ENVIRONMENTAL INITIAL STUDY & MITIGATED NEGATIVE DECLARATION

Use Permit 24-0009
RPCA Solar 14, LLC

September 5, 2025

ENVIRONMENTAL INITIAL STUDY &
MITIGATED NEGATIVE DECLARATION
WITH
References and Documentation

Prepared by
SHASTA COUNTY DEPARTMENT OF RESOURCE MANAGEMENT
PLANNING DIVISION
1855 Placer Street, Suite 103
Redding, California 96001

SHASTA COUNTY
ENVIRONMENTAL CHECKLIST FORM
INITIAL STUDY & MITIGATED NEGATIVE DECLARATION

1. Project Title:
Use Permit 24-0009 (RPCA Solar 14, LLC)

2. Lead Agency Name and Address:
Shasta County Department of Resource Management, Planning Division
1855 Placer Street, Suite 103
Redding, CA 96001-1759

3. Contact Person and Phone Number:
Elisabeth Towers, Associate Planner, (530) 225-5532

4. Project Location:
The project site is located at the southeast corner of the intersection of Battle Creek Bottom Road and Wilson Hill Road approximately 5 miles south of the intersection of State Highway 44 and Wilson Hill Road, Manton, CA. (Assessor's Parcel Number: 703-250-020).

5. Applicant Name and Address:
RPCA Solar 14, LLC
c/o Stephanie Loucas
44 Montgomery Street, Suite 3150
San Francisco, CA 94104

6. Applicant's Contract Planner
Sean Kennings, LAK Associates, LLC (415) 533-2111

7. General Plan Designation:
Rural Residential B (RB)

8. Zoning:
Unclassified (U) and Rural Residential combined with Mobile Home and Building Site Minimum (R-R-T-BSM)

9. Description of Project:
The project is a use permit for the construction, operation and maintenance of the Battle Creek Bottom Road Solar Project ("Project") which is a proposed 3 megawatt (MW) private solar energy production facility to be located within a lease ("Project Area") encompassing approximately 25 acres, or 7 percent, of a 376-acre parcel ("Project Site"). The balance of the 376-acre parcel will remain in its existing condition and under control by the property owner. The parcel is in the Eastern Upland Planning Area and within the RB General Plan designation. Most of the parcel is within the U zone district. A small section along the southwestern parcel boundary is within the R-R-T-BSM zone district. The Project will generate up to a total of up to 3 MW alternating current (AC) (3.9 MW direct current (DC)) of solar energy when complete. The Project will interconnect to Pacific Gas and Electric Company's (PG&E) pre-existing electrical distribution system located adjacent to the Project Site. The power generated from this facility will be sold to PG&E through a long-term Power Purchase Agreement (PPA).

The Project will utilize solar modules and string inverters to convert the sun's energy into usable AC power. Single-axis tracking technology will be utilized to allow the modules to efficiently track the sun throughout the day and maximize the efficiency of solar collection. The modules will be mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the array will be no more than 15 feet tall

above ground surface. Other site improvements consists of ground-mounted electrical equipment including a 250-kW inverter and medium voltage transformer, an underground medium voltage utility line, pole mounted infrastructure to facilitate interconnection, a chain link security fencing around the site equipment, and an improved driveway access to Wilson Hill Road. It is estimated that construction of the facility would take six (6) months to complete.

The Project will require minimal regularly planned maintenance and will be operated remotely. The Project sponsor will enter an agreement with an operations and maintenance contractor to provide proper operation and maintenance of the facility, and general maintenance of the Project Area. The Project Area will be fully restored to original conditions upon the closure of the facility and removal of project infrastructure. Potential impacts from removal of project infrastructure would be similar to construction, excepting site preparation activities such as tree removal.

General Maintenance Provisions
The Project will be operated and maintained under the following overarching guidelines:

- All scheduled maintenance of the Project, including maintenance of mechanical equipment and facility landscaping such as mowing and vegetation management, will occur during normal business hours (8:00 A.M. and 5:00 P.M. Pacific Time).
- Commercially reasonable efforts will be used to ensure minimal limits of disturbance when performing any maintenance work of the mechanical equipment and/or Project Area.
- In the event there is any damage to ground cover, vegetation, or vegetative screening due to maintenance activities (other than caused by normal maintenance activities), the affected areas and vegetation will be repaired.

Facility / Mechanical Equipment Maintenance
Consistent with manufacturer guidelines for recommended maintenance, it is estimated the Project will require roughly six maintenance-related visits per year. One or more of the following activities may occur during such visits, depending on time of year and specific equipment / manufacturer guidelines:

- System testing and verification of data acquisition systems.
- Module cleaning, as determined by Project sponsor to promote efficiency of solar collection.
- Facility field inspection: visual, electrical and mechanical, as determined by Project sponsor.
- Inverter cleaning and servicing to ensure proper operation. Scheduled maintenance and testing as required to maintain manufacturer's warranties.
- Scheduled maintenance and testing required to maintain all manufacturers' warranties on facility components.
- Data Acquisition System maintenance as needed.
- Vegetation management in accordance with Project specific Vegetation Management Plan.

Unscheduled Service Visits, Corrective Actions, and Repairs
Unscheduled maintenance visits will generally occur only if an emergency situation develops at the facility or its immediate surroundings that could endanger the functional capacity of the Project and or endanger the general public health, safety, and welfare of the Project Site and its surroundings. Other events, such as "major disruptions" to the facility, that might require an unscheduled service visit are those that could degrade electricity generation such as failure of facility components, vandalism, or fallen trees.

As necessary and when deemed appropriate, the Project sponsor or maintenance operator will alert the Shasta County Fire Protection and/or police departments of emergency situations that arise at the facility. The appropriate personnel would be dispatched to the Project Site as soon as possible.

In the event of a major disruption to the facility, a corrective maintenance visit would be scheduled as soon as possible between 8:00 A.M and 5:00 P.M.

10. Surrounding Land Uses and Setting:
A small-lot rural-residential subdivision is adjacent to the north of the Project Area. All adjacent lands are designated as RB by the Shasta County General Plan and are in the R-R-T-BSM, U, Exclusive Agricultural

combined with Agricultural Preserve (EA-AP), and Commercial Recreation (C-R) zone districts. Residential development is concentrated to the north of the Project Site along Wilson Hill Road. Some parcels to the west along Battle Creek Bottom Road are also developed with residences. The proposed Project Area has a 3% gentle slope from north to south with vegetation consisting of manzanita chapparal and mixed-conifer forest which are also the primary vegetation types in the greater vicinity. Steeper slopes on the Project Site occur south of the Project Area where the property meets the North Fork of Battle Creek (North Fork Battle Creek). A private, unpaved, airstrip is located on the parcel immediately to the northeast.

The North Fork Battle Creek is directly adjacent to the southern boundary of the Project Site approximately 800 feet south and 100 feet below the proposed Project Area. A small, approximately 3.75-acre waterbody is located on the Project Site approximately 550 feet to east of the Project Area. A drainage way extends south from the pond to North Fork Battle Creek to the south. On-site drainage sheet flows in a southern direction.

11. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.):
Not applicable.

12. Have California Native American tribes traditionally and culturally affiliated with the Project Area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?
Pursuant to PRC §21080.3.1 the Department of Resource Management sent a certified letter to notify the Paskenta Band of Nomlaki Indians (Tribe) that the Project was under review and to provide the Tribe 30 days from the receipt of the letter to request formal consultation on the Project in writing. Certified mail records indicate that the notification letter was received by the Tribe on Tuesday, February 18, 2025. As of Tuesday, April 22, 2025, no request for consultation on the Project was received from the Paskenta Band of Nomlaki Indians. Therefore, the requirements of AB52 have been met and no AB52 Project consultation with the Paskenta Band of Nomlaki Indians is required.

NOTE: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and Project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section21080.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

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

DETERMINATION: (To be completed by the Lead Agency)

On the basis of the initial evaluation:

☐ I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ 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 Project 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 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 measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT 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 analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR of NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Copies of the Initial Study and related materials and documentation may be obtained at the Planning Division of the Department of Resource Management, 1855 Placer Street, Suite 103, Redding, CA 96001. Contact Elisabeth Towers, Associate Planner) at (530) 225-5532.

Elisabeth Towers
Associate Planner

9/5/2025
Date

Sean Ewing
Director of Resource Management

9/5/25
Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parenthesis following each question. A "No Impact" answer is adequately supported if all the referenced information sources show that the impact simply does not apply to Projects like the one involved (e.g., the Project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on Project-specific factors as well as general standards (e.g., the Project will not expose sensitive receptors to pollutants, based on a Project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as Project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less-than-significant with mitigation, or less-than-significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more, "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less-than-significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less-than-significant Impact". The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less-than-significant level (mitigation measures from Section XVIII, "Earlier Analyses," may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or Negative Declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures: For effects that are "Less-Than-Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the Project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. General Plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a Project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify the following:

   a) The significance criteria or threshold, if any, used to evaluate each question; and

   b) The mitigation measure identified, if any, to reduce the impact to less-than-significant.

I. AESTHETICS: Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?				✔
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?				✔
c) In non-urbanized 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 a 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?			✔	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			✔	

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the Project, observations on the Project Site and in the vicinity, the following findings can be made:

a-b) The Project Site is in the Eastern Upland General Plan Area which is adjacent to and southwest of the Eastern Forest General Plan includes scenic resources such eastern foothills and Mt. Lassen. Topography in the vicinity of the Project Site is relatively flat. Distant foothills are visible in the background from some vantage points along Wilson Hill Road and Battle Creek Bottom Road but are often fully or partially obstructed by residential development, conifer trees, and other vegetation. The proposed facility will consist of solar modules and string inverters to convert the sun's energy into usable, AC power. Single-axis tracking technology will be utilized to allow the modules to efficiently track the sun throughout the day and maximize the efficiency of solar collection. The modules will be mounted on a steel racking system, which will be anchored into the ground using driven steel piers. The overall height of the array will be no more than 15 feet tall above ground surface. The project also includes a six-foot-high chain link perimeter fence with an approximate one-foot gap from the ground surface and one-foot-high razor wire at the top and pole mounted infrastructure to facilitate interconnection.

Visual simulations were not prepared from public vantage points on Wilson Hill Road because the Project Site has limited frontage along the road and is set back from the road by over 500 feet. In addition, existing residential development is located between Wilson Hill Road and the Project Area. No scenic vista appears visible from public vantage points on Battle Creek Bottom Road based on visual simulations submitted with the application. The Project Area is set back approximately 100 feet from Battle Creek Bottom Road, the closest public vantage point. There are mature, mixed woodland/manzanita chaparral, with species ranging from 10 to 30 feet in height, screening the Project Area from the public viewshed. The Project will maintain most of the vegetation along the property's perimeter, naturally screening the project from public views. With a maximum height of 15 feet above grade the Project would not extend above the mixed woodland/manzanita chaparral canopy surrounding the property and or significantly obstruct or degrade distant views from public vantage points on Wilson Hill Road and Battle Creek Bottom Road. State Highway 44 is located approximately three (3) miles to the north of the Project Site and the proposed Project would not be visible. State Highway 44 is eligible to be an official scenic State route where the natural environment is dominant but has not been designated as such. Therefore, the Project Site is not visible from a designated scenic highway.

c) The Project would introduce a private solar energy generating facility in a rural area of the County. The existing visual character of the area is represented by low density rural residential development, agricultural uses, undeveloped land and public utility infrastructure that consists primarily of utility poles and overhead lines that run alongside roadways. The Project surroundings are primarily manzanita chapparal and mixed-conifer forest with rural residential development to the west and the north of the Project Site. Visual simulations (prepared by Rincon Consultants, Inc.) were provided from the public vantage points along Battle Creek Bottom Road looking both southeast and northeast towards the proposed solar facility. The photo simulation demonstrates that the solar arrays would not be visible from the roadway. Existing natural vegetation (significant, mature mixed woodland/manzanita chaparral, with species ranging from 10 to 30 feet in height) would screen the ground structures and equipment in the same manner as ornamental landscaping. Due to the proposed design of the solar facility, setbacks from public vantage points, and existing tree canopy, the proposed solar facility would not substantially degrade the existing visual character or quality of public views of the Project Site and its surroundings. Therefore, potential impacts of the Project on the existing visual character or quality of public

views of the Project Site and its surroundings would be less-than-significant.

d) The Project would not create a new source of substantial light or glare which would adversely affect day or nighttime views in a non-urbanized area. To evaluate potential glare impacts resulting from the solar array installation, the applicant included a Glare Study (July 31, 2025), prepared by Barrett Energy Resources Group (BERG). The Project was evaluated from 14 different points along Battle Creek Bottom Road, Wilson Hill Road, and on the Double Creek Airpark to determine possible project glare impacts of the proposed solar arrays. The Glare Impact Study utilized the Solar Glare Hazard Analysis Tool, (SGHAT) created by the Federal Aviation Administration (FAA) and the US Department of Energy's Sandia National Laboratories to analyze solar photovoltaic projects for their potential to create hazardous solar glare. The SGHAT was used to model the potential for the proposed solar array to cause glare for approaching motorists and people at nearby buildings. For residences and motor vehicles, the model showed that no glare was detected for any of the 14 receptors analyzed. The single axis tracking system is effective at mitigating glare as it directs the reflection skyward and away from any receptors on the ground. For the aviation analysis of Double Creek Airpark, the model was used to assess potential for glare impacts on pilots/planes arriving at the two runway ends, Runways 6 and 24 in an east/west orientation. The Glare Study finds that for aviation receptors, both green (low potential for a temporary after-image) and yellow (potential for a temporary after-image) were recorded for both runways. Yellow glare is of greater concern because it has higher potential for to produce after-image in the observer. The Glare Study finds that the approach to Runway 6 would be impacted by up to approximately 1.6 hours of yellow glare per day throughout the year peaking in spring and fall, presumably as the sun is setting in the evening. The solar arrays have a single-axis pivot point rotation (i.e., panels rotate east to west only) and follow the sun throughout the day. This design reduces situations where the sunlight hits the solar panels with a glancing angle, which is the condition that is more likely to cause visible glare to an observer. In addition, electronic communication with the owner of Double Creek Airpark indicated that the runway has only been used once in the last 10 years. Current FAA policy (FAA's Final Policy of 2021) does not require the evaluation of glare impacts on pilots (as it determined glare from solar panels to be similar to other potential glare sources for which pilots are already exposed) and only requires evaluation of glare impacts on traffic controllers, the results of the Glare Study are inconsequential under current federal regulations. The SGHAT solar glare hazard analysis concluded that the Project would not produce any glare of an intensity that would cause hazards at any time during the year at any of the analyzed locations. Because there is minimal visual impact from public roadways and there would no glare or glancing angle sun glare, there is a less-than-significant impact today or nighttime views in the area resulting in substantial light or glare and no mitigation is required.

The potential for glare associated with reflection from the photovoltaic (PV) panels would be minimal during the day and the facility would not be lighted at night. No nighttime glare would occur as a result of the Project. The applicant proposes two shielded and down-directed service-lights that would each be oriented towards equipment service areas inside the lease area. The conditions of approval for the Project would include a standard condition requiring external structure and area lighting to be activated and controlled by motion sensors. No other lighting is proposed. Therefore, potential impacts of the Project from new sources of substantial light or glare on day or nighttime views in a non-urbanized area would be less-than-significant.

Mitigation/Monitoring: None proposed.

II. AGRICULTURE AND FORESTRY RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. 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 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?				✔
b) Conflict with existing zoning for agricultural use, or a Williamson				✔

II. AGRICULTURE AND FORESTRY RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the Project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Act Contract?				
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))?				✔
d) Result in the loss of forest land or 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?				✔

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the Project, observations on the Project Site and in the vicinity, the following findings can be made:

a) The subject property is not identified as Prime Farmland, Unique Farmland, or Statewide Importance on the map titled Shasta County Important Farmland 2016.

b) A property to the south of the Project Site is zoned for agricultural use and is in a Williamson Act Contract. The Project Area is located approximately 800 feet north from this property. The Project does not include any improvements or uses that would conflict with agricultural use of property in the vicinity nor would the establishment of the facility likely cause property to be removed from the Williamson Act Contract.

c-e) The Project would not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)). The project site may be forest land and/or timberland as defined in the PRC, but the property is not in a Timberland Production zone district. A determination as to whether the project site is forest land and/or timberland is within the jurisdiction of the California Department of Forestry and Fire Protection (CAL FIRE). If CAL FIRE determines that the project is a forest land and/or timberland, the project would as a consequence result in the conversion of forest land. Regardless, the potential impacts of the project resulting from the loss forest land or conversion to non-forest use would be less-than-significant based on the scale of the conversion and the feasibility of conduction forest management activities in within the remainder of the Project Site. The site is not located in an area of significant agricultural soils and is not currently used for agricultural purposes.

Mitigation/Monitoring: None proposed.

III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. 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?				✔
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?				✔
c) Expose sensitive receptors to substantial pollutant concentrations?			✔	
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?			✔	

Discussion: Based on related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the Project, observations on the Project Site and in the vicinity, the following findings can be made:

a) The Project would not conflict with or obstruct implementation of the 2021 Attainment Plan for the Northern Sacramento Valley Planning Air Basin as adopted by Shasta County, or any other applicable air quality plan. The proposed solar facility does not propose a backup generator and would only effect air quality during construction and during infrequent maintenance visits.

The Northern Sacramento Valley Planning Area (NSVPA) 2021 Triennial Air Quality Attainment Plan designates Shasta County as an area of Nonattainment with respect to the ozone California ambient air quality standards. Nitrogen oxides (NOx) are a group of highly reactive gasses and are also known as "oxides of nitrogen." Because NOx is an ingredient in the formation of ozone, it is referred to as an ozone precursor. NOx is emitted from combustion sources such as cars, trucks and buses, power plants, and off-road equipment. Construction equipment and activities associated with making probable improvements would generate air contaminants, including oxides of nitrogen (NOx), reactive organic gases (ROG), carbon dioxide (CO2) and particulate matter (PM10), in the form of engine exhaust and fugitive dust. Air quality impacts for the proposed project are associated with typical construction-related activities, however, the emissions emitted during construction would be limited and temporary. The proposed Project features an approximately 1,000-foot by 1,000-foot compound and development area that would be developed on relatively flat sloping ground that would not require any significant recontouring. The Project would also include minor grading and trenching to construct an approximately 850-foot gravel access road. The driveway would also be constructed on relatively flat ground and not require any significant recontouring or drainage facilities. Estimated earthwork for the Project involves 1,140 cubic yards (CY) of cut and 570 CY of fill resulting in a grading plan that on balance results in an excess of 570 CY of earth material. The Shasta County Air Quality Management District (AQMD), Rule 3:28, is intended to limit emissions of NOx and carbon monoxide (CO) from stationary internal combustion engines. If a generator for backup power were to be proposed for the Project, it would be subject to this rule if its engine exceeds a 50-brake horsepower (bhp) engine rating.

In addition, the Shasta County General Plan requires Standard Mitigation Measures (SMM) or Best Available Mitigation Measures (BAMM) on all discretionary land use applications as recommended by the AQMD in order to mitigate both direct and indirect emissions of non-attainment pollutants. With the application SMM, in combination with the limited scope of improvements and limited daily vehicle trips projected with post-Project development, the Project will not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is non-attainment under an applicable Federal or State ambient air quality standard and would not conflict with or obstruct implementation of the NSVPA 2021 Triennial Air Quality Attainment Plan as adopted by Shasta County, or any other applicable air quality plan.

b) The Project would not result in a cumulatively considerable net increase of any criteria pollutant, including ozone, ozone pre-cursors or PM10 (particulate matter), the pollutants for which the Northern Sacramento Valley Air Basin is in non-attainment-transitional under the applicable State ambient air quality standard.

c-d) The solar facility would not be located in an area where substantial numbers of people live or work. The Project Site is not situated near schools, parks and playgrounds, day care centers, nursing homes, or hospitals. The nearest sensitive receptors would be residences located on adjacent properties to the west and north. The nearest residences, located north of the Project Site on Wilson Hill Road, would be within the range of approximately 300 to 400 feet away from the facility. Construction activities for facility

utility connections would occur within approximately 200 feet away from the nearest residence located at 5484 Wilson Hill Road.

