment Hazards.* Minimize risk of injury, loss of life, property damage, and economic and social disruption caused by natural environmental hazards and adaptation to potential changes in climate.
 - 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.
 - 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-1.9. Hazard Areas Maintained as Open Space. We minimize risk associated with flood, geologic, and fire hazard zones or areas by encouraging such areas to be preserved and maintained as open space.
 - Policy HZ-1.13. Fire Protection Planning. New developments in designated Fire Safety Overlay and Very High Fire Hazard Zones must comply with the CFC and maintain a Fire Protection Plan or Defensible Space/Fuel Modification Plan.
 - Policy HZ-1.14. Long-Term Fire Hazard Reduction and Abatement. Proactive vegetation management is required on private properties and evacuation route roadsides. New developments must enter long-term maintenance agreements for fire hazard reduction.
 - Policy HZ-1.15. Evacuation Route Adequacy. Coordination with CALFIRE and local agencies is necessary to ensure evacuation routes remain reliable and accessible during wildfires.

5.20.3 ENVIRONMENTAL EVALUATION

a. Substantially impair an adopted emergency response plan or emergency evacuation plan?

Less Than Significant Impact. Minor increases in traffic congestion related to construction vehicle traffic and equipment deliveries would not impact an emergency response plan or emergency evacuation plan. During construction and operation, all vehicles and stationary equipment will be staged within the Project site and off of Erwin Ranch Road, ensuring that

emergency access routes remain unobstructed. Traffic control measures may be required during construction which would further limit any impacts to emergency response. Consequently, the implementation of the Project is not expected to substantially impair any adopted emergency response or evacuation plans, and less than significant impacts would occur.

b. 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?

Less Than Significant Impact. Based on the County’s requirements, a site fence/screen would be required with a 25-foot setback along Lakewood Drive and Erin Ranch Road and the residence (and 20-foot setback along the northern boundary). The setback would provide a defensible buffer around the Project footprint. The Project is also setback from the open space north of the Project site. Furthermore, the Project does not entail the construction of habitable structures or permanent facilities. Therefore, the Project will not expose occupants to hazardous pollutant concentrations arising from wildfire incidents or contribute to the uncontrolled spread of wildfire, and potential impacts would be less than significant.

c. 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?

Less Than Significant Impact. Although the Project could increase the risk of fire due to the construction and operation of PV panels and related electrical equipment, the Project would be constructed in compliance with all National Fire Protection Association and National Electric Code requirements to minimize the potential of fire. No roads, fuel breaks, or other infrastructure that may exacerbate fire risk are proposed as part of the Project. As such, impacts are anticipated to be less than significant.

d. 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?

Less Than Significant Impact. Given that the Project does not involve the construction of habitable structures or permanent facilities, there is no anticipated exposure of individuals or structures to a significant risk of loss, injury, or death related to wildland fires, downslope or downstream flooding, landslides, etc. Therefore, impacts would be less than significant.

6. MANDATORY FINDINGS OF SIGNIFICANCE

Would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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<p>a. Would the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?</p>		X		
<p>b. Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a Project are considerable when viewed in connection with the effects of past Projects, the effects of other current Projects, and the effects of probable future Projects.)</p>			X	
<p>c. Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?</p>			X	

6.2 ENVIRONMENTAL EVALUTATION

a. Would the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self- sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of an endangered, rare, or threatened species, or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant with Mitigation. As previously discussed in section 5.4 Biological Resources, the Project may result in potential impacts to special-status wildlife species, such as southern rubber boa, and nesting birds protected under the MBTA. However, implementation of MM BIO-1: Pre-construction clearance surveys and MM BIO-2: Construction monitoring would reduce potential impacts to less than significant levels.

As discussed in Section 5.5 Cultural Resources, ground-disturbing activities for the development of the Project could potentially result in the disturbance of cultural resources, including historic or prehistoric resources, or buried human remains. Potential impacts would be reduced to less than significant levels through implementation of MM CR-1: Retention of a Qualified Project Archaeologist (on-call basis), MM CR-2: Worker Environmental Awareness Program, MM CR-3: Archaeological Monitoring (on-call basis), and MM CR-4: Protection of Buried Human Remains.