Substantial pollutant and odor concentrations are not anticipated due to the limited scope and duration of construction and implementation of SMM. Post-construction, the solar facility would be unmanned and require only infrequent maintenance visits. As a result, exposure of sensitive receptors or a substantial number of people to substantial pollutant concentrations and/or other emissions would be less-than-significant.

Mitigation/Monitoring: None proposed.

IV. BIOLOGICAL RESOURCES: Would the Project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Have a substantial effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?		✔		
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local of regional plans, policies, and regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			✔	
c) Have a substantial adverse effect on state or Federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?		✔		
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?				✔
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			✔	
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?				✔

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the Project, observations on the Project Site and in the vicinity, the following findings can be made:

a) A Biological Resources Assessment (BRA) was prepared by Rincon Consultants, Inc. to determine the presence of special status plants and wildlife species that have potential to occur on or near the Project Site. The study area included the Project Area and a 50-foot buffer area around the Project Area ("Study Area"). Rincon conducted record searches of available databases including the U.S. Fish & Wildlife Service (USFWS) Information for Planning and Consultation Trust Resource Report (IPaC), California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB), and California Native Plant Society (CNPS) and a reconnaissance-level survey of the Study Area in 2024. In addition, and as discussed further below, Rincon conducted protocol-level botanical surveys in 2025 to determine the presence or absence of any federally and/or state-listed or other special-status plant species and mapped vegetation communities onsite and prepared a Botanical Survey Technical Report (BSTR) that summarizes the results of the surveys.

The database search for the BRA results identified 18 special-status plant species known to occur within the two-mile/nine-quad search radius of the Project Area (CDFW 2024a; USFWS 2024a; CNPS 2024). However, none of these 18 species are expected to occur within the Study Area due to a lack of suitable habitat, or because the Study Area is outside of the species' known elevation

range. A list of all plant species reviewed for potential to occur in the Study Area is included in Appendix B-1 in the BRA. As described in the BSTR, Biologists from Rincon Consultants conducted special status plant surveys on April 16, 2025, and June 3, 2025, and did not observe any of the species with potential to occur in the Study Area. As such, these 18 species were removed from further consideration and are not discussed further in this document. A list of all plant species reviewed for potential to occur in the Study Area is included in Appendix B in the Rincon report.

A Vegetation Management Plan prepared by RPCA Solar 14, LLC in August of 2024 indicated the Project Area has been previously modified as part of a state grant funded fire prevention project to reduce the fuel load within the Project Site, and as such, most of the ground surface was covered in debris from mastication activities. The masticated vegetation on the ground appeared to consist primarily of manzanita (Arctostaphylos sp.); however, the vegetation that was still upright and visible was dominated by interior live oak (Quercus wislizeni) and blue oak (Quercus douglasii) trees, as well as California foothill pine (Pinus sabiniana) and California bay (Umbellularia californica).

After the Project is developed, mechanical and chemical vegetation control methods would be used to maintain fire breaks and reduce fire hazard. Areas withing the Project subject to treatment under the plan include, 1) within 10-feet (horizontal) of either side of access road, and 14-feet (vertical) above access road; 2) within 10-feet (horizontal and vertical) of utility poles, conductor, battery storage, and arrays; and 3) within 100-feet of existing structures (including adjacent residences within 100-feet of Project Area).

Mechanical control will be accomplished through mowing or grazing by livestock. Trees will be hand pruned. Frequency and timing of control will depend on amount and speed of vegetative growth. Mowing is anticipated to be required twice annually based on precipitation and vegetation growth. Pruning can likely be evaluated on a 3-year cycle. During fire season, mowing will be restricted to early morning hours and crew will be equipped with firefighting tools (backback water sprayer, shovels Mcleods). Chemical control will include the use of commercially available chemicals including Milestone, Transline, Roundup Custon, and Garlon 3A may be used as spot treatment for vegetation management. To the greatest extent feasible while maintaining compliance with the use permit, vegetation management methods should minimize disturbance to native vegetation and avoid damage from herbicide use or other control methods to any environmentally sensitive areas (ESAs; oaks, wetlands, etc.) and where applied shall be applied in conformance with applicable regulations and in accordance with manufactures instructions.

In addition, results of the IPaC and CNDDB searches resulted in 23 special-status wildlife species known to occur within the two-mile/nine-quad search radius of the Study Area (CDFW 2024a; USFWS 2024a). Of these, three have a moderate potential to occur within the Study Area and 20 are not expected to occur due to a lack of suitable habitat, or because the Study Area is outside of the species' known range. The 20 species not expected to occur due to a lack of suitable habitat were removed from further consideration. A list of special-status wildlife species with potential to occur in the vicinity of the Study Area is included in Appendix B-2 in the BRA. The three species with a moderate potential to occur include Crotch's bumblebee *(Antrozous pallidus*), bald eagles (*Haliaeetus leucocephalus*), and pallid bats *(Antrozous pallidus)*. Avoidance and minimization measures have been incorporated as mitigation to reduce potential impacts to sensitive species. With the implementation of the **Mitigation Measures IV.a.1 through IV.a.3**, potential impacts to special status species would be less-than-significant.

b) The BRA determined that there is no riparian habitat, hydrophytic vegetation or other sensitive natural communities within the Study Area. A small pond and accompanying drainage way (draining to North Fork Battle Creek to the south) is located approximately 500 to 600 feet to the east (and outside) of the Study and Project Areas. There would be no disturbance in or around these features. The Project Area is located approximately 850 feet away the North Fork Battle Creek. The impact would be considered less-than-significant.

c) There are no vernal pools or wetlands identified on the subject property based on the Vernal Pools, Wetlands, and Waterways Map of Shasta County prepared by the Geographic Information Center, California State University, Chico, on August 24, 1996. As stated in **Section IV.b** above, a small pond and accompanying drainage way (draining to North Fork Battle Creek to the south) is located off-site, approximately 450 to 600 feet to the east of the Study and Project Areas. There would be no disturbance in or around these features and the Project is located approximately 850 feet away and 100 feet above the North Fork Battle Creek. Rincon Consultants evaluated a shallow depression running parallel to Battle Creek Bottom Road at the north end of the Study Area and approximately 50 feet from the edge of new construction. This shallow depression, 2-3 feet wide, is lacking an ordinary high water mark or defined bed and bank, and is located entirely in uplands in a dry rocky area (with no signs of hydrophytic vegetation) that likely only drains uplands very briefly during rain events. The proposed Project plans indicate that the shallow depression will be avoided during construction. Potentially significant impacts to this feature would include degradation due to temporary disturbances such as fill or runoff being inadvertently placed into this feature. Rincon Consultants recommends **Mitigation Measure IV.c.1** to ensure potential impacts to the shallow depression on the western boundary of the Project Area would be less-than-significant.

d) The Project would not interfere with any native resident or migratory fish or wildlife species, nor impede the use of native wildlife

nursery sites. The design of the Proposed solar array fencing includes gaps at the base of the fence that allows for resident wildlife species to travel through the Project Area. As discussed in **Section IV.a** above, there are no sensitive species that would occur within the Study Area that would be impacted by loss of habitat.

Solar PV panels have a strong polarization signature, which is an element thought to mimic water. As a result, some have theorized that PV panels can attract species that mistake the panels for bodies of water (Randall et al. 2010), potentially leading to increased risk of collisions, being stranded within site fencing once they land, or other forms of distress. The phenomenon is sometimes referred to as the "lake effect." The strongest evidence for lake effect is mortality of water-dependent species found at PV solar farms in desert environments with no natural waterbodies in the region (Kosciuch et al. 2021). Recent studies have shown that some species of birds that use aquatic habitats could be attracted to solar PV panels; however, it is unlikely that all aquatic birds at all times would be attracted to the panels (Kosciuch et al. 2021). The potential for this effect also depends on the regional context and the availability of natural waterbodies near the solar site. For this project, there are no large waterbodies within 10 miles of the Project site, rather, there are only a few small stock ponds dotted throughout the landscape. Therefore, the potential for aquatic birds to collide with solar PV panels due to "lake effect" is very low. At night, the panels would be positioned where they last tracked the sun or pre-positioned toward the east to capture sunrise (i.e., panels would be in a close to vertical position). This positioning may reduce the risk of birds attempting to land on the PV array at sunset or sunrise by mistaking it for water. Bird collisions with solar facilities and the significance of such impacts are an important consideration but based on the specific panel design proposed for this Project, including the utilization of single-axis tracking technology which would result in the panels being in a close to vertical position at the end of each day, the impact would be less-than-significant. The Project would not substantially interfere with the movement of any native wildlife species and the impact would be less-than-significant.

e) The Project would not conflict with any ordinances or policies which protect biological resources. Shasta County Board of Supervisors Resolution No. 95-157 provides guidelines regarding use and protection of oak trees on a voluntary basis and the Project will comply with these guidelines. Rincon Consultants prepared an Oak Woodland Technical memo, based on the *Oak Woodlands Impact Matrix – A Guide for Planner's to Determine Significant Impacts to Oaks as Required by SB 1334* (Giusti et al., 2008), and determined that based on the criteria provided in the decision matrix guidance and the mastication that recently occurred on the site, the Project Area is considered "moderately degraded." In addition, on April 16 and June 3, 2025, Rincon Consultants completed protocol-level botanical surveys to determine the presence or absence of any federally and/or state-listed or other special-status plant species and mapped vegetation communities onsite. The results of this survey noted that the site is largely made up of blue oak woodland and wild oats annual brome grassland communities. Vegetation communities mapped in the Project area included blue oak (Quercus douglasii) woodlands (14.63 acres) and wild oats (Avena barbata) and annual brome (Bromus diandrus) grassland (10.31 acres). A map of these communities is included in the BSTR, Figure 1. While some mature oaks are present in the northern portion of the Study Area near the proposed access driveway and will be avoided under the Project, the oak trees in the remainder of the Study Area are young, and some are not in optimal health. The Project will adhere to the Shasta County's Guidelines for the protection of oak woodlands, and will comply with standard conditions of approval regarding building within oak woodlands on the Project Area. To the extent that any oak woodland removal within the Project Area is required, the Project will comply with Shasta County's guidelines for the protection of oak woodlands, which includes retaining as many oak trees as possible. The impact would be considered less-than-significant.

f) There are no adopted Habitat Conservation Plan, Natural Community, Conservation Plan, or other approved local, regional, or State habitat conservation plans for the Study Area or Project Site.

Mitigation/Monitoring: With incorporation of the mitigation measures proposed, the impacts will be less-than-significant.

IV.a.1) Native and ESA Listed Nesting Birds

All native birds in California are protected by the federal Migratory Bird Treaty Act (MBTA), and Section 3503.5 of the California Fish and Game Code (CFGCO) specifically protects raptors. Ground disturbance, noise, or removal of vegetation that would result in destruction of active bird nests or disruption of breeding/nesting activity could be a violation of the MBTA and the CFGC and could be considered a significant impact under CEQA. In addition, bald eagle is protected under the federal Bald and Golden Eagle Protection Act and is a CESA listed endangered species, as well as a California 'fully protected' species. As such, impacts to nesting bald eagles due to Project construction could be considered a significant impact under CEQA, but with the following mitigation measures, the impact would be less-than-significant.

A. To avoid impacts to nesting migratory birds and/or raptors, all vegetation removal and other ground disturbing activities should occur between September 1 and January 31 when birds are not nesting, if feasible; or

B. Prior to issuance of grading or building permits, if construction activities occur during the nesting season (February 1 through August 31), a pre-construction nesting survey shall be conducted by a qualified biologist within one week prior to vegetation removal or construction activities to determine if any native birds or bald eagles are nesting on or near the site (including a 150-foot buffer for raptors and a 0.5-mile buffer for bald eagle, where accessible). If any active nests are

observed during surveys (including active nests of CESA- or ESA-listed species). If an active nest is located during the preconstruction surveys, a non-disturbance buffer shall be established around the nest by a qualified biologist in consultation with the CDFW based on species, location, and extent and type of planned construction activity. No vegetation removal or construction activities shall occur within this non-disturbance buffer until the young have fledged, as determined through additional monitoring by the qualified biologist. The results of the pre-construction surveys shall be sent electronically to CDFW at R1CEQARedding@wildlife.ca.gov.

IV.a.2) Pallid Bat

Pallid bat is protected by CFGCO 4150 and impacts to foraging or roosting bats or maternity colonies would be considered a significant impact under CEQA. The following Avoidance and Minimization Measures (AMM) would ensure potential impacts to bats that may utilize the Project area would be less-than-significant.

A. Trees that contain cavities, crevices, or exfoliated bark have high potential to be used by various bat species. If land alteration and/or removal of trees with cavities, crevices, or exfoliated will occur, a thorough survey should be conducted by a qualified biologist to determine if bat roosting opportunities are present prior to tree removal.

B. Construction activities shall be limited to daylight hours (30 minutes after sunrise to 30 minutes before sunset), except where the requirements of the use permit are more stringent in which case the more stringent requirement shall prevail.

C. Trees with 12" diameter at breast height (DBH) or greater with potentially suitable roosting features should be clearly marked by a qualified biologist and may be removed as follows:

i. To avoid impacts to roosting bats, removal of shall occur only during the following time frames and subject to the following weather conditions, or as otherwise approved/recommended by a qualified biologist:

- Between March 15 and April 30, and between August 15 and October 1; and
- Between October 2 and March 14 when evening temperatures are above 45°F, and no more than ½" of rainfall within a 24-hour period prior to tree removal.

ii. Trees shall be removed using a two-step process to allow bats the opportunity to abandon the roost prior to removal. The two-sept removal process is as follows:

- Day 1: Remove small-diameter trees, brush, and non-habitat features of large trees (branches without cavities, crevices, or exfoliating bark) to create noise and vibration disturbance on the tree and to alter the air flow and temperature around the roost feature thus encouraging bats to vacate roost features on their own. The tree shall then be left for 24 hours to allow the bats to move to another roost site. No excavators, grinders, or other heavy equipment should be used for first day trimming of bat habitat trees.
- Day 2: If bats may be in branches that can be removed from the tree and set aside, cut the branches off intact and set them upright against trees away from the Project area to allow any bats present to passively escape. Then, remove the remainder of the tree.

D. If any bats are observed during construction activities, work will be halted and postponed until a qualified biologist is contacted to determine a proper strategy to avoid impacts to bats that are present in the Project area.

IV.a.3) Crotch's Bumble Bee

The project proponent shall implement the following mitigation measures to avoid significant impacts to special-status bumble bees in accordance with the survey considerations outlined in the June 2023 Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bees Species publication:

A) Prior to land alteration, vegetation removal and construction activities for the use permit improvements as well as for subsequent development for the life of the use permit, a qualified biologist, specifically those qualified under a research Memorandum of Understanding or authorizing Incidental Take Permit (as described on page 7 of CDFW's Guidelines), shall conduct surveys for special-status bumble bees prior to the start of construction. Three on-site surveys shall be conducted two to four weeks apart, weather depending, and when floral resources are present.

B) Species identification and photographic vouchers shall be submitted to CDFW and experts from the Bumble Bee Watch for species verification by an experienced taxonomist prior to the start of land modification and/or vegetation removal.

ii. If special-status bumble bees are detected, a nesting survey as the protocol is described in CDFW's June 2023 Survey Considerations for CESA Candidate Bumble Bee Species, shall be performed throughout the project area.

iii. If special-status bumble bees and/or their nests are detected, the potential for "take" as defined by Fish and Game Code section 86 shall be analyzed and quantified. If suitable avoidance and minimization measures to fully avoid take are not feasible, CDFW shall be consulted regarding the need for take authorization pursuant to CFGCO 2081(b). Otherwise, suitable avoidance and minimization measures to fully avoid take should be employed, and/or the formulation of a Mitigation and Monitoring Plan should be developed for impacts to suitable western bumble bee habitat.

iii. All data, including negative and/or positive observations, shall be submitted to the CNDDB and Bumble Bee Watch.

IV.c.1) Potentially Jurisdictional Ephemeral Drainage.
As part of the design review and permit application preparation process, appropriate best management practices (BMPs) should be incorporated in Project designs to prevent runoff and siltation from entering this feature,. These BMPs may include, but are not limited to, biodegradable straw wattles free from weed seed (and containing no monofilament [plastic] netting), silt fencing, hydroseeding, or biodegradable erosion control mats/blankets. Specific BMPs should be defined prior to construction to protect aquatic features adjacent to the Project Area, and spill kits should be available to all workers on the site during construction activities.

V. 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 pursuant to §15064.5?				✔
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?			✔	
c) Disturb any human remains, including those interred outside of formal cemeteries?			✔	

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the Project, observations on the Project Site and in the vicinity, the following findings can be made:

a) The Project would not cause a substantial adverse change in the significance of a historical resource. A Cultural Resources Technical Report prepared by Rincon Consultants identified a single built environment resource in the Project Area, the Volta to Inskip Powerline, and recommended it ineligible for listing in the National Register of Historic Places (NRHP) and California Register of Historical Resources (CRHR); the resource therefore does not qualify as a historical resource under CEQA. Based on the results of this study, Rincon recommends a finding of no impact to historical resources.

b) The applicant retained Rincon Consultants to perform an archaeological investigation of the project area to evaluate the potential presence of archaeological resources. Investigation efforts included a review of regional archaeological and ethno-geographic literature, pertinent historical maps and aerial photography; a project area record search at the California Historical Resources Information System's Northeast Information Center (NCIC) in Chico, California; a pedestrian field survey; and correspondence with local Native American tribal representatives. The background research included a search of previously conducted cultural resources studies and findings at the NCIC located at California State University, Chico in Chico, California. Based upon the records research and local topography, the NCIC concluded that project area could have a high sensitivity for cultural and archaeological resources based on portions of the Project occurring along existing sites, roads, and trails. Other areas of potential sensitivity are flats near creeks, springs, seeps, or rock outcrops that may be located in the project area.

However, the Rincon study did not identify any archaeological resources or archaeological deposits in the Project Area and has identified the Project Area as having low archaeological sensitivity. That said, unanticipated discoveries during construction remain a possibility Therefore, a condition of project approval will require that if, in the course of development, any archaeological, historical, or paleontological resources are uncovered, discovered or otherwise detected or observed, development activities in the affected area shall cease and a qualified archaeologist shall be contacted to review the site and advise the County of the site's significance. If the findings are deemed significant by the Environmental Review Officer, appropriate mitigation shall be required.

Therefore, the impact would be considered less-than-significant impact for archaeological resources under CEQA and no further mitigation is required.

c) The Project Site is not on or adjacent to any known cemetery or burial area. Therefore, there is no evidence to suggest that the Project would disturb any human remains. The California Historical Resources Information System (CHRIS) records search was requested by Jessica Neal of Kleinfelder. On October 18, 2023, Kleinfelder received the CHRIS search results (IC File #NE23-457), which were provided to Rincon by RPCA Solar 14, LLC. The NCIC is the official state repository for cultural resources records and reports for the county in which the Project falls. The records search helps to identify previously recorded cultural resources, as well as previously conducted cultural resources studies in the Project Area and a 0.5-mile radius surrounding it. A field survey, conducted on June 12, 2024, found no prehistoric or historic resources within the Project boundaries.

Although there is no evidence to suggest that the Project would result in any significant effect to archaeological, historical, or paleontological resources, there is always the possibility that such resources could be encountered. Therefore, a condition of Project approval will require that if, in the course of development, any archaeological, historical, or paleontological resources are uncovered, discovered or otherwise detected or observed, development activities in the affected area shall cease and a qualified archaeologist shall be contacted to review the site and advise the County of the site's significance. If the findings are deemed significant by the Environmental Review Officer, appropriate mitigation shall be required. Therefore, the impact is considered less-than-significant.

Mitigation/Monitoring: None proposed.

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

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the Project, observations on the Project Site and in the vicinity, the following findings can be made:

a) The Project would not result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during Project construction or operation. During construction there would be a temporary consumption of energy resources required for the movement of equipment and materials. Compliance with local, State, and federal regulations (e.g., limit engine idling times, requirement for the recycling of construction debris, etc.) would reduce and/or minimize short-term energy demand during the Project's construction to the extent feasible, and Project construction would not result in a wasteful or inefficient use of energy. During the operation of the completed Project, there are no unusual Project characteristics or processes that would require the use of equipment that would be more energy intensive than is used for comparable Projects, or the use of equipment that would not conform to current emissions standards and related fuel efficiencies.

b) The Project would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. State and local agencies regulate the use and consumption of energy through various methods and programs. As a result of the passage of Assembly Bill 32 (AB 32) (the California Global Warming Solutions Act of 2006) which seeks to reduce the effects of Greenhouse Gas (GHG) Emissions, a majority of the state regulations are intended to reduce energy use and GHG emissions. At the local level, the County's Building Division enforces the applicable requirements of the Energy Efficiency Standards and Green Building Standards in Title 24.

Mitigation/Monitoring: None proposed.

VII. GEOLOGY AND SOILS: Would the Project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving: i) Rupture of a known earthquake, fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publications 42. ii) Strong seismic ground shaking? iii) Seismic-related ground failure, including liquefaction? iv) Landslides?			✔	
b) Result in substantial soil erosion or the loss of topsoil?			✔	
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?				✔
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?				✔
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?				✔
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?			✔	

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the Project, observations on the Project Site and in the vicinity, the following findings can be made:

a) The Project would not directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i, ii, iii) Rupture of a known earthquake fault; Strong seismic ground shaking; Seismic-related ground failure, including liquefaction;

According to the Alquist-Priolo Earthquake Fault Zoning Maps for Shasta County, there is no known earthquake fault on or near the Project Site. According to the Shasta County General Plan Section 5.1, Shasta County has a low level of historic seismic activity. The entire County is in Seismic Design Category D. Solar facilities are not specifically designated as a critical or high-risk facility in the California Building Standards Code (CBSC), nor are they defined as such by the Shasta County zoning code. The solar facility would be constructed in accordance with the seismic standards and requirements of the CBSC, including preparation of a soils report, if deemed necessary based on site specific soil conditions. Therefore, the potential impacts due to rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure, including liquefaction, would be less-than-significant.

iv) Landslides.

The Project is not located at the top or toe or in the vicinity of any significant topographic feature that may be susceptible to

landslides. Therefore, the potential impacts due to landslides would be less-than-significant

b) The Project would not result in substantial soil erosion or the loss of topsoil. Rincon Consultants provided a soil type assessment as part of their July 2024 BRA report. According to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) 2024 Annual Soils Refresh (ASR), three soil types are present in the Project Area. Aiken loam, 2 to 9 percent slopes, and Aiken stony loam, 0 to 8 percent slopes, consist of very deep, well drained soils formed in material weathered from basic volcanic rocks with erosion hazard from slight to moderate. These soils are on broad, gently sloping tabular ridges and moderately steep to steep side slopes of 2 to 70 percent. Guenoc very rocky loam, 0 to 30 percent slopes, consists of moderately deep, well drained soils formed in material weathered from volcanic and metamorphic rocks, mainly basaltic rock with erosion hazard of slight to high. Guenoc soils occur on foothills and have slopes of 2 to 75 percent. The Project Site is a 3% gently slope from north to south, from elevation 1,930 asl to elevation 1,900 asl towards the North Fork Battle Creek flat. Estimated earthwork for the Project, including for the driveway, fire access roads and equipment pads, involves 1,140 CY of cut and 570 CY of fill resulting in a grading plan that on balance results in an excess of 570 CY of material. A grading permit is required prior to any grading activities. The grading permit includes requirements for erosion and sediment control, including retention of topsoil. Therefore, potential impacts of the Project on soil erosion with respect to the loss of topsoil would be less-than-significant.

c) The Project would not be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the Project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. The property is gently sloping from north to south. The Project Site is not located at the top or toe of any significant slope. Based on records of construction in the area, there is no evidence to support a conclusion that the Project is on a geologic unit or soil that is unstable.

d) The Aiken and Guenoc soil types are listed in the USDA, Soil Conservation Service Web Soil Survey respectively as having low to moderate and low shrink swell potential. There is little to no slope on the Project Site. The Project is an unmanned facility and be would not be located on expansive soil creating substantial direct or indirect risks to life or property.

e) The Project does not require the use of septic tanks or alternative wastewater disposal systems.

f) The Project would not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature. However, as discussed in Section VII.a.ii above, the proposed Project shall comply with the latest building standards and codes, including the CBSC. The final building permit plan set shall be submitted to the County Building Official for review and approval. However, paleontological resources could be encountered when excavation occurs in previously undisturbed soil and bedrock.

The implementation of standard conditions of approval, which requires that excavation activities be halted should a paleontological resource be encountered and the curation of any substantial find, would reduce any potential impacts to a less-than significant level and no mitigation is required.

Mitigation/Monitoring: None proposed.

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

Discussion: Based on these comments, the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the Project, observations on the Project Site and in the vicinity, the following findings can be made:

a,b) In 2005, the Governor of California signed Executive Order S-3-05, establishing that it is the State of California's goal to reduce statewide GHG emission levels. Subsequently, in 2006, the California State Legislature adopted AB 32, the California Global Warming Solutions Act. In part, AB 32 requires the California Air Resources Board to develop and adopt regulations to achieve a reduction in the State's GHG emissions to year 1990 levels by year 2020.

California Senate Bill 97 (SB 97) established that an individual project's effect on GHG emission levels and global warming must be assessed under CEQA. SB 97 further directed that the State Office of Planning and Research (OPR) develop guidelines for the assessment of a project's GHG emissions. Those guidelines for GHG emissions were subsequently included as amendments to the CEQA Guidelines. The guidelines did not establish thresholds of significance and there are currently no state, regional, county, or city guidelines or thresholds with which to direct project-level CEQA review. As a result, Shasta County reserves the right to use a qualitative and/or quantitative threshold of significance until a specific quantitative threshold is adopted by the state or regional

air district.

The City of Redding currently utilizes a quantitative non-zero project-specific threshold based on a methodology recommended by the California Air Pollution Officers Association (CAPCOA) and accepted by the California Air Resources Board (CARB). According to CAPCOA's Threshold 2.3, CARB Reporting Threshold, 10,000 metric tons of carbon-dioxide equivalents per year (mtC02eq/yr) is recommended as a quantitative non-zero threshold. This threshold would be the operational equivalent of 550 dwelling units, 400,000 square feet of office use, 120,000 square feet of retail, or 70,000 square feet of supermarket use. This approach is estimated to capture over half the future residential and commercial development projects in the State of California and is designed to support the goals of AB 32 and not hinder it. The use of this quantitative non-zero project-specific threshold by Shasta County, as lead agency, would be consistent with certain practices of other lead agencies in the County and throughout the State of California.

The United States Environmental Protection Agency (EPA) identifies four primary constituents that are most representative of the GHG emissions. They are:

- Carbon Dioxide (C02): Emitted primarily through the burning of fossil fuels. Other sources include the burning of solid waste and wood and/or wood products and cement manufacturing.
- Methane (CH4): Emissions occur during the production and transport of fuels, such as coal and natural gas. Additional emissions are generated by livestock and agricultural land uses, as well as the decomposition of solid waste.
- Nitrous Oxide (N20): The principal emitters include agricultural and industrial land uses and fossil fuel and waste combustion.
- Fluorinated Gases: These can be emitted during some industrial activities. Also, many of these gases are substitutes for ozone-depleting substances, such as CFC's, which have been used historically as refrigerants. Collectively, these gases are often referred to as "high global-warming potential" gases.

The primary generators of GHG emissions in the United States are electricity generation and transportation. The EPA estimates that nearly 85 percent of the nation's GHG emissions are comprised of carbon dioxide (C02). The majority of C02 is generated by petroleum consumption associated with transportation and coal consumption associated with electricity generation. The remaining emissions are predominately the result of natural-gas consumption associated with a variety of uses.

With regard to the Project, proposed operational emissions are significantly less than the quantitative non-zero project-specific thresholds described above. The scope of the proposed Project improvements will not involve a significant number of equipment hours to complete and would not generate significant traffic volumes during construction. The solar facility is a zero-emission electricity source, and the Project will result in a net decrease in GHG emissions by serving as an alternative source for fossil-fuel based power which aligns with federal, state, and local plans that aimed to reduce GHG emissions through alternative power supplies.

Based on the negligible percentage of construction- and operation-related GHG emissions, and the net overall reduction in GHG emissions represented by the Project, it can be concluded that the Project would not have a significant impact through GHG generation, and that the Project will not conflict with an applicable plan, policy or regulation for GHG reduction. Post-construction, the solar facility would be unmanned and require only infrequent maintenance visits which are not expected to generate significant GHG emissions. Therefore, the Project is not expected to generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, nor would the Project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Mitigation/Monitoring: None proposed.

IX. HAZARDS AND HAZARDOUS MATERIALS: Would the Project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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?				✔
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?				✔
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				✔

IX. HAZARDS AND HAZARDOUS MATERIALS: Would the Project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?				✔
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?				✔
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				✔
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?				✔

Discussion: Based on these comments, the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the Project, observations on the Project Site and in the vicinity, the following findings can be made:

a) The Project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. Construction activities could involve the use of hazardous materials, such as fuels and lubricants. These materials are commonly used during construction, would be used in small quantities, and are not acutely hazardous. Numerous laws and regulations ensure the safe transportation, use, storage, and disposal of hazardous materials. For example, Caltrans and the California Highway Patrol regulate the transportation of hazardous materials and wastes, including container types and packaging requirements, as well as licensing and training for truck operators, chemical handlers, and hazardous waste haulers.

   Worker safety regulations cover hazards related to the prevention of exposure to hazardous materials and a release to the environment from hazardous materials use. The California Division of Occupational Safety and Health (Cal/OSHA) also enforces hazard communication program regulations, which contain worker safety training and hazard information requirements, such as procedures for identifying and labeling hazardous substances, communicating hazard information related to hazardous substances and their handling, and preparation of health and safety plans to protect workers and employees.

   The hazardous materials associated with pad-mounted transformers are used in small quantities. Maintenance of on-site pad-mounted transformers is a standard practice with established protocols, including spill prevention. The proposed uses will result in routine transport, use, or disposal of hazardous materials in small quantities.

b) The Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. No hazardous materials are proposed to be stored onsite. If in the future it is necessary to store such material in reportable quantities, the operator and/or contractor would have to prepare and submit a hazardous materials business plan to the Shasta County Environmental Health Division (SCEHD) for review and approval. A hazardous substance is reportable if stored at or above 55 gallons for liquids; 200 cubic feet for compressed gas; or 500 pounds for solids. Additionally, the applicant shall comply with all hazardous waste generator regulations, including reporting their status as a hazardous waste generator to SCEHD. The conditions of approval for the Project would include a standard condition requiring compliance with this regulatory requirement. Nevertheless, no hazardous materials or generator fuels are proposed as part of the Project. Therefore, the Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.

c) 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. The nearest schools are approximately 5.4 miles to the northwest.

d) The Project Site is not located on a site which is included on the list of hazardous materials sites compiled by the California Department of Toxic Substances Control pursuant to Government Code Section 65962.5.

e) The Project is not located within an airport land use plan or within two miles of a public airport or public use airport. There is a documented "private" air strip located approximately 1,500 feet on the property immediately east of the Project Site. However, the solar facility would have a maximum height of 15' above grade when solar panels are directly perpendicular to the ground. This is well below the maximum height for residential projects in the immediate vicinity of a private airstrip and lower than existing mature vegetation in and around the Project Site.

f) A review of the Project and the Shasta County Multi-Jurisdictional Hazard Mitigation Plan indicates that the proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

g) The Project is located in an area which is designated a "HIGH" fire hazard severity zone. All driveways and buildings for the proposed Project would be required to be constructed in accordance with the Shasta County Fire Safety Standards. These standards also require the clearing of combustible vegetation around all structures for a distance of not less than 30 on each side or to the property line. California Public Resources Code Section 4291 includes a "Defensible Space" requirement of clearing 100 feet around all buildings or to the property line, whichever is less. The solar facility will be unmanned and requires only infrequent maintenance visits. The Project will not substantially increase the exposure of people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires.

Mitigation/Monitoring: None proposed.

X. HYDROLOGY AND WATER QUALITY: Would the Project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	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?				✔
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin.				✔
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 through the addition of impervious surfaces, in a manner which would: (i) result in substantial erosion or siltation on- or off-site: (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; (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 (iv) impede or redirect flows?				✔
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?				✔
e) Conflict with or obstruct implementation of a water quality control plan or sustainable management plan?				✔

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the Project, observations on the Project Site and in the vicinity, the following findings can be made:

a) The Project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. Through adherence to construction standards, including erosion and sediment control measures, water quality and waste discharge standards will not be violated. Nor would surface or ground water quality be otherwise substantially degraded. Grading will be needed for this Project. A grading permit will be required. The provisions of the permit will address erosion and siltation containment on- and off-site.

Construction activities necessary to construct the Project would be conducted in accordance with a State of California Regional Water Quality Control Board Construction General Permit or the County grading ordinance. Appropriate stormwater BMPs, including erosion, sediment and non-stormwater controls would be implemented to protect water quality at all times through construction. Implementation of BMPs and erosion control measures would reduce potential water quality impacts during Project construction activities to a less-than-significant level by requiring measures to control erosion and sedimentation of receiving water bodies. As a result, the potential impact on water quality during construction and operation would be less-than-significant.

b) The Project does not include any groundwater withdrawals and would not interfere substantially with groundwater recharge such

that the Project may impede sustainable groundwater management of the basin.

c) The Project would not substantially alter the existing drainage pattern of the site or area in a manner which would (i) result in substantial erosion or siltation on- or off-site; (ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite; (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 (iv) impede or redirect flows. The proposed Project features an approximately 1,000-foot by 1,000-foot compound and development area that would be developed on relatively flat sloping ground that would not require any significant recontouring. The Project would also include minor grading and trenching to construct an approximately 850-foot gravel access road. The driveway would also be constructed on relatively flat ground and not require any significant recontouring or drainage facilities that would significantly alter the existing drainage pattern or concentrate and direct storm water run-off that would significantly increase potential erosion or siltation on or off-site. New impervious surfaces would include the foundations for each panel and any equipment cabinets or other utility panels. Steel piers required to support the solar array frame would be the only impervious area that alters existing ground surface drainage flows. Drainage from impervious surfaces, graveled areas, and the graveled driveway will be dispersed to adjacent unimproved vegetated areas adjacent to the equipment compound and lease area. Compliance with all provisions of the grading permit would be required.

To effectively analyze impacts of solar panels on hydrological cycles onsite, Kimley-Horn and Associates, LLC prepared a Stormwater Technical Memorandum in August 2025, that discusses the imperviousness of solar facilities in Shasta County. Due to the PV arrays being elevated and placed pads or piles, there is area beneath the PV array that storm water is able to percolate. For stormwater modeling purposes, PV arrays are not classified as 100% impervious; but rather the overall impervious area be equal to the area of from the pads and piles that support the PV arrays and associated equipment. The elevated nature of the panels, combined with pervious ground beneath and between the elevated solar panels, supports infiltration and maintains the hydrologic cycle and any stormwater flows. As such the impacts are less-than-significant.

d) The Project would not risk release of pollutants in flood hazard, tsunami, or seiche zones due to Project inundation.

e) Through adherence to construction standards, and the provisions of the required grading permit, including erosion and sediment control measures, the Project would not conflict with or obstruct implementation of a water quality control plan or sustainable management plan.

Mitigation/Monitoring: None proposed.

XI. LAND USE AND PLANNING: Would the Project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Physically divide an established community?				✔
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?				✔

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the Project, observations on the Project Site and in the vicinity, the following findings can be made:

a) The proposed Project includes the development of a solar facility on a vacant parcel and would not physically divide an established community. The Project does not include the creation of any road, ditch, wall, or other feature which would physically divide an established community.

b) Shasta County Code (SCC) Section 17.02.430 defines Public Utility to include Private Energy Production which is further defined in SCC Section 17.02.420 as production of natural gas or electricity from other than a conventional power source, when that energy is not sold directly to members of the public, with "conventional power source" including nuclear energy, any hydropower facility with greater than thirty megawatts of electrical capacity, and combustion of fossil fuels, except when used in cogeneration technology.

The proposed private solar energy production facility is therefore a Public Utility and in accordance with SCC Section 17.88.100 is a use that is permissible with approval of a use permit in all zone districts and in accordance with applicable County Development Standards. As proposed, the Project would not conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect.

Mitigation/Monitoring: None proposed.

XII. 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?				✔
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?				✔

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the Project, observations on the Project Site and in the vicinity, the following findings can be made:

a) There are no known mineral resources of regional value located on or near the Project Site. The Project would not result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the State. There are no known mineral resources of regional value located on or near the Project Site.

b) The Project Site is not identified in the General Plan Minerals Element as containing a locally-important mineral resource. There is no other land use plan which addresses minerals. Therefore, the Project would not result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.

Mitigation/Monitoring: None proposed.

XIII. NOISE: Would the Project result in:	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?				✔
b) Generation of excessive groundborne vibration or groundborne noise 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?				✔

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the Project, observations on the Project Site and in the vicinity, the following findings can be made:

a) Per the County's General Plan, noise created by new proposed non-transportation noise sources shall be mitigated so as not to exceed the noise level standards of Table N-IV of the Shasta County General Plan as measured immediately within the property line of lands designated for noise-sensitive uses. These noise level performance standards for non-transportation sources are 55dB hourly Leq for daytime (7:00 a.m. to 10:00 p.m.) hours and 50dB hourly Leq for nighttime (10:00 p.m. to 7:00 a.m.) hours. The Project will not generate noise levels in excess of this standard. A general rule of noise attenuation is that noise is reduced 6dB for every doubling of distance. For example, if a piece of equipment produces 100dBat 25 feet away from the equipment, the noise level will be 94dBat 50 feet from the equipment.

The Project will result in minimal noise. Noise at a solar facility is primarily generated by the inverter, which amounts to a low hum audibly detectable only when standing in the direct vicinity of the inverter. Typically, noise associated with the inverters is less than 54dBA when observed from 100 feet away (inside the Project Area). This level of noise is quieter than a cycling refrigerator and only noticeable if standing within the solar array. The nearest sensitive receptor, being a single-family residence, is at least 400 feet away from any noise-generating equipment. The solar facility is not in operation at night and therefore will not generate any noise during the night.

Temporary noise levels could be increased during the construction phase of the Project as well. For use permits involving construction near residences, a standard condition of approval would limit construction to daylight hours between 7:00 a.m. and 7:00 p.m. and prohibit construction on Sundays and Federal holidays. Nevertheless, due to the short duration of construction, the temporary increase in ambient noise levels in the vicinity of the Project is expected to be less-than-significant.

b) The Project would not result in generation of excessive groundborne vibration or groundborne noise levels. The Project is limited in scope to the construction of the new solar facility. Any groundborne vibration or noise levels as a result of driving piers for the arrays and other ancillary structures or trenching for the underground power would be temporary in nature and subject to conditions regarding days and hours for construction, and is expected to be less-than-significant.

c) The Project is located approximately 1,500 feet to the west of a private airstrip. There are no public airports or airport land use plans that apply to the subject property. As an unmanned solar facility, the Project expose people residing or working in the Project Area to excessive noise levels. There would be no impact.

Mitigation/Monitoring: None proposed.

XIV. POPULATION AND HOUSING: Would the Project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Induce substantial unplanned 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)?				✔
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				✔

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the Project, observations on the Project Site and in the vicinity, the following findings can be made:

a) The Project would not induce substantial unplanned population growth in the area, either directly or indirectly. The Project does not include the development of new homes or businesses, nor would any new jobs be created as a result of the Project. The Project would include the development of an access driveway and extensions of utilities solely to serve the proposed solar facility. There would be no extension of other infrastructure. Therefore, the Project is not expected to induce substantial growth in the area.

b) The Project would not displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere. The Project does not include destruction of any existing housing.

Mitigation/Monitoring: None proposed.

XV. PUBLIC SERVICES: Would the Project result in: Substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
Fire Protection?				✔
Police Protection?				✔
Schools?				✔
Parks?				✔
Other public facilities?				✔

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the Project, observations on the Project Site and in the vicinity, the following findings can be made:

The Project would not 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:

Fire Protection:

The Project is located predominantly in a "High" fire hazard severity zone. A narrow strip along the northern extent of the Project Area, including portion within which the access driveway is proposed, is in a "Very High" fire hazard severity zone. However, no significant additional level of fire protection is necessary.