As discussed in Section 5.7 Geology and Soils, the Project may be at risk due to seismic ground shaking, ground failure, and liquefaction. Moreover, portions of the Project may be at

risk if constructed in the AOC for slope instability identified in the geologic hazards and geotechnical study. However, implementation of MM GEO-1: Seismic design parameters and MM GEO-2: Slope stability assessment would reduce potential impacts to less than significant levels.

As discussed in section 5.13 Noise, construction- and operational-related noise could result in temporary impacts. Implementation of MM NOI-1: Construction activity limits and MM NOI-2: Inverter placement would reduce impacts to less than significant levels.

As discussed in Section 5.18 Tribal Cultural Resources, ground-disturbing activities for the development of the Project could potentially result in the disturbance of Tribal cultural resources. Potential impacts would be reduced to less than significant levels through the implementation of the mitigation measures outlined for Section 5.5 Cultural Resources, and through the implementation of MM TR-1: Tribal Monitoring, MM TR-2: Treatment of Cultural Resources During Project Implementation, and MM TR-3: Inadvertent Discoveries of Human Remains.

b. Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

Less Than Significant Impact. Cumulative impacts are defined as two or more individual effects that, when considered together, are considerable or that compound or increase other environmental impacts. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the development when added to the impacts of other closely related past, present, and reasonably foreseeable or probable future developments. Cumulative impacts can result from individually minor, but collectively significant, developments taking place over a period. The CEQA Guidelines, Section 15130 (a) and (b), states:

(a) Cumulative impacts shall be discussed when the Project’s incremental effect is cumulatively considerable.

(b) The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided of the effects attributable to the project. The discussion should be guided by the standards of practicality and reasonableness.

There are no past, present, or reasonably foreseeable projects in the vicinity of the Project. The Project is the only renewable energy facility of its size located in the Big Bear community. Additionally, impacts associated with the proposed Project would not be considered individually or cumulatively adverse or considerable. Impacts identified in this Initial Study can be reduced to a less than significant impact. Therefore, no significant adverse impacts are identified or are anticipated, and no mitigation measures are required.

c. Does the project have environmental effects, which would cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant Impact. The incorporation of design measures, County of San Bernardino policies, standards, and guidelines and proposed mitigation measures as identified

within this Initial Study would ensure that the proposed Project would have no substantial adverse effects on human beings, either directly or indirectly on an individual or cumulative basis.