Police Protection:

The County employs a total of 165 sworn and 69 non-sworn County peace officers (Sheriff's deputies) to serve a population of 66,850 persons that reside in the unincorporated area of the County (U.S. Department of Commerce, Bureau of the Census, April 1, 2020). This level of staffing equates to a ratio of approximately one officer per 286 persons. The solar facility would be unmanned and require only infrequent maintenance visits. The proposed solar facility would be enclosed by a 6-foot-tall chain link fence with one-foot of barbed wire. The Project is not expected to require any significant additional level of police protection.

Schools:

The resultant development from the Project will be required to pay the amount allowable per square foot of construction to mitigate school impacts.

Parks:

The County does not have a neighborhood parks system.

Mitigation/Monitoring: None proposed.

XVI. RECREATION: Would the Project	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) 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?				✔
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?				✔

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the Project, observations on the Project Site and in the vicinity, the following findings can be made:

a) The Project would not increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. The County does not have a neighborhood or regional parks system or other recreational facilities.

b) The Project would not include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Mitigation/Monitoring: None proposed.

XVII. 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?				✔
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3 subdivision (b)?				✔
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?				✔
d) Result in inadequate emergency access?				✔

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the Project, observations on the Project Site and in the vicinity, the following findings can be made:

a) The Project would not conflict with a program, ordinance or policy establishing measures of effectiveness for the performance of addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities. The Project Site is accessed from Wilson Hill Road at the intersection of Battle Creek Bottom Road. During construction, traffic volumes would increase on Wilson Hill Road because of deliveries of materials and equipment and worker and County inspector travel to and from the Project Site. Post construction, the solar facility would be unmanned and require only infrequent maintenance visits. Wilson Hill Road is a rural low volume County maintained road. Project operations would not generate enough traffic to significantly reduce the volume-to-capacity ratio of adjacent roadways to a reduced level-of-service and would not conflict with adopted policies, plans or programs supporting alternative transportation.

   The Project is consistent with the Shasta County General Plan Circulation Element policies for transit and pedestrian bicycle modes, the 1998 Shasta County Bikeway Plan, and with the Regional Transportation Plan.

b) Vehicle miles traveled within the County would temporarily increase during construction. The temporary increase would be due to worker travel and deliveries of materials and equipment as well as site inspections from County staff. This temporary increase is not anticipated to be substantial due to the limited scope and duration of construction. The solar facility would be unmanned and require only infrequent maintenance visits. Vehicle miles traveled in support of facility operations would be negligible. Therefore, potential impacts of the Project attributable to conflicts or inconsistencies with CEQA Guidelines section 15064.3, subdivision (b) would be less-than-significant.

c) The Project would not substantially increase hazards due to a geometric design feature or incompatible uses. The Project would not substantially increase hazards due to a geometric design feature or incompatible uses. The proposed 20-foot-wide all-weather access driveway does not have geometric design features that would lead to an increase in hazards. There are no land uses occurring on the property that would be considered incompatible with a solar facility.

d) The Project Site would be accessed from Wilson Hill Road via a new 20-foot-wide all-weather driveway consistent with County of Shasta Development Standards. The Project has been reviewed by the Shasta County Fire Department which has determined that there is adequate emergency access. The Project would not result in inadequate emergency access.

Mitigation/Monitoring: None proposed.

XVIII. TRIBAL CULTURAL RESOURCES: Would the Project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Would the Project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is: i) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			✔	

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the Project, observations on the Project Site and in the vicinity, the following findings can be made:

a) Information about the Project was sent to the Northeast Information Center of the California Historical Resources Information System, which reviewed the Project and commented that the Project Area is moderately sensitive for cultural resources. Based on their recommendation additional screening for cultural resources was requested. No prehistoric nor historical resources were discovered during the research and site assessment provided by Rincon Consultants, Inc. dated July 2024.

Pursuant to PRC §21080.3.1 the Department of Resource Management sent a certified letter to notify the Paskenta Band of Nomlaki Indians that the Project was under review and to provide the Tribe 30 days from the receipt of the letter to request formal consultation on the Project in writing. Certified mail records indicate that the notification letter was received by the Tribe on Tuesday, February 18, 2025. As of Tuesday, March 18, 2025, no request for consultation on the Project was received from the Paskenta Band of Nomlaki Indians. Therefore, the requirements of AB52 have been met and no AB52 Project consultation with the Paskenta Band of Nomlaki Indians is required.

The Project would not cause a substantial adverse change in the significance of a tribal cultural resource as there is no evidence of prehistoric or historical resources within the Project Area that are listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources; or a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1.

Although there is no evidence to suggest that the Project would result in any significant effect to tribal cultural resources, there is always the possibility that such resources or remains could be encountered. Therefore, if, in the course of development, any archaeological, historical, or paleontological resources are uncovered, discovered or otherwise detected or observed, mineral exploration activities in the affected area shall cease and a qualified archaeologist shall be contacted to review the site and advise the County of the site's significance. However, there is a small potential that the proposed Project activities could inadvertently uncover archaeological materials that would need to be evaluated further to determine their significance. The conditions of approval incorporated as requirement for Project approval ensure appropriate response in the event of inadvertent discovery of cultural resources. As such the potential for Project activities to inadvertently uncover archaeological materials is less-than-significant.

Mitigation/Monitoring: None.

XIX. UTILITIES AND SERVICE SYSTEMS: Would the Project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or telecommunications facilities, the construction or relocations of which could cause significant environmental effects?				✔
b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?				✔
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?				✔
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?				✔
e) Comply with Federal, State, and local management and reduction statutes and regulations related to solid waste?				✔

Discussion: Based on the related documents listed in the Sources of Documentation for Initial Study Checklist, staff review of the Project, observations on the Project Site and in the vicinity, the following findings can be made:

a) The proposed Project would not require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, natural gas or telecommunications facilities, the construction or relocations of which could cause significant environmental effects. The solar facility would be unmanned and not require wastewater treatment, water service, solid waste disposal service, and have minimal impact to storm water drainage. The Project would involve routing underground conduit for the solar facility. A grading permit is required prior to any grading activities. Through adherence to construction standards and the provisions of the required grading permit, potential environmental effects would be less-than-significant.

b) The Project would have minimal demand for water. During construction water may be used for dust control but otherwise the unmanned solar facility would require little or no additional water demand during operations. The facility would be unmanned and require only infrequent maintenance visits.

c) The Project would not require wastewater treatment. The facility would be unmanned and require only infrequent maintenance visits.

d) The Project would not 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. The solar facility would be unmanned and require only infrequent maintenance visits.

e) The Project would comply with Federal, State, and local management and reduction statutes and regulations related to solid waste. The solar facility would be unmanned and require only infrequent maintenance visits.

Mitigation/Monitoring: None proposed.

XX. WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?				✔

XX. WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
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?				✔
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?			✔	
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?				✔

Discussion:

a) A review of the Project and the Shasta County Multi-Jurisdictional Hazard Mitigation Plan, and the Shasta County Emergency Operations Plan, indicates that the proposed Project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. As noted in Section IV. Biological Resources, the Project Area has been previously modified as part of a state grant funded fire prevention project to reduce the fuel load within the Project Site and as such, most of the ground surface was covered in debris from mastication activities at the time of the field survey. The soil surface has also been modified in some areas due to heavy equipment use on the site, and many berms and uneven surfaces were present. The masticated vegetation on the ground appeared to consist primarily of manzanita (Arctostaphylos sp.); however, the vegetation that was still upright and visible was dominated by interior live oak (Quercus wislizeni) and blue oak (Quercus douglasii) trees, as well as California foothill pine (Pinus sabiniana) and California bay (Umbellularia californica). The vegetation community described below is consistent with the masticated vegetation observed on the ground, as this vegetation would be dominant throughout the Project Area if it resprouted and was allowed to grow unmanaged.

The Project has been reviewed by the Shasta County Planning and Building Department for compliance with road and access standards and there are no Project features that would impair an adopted emergency response plan or evacuation plan. The Project would comply with current California Department of Forestry and California Building Code requirements for fire safety. The Project Site is currently served by overhead utilities for power but would not require significant infrastructure installation or maintenance to existing infrastructure as a result of the proposed Project.

The proposed Project includes new on-site overhead delivery lines from the solar arrays to the main overhead distribution lines at Wilson Hill Road but would be subject to Shasta County Engineering and Fire Department for new development, including distance and clearance from existing vegetation. Therefore, impacts would be considered less-than-significant, and no mitigation is required.

b) Existing conditions at the Project Site and the proposed Project modifications would not, 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 during construction. Post construction, the facility will be unmanned and therefore would not have any occupants.

c) The Project includes the installation of solar modules and string inverters to convert the sun's energy into usable AC power. The modules will be mounted on a steel racking system, which will be anchored into the ground using driven steel piers, chain link security fencing around the site equipment, and an improved driveway access to Wilson Hill Road, all of which will require infrequent maintenance. As noted, in Section IV Biological Resources, a Vegetation Management Plan will be implemented to maintain fire breaks and reduce fire hazard within the Project Area. Maintenance mowing and vegetation management will occur during normal business hours (8:00 A.M. and 5:00 P.M. Pacific Time). Under the plan, mowing during fire season would be restricted to early morning hours and the mowing crew would be equipped with firefighting tools (backpack water sprayer, shovels, Mcleods).

A Fire Safety Plan, prepared by RPCA Solar 14, LLC in August of 2024 includes the evaluation of potential fire risk, emergency response access, steps for minimizing fire risk, de-energizing of the electrical system, project layout and muster points, lists of emergency equipment, and a list of local emergency contacts. This Fire Safety Plan will be required to be provided to contractors and employees conducting work within the Project Area and to local emergency response providers as a condition of approval for the proposed use permit.

d) The Project would not 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.

Mitigation/Monitoring: None proposed.

XIX. MANDATORY FINDINGS OF SIGNIFICANCE:	Potentially Significant Impact	Less-Than-Significant With Mitigation Incorporated	Less-Than-Significant Impact	No Impact
a) Does 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 the self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?		✔		
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)?				✔
c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?				✔

Discussion:

a) The Project will not degrade the quality of the environmental, 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, reduce the number or restrict the range of a rare or endangered plant or animal. Although no special status species were observed on the Project Site, potential biological impacts related to special status bird species would be reduced to less-than-significant levels through implementation of implementation of **Mitigation Measures IV.a.1 through IV.a.3 and IV.c.1** as stated in Section IV: Biological Resources above. There is potential for historic or prehistoric resources to occur on site and Project construction activities could disturb previously unknown resources as a result of the Project. As stated in Section V: Cultural Resources, Section VII: Geology and Soils, and Section XVIII: Tribal Cultural Resources above, in the event archaeological artifacts are found, standard conditions of approval for discovery of unknown resources would reduce potential impacts to less-than-significant levels which would be incorporated into the Project. Therefore, impacts would be considered less-than-significant with mitigation incorporated.

b) The Project does not have impacts that are individually limited but cumulatively considerable. Potential air quality, greenhouse gas emissions, hydrology and traffic associated impacts are discussed in their respective sections above. The analysis determined that all potential impacts were less-than-significant and would not contribute significantly to cumulative impacts. The proposed Project is consistent with Use Permit approvals for similar facilities in Shasta County and does not propose new development in an area where the Project would considerable incremental effects when viewed in connection the effects of past projects, other current projects, and the effects of probable future projects. With the imposition of standard and Project specific conditions of approval, the Project does not have impacts that are individually limited, or cumulatively considerable.

c) Based on the discussion and findings in all Sections above, there is no evidence to support a finding that the Project would have environmental effects which would cause substantial adverse effects on human beings, either directly or indirectly.

Mitigation/Monitoring: With incorporation of the mitigation measures proposed, the impacts will be less-than-significant.

INITIAL STUDY COMMENTS

PROJECT NUMBER Use Permit 24-0009 – RCPA Solar 14, LLC

GENERAL COMMENTS:

Special Studies: The following project-specific studies have been completed for the proposal and will be considered as part of the record of decision for the Mitigated Negative Declaration. These studies are available for review through the Shasta County Planning Division and online at CEQA Documents and Notices (non-EIR documents) | Shasta County California.

1. Biological Resources Assessment, Rincon Consultants, Inc., July, 2024,
2. Cultural Resources Technical Report, Rincon Consultants, Inc., July, 2024
3. Oak Woodland Technical Memorandum for the Battle Creek Bottom Road Solar Development Project in Shasta County, California. Rincon Consultants, Inc. December 4, 2024
4. Battle Creek Bottom Solar –Visual Renderings from Public Vantage Points, Renewable Properties, December 13, 2024
5. Battle Creek Bottom Solar – Noise Memo, Renewable Properties – 12.13.24
6. Botanical Survey Technical Report, Rincon Consultants, Inc. July 2025
7. Glare Study, Battle Creek Bottom Solar Project, Manton, California, Barrett Energy Resources Group, July 31, 2025
8. Battle Creek Bottom Road Solar Project - Stormwater Technical Memorandum, Kimley-Horn, August 12, 2025
9. Fire Safety Plan, Renewable Properties – August 2024.
10. Battle Creek Bottom Solar Project Vegetation Management Plan – August 2024.

Agency Referrals: Prior to an environmental recommendation, referrals for this project were sent to agencies thought to have responsible agency or reviewing agency authority. The responses to those referrals (attached), where appropriate, have been incorporated into this document and will be considered as part of the record of decision for the Mitigated Negative Declaration. Copies of all referral comments may be reviewed through the Shasta County Planning Division. To date, referral comments have been received from the following State agencies or any other agencies which have identified CEQA concerns:

1. California Department of Fish and Wildlife – Region 1
2. California Regional Water Quality Control Board
3. Northeast Information Center – California Historical Resources Information Systems

Conclusion/Summary: Based on a field review by the Planning Division and other agency staff, early consultation review comments from other agencies, information provided by the applicant, and existing information available to the Planning Division, the project, as mitigated, is not anticipated to result in any significant environmental impacts.

SOURCES OF DOCUMENTATION FOR INITIAL STUDY CHECKLIST

All headings of this source document correspond to the headings of the initial study checklist. In addition to the resources listed below, initial study analysis may also be based on field observations by the staff person responsible for completing the initial study. Most resource materials are on file in the office of the Shasta County Department of Resource Management, Planning Division, 1855 Placer Street, Suite 103, Redding, CA 96001, Phone: (530) 225-5532.

GENERAL PLAN AND ZONING

1. Shasta County General Plan and land use designation maps.
2. Applicable community plans, airport plans and specific plans.
3. Shasta County Zoning Ordinance (Shasta County Code Title 17) and zone district maps.

ENVIRONMENTAL IMPACTS

I. AESTHETICS

1. Shasta County General Plan, Section 6.8 Scenic Highways, and Section 7.6 Design Review.
2. Zoning Standards per Shasta County Code, Title 17.

II. AGRICULTURAL AND FORESTRY RESOURCES

1. Shasta County General Plan, Section 6.1 Agricultural Lands.
2. Shasta County Important Farmland 2016 Map, California Department of Conservation.
3. Shasta County General Plan, Section 6.2 Timber Lands.
4. Soil Survey of Shasta County Area, California, published by U.S. Department of Agriculture, Soil Conservation Service and Forest Service, August 1974.

III. AIR QUALITY

1. Shasta County General Plan Section, 6.5 Air Quality.
2. Northern Sacramento Valley Air Basin, 2021 Air Quality Attainment Plan.
3. Records of, or consultation with, the Shasta County Department of Resource Management, Air Quality Management District.

IV. BIOLOGICAL RESOURCES

1. Shasta County General Plan, Section 6.2 Timberlands, and Section 6.7 Fish and Wildlife Habitat.
2. Designated Endangered, Threatened, or Rare Plants and Candidates with Official Listing Dates, published by the California Department of Fish and Wildlife.
3. Natural Diversity Data Base Records of the California Department of Fish and Wildlife.
4. Federal Listing of Rare and Endangered Species.
5. Shasta County General Plan, Section 6.7 Fish and Wildlife Habitat.
6. State and Federal List of Endangered and Threatened Animals of California, published by the California Department of Fish and Wildlife.
7. Natural Diversity Data Base Records of the California Department of Fish and Wildlife.

V. CULTURAL RESOURCES

1. Shasta County General Plan, Section 6.10 Heritage Resources.
2. Records of, or consultation with, the following:
   a. The Northeast Information Center of the California Historical Resources Information System, Department of Anthropology, California State University, Chico.
   b. State Office of Historic Preservation.
   c. Local Native American representatives.
   d. Shasta Historical Society.

VI. ENERGY

1. California Global Warming Solutions Act of 2006 (AB 32)
2. California Code of Regulations Title 24, Part 6 – California Energy Code
3. California Code of Regulations Title 24, Part 11 – California Green Building Standards Code (CALGreen)

VII. GEOLOGY AND SOILS

1. Shasta County General Plan, Section 5.1 Seismic and Geologic Hazards, Section 6.1 Agricultural Lands, and Section 6.3 Minerals.
2. County of Shasta, Erosion and Sediment Control Standards, Design Manual
3. Soil Survey of Shasta County Area, California, published by U.S. Department of Agriculture, Soil Conservation Service and Forest Service, August 1974.
4. Alquist - Priolo, Earthquake Fault Zoning Maps.

VIII. GREENHOUSE GAS EMISSIONS

1. Shasta Regional Climate Action Plan
2. California Air Pollution Control Officers Association (White Paper) CEQA & Climate Change, Evaluating and Addressing

Greenhouse Gas Emissions from Projects Subject to the California Environmental Quality Act

IX. HAZARDS AND HAZARDOUS MATERIALS

1. Shasta County General Plan, Section 5.4 Fire Safety and Sheriff Protection, and Section 5.6 Hazardous Materials.
2. County of Shasta Multi-Jurisdictional Hazard Mitigation Plan
3. Records of, or consultation with, the following:
   a. Shasta County Department of Resource Management, Environmental Health Division.
   b. Shasta County Fire Prevention Officer.
   c. Shasta County Sheriff's Department, Office of Emergency Services.
   d. Shasta County Department of Public Works.
   e. California Environmental Protection Agency, California Regional Water Quality Control Board, Central Valley Region.

X. HYDROLOGY AND WATER QUALITY

1. Shasta County General Plan, Section 5.2 Flood Protection, Section 5.3 Dam Failure Inundation, and Section 6.6 Water Resources and Water Quality.
2. Flood Boundary and Floodway Maps and Flood Insurance Rate Maps for Shasta County prepared by the Federal Emergency Management Agency, as revised to date.
3. Records of, or consultation with, the Shasta County Department of Public Works acting as the Flood Control Agency and Community Water Systems manager.

XI. LAND USE AND PLANNING

1. Shasta County General Plan land use designation maps and zone district maps.
2. Shasta County Assessor's Office land use data.

XII. MINERAL RESOURCES

3. Shasta County General Plan Section 6.3 Minerals.

XIII. NOISE

1. Shasta County General Plan, Section 5.5 Noise and Technical Appendix B.

XIV. POPULATION AND HOUSING

1. Shasta County General Plan, Section 7.1 Community Organization and Development Patterns.
2. U.S. Department of Commerce, Bureau of the Census.
3. Shasta County General Plan, Section 7.3 Housing Element.
4. Shasta County Department of Housing and Community Action Programs.

XV. PUBLIC SERVICES

1. Shasta County General Plan, Section 7.5 Public Facilities.
2. U.S. Department of Commerce, Bureau of the Census.
3. Records of, or consultation with, the following:
   a. Shasta County Fire Prevention Officer.
   b. Shasta County Sheriff's Department.
   c. Shasta County Office of Education.
   d. Shasta County Department of Public Works.

XVI. RECREATION

1. Shasta County General Plan, Section 6.9 Open Space and Recreation.

XVII. TRANSPORTATION/TRAFFIC

1. Shasta County General Plan, Section 7.4 Circulation.
2. Records of, or consultation with, the following:
   a. Shasta County Department of Public Works.
   b. Shasta County Regional Transportation Planning Agency.
   c. Shasta County Congestion Management Plan/Transit Development Plan.
3. Institute of Transportation Engineers, Trip Generation Rates.