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Guyana	Spain
Hong Kong	Switzerland
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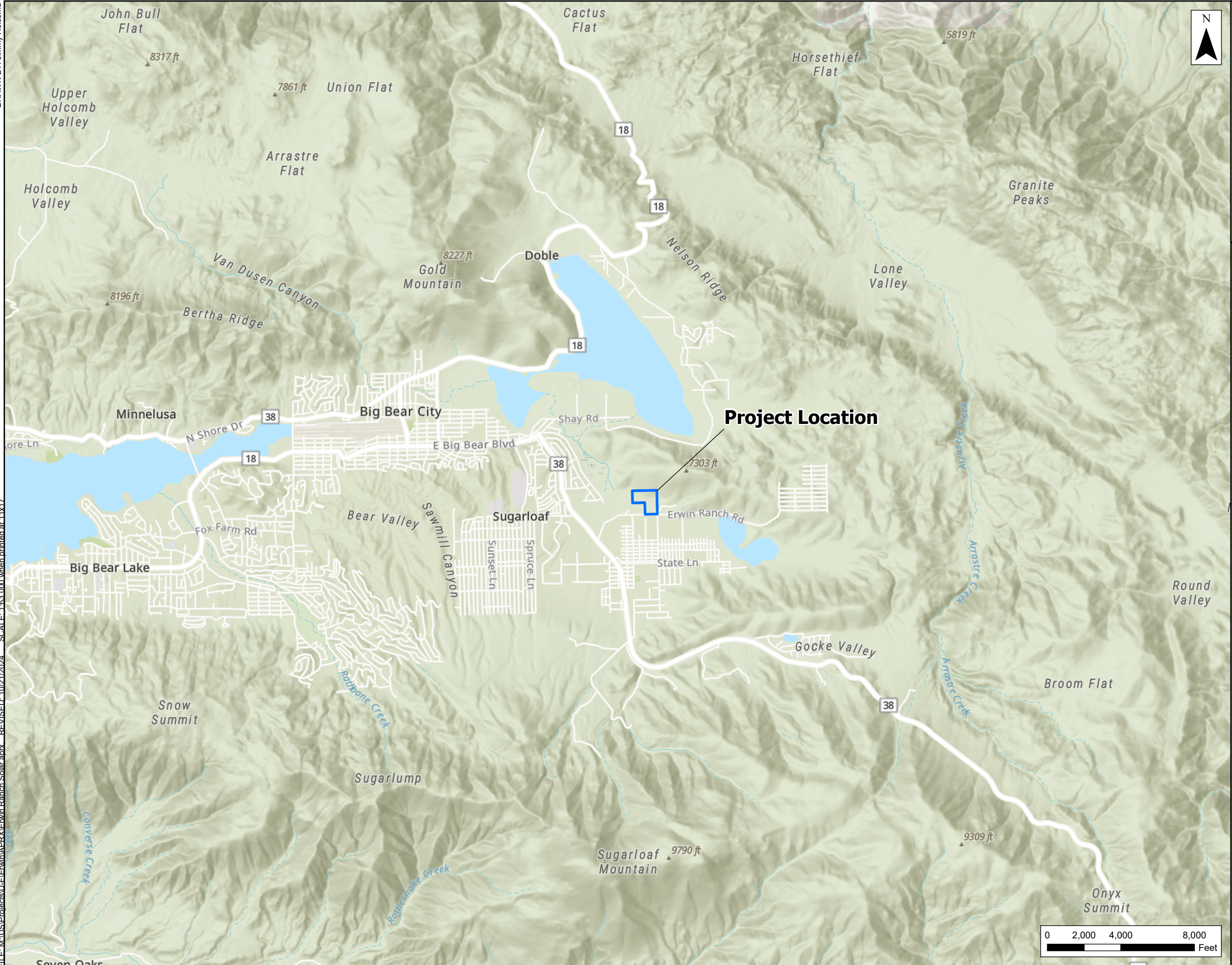


APPENDIX A

FIGURES

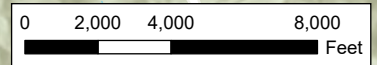
DRAWN BY: Jimmy Holcomb

FILE: M:\US\Projects\B-1\Erwin\B-1\Erwin Ranch Solar.aprx REVISED: 10/21/2024 SCALE: 1:63,000 when printed at 11x17