XVIII. TRIBAL CULTURAL RESOURCES

1. Tribal Consultation in accordance with Public Resources Code section 21080.3.1

XIX. UTILITIES AND SERVICE SYSTEMS

1. Records of, or consultation with, the following:
   a. Pacific Gas and Electric Company.
   b. Pacific Power and Light Company.
   c. Pacific Bell Telephone Company.
   d. Citizens Utilities Company.
   e. T.C.I.

f. Marks Cablevision.
g. Shasta County Department of Resource Management, Environmental Health Division.
h. Shasta County Department of Public Works.

XX. WILDFIRE

1. Office of the State Fire Marshall-CALFIRE Fire Hazard Severity Zone Maps
2. County of Shasta Multi-Jurisdictional Hazard Mitigation Plan

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

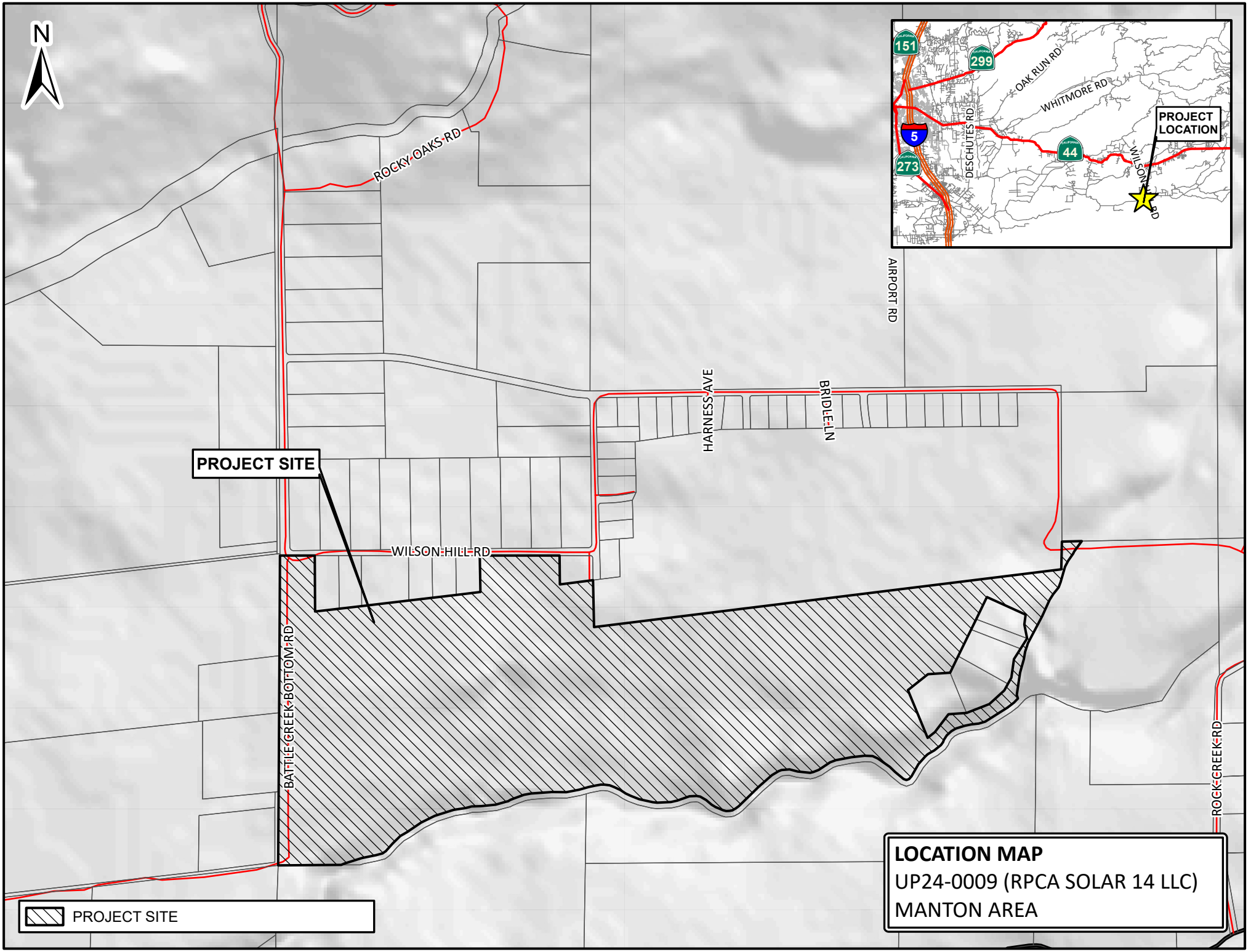
None

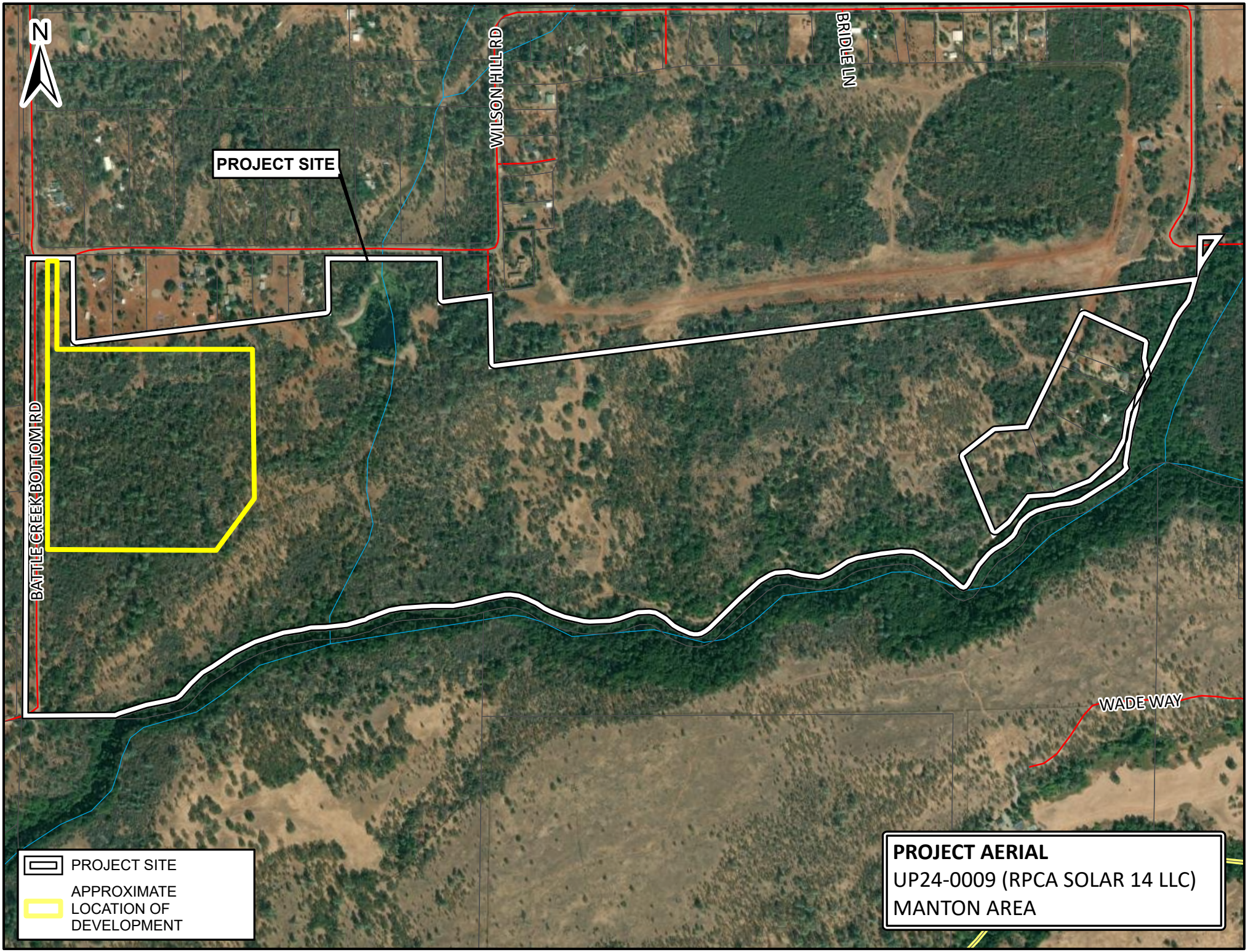
Mitigation Measure/Condition	Timing/Implementation	Enforcement/Monitoring	Verification (Date & Initials)
IV.a.1) Native and ESA Listed Nesting Birds All native birds in California are protected by the federal Migratory Bird Treaty Act (MBTA), and Section 3503.5 of the California Fish and Game Code (CFGCO) specifically protects raptors. Ground disturbance, noise, or removal of vegetation that would result in destruction of active bird nests or disruption of breeding/nesting activity could be a violation of the MBTA and the CFGC and could be considered a significant impact under CEQA. In addition, bald eagle is protected under the federal Bald and Golden Eagle Protection Act and is a CESA listed endangered species, as well as a California 'fully protected' species. As such, impacts to nesting bald eagles due to Project construction could be considered a significant impact under CEQA, but with the following mitigation measures, the impact would be less-than-significant. A. To avoid impacts to nesting migratory birds and/or raptors, all vegetation removal and other ground disturbing activities should occur between September 1 and January 31 when birds are not nesting, if feasible; or B. Prior to issuance of grading or building permits, if construction activities occur during the nesting season (February 1 through August 31), a pre-construction nesting survey shall be conducted by a qualified biologist within one week prior to vegetation removal or construction activities to determine if any native birds or bald eagles are nesting on or near the site (including a 150-foot buffer for raptors and a 0.5-mile buffer for bald eagle, where accessible). If any active nests are observed during surveys (including active nests of CESA- or ESA-listed species). If an active nest is located during the preconstruction surveys, a non-disturbance buffer shall be established around the nest by a qualified biologist in consultation with the California Department of Fish and Wildlife (CDFW) based on species, location, and extent and type of planned construction activity. No vegetation	Prior to issuance of a building permit. Prior to commencement of activity at the site. Through the completion of construction.	Planning Division	

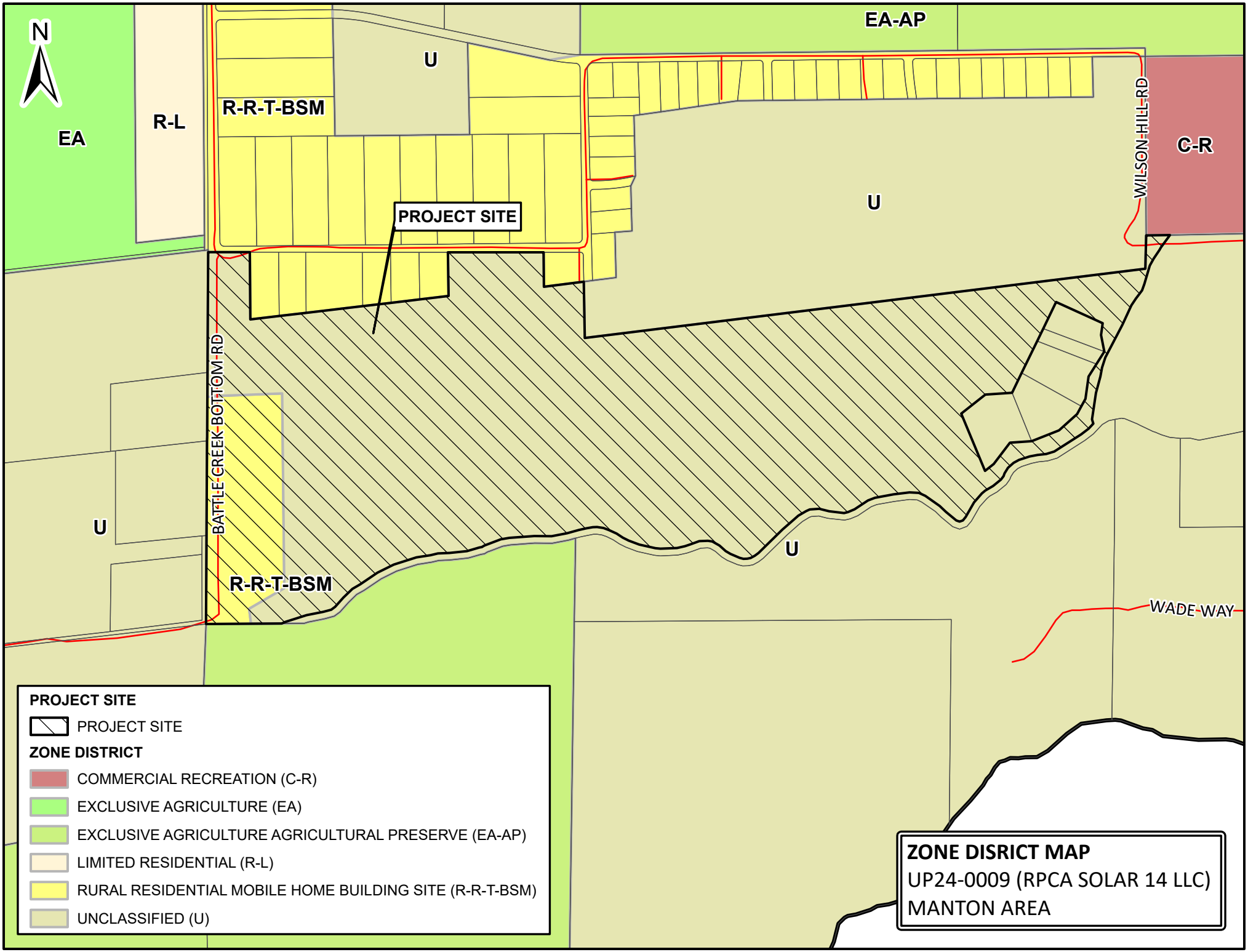
Mitigation Measure/Condition	Timing/Implementation	Enforcement/Monitoring	Verification (Date & Initials)
removal or construction activities shall occur within this non-disturbance buffer until the young have fledged, as determined through additional monitoring by the qualified biologist. The results of the pre-construction surveys shall be sent electronically to CDFW at R1CEQARedding@wildlife.ca.gov.			
IV.a.2) Pallid Bat Pallid bat is protected by CDFG Code 4150 and impacts to foraging or roosting bats or maternity colonies would be considered a significant impact under CEQA. The following AMM would ensure potential impacts to bats that may utilize the Project area would be less-than-significant. A. Trees that contain cavities, crevices, or exfoliated bark have high potential to be used by various bat species. If land alteration and/or removal of trees with cavities, crevices, or exfoliated will occur, a thorough survey should be conducted by a qualified biologist to determine if bat roosting opportunities are present prior to tree removal. B. Construction activities shall be limited to daylight hours (30 minutes after sunrise to 30 minutes before sunset), except where the requirements of the use permit are more stringent in which case the more stringent requirement shall prevail. C. Trees with 12" diameter at breast height (DBH) or greater with potentially suitable roosting features should be clearly marked by a qualified biologist and may be removed as follows: i. To avoid impacts to roosting bats, removal of shall occur only during the following time frames and subject to the following weather conditions, or as otherwise approved/recommended by a qualified biologist: • Between March 15 and April 30, and between August 15 and October 1; and • Between October 2 and March 14 when evening temperatures are above 45°F, and no more than ½" of	Prior to issuance of a building permit. Prior to commencement of activity at the site. Through the completion of construction.	Planning Division	

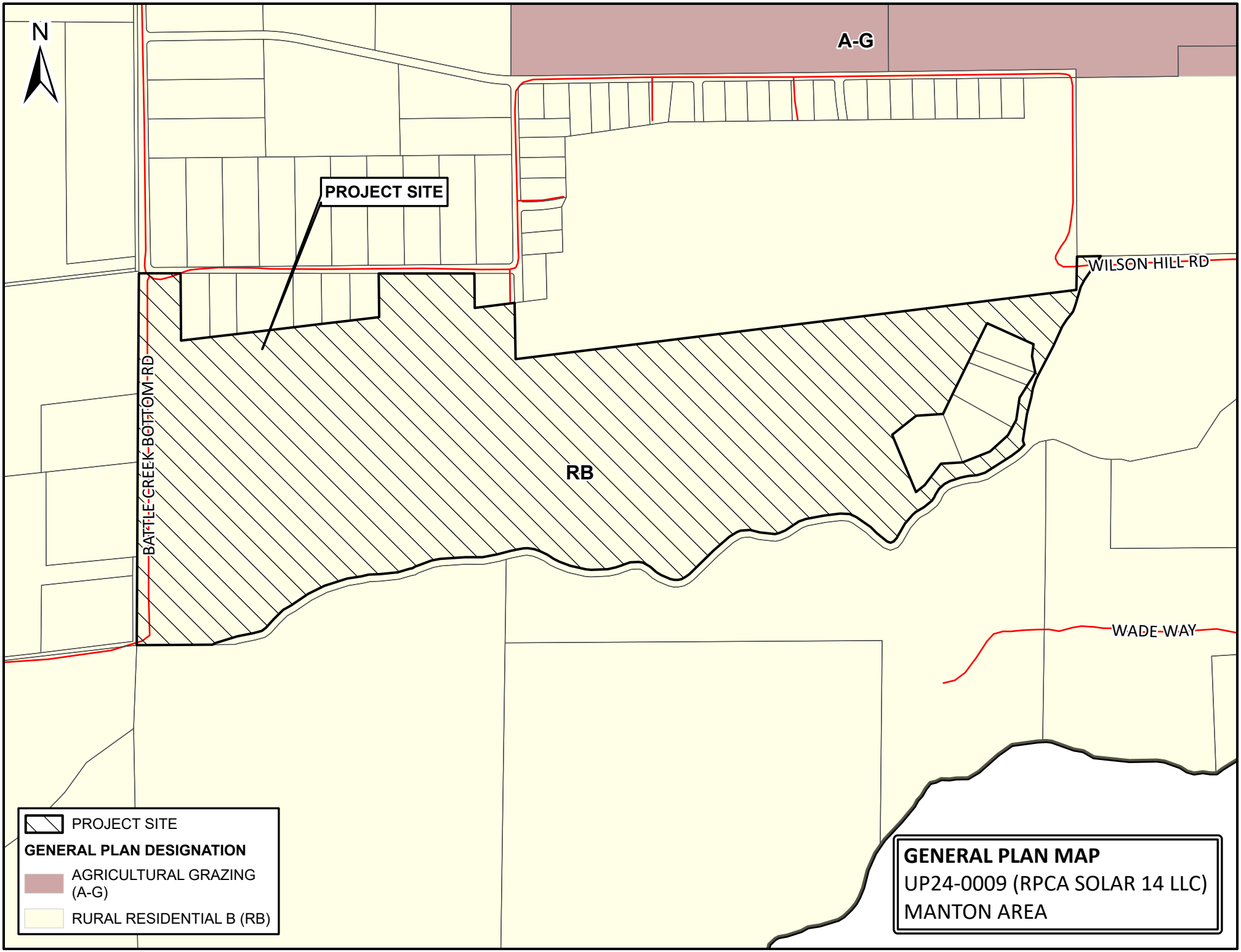
Mitigation Measure/Condition	Timing/Implementation	Enforcement/Monitoring	Verification (Date & Initials)
rainfall within a 24-hour period prior to tree removal. ii. Trees shall be removed using a two-step process to allow bats the opportunity to abandon the roost prior to removal. The two-sept removal process is as follows: • Day 1: Remove small-diameter trees, brush, and non-habitat features of large trees (branches without cavities, crevices, or exfoliating bark) to create noise and vibration disturbance on the tree and to alter the air flow and temperature around the roost feature thus encouraging bats to vacate roost features on their own. The tree shall then be left for 24 hours to allow the bats to move to another roost site. No excavators, grinders, or other heavy equipment should be used for first day trimming of bat habitat trees. • Day 2: If bats may be in branches that can be removed from the tree and set aside, cut the branches off intact and set them upright against trees away from the Project area to allow any bats present to passively escape. Then, remove the remainder of the tree. D. If any bats are observed during construction activities, work will be halted and postponed until a qualified biologist is contacted to determine a proper strategy to avoid impacts to bats that are present in the Project area.			
IV.a.3) Crotch's Bumble Bee Crotch's bumble is a candidate for listing under CESA and as such, ESA protections are afforded to this species as if it were listed until a determination is made by CDFW regarding formal listing. Impacts to bumble bees in the form of destruction of nests or injury or death of individual bees would be considered significant under CEQA. The following AMM would ensure potential impacts to bees that may be found in the Project Area would be less-than-significant. A formal habitat assessment will be performed prior to initiating ground disturbing activities to determine if suitable nesting or foraging habitat is present in the Project Area. A minimum of three visits will	Prior to issuance of a building permit. Prior to commencement of activity at the site. Through the completion of construction.	Planning Division	

Mitigation Measure/Condition	Timing/Implementation	Enforcement/Monitoring	Verification (Date & Initials)
be conducted during the colony active season (April – August) and will be spaced 2-4 weeks apart. The assessment will include: 1.Results of occurrence record data 2. Foraging, nesting, and overwintering resources 3. Plant species observed (including what is blooming at the time of the survey and percent cover) The locations of any nesting resources, including rodent burrows, cavities, thatched grasses, brush, rock piles, logs, and manmade structures like dumped furniture, will be mapped during the assessment. Areas adjacent to the Project will also be considered, as accessible, to determine if there is suitable nesting or foraging habitat. If suitable nesting and foraging resources are detected during the habitat assessment, they will be avoided by a 50-foot buffer, where possible. If avoidance is not possible, a protocol-survey following the CDFW Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW 2023) will be performed to determine if Crotch's bumble bee is present in the Project Area. If no Crotch's bumble bees are detected on the site, no further mitigation would be required. If Crotch's bumble bees are detected, consultation with CDFW will be initiated to determine the best way to avoid impacts to bumblebees on the site, and to determine whether an ITP is warranted.			
IV.c.1) Potentially Jurisdictional Ephemeral Drainage. As part of the design review and permit application preparation process, appropriate best management practices (BMPs) should be incorporated in Project designs to prevent runoff and siltation from entering this feature,. These BMPs may include, but are not limited to, biodegradable straw wattles free from weed seed (and containing no monofilament [plastic] netting), silt fencing, hydroseeding, or biodegradable erosion control mats/blankets. Specific BMPs should be defined prior to construction to protect aquatic features adjacent to the Project Area, and spill kits should be available to all workers on the site during construction activities.	Prior to issuance of a building permit. Prior to commencement of activity at the site. Through the completion of construction.	Planning Division	


N
ROCKY OAKS RD
AIRPORT RD
HARNESS AVE
BRIDLE LN
PROJECT SITE
WILSON HILL RD
BATTLE CREEK BOTTOM RD
ROCK CREEK RD
151
299
OAK RUN RD
WHITMORE RD
DESCHUTES RD
5
273
44
PROJECT LOCATION
WILSON HILL RD
PROJECT SITE
LOCATION MAP
UP24-0009 (RPCA SOLAR 14 LLC)
MANTON AREA


N
PROJECT SITE
WILSON HILL RD
BRIDLE LN
BATTLE CREEK BOTTOM RD
WADE WAY
PROJECT SITE
APPROXIMATE LOCATION OF DEVELOPMENT
PROJECT AERIAL
UP24-0009 (RPCA SOLAR 14 LLC)
MANTON AREA


N
EA
R-L
R-R-T-BSM
U
EA-AP
PROJECT SITE
U
WILSON-HILL-RD
C-R
BATTLE-CREEK-BOTTOM-RD
U
R-R-T-BSM
U
WADE-WAY
PROJECT SITE
PROJECT SITE
ZONE DISTRICT
COMMERCIAL RECREATION (C-R)
EXCLUSIVE AGRICULTURE (EA)
EXCLUSIVE AGRICULTURE AGRICULTURAL PRESERVE (EA-AP)
LIMITED RESIDENTIAL (R-L)
RURAL RESIDENTIAL MOBILE HOME BUILDING SITE (R-R-T-BSM)
UNCLASSIFIED (U)
ZONE DISRICT MAP
UP24-0009 (RPCA SOLAR 14 LLC)
MANTON AREA

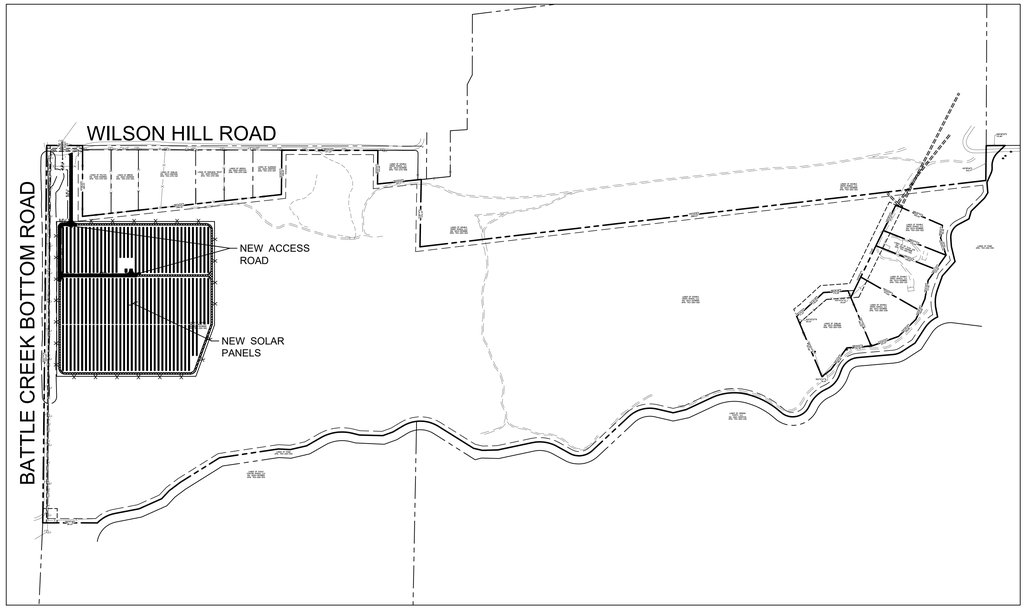

N
A-G
PROJECT SITE
WILSON HILL RD
BATTLE CREEK BOTTOM RD
RB
WADE WAY
PROJECT SITE
GENERAL PLAN DESIGNATION
AGRICULTURAL GRAZING (A-G)
RURAL RESIDENTIAL B (RB)
GENERAL PLAN MAP
UP24-0009 (RPCA SOLAR 14 LLC)
MANTON AREA

BATTLE CREEK BOTTOM SOLAR

BATTLE CREEK BOTTOM ROAD
MANTON, CA 96059

LEGEND

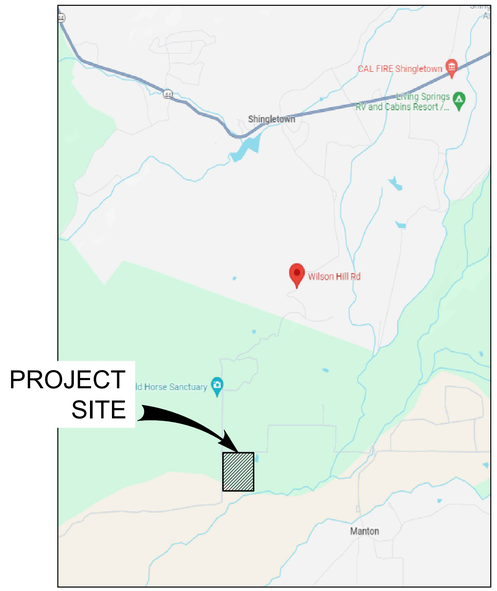
EXISTING	PROPOSED	DESCRIPTION
		CENTERLINE
		EASEMENT LINE
		SETBACK LINE
		PROPERTY LINE
		RETAINING WALL
SUB	SUB	SUBDRAIN LINE
SD	SD	STORM DRAIN LINE
SS	SS	SANITARY SEWER LINE
OHE	OHE	OVERHEAD ELECTRIC
W	W	WATER LINE
FW	FW	FIRE WATER
G	G	GAS LINE
P	P	PRESSURE LINE
MV	MV	MEDIUM VOLTAGE
JT	JT	JOINT TRENCH
		SET BACK LINE
		CONCRETE VALLEY GUTTER
		EARTHEN SWALE
CB	CB	CATCH BASIN
JB	JB	JUNCTION BOX
AD	AD	AREA DRAIN
SDMH	SDMH	STORM DRAIN MANHOLE
		FIRE HYDRANT
SSMH	SSMH	SANITARY SEWER MANHOLE
		STREET SIGN
XX.XX	XX.XX	SPOT ELEVATION
		FLOW DIRECTION
		BENCHMARK
200	200	CONTOURS
XX" TREE	XX" TREE	TREE TO BE REMOVED



SITE MAP

500 250 0 500 1000

SCALE: 1 INCH = 500 FEET



PROJECT SITE

VICINITY MAP

PROJECT OWNER
RPCA SOLAR 14, LLC
44 MONTGOMERY STREET, SUITE 3150
SAN FRANCISCO, CA 94104

CIVIL ENGINEER
COFFMAN ENGINEERS, INC.
1939 HARRISON STREET, SUITE 320
OAKLAND, CA 94612
(510) 251-9578
CONTACT: RAYMOND BARRO

BASIS OF BEARING
GRID NORTH BASED ON GPS OBSERVATIONS BETWEEN SET CONTROL POINTS POST PROCESSED USING OPUS(ONLINE POSITIONING USER SERVICE)

VERTICAL DATUM
ELEVATIONS SHOWN HEREON ARE BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88). BENCHMARK CONTROL POINT #5000 SET 60D NAIL CONTROL POINT. ELEVATION = 1991.59' NAVD 88

FEMA FLOOD ZONE NOTE
THE PROPOSED PROJECT FALLS WITHIN ZONE X - AREA DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN PER FEMA FLOOD INSURANCE RATE MAP (FIRM) NUMBER 060358 PANEL 2025 G DATED 03/17/2011.

ABBREVIATIONS

AB	-	AGGREGATE BASE	EL, ELEV	-	ELEVATION	INL	-	INLET	R/W	-	RIGHT-OF-WAY
AC	-	ALTERNATING CURRENT	ELEC	-	ELECTRICAL	INV	-	INVERT	S	-	SOUTH, SEWER, SLOPE
AD	-	AREA DRAIN	EOP	-	EDGE OF PAVEMENT	JB	-	JUNCTION BOX	SAN	-	SANITARY
ASPH	-	ASPHALT	EP	-	EDGE OF PAVEMENT	JT	-	JOINT TRENCH	SD	-	STORM DRAIN
BC	-	BEGINNING OF CURVE	ESC	-	EROSION & SEDIMENT CONTROL	LF	-	LINEAL FEET	SHT	-	SHEET
BLDG	-	BUILDING	ESMT	-	EASEMENT	LOC	-	LOCATION	SNS	-	STREET NAME SIGN
BM	-	BENCH MARK	EX, (E)	-	EXISTING	LP	-	LOW POINT	SQ	-	SQUARE
BOE	-	BOTTOM OF EXCAVATION	FC	-	FACE OF CURB	LS	-	LANDSCAPING	SS	-	SANITARY SEWER
BW	-	BOTTOM OF WALL	FF	-	FINISHED FLOOR	MAX	-	MAXIMUM	SSCO	-	SANITARY SEWER CLEANOUT
CB	-	CATCH BASIN	FFE	-	FINISHED FLOOR ELEVATION	MH	-	MANHOLE	SSMH	-	SANITARY SEWER MANHOLE
C&G	-	CURB AND GUTTER	FG	-	FINISHED GRADE	MIN	-	MINIMUM	ST	-	STREET
CL	-	CENTERLINE	FH	-	FIRE HYDRANT	MON	-	MONUMENT	STA	-	STATION
CO	-	CLEANOUT	FL	-	FLOWLINE	(N)	-	NEW	STD	-	STANDARDS
CONC	-	CONCRETE	FS	-	FINISHED SURFACE	O.C.	-	ON CENTER	T	-	TELEPHONE
COS	-	CITY OF SEATTLE	FT	-	FEET	P	-	POWER	TBM	-	TEMPORARY BENCH MARK
CW	-	CONCRETE WALK	G	-	GAS	PERF	-	PERFORATED	TC	-	TOP OF CONCRETE
CY	-	CUBIC YARD	GB	-	GRADE BREAK	PIV	-	POST INDICATOR VALVE	TEL	-	TELEPHONE
DC	-	DROP CONNECTION	GM	-	GAS METER	PL	-	PROPERTY LINE	TESC	-	TEMPORARY EROSION AND SEDIMENTATION CONTROL
DEMO	-	DEMOLISH	GUY	-	GUY ANCHOR	PM	-	POWER METER	TP	-	TOP OF PAVEMENT
DI	-	DROP INLET	GV	-	GAS VALVE	PP	-	POWER POLE	TYP	-	TYPICAL
DIP	-	DUCTILE IRON PIPE	H	-	HORIZONTAL	PSD	-	PUBLIC STORM DRAIN	UP	-	UNDERGROUND POWER
DOM	-	DOMESTIC	HB	-	HOSE BIBB	PSS	-	PUBLIC SANITARY SEWER	V	-	VERTICAL
DS	-	DOWNSPOUT	HDPE-	-	HIGH DENSITY POLYETHYLENE	POC	-	POINT OF CONNECTION	VB	-	VERTICAL BEND
DWY	-	DRIVEWAY	HH	-	HANDHOLE	POI	-	POINT OF INTERCONNECTION	W	-	WATER
E	-	EAST	HP	-	HIGH POINT	PVC	-	POLYVINYLCHLORIDE	WM	-	WATER METER
EA	-	EACH	HYD	-	HYDRANT	PVMT	-	PAVEMENT	WS	-	WATER SERVICE
EC	-	END OF CURVE	ID	-	INSIDE DIAMETER	R	-	RADIUS	WV	-	WATER VALVE
ECD	-	ELECTRICAL CONDUIT	IE	-	INVERT ELEVATION	RIM	-	RIM ELEVATION	YD	-	YARD DRAIN

PLAN NOTES:

1. PLANS ARE PRELIMINARY AND ARE NOT FOR CONSTRUCTION.
2. ALL EXISTING UTILITIES ARE NOT SHOWN ON THIS PLAN, REFER TO ADDITIONAL CIVIL SHEETS FOR LOCATIONS OF WATER, POWER, CABLE, PHONE AND GAS SERVICES AND MAIN LINES.
3. IF THERE ARE ANY DISCREPANCIES BETWEEN DIMENSIONS IN DRAWING AND EXISTING CONDITIONS WHICH WILL AFFECT THE WORK, THE CONTRACTOR SHALL BRING SUCH DISCREPANCIES TO THE ATTENTION OF THE ENGINEER FOR ADJUSTMENT BEFORE PROCEEDING WITH THE WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS, ELEVATIONS, AND LOCATIONS FOR SITE WORK PER THE PLANS AND FOR THE COORDINATION OF ALL TRADES, SUBCONTRACTORS, AND PERSONS ENGAGED.
4. TOTAL PROJECT AREA FOR THE PROJECT IS 27.1 ACRES.
5. TOTAL DISTURBED AREA FOR THE PROJECT IS 30,415 SF.

SHEET INDEX

C-1.0 - COVER
C-2.0 - SITE PLAN
C-3.0 - GRADING & DRAINAGE PLAN
C-4.0 - DETAILS

THE EXISTING INFORMATION SHOWN ON THESE PLANS IS PER THE SURVEY COMPLETED BY:
MUNSELLE CIVIL ENGINEERNG
513 CENTER STREET
HEALDBERG, CA 95448
(707)-395-0968
DATED: 09/2024 .
THE CONTRACTOR SHALL VERIFY EXISTING SITE CONDITIONS AND CONTACT THE ENGINEER IF DISCREPANCIES ARE NOTED.

UTILITY STATEMENT
LOCATION OF EXISTING UNDERGROUND UTILITIES HAVE BEEN TAKEN FROM DRAWINGS AND FIELD LOCATES SUPPLIED BY THE APPROPRIATE UTILITY COMPANIES. UTILITY LOCATIONS SHOWN ON THIS DRAWING ARE APPROXIMATE ONLY. PRIOR TO BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF EACH UTILITY.

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Oakland, CA 94612
ph 510.251.9578
www.coffman.com

RENEWABLE PROPERTIES

BATTLE CREEK BOTTOM SOLAR

RPCA SOLAR 14, LLC

REV	DATE	DESCRIPTION
2	07/30/25	REV2 BIO-REV
1	12/13/24	REV1 PLAN CHECK

PROJ. NO.	241935
DRAWN	LB
CHECKED	RB
DATE	AUGUST 2024

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SHEET TITLE:

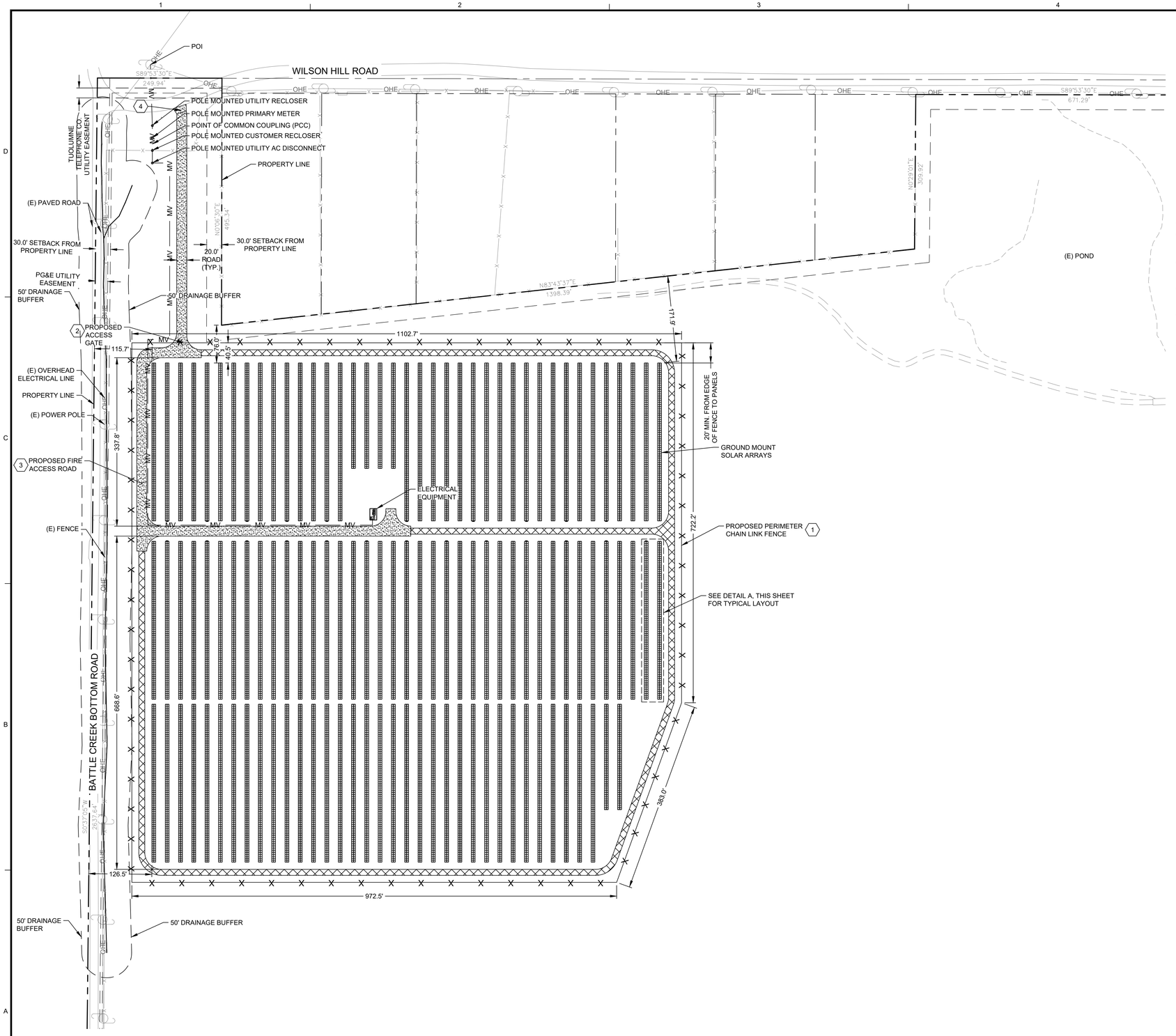
COVER

SHEET NO:

C-1.0

SHEET 1 OF 4

\\COFFMAN COMP\PROJECTS\BAY\24\JOBS\241935 BATTLE CREEK BOTTOM SOLAR\0.0 DWGS\C\PLANS\241935_COVER



LEGEND

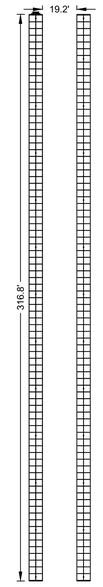
- 20' WIDE ALL WEATHER FIRE ACCESS ROAD
- 12' WIDE MAINTENANCE ROAD
- PROPERTY BOUNDARY
- PERIMETER FENCE
- MV — MEDIUM VOLTAGE
- DRAINAGE PER BIO REPORT

KEY NOTES

1. CONSTRUCT 7'-HIGH CHAIN LINK SECURITY FENCING (6' FENCE WITH 1' BARBED WIRE) SEE DETAILS ON SHEET C-4.0.
2. ACCESS GATE WITH CLEAR OPENING WIDTH OF 20' AND AN INTERNALLY SWINGING GATE LOCATED 30' FROM THE EDGE OF PAVEMENT. SEE DETAILS ON SHEET C-4.0.
3. 20' WIDE ALL WEATHER SURFACE ACCESS ROAD WITH 2"-MINIMUM CRUSHED ROCK WITH A CROSS SLOPE MAXIMUM OF 2% AND LONGITUDINAL SLOPE NOT TO EXCEED 16% FOR FIRE ACCESS.
4. INSTALL DRIVEWAY APRON PER SHASTA COUNTY TYPE 'A' ROAD CONNECTION. SEE DETAIL SHEET C-4.0.