Legend
 Site Boundary

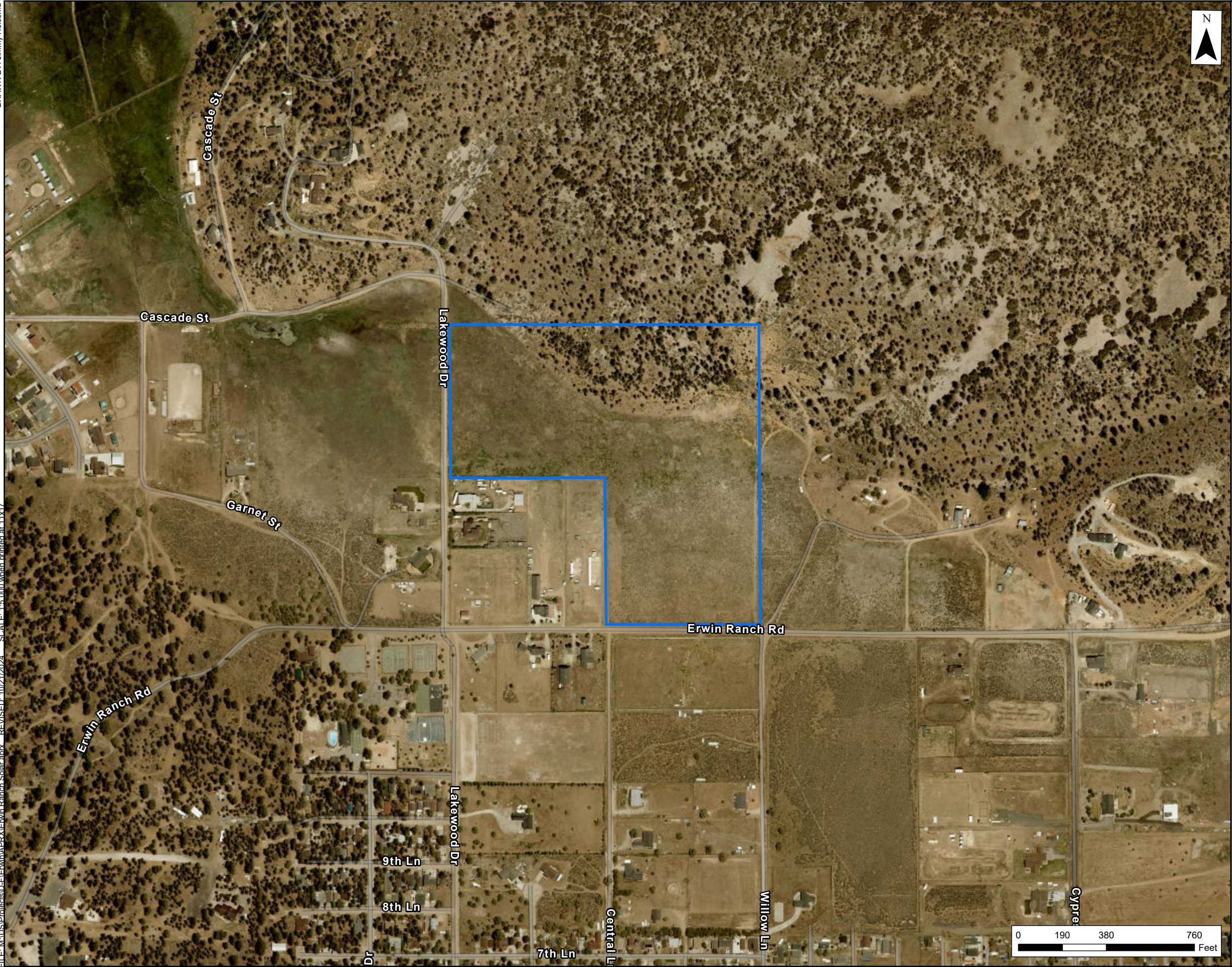
Figure 1: Site Vicinity
 Bear Valley Solar Energy Project
 San Bernardino County, CA



Source: Esri - World Topographic Map; NAD 1983 2011 StatePlane California V FIPS 0405 Ft US

DRAWN BY: Jimmy Holcomb

FILE: M:\US\Projects\B-E\Erwin\A\B\X\Erwin Ranch Solar.aprx REVISED: 10/21/2024 SCALE: 1:5,000 when printed at 11x17



Legend

 Site Boundary

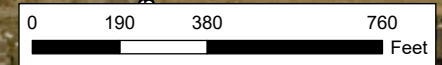


Figure 2: Site Location
Bear Valley Solar Energy Project
San Bernardino County, CA