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST CITY AND COUNTY STANDARDS.
2. ANY EXISTING INFRASTRUCTURE, SITE FEATURES, OR PROPERTY DAMAGED AS A RESULT OF CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE APPROPRIATE AGENCY.
3. ALL CONSTRUCTION SHALL CONFORM TO APPLICABLE STATE AND/OR LOCAL CODES. THE CONTRACTOR SHALL HAVE A COPY OF CURRENT CODES MAINTAINED ON SITE AT ALL TIMES.
4. ALL SIGNAGE AND PAINT MARKINGS SHALL COMPLY WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), OR AS OTHERWISE SPECIFIED. INSTALLATION OF SIGNS SHALL BE GOVERNED BY LOCAL CODES.
5. THE CONTRACTOR IS RESPONSIBLE TO LOCATE AND PROTECT ALL EXISTING UTILITIES DURING CONSTRUCTION. THE CONTRACTOR IS TO NOTIFY THE UTILITY PROTECTION CENTER AT LEAST 72 HOURS PRIOR TO ANY SITE WORK FOR PROPER IDENTIFICATION OF EXISTING UTILITIES.
6. THE CONTRACTOR SHALL VERIFY ALL EXISTING ITEMS AND DIMENSIONS TO REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO BEGINNING CONSTRUCTION.
7. UNLESS OTHERWISE NOTED, PAVEMENT ELEVATION IS 6" BELOW THE TOP OF CURB ELEVATION.
8. ALL GRADE BREAKS SHALL BE CONSTRUCTED AS A VERTICAL CURVE TO AVOID ANY DEFINED CRESTS OR SUMPS.



A / C-2.0 PV TYPICAL LAYOUT
SCALE: NTS

100 50 0 100 200
SCALE: 1 INCH = 100 FEET

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513 CENTER STREET
HEALDBERG, CA 95448
(707)-395-0968
DATED: 09/2024
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RENEWABLE PROPERTIES

BATTLE CREEK BOTTOM SOLAR

RPCA SOLAR 14, LLC

REV	DATE	DESCRIPTION
2	07/30/25	REV2 BIO-REV
1	12/13/24	REV1 PLAN CHECK

PROJ. NO.	241935
DRAWN	LB
CHECKED	RB
DATE	AUGUST 2024

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SHEET TITLE:
SITE PLAN

SHEET NO:
C-2.0

SHEET 2 OF 4

\\COFFMAN.COM\PROJECTS\BAY\24\JOBS\241935 BATTLE CREEK BOTTOM SOLAR\0.0 DWGS\CIP\PLANS\241935_SITE-PLAN



GRADING GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST CITY AND COUNTY STANDARDS.
2. ANY EXISTING INFRASTRUCTURE, SITE FEATURES, OR PROPERTY DAMAGED AS A RESULT OF CONSTRUCTION SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE APPROPRIATE AGENCY.
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6. THE CONTRACTOR SHALL VERIFY ALL EXISTING ITEMS AND DIMENSIONS TO REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO BEGINNING CONSTRUCTION.
7. ALL GRADE BREAKS SHALL BE CONSTRUCTED AS A VERTICAL CURVE TO AVOID ANY DEFINED CRESTS OR SUMPS.

ESTIMATED EARTHWORK QUANTITIES	
CUBIC YARDS	TOTAL CUBIC YARDS
CUT	1140 CY
FILL	570 CY
EXCESS	570 CY
NOTE: EARTHWORK QUANTITIES INCLUDE ACCESS ROAD.	
GRADING QUANTITIES REPRESENT BANK YARDAGE. IT DOES NOT INCLUDE ANY SWELLING OR SHRINKAGE FACTORS AND IS INTENDED TO REPRESENT IN-SITU CONDITIONS. QUANTITIES DO NOT INCLUDE OVER-EXCAVATION, TRENCHING, STRUCTURAL FOUNDATIONS, OR PIERS, OR POOL EXCAVATION (IF ANY). NOTE ADDITIONAL EARTHWORKS SUCH AS KEYWAYS OR BENCHING MAY BE REQUIRED BY THE GEOTECHNICAL ENGINEER IN THE FIELD AT TIME OF CONSTRUCTION. CONTRACTOR TO VERIFY QUANTITIES.	

100 50 0 100 200
SCALE: 1 INCH = 100 FEET

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RENEWABLE PROPERTIES

BATTLE CREEK
BOTTOM SOLAR

RPCA SOLAR 14, LLC

REV	DATE	DESCRIPTION
2	07/30/25	REV2 BIO-REV
1	12/13/24	REV1 PLAN CHECK

PROJ. NO. 241935
DRAWN LB
CHECKED RB
DATE AUGUST 2024

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SHEET TITLE:

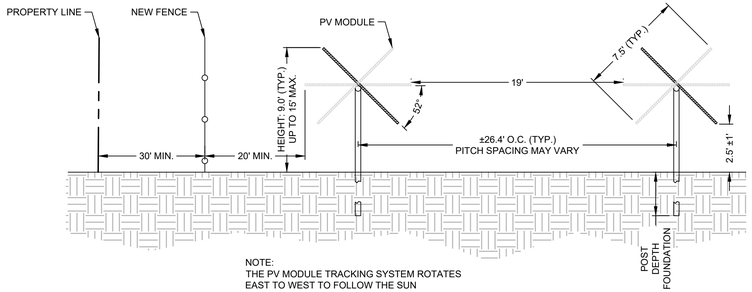
GRADING &
DRAINAGE PLAN

SHEET NO:

C-3.0

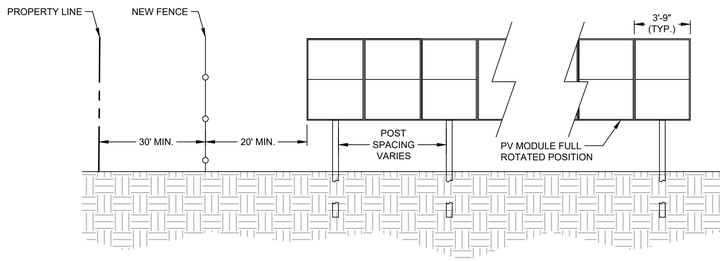
SHEET 3 OF 4

\\COFFMAN.COM\PROJECTS\BAY24\JOBS\241935 BATTLE CREEK BOTTOM SOLAR\0.0 DWGS\CPLANS\241935_GRADING PLAN



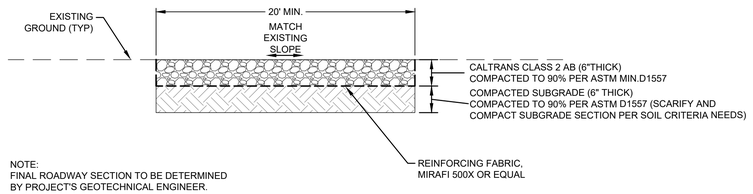
1 TYPICAL RACK SECTION

SCALE: NTS



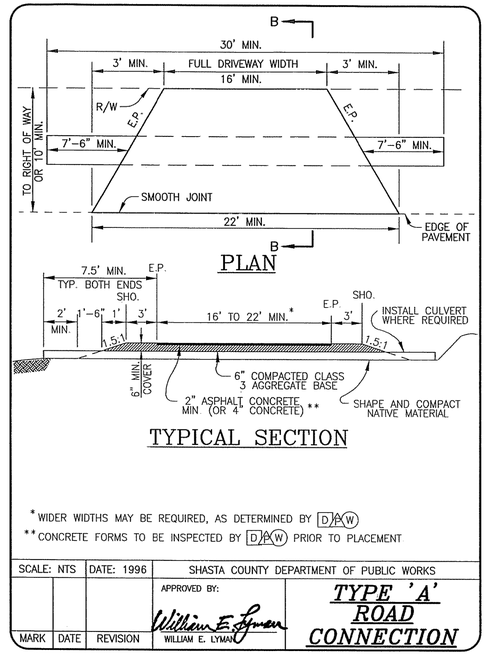
2 TYPICAL RACK ELEVATIONS

SCALE: NTS



3 GRAVEL ACCESS ROAD

SCALE: NTS



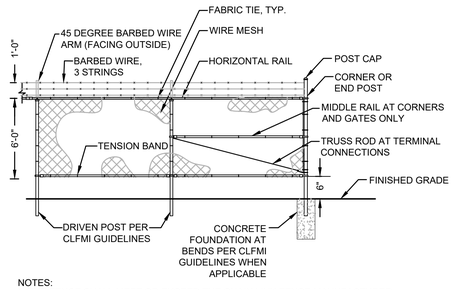
TYPICAL SECTION

*WIDER WIDTHS MAY BE REQUIRED, AS DETERMINED BY D/A/W

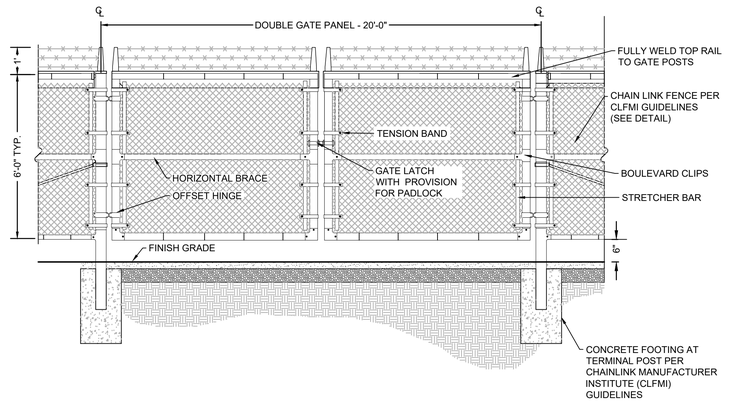
**CONCRETE FORMS TO BE INSPECTED BY D/A/W PRIOR TO PLACEMENT

SCALE: NTS	DATE: 1996	SHASTA COUNTY DEPARTMENT OF PUBLIC WORKS	
		APPROVED BY: William E. Lyman	TYPE 'A' ROAD CONNECTION
MARK	DATE	REVISION	WILLIAM E. LYMAN

APPENDIX 2-21



NOTES:
1. THE FENCE SHALL MEET OR EXCEED THE CHAIN LINK FENCE MANUFACTURER INSTITUTE (CLFMI) GUIDELINES AND RELATED FEDERAL SPECIFICATIONS FOR SECURITY CHAIN LINK FENCE MATERIALS AND INSTALLATION.
2. ALL FENCE MATERIAL AND COMPONENTS SHALL BE GALVANIZED.
3. THIS DETAIL NOT APPLICABLE FOR PRIVACY FENCE OR FENCE WITH SLATS.



4 CHAIN LINK FENCE AND VEHICLE GATE

SCALE: NTS

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RENEWABLE PROPERTIES

BATTLE CREEK BOTTOM SOLAR

RPCA SOLAR 14, LLC

REV	DATE	DESCRIPTION
2	07/30/25	REV2 BIO-REV
1	12/13/24	REV1 PLAN CHECK

PROJ. NO.	241935
DRAWN	LB
CHECKED	RB
DATE	AUGUST 2024

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SHEET TITLE:

DETAILS

SHEET NO:

C-4.0

SHEET 4 OF 4

\\COFFMAN COMP\PROJECTS\BAY\24JOBS\241935 BATTLE CREEK BOTTOM SOLAR\0.0 DWGS\C\PLANS\241935_DETAILS

Central Valley Regional Water Quality Control Board

27 February 2025

Elisabeth Towers, Associate Planner
Shasta County Department of Resource Management, Planning Division
1855 Placer Street, Suite 103
Redding, CA 96001

COMMENTS ON USE PERMIT 23-0009 (UP23-0009), APN NUMBER 703-250-020-000, MANTON, SHASTA COUNTY

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) is a responsible agency for this project, as defined by the California Environmental Quality Act (CEQA). On 19 February 2025, we received your request for comments on Use Permit 23-0009 (UP23-0009) (Project).

The applicant, RPCA Solar 14, LLC, proposes an approximately 25-acre solar generation facility that would generate up to 3 megawatts (MW) of alternating current and 5 MW of direct current energy. The project will interconnect to Pacific Gas and Electric Company's (PG&E) existing electrical distribution system located adjacent to the site. The project will utilize approximately 8,721 solar modules and 40 string inverters. The solar modules will be mounted to a steel racking system which will be anchored to the ground using driven steel piers. The overall height of the array will be no more than 15 feet above ground surface. The Project site is located at the southeast corner of the intersection of Battle Creek Bottom Road and Wilson Hill Road approximately 5 miles south of the intersection of State Highway 44 and Wilson Hill Road in Manton.

Based on our review of the information submitted for the proposed project, we have the following comments:

<u>General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities (CGP)</u>

Construction activity, including demolition, resulting in a land disturbance of one acre or more must obtain coverage under the CGP. The Project must be conditioned to implement storm water pollution controls during construction and post-construction as required by the CGP. To apply for coverage under the CGP the property owner must

submit Permit Registration Documents electronically prior to construction. Detailed information on the CGP can be found on the State Water Board website NPDES 2022 Construction Stormwater General Permit | California State Water Resources Control Board (https://www.waterboards.ca.gov/water_issues/programs/stormwater/construction/general_permit_reissuance.html).

If you have any questions or comments regarding this matter, please contact me at (530) 224-4784 or by email at Jerred.Ferguson@waterboards.ca.gov.

Jerred T Ferguson Digitally signed by Jerred T Ferguson
Date: 2025.02.27 13:40:28 -08'00'
Water Boards

Jerred Ferguson
Environmental Scientist
Storm Water & Water Quality Certification Unit

JTF: db

Docusign Envelope ID: D704633D-983B-46F3-A48C-46CBFE79AD73

State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Northern Region
601 Locust Street
Redding, CA 96001
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

July 16, 2025

Elizabeth Towers
Associate Planner
Shasta County Planning Division
1855 Placer Street, Suite 103
Redding, CA 96001
etowers@shastacounty.gov

Subject: Early Scoping Review of RCPA Battle Creek Bottom Road Solar Project

Dear Elizabeth Towers:

The California Department of Fish and Wildlife (CDFW) has reviewed the Use Permit application referral packet UP 23-0009 submitted for review on July 4, 2025, for the above-referenced project (Project). CDFW appreciates this opportunity to comment on the Project pursuant to the California Environmental Quality Act (CEQA) Guidelines[1].

CDFW's Role

CDFW is California's Trustee Agency for fish and wildlife resources and holds those resources in trust by statute for all the people of the state (Fish and G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a)). CDFW, in its Trustee Agency capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species (Id., § 1802). Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

CDFW is also submitting comments as a Responsible Agency under CEQA (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code.

[1] CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

Docusign Envelope ID: D704633D-983B-46F3-A48C-46CBFE79AD73

Project Description

As outlined in the referral packet, the proposed Project is described as follows:

"RPCA Solar 14, LLC has applied for Use Permit (UP 23-0009) for an approximately 25-acre solar generation facility that would generate up to 3 megawatts (MW) of alternating current and 5 MW of direct current energy. The project will interconnect to Pacific Gas and Electric Company's (PG&E) existing electrical distribution system located adjacent to the site. The project will utilize approximately 8,721 solar modules and 40 string inverters. The solar modules will be mounted to a steel racking system which will be anchored to the ground using driven steel piers. The overall height of the array will be no more than 15-feet above ground surface."

Comments and Recommendations

CDFW has reviewed the Biological Resource Assessment, Oak Tree Memo, and Vegetation Management Plan submitted in the referral packet. The Project has the potential to impact special status and sensitive biological resources in this area of Shasta County, including California Endangered Species Act (CESA) listed species and California species of special concern (SSC), and essential habitat connectivity. Therefore, a thorough biological assessment of the Project area should be completed, and supplemental species-specific surveys should be conducted for those species with potential to occur prior to Project approval. The following are informal comments intended to assist the Lead Agency and the project proponent in making informed decisions early in the Project development and review process and to aid in adequately avoiding and minimizing potentially significant impacts to biological resources.

Biological Resources Assessment

CDFW appreciates the inclusion of an initial biological resource assessment (BRA) for early review, and requests that the following information be considered and included:

1. If habitat is present for special status plants or wildlife, focused species-specific surveys conducted at the appropriate time of year and day when the species are active or otherwise identifiable. Please refer to CDFW's Survey and Monitoring Protocol Guidelines[2] for certain special status species. For those species not included in the above link, species-

[2] https://wildlife.ca.gov/Conservation/Survey-Protocols

Docusign Envelope ID: D704633D-983B-46F3-A48C-46CBFE79AD73

specific survey procedures should be developed in consultation with CDFW and/or otherwise approved by CDFW.

2. Discussion of direct and indirect Project-related impacts, including adverse impacts and/or beneficial impacts, to all biological resources. This should include quantitative impact numbers to species and acreage of habitat. Impacts analysis should include all components of the Project including pre-construction activities, active construction activities, long-term management activities of the facilities and decommissioning of the facilities.
3. A delineation of all wetlands, vernal pools, lakes, streams, and any associated riparian habitats (as defined by the State of California).
4. Updated Project site map with delineated wetlands, vernal pools, lakes, streams, and any associated riparian habitat, as well as observed special status, sensitive, and rare species observations.
5. A complete inventory of trees proposed for removal.
6. A complete special status species occurrence and impact assessment.
7. Avoidance, minimization, and mitigation measures (AMMs), if warranted, for adverse Project-related impacts to sensitive plants, wildlife, and habitats. All measures should first emphasize avoidance and reduction of Project impacts. For unavoidable impacts, the feasibility of onsite habitat restoration or enhancement should be discussed. If onsite mitigation is not feasible, offsite mitigation through habitat creation, enhancement, acquisition, and/or preservation in perpetuity should be addressed.

CESA and Fully Protected Species

CDFW recommends that the following CESA-listed and Fully Protected Species, which have potential to occur within or near the Project parcel, are assessed and/or surveyed by a qualified professional using species-specific protocols recommended below prior to the development and release of the CEQA document:

1. Bald and Golden Eagle Surveys

   In addition to bald eagles (*Haliaeetus leucocephalus*, CESA endangered), which were included in the BRA, golden eagle (*Aquila chrysaetos*, Fully Protected) observations have been recorded on California Natural Diversity Database (CNDDB) and eBird within several miles of the Project site. According to the BRA, "*Suitable [bald eagle] nesting habitat is present in and adjacent to the Project Area, and suitable foraging habitat is present in the pond northeast of the Project*

Docusign Envelope ID: D704633D-983B-46F3-A48C-46CBFE79AD73

Area, as well as North Fork Battle Creek and other ponds, within 1-2 miles of the Project Area." CDFW recommends that eagle surveys be prepared and conducted by a qualified biologist to determine the presence of bald and/or golden eagles onsite and their usage of the site, as well as to determine the potential for direct and indirect impacts to eagles from Project construction and operation. The Protocol for Golden Eagle Occupancy, Reproduction, and Prey Population Assessment[3], USFS Interim Golden Eagle Inventory and Monitoring Protocols; And Other Recommendations[4], Protocol for Evaluating Bald Eagle Habitat and Populations in California[5], and Bald Eagle Nesting Territory Survey Form and Instructions[6], should be referenced by the qualified biologist.

2. Crotch's and Western Bumble Bee Surveys

The California Fish and Game Commission accepted a petition to list Crotch's bumble bee (*Bombus crotchii*) and western bumble bee (*Bombus occidentalis*) as endangered under CESA, determining the listing may be warranted and advancing the species to the candidacy stage of the CESA listing process. These bumble bees are granted full protection of a threatened species under CESA. Take of any endangered, threatened, candidate species that results from the Project is prohibited, except as authorized by State law (Fish & G. Code, §§ 86, 2062, 2067, 2068, 2080, 2085; Cal. Code Regs., tit. 14, § 786.9). The Project may result in temporal or permanent loss of suitable nesting and foraging habitat for Crotch's and western bumble bee, which thrive in regions that offer a diverse array of flowering plants and/or suitable nesting site, such as thatched grasses and small mammal holes. They may inhabit diverse habitats including woodlands, grasslands, shrublands, agricultural lands, and urban landscapes. Project ground-disturbing activities may cause death or injury of adults, eggs, and larva; burrow collapse; nest abandonment; and reduced nest success.

The BRA states that, "*There may be suitable floral resources in and adjacent to the Project Area for [Crotch's bumble bee] during the colony period and the large amount of woody debris on the ground provides ample nesting habitat for this species*." Prior to any ground disturbance, the Project proponent should conduct site specific surveys

[3] https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83955&inline
[4] https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83940
[5] https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83707&inline
[6] https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83706&inline

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for Crotch's and western bumble bee in accordance with bumble bee survey protocol provided by CDFW[7]. While CDFW acknowledges that its Biogeographic Information and Observation System (BIOS) technically places the Project site out of range of western bumble, considering the site's proximity to the range and the fact that the range is a prediction, CDFW recommends including western bumble bee in any bumble bee surveys.

Other Special Status Species

SSC status applies to animals generally not listed under ESA or CESA, but which nonetheless are declining at a rate that could result in listing or have historically occurred in low numbers and known threats to their persistence exist. SSCs should be considered during the environmental review process. SSCs that have the potential or have been documented to occur within or adjacent to the Project site include, but are not limited to, western spadefoot and northwestern pond turtle.

The BRA states that, "*Results of the CNDDB and IPaC searches returned 23 special-status wildlife species known to occur within the two-mile/nine-quad search radius of the Project Area (CDFW 2024a; USFWS 2024a). Of these, three have a moderate potential to occur within the Project Area and 20 are not expected to occur due to a lack of suitable habitat, or the site is outside of the species' known range. As such, these 20 species were removed from further consideration.*" While CDFW appreciates that several special status species with low potential to occur were further discussed in Appendix B, we believe that additional special status species warrant additional consideration for their potential to occur and/or use the site.

Sharp-shinned Hawk

BIOS indicates that the Project site falls within sharp-shinned hawk (*Accipiter striatus*, CDFW watch list) winter range, and aerial imagery shows that there is potentially suitable habitat for sharp-shinned hawk to occur. CDFW recommends that the BRA include an assessment for the potential of sharp-shinned hawk to occur at the Project site, and a discussion of any direct or indirect impacts that may occur.

[7] https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213150&inline

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Yellow Warbler

BIOS indicates that the Project site falls within yellow warbler (*Setophaga petechia*, CDFW SSC) range and predicted habitat. Aerial imagery shows that there is potentially suitable habitat for yellow warbler to occur in the Project area. CDFW recommends that the BRA include an assessment for the potential of yellow warbler to occur at the Project site, and a discussion of any direct or indirect impacts that may occur.

Jurisdictional Waters and Wetlands

The BRA states that a formal aquatic resource delineation was not performed during the field survey, though one shallow depression that could serve as an ephemeral drainage was mapped along the western boundary of the Project Area (Figure 4; Appendix A). CDFW strongly encourages that a delineation of all wetlands, vernal pools, lakes, streams, and any associated riparian habitats (as defined by the State of California) should be performed, especially as aerial imagery shows characteristics of one or more streams within the southern portion of the Project boundary. An impact analysis should also be included for any potentially affected wetlands, lakes, streams, and riparian habitat found on and offsite. The delineation report should include a preliminary jurisdictional delineation, including wetlands identification pursuant to the U. S. Fish and Wildlife Service wetland definition, as adopted by CDFW, and should be provided for agency and public review. Please note that some wetland and riparian habitats subject to CDFW's authority may extend beyond the jurisdictional limits of the U.S. Army Corps of Engineers. In addition to "federally protected wetlands" (see CEQA Appendix G[8] (IV)(c)), CDFW considers impacts to any wetlands (as defined by CDFW) as potentially significant.

CDFW discourages disturbance, staging, and development in these sensitive areas. Project activities within or near these areas should be avoided to the maximum extent possible, as CDFW considers direct and indirect impacts to these habitats to be potentially significant. CDFW recommends the Lead Agency include an analysis of the potential direct and indirect impacts to these areas and include measures to minimize or mitigate these impacts.

Solar Facilities and Avian Collisions

The Project area occurs within the pacific flyway migratory corridor, known to be used by millions of birds each year. Because they polarize reflected sunlight similarly to waterbodies, solar arrays may attract birds that mistake them with

[8] https://resources.ca.gov/CNRALegacyFiles/ceqa/docs/ab52/final-approved-appendix-G.pdf

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water and collisions with solar panels or related infrastructure can occur.[9] Such impacts could continue for the life of the Project and may be significant. Please include an assessment of the potential for avian collisions with solar arrays and associated infrastructure, including gen-tie lines. CDFW recommends the inclusion of avoidance and minimization measures to reduce potential impacts to less than significant.

Nesting Birds

The Project area contains, or is adjacent to, suitable habitat for nesting birds. Nesting birds could be directly or indirectly impacted by construction, land modification, and vegetation removal activities. Direct effects could include mortality resulting from vegetation removal and/or construction equipment operating in an area containing an active nest with eggs or chicks. Indirect effects could include nest abandonment by adults in response to loud noise levels, human encroachment, or a reduction in the amount of food available to young birds due to changes in feeding behavior by adults. Implementation of nest season surveys, outlined below, would ensure that impacts to nesting birds are less than significant.

To avoid impacts to nesting birds protected under Fish and Game Code sections 3503 and 3503.5 and the federal Migratory Bird Treaty Act, one of the following should be implemented:

a) Construction, land modification, and vegetation removal should occur between September 1 and January 31, when birds are not anticipated to be nesting; or
b) If these activities cannot occur outside of the nesting season, a pre-construction nesting bird survey should be conducted by a qualified biologist to identify active nests in and adjacent to the Project area.

Surveys should begin prior to sunrise and continue until vegetation and nests have been sufficiently observed. The survey should consider acoustic impacts and line of sight Project disturbances to determine a sufficient survey radius to maximize observations of nesting birds. A nesting bird survey report should be prepared and, at a minimum, the report should include a description of the area surveyed, date and time of the survey, ambient conditions, bird species observed, a description of any active nests observed, any evidence of breeding behaviors (e.g., courtship, carrying nest materials or food, etc.), and

[9] https://www.energy.ca.gov/sites/default/files/2024-06/CEC-500-2024-055.pdf

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a description of any outstanding conditions that may have impacted the survey results (e.g., weather conditions, excess noise, presence of predators).

If an active nest is located during pre-construction surveys, a non-disturbance buffer should be established around the nest by a qualified biologist in consultation with CDFW and U.S. Fish and Wildlife Service to comply with Fish and Game Code sections 3503 and 3503.5 and the Migratory Bird Treaty Act. Compliance measures may include, but are not limited to, exclusion buffers, sound-attenuation measures, seasonal work closures based on the known biology and life history of the species identified during the survey, as well as ongoing monitoring by biologists.

Nesting bird surveys should be conducted no more than one week prior to the initiation of construction. If construction activities are delayed or suspended for more than one week after the pre-construction nesting bird survey, the site should be resurveyed.

Bats

Bats are considered non-game mammals and are afforded protection by state law from take and/or harassment (Fish & G. Code, § 4150; Cal. Code of Regs., § 251.1). Construction activities, including ground disturbance, vegetation removal, and any activities leading to increased noise levels, may have direct and/or indirect impacts on bats and bat roosts.

Bats use woodland stand structures for roosting or maternal denning, and the wooded stands throughout the Project area may contain numerous roosting opportunities in the form of cavities, heart rot openings, defoliating bark and broken limbs. Additionally, the BRA states that suitable foraging habitat for pallid bat (*Antrozous pallidus*) exists within and adjacent to the Project Area, and trees within the Project area could provide suitable roosting habitat for this species

To adequately avoid impacts to bats protected under Fish and Game Code section 4150, please include the following AMMs in the Initial Study.

a) A qualified biologist shall clearly mark the snags and trees that have potential for roosting bats.
b) Removal of marked trees should occur only during the following time frames and subject to the following weather conditions, or as otherwise approved/recommended by a qualified bat biologist:
    - Between March 15 and April 30, and between August 15 and October 1; and

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- Between October 2 and March 14 when evening temperatures are above 45°F, and no more than ½" of rainfall within a 24-hour period prior to tree removal.

c) Marked trees shall be removed using a two-step process to allow bats the opportunity to abandon the roost prior to removal. The two-step removal process is as follows:
   - Day 1: Remove small-diameter trees, brush, and non-habitat features of large trees (branches without cavities, crevices, or exfoliating bark) to create noise and vibration disturbance on the tree and to alter the air flow and temperature around the roost feature, thus encouraging bats to vacate roost features on their own. The tree shall then be left for 24 hours to allow the bats to move to another roost site. No excavators, grinders, or other heavy equipment should be used for the first day trimming of bat habitat trees.
   - Day 2: If bats may be in branches that can be removed from the tree and set aside, cut the branches off intact and set them upright against trees away from the Project area to allow any bats present to passively escape. Then, remove the remainder of the tree.

Using this two-step process to change the microhabitat of the area allows bats to vacate under their own volition, therefore minimizing direct and indirect impacts to bat species.

Fencing

CDFW understands fences are essential for safety and controlling trespass. However, inappropriately designed or placed fencing may create serious hazards and/or barriers to wildlife. Since the Project site is located in a mapped area of essential habitat connectivity, CDFW strongly encourages perimeter fencing to be designed and implemented to alleviate potential hazards to wildlife. This resource may provide useful information about wildlife friendly fencing techniques: A Landowners Guide to Wildlife Friendly Fences[10].

Low Impact Development

The Project area is adjacent to suitable habitat for aquatic special status species. CDFW recommends the implementation of low impact development[11]

[10] https://fwp.mt.gov/binaries/content/assets/fwp/conservation/land-owner-wildlife-resources/a_landowners_guide_to_wildlife_friendly_fences.pdf
[11] https://www.waterboards.ca.gov/water_issues/programs/low_impact_development/

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(LID) strategies to prevent a net-increase in stormwater runoff from new development**.** LID strategies may include permeable pavement, vegetated stormwater bio-swales and retention basins to treat, retain, and infiltrate stormwater runoff onsite. These LID strategies are typically designed to prevent project-generated stormwater runoff from exceeding that of a 100-year storm event to protect water quality and manage stormwater as close to its source as possible, thus mitigating potential flooding and outflow of toxic pollutants such as 6PPD-quinone, a chemical contaminant derived from vehicle tires that is suspected to negatively impact aquatic organisms. Ideally, post-project stormwater runoff volume, rate, and duration will match pre-project conditions, and hydro-modification would not occur as a result of the Project. CDFW supports the use of LID strategies because they minimize impacts to aquatic habitats by filtering out pollutants, decreasing peak flows, minimizing erosion, and increasing ground water recharge.

California Endangered Species Act

Please be advised that a CESA Incidental Take Permit[12] must be obtained if the Project has the potential to result in "take" (hunt, pursue, catch, capture, kill, or attempt thereof) of plants or animals listed under CESA, either during construction or over the life of the project. Issuance of a CESA permit is subject to CEQA documentation; the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the Project has the potential to result in take of a CESA-listed species, early consultation is encouraged, as significant modification to the Project may be necessary to minimize and fully mitigate impacts as required by Fish and Game Code, section 2081, subdivision (b)(2).

Submitting Data

CEQA requires that information developed in environmental documents be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during this Project's surveys to CNDDB. For additional information about submitting data, please see Submitting Data to the CNDDB[13].

[12] https://wildlife.ca.gov/Conservation/CESA/Permitting
[13] https://wildlife.ca.gov/Data/CNDDB/Submitting-Data

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Promoting Collaboration

CDFW is dedicated to preserving and protecting California's diverse ecosystems and wildlife. To that end, we maintain a strong commitment to collaborate with our local counterparts. We look forward to continuing our partnership with the Lead Agency to implement comprehensive avoidance, minimization and mitigation strategies that benefit California's sensitive biological resources. We appreciate the collaborative efforts that have taken place thus far and are eager to further align our regulatory frameworks to enhance conservation outcomes. CDFW staff are available to attend site visits and begin early consultation for CESA-related impacts.

Conclusion

CDFW staff appreciate the opportunity to comment and assist the Lead Agency in identifying potentially significant Project impacts on biological resources. If you have any questions, please contact Helen Bowman, Senior Environmental Scientist (Specialist) by email at R1CEQARedding@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Tina Bartlett
1D82ADE7303A474...

Tina Bartlett, Regional Manager
Northern Region

ec: Helen Bowman, California Department of Fish and Wildlife
R1CEQARedding@wildlife.ca.gov

State Clearing House
State.Clearinghouse@lci.ca.gov

California Historical Resources Information System

BUTTE
GLENN
LASSEN
MODOC
PLUMAS
SHASTA
SIERRA
SISKIYOU
SUTTER
TEHAMA
TRINITY

Northeast Information Center
1074 East Avenue, Suite F
Chico, California 95926
Phone (530) 898-6256
neinfocntr@csuchico.edu

March 10, 2025

Elisabeth Towers
Shasta County Department of Resource Management
Planning Division
1855 Placer Street, Suite 103
Redding, CA 96001

IC File # NE25-84
Project Review

RE: UP24-0009/Solar Farm, Manton Area, APN 703-250-020
T30N, R1E, Sections 16, 19, 20, & 21 MDBM
USGS Shingletown 7.5' (1985); Manton 7.5' (1985); & Manton 15' (1956) quadrangle maps
235.8 acres (Shasta County)

Elisabeth Towers:

In response to your request, a records search for the project cited above was conducted by examining the official maps and records for cultural resources and surveys in Shasta County. Cultural resources in our inventory include archaeological objects, sites, landscapes, districts, and all manner of buildings and structures associated with past human activities. Please note that access to archaeological resource records is restricted to qualified individuals.

Results:

Archaeological Resources:

Resources within or adjacent to the project area:	45-003996

In addition, eight resources have been recorded within the one-mile vicinity.

Built Environment Resources: According to our records, no resources of this type have been recorded within or adjacent to the project boundaries. The Built Environment Resources Directory (BERD), which includes listings of the California Register of Historical Resources, California

State Historical Landmarks, California State Points of Historical Interest, and the National Register of Historic Places, does not list any properties within or adjacent to the proposed project area. The BERD is available online at: https://ohp.parks.ca.gov/?page_id=30338

Previous Investigations: According to our records, a portion of the project area has been surveyed for cultural resources.

Trudy Vaughan (Coyote and Fox Enterprises)

2005 *Archaeological Reconnaissance for the Proposed Perea Parcel Split (SPN 703-300-024)m 30770 Battle Creek Bottom Road, Shasta County, California.*
NEIC-006496

Peter M. Jensen (Jensen & Associates)

1982 *Archaeological Reconnaissance of the Proposed Digger-Battle Hydroelectric Project, Shasta County, California.*
NEIC-009436

Historical Maps and Literature Search: The official records and maps for archaeological sites and surveys in Shasta County were reviewed. Also reviewed: **National Register of Historic Places - Listed properties and Determined Eligible Properties** (2022); **California Inventory of Historic Resources** (1976); **California Historical Landmarks** (2022); **Built Environment Resource Directory** (2022).

The USGS Shingletown 7.5' (1985); Manton 7.5' (1985); & Manton 15' (1956) quadrangle maps depict archaeologically sensitive areas within the project's region such as roads, a trail, a lake, a well, and a waterway. Baldwin Creek, Millseat Creek, Volta Powerhouse, Cross Country Canal, North Fork Battle Creek, Digger Creek, Manton, Eagle Canyon Fork Battle Creek, structures, foundations, springs, an aqueduct, a substation, a power house, a penstock, a flume, a pit, a cemetery, and additional roads, waterways, lakes, wells, and trails are located in the general project vicinity.

The project is located in a region utilized by Yana populations at the time of Euro-American contact. Indigenous populations used the local region for seasonal and/or permanent settlement, as well as for the gathering of plants, roots, seeds, domestic materials, and hunting seasonal game. Historically, Euro-Americans utilized the region for mining and transportation opportunities.

Sensitivity Assessment and Recommendations:

Based upon the above information and local topography, the project area is considered to be highly sensitive for cultural resources. Portions of the project along existing sites, roads, and trails are sensitive for archaeological resources. Other areas of sensitivity are flats near creeks, springs, seeps, or rock outcrops that may be located in the project area.

Therefore, because the project area has not been previously surveyed for archaeological resources within the last ten years, we recommend that a professional consultant be contacted prior to ground

disturbance. The project archaeologist can offer recommendations for avoidance and protection of any existing or newly identified resources. If the proposed project contains buildings or structures that meet the minimum age requirement (45 years in age or older) it is recommended that the resources be assessed by a qualified specialist familiar with architecture and history of the county. Review of the available historic building/structure data has included only those sources listed above and should not be considered comprehensive. A list of qualified consultants is available online at www.chrisinfo.org.

During any phase of parcel development, if any archaeological resources are encountered, all work should cease in the area of the find pending an examination of the site and materials by the project archaeologist. This request to cease work in the area of a potential archaeological find is intended for accidental discoveries made during construction activities and is not intended as a substitute for the recommended cultural resources survey. It is recommended that any identified cultural resources be recorded on DPR 523 historic resource recordation forms, available online from the California Office of Historic Preservation (OHP): https://ohp.parks.ca.gov/?page_id=28351

If human remains are discovered, California Health and Safety Code Section 7050.5 requires you to protect the discovery and notify the county coroner, who will determine if the find is Native American. If the remains are recognized as Native American, the coroner shall then notify the Native American Heritage Commission (NAHC). California Public Resources Code Section 5097.98 authorizes the NAHC to appoint a Most Likely Descendant (MLD) who will make recommendations for the treatment of the discovery.

The California Office of Historic Preservation (OHP) contracts with the California Historical Resources Information System's (CHRIS) regional Information Centers (ICs) to maintain information in the CHRIS inventory and make it available to local, state, and federal agencies, cultural resource professionals, Native American tribes, researchers, and the public. Recommendations made by IC coordinators or their staff regarding the interpretation and application of this information are advisory only. Such recommendations do not necessarily represent the evaluation or opinion of the State Historic Preservation Officer in carrying out the OHP's regulatory authority under federal and state law.

Not all known cultural resources have been recorded and submitted to the OHP, so this record search should not be considered an exhaustive list of all cultural resources present in your project area. DPR forms and reports that are used for recording and evaluating sites and individual resources are submitted to the Northeast Information Center by private and public agencies. Please note that the Northeast Information Center is not responsible for misinformation of coordinates presented on the submitted DPR forms. If a discrepancy is found, please contact the lead agency for more information.

Due to processing delays and other factors, not all of the cultural resource reports and resource records that have been submitted to the OHP are available via this records search. Additional information may be available through the federal, state, and local agencies that produced or paid for cultural resource management work in the search area. Finally, Native American tribes have cultural resource information not in the CHRIS Inventory, and the NAHC should be contacted at

(916) 373-3710 for information regarding Native American representatives in the vicinity of the project.

Thank you for your concern in preserving California's cultural heritage, and please feel free to contact us if you have any questions or need any further information.

Sincerely,

Kyle Piercy

Kyle Piercy, B.A. (he/him/his)
Senior Research Associate
Northeast Information Center
(530) 898-6256