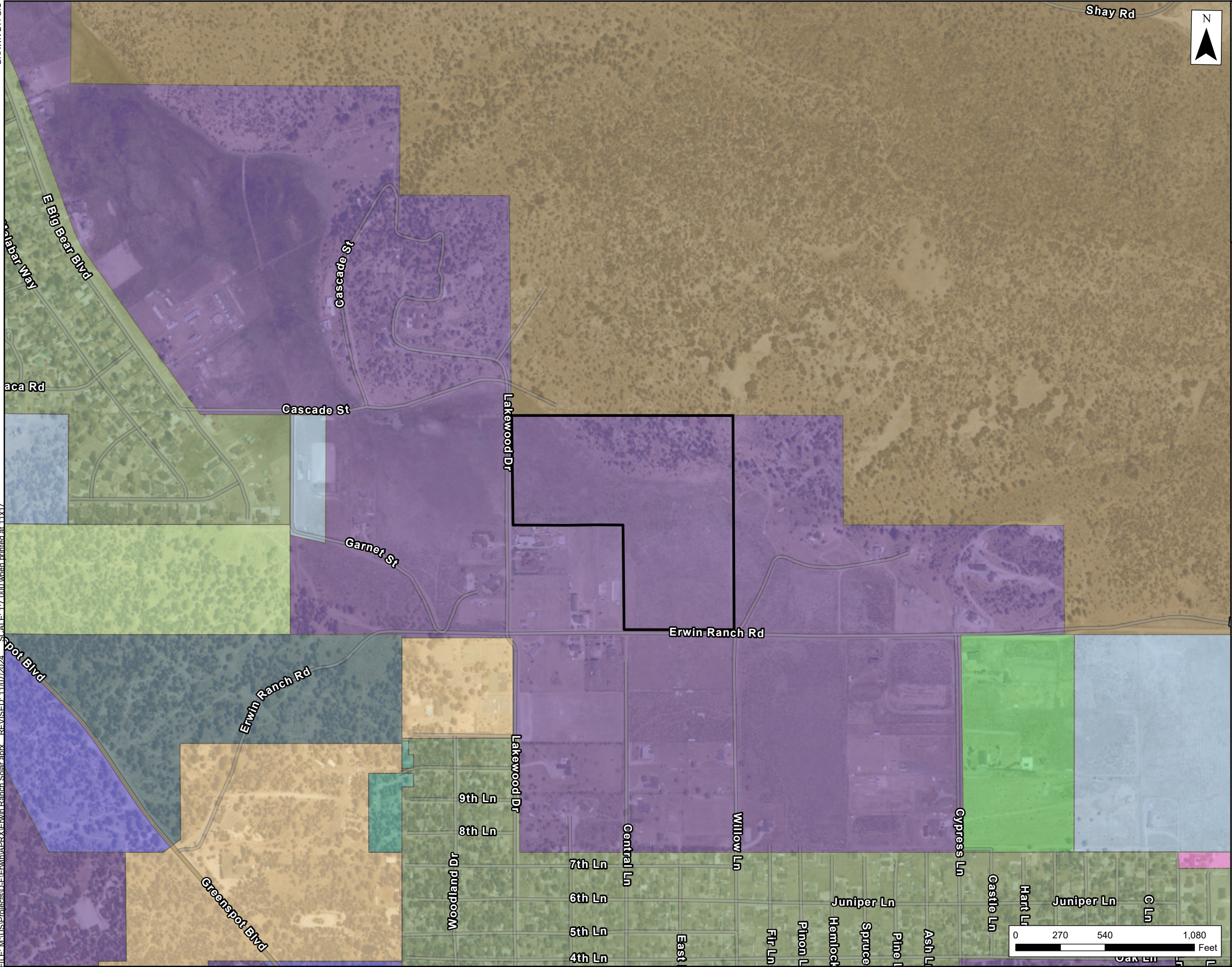
Source: Esri - World Topographic Map; NAD 1983 2011 StatePlane California V FIPS 0405 Ft US

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SCALE: 1:7,000 when printed at 11x17

FILE: MA\US\Projects\B\Erwin\BPRX\Erwin Ranch Solar.aprx REVISED: 11/07/2024

Source: USGS - World Imagery Map; NAD 1983 2011 StatePlane California V FIPS 0405 Ft US



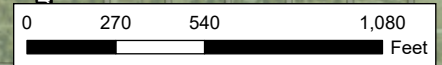
Shay Rd



Legend

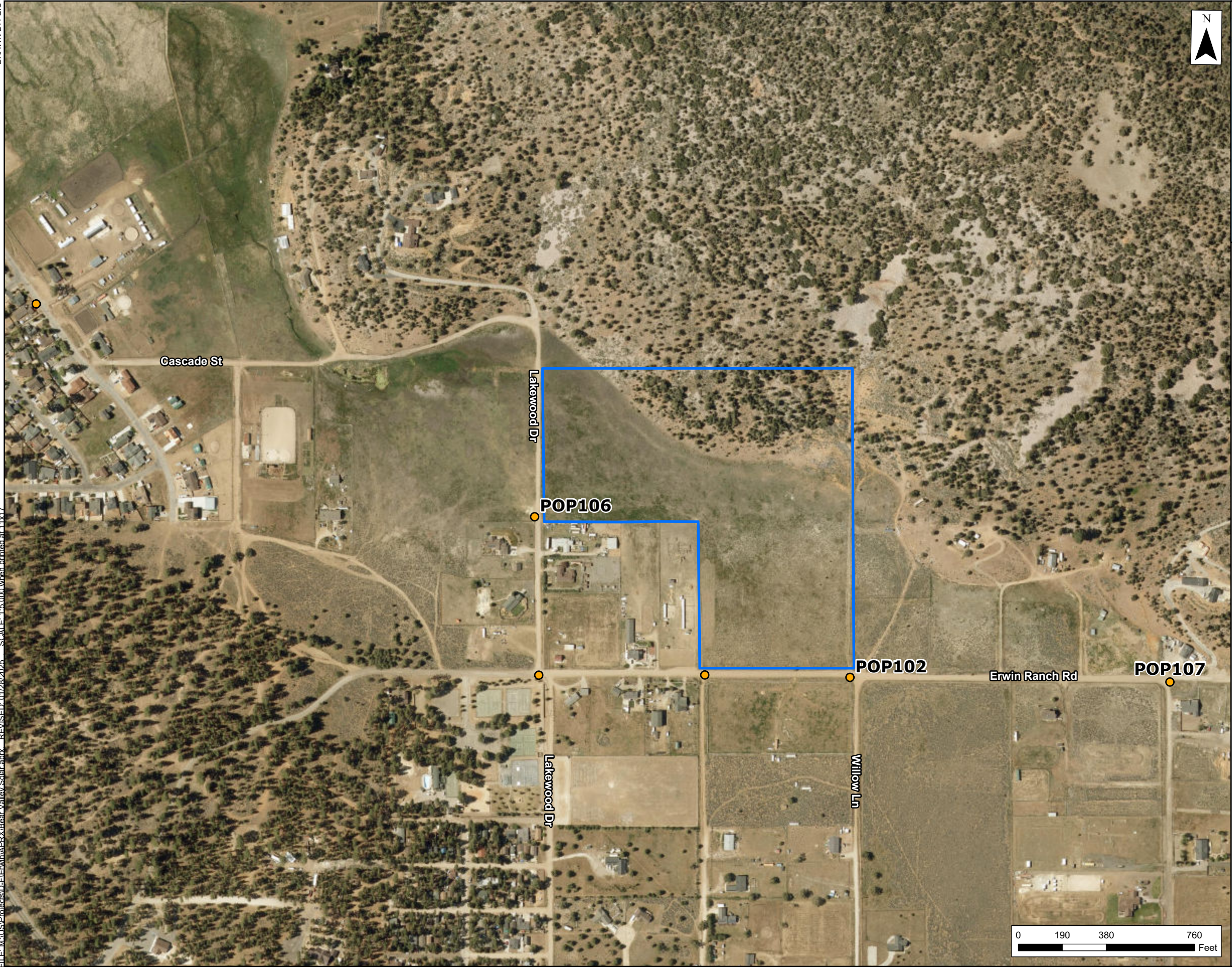
- Site Boundary
- California Statewide Zoning**
- Big Bear Lake - Public Open Space
- General Commercial
- Resource Conservation
- Rural Living
- Rural Living - 5 Acre Minimum
- Rural Living - 10 Acre Minimum
- Rural Living - 20 Acre Minimum
- Single Residential
- Single Residential - 1 Acre Minimum
- Single Residential - 10,000 sq ft Minimum
- Special Development - Residential

Figure 3: Current Zoning
 Bear Valley Solar Energy Project
 San Bernardino County, CA



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FILE: M:\US\Projects\Bear Valley Solar.aprx - REVISED: 01/28/2025 - SCALE: 1:5,000 when printed at 11x17



Legend

- KOP Locations
- Site Boundary



Figure 4
KOP Locations
 Bear Valley Solar Energy Project
 San Bernardino County, CA



Source: Esri - World Imagery Map; NAD 1983 2011 StatePlane California V FIPS 0405 Ft US