

1 EXECUTIVE SUMMARY

This environmental impact report (EIR) describes the potential environmental impacts of developing the Coyote Creek Agrivoltaic Ranch Project (proposed project). The purpose of an EIR is to evaluate a project's effects on environmental resources, both singularly and in a cumulative context, to examine alternatives to the project as proposed, and identify mitigation measures to reduce or avoid potentially significant effects.

Sacramento County (County) is the lead agency under CEQA. This document has been prepared in compliance with the California Environmental Quality Act (CEQA; Sections 21000-21189 of the Public Resources Code [PRC]) and the State CEQA Guidelines (Title 14, Sections 15000-15387 of the California Code of Regulations).

PROPOSED PROJECT SUMMARY

PROPOSED PROJECT

Sacramento Valley Energy Center, LLC (applicant) proposes to construct, operate, and ultimately decommission an approximately 200-megawatt (MW) alternating current (AC) photovoltaic (PV) solar energy generating facility and associated 4-hour/100 MW AC battery energy storage system (BESS). The project site comprises numerous parcels that total approximately 2,704 acres of land area in the Consumnes community of unincorporated Sacramento County. Of the approximately 2,704-acre project site, approximately 1,412 acres would be developed to support the project. This developed portion of the project site is collectively referred to as the "solar development area," and includes the proposed footprint of project construction activities and development. The remaining approximately 1,292 acres are referred to as "adjacent other lands" and would not be developed as part of the project. "Adjacent other lands" are lands within the project site but located outside of the solar development area. The solar development area includes all locations used for temporary construction and all permanent project infrastructure. Areas denoted as adjacent other lands would be appropriately delineated with flagging, and construction areas activities would be required to avoid adverse impacts within these areas.

Approval of the proposed project would result in the construction, operation, and eventual decommissioning of solar-energy generation, energy storage, and electrical distribution facilities. The proposed project components include an on-site substation, inverters, solar array, fencing, roads, supervisory control, and data acquisition (SCADA) system, generation tie (gen-tie) line, and switchyard. The project's 230-kilovolt (kV) gen-tie line would be approximately 1.3 miles long and would parallel the boundary of the California State Parks Off-Highway Motor Vehicle Division's Prairie City State Vehicle Recreation Area (SVRA). The gen-tie line would connect with a new switchyard that would be constructed to interconnect into the Sacramento Municipal Utility District (SMUD) 230 kV

powerline in proximity to the Prairie City SVRA. Following construction of the switchyard, SMUD would own and operate the switchyard facilities.

Project construction would take approximately 18 months. At the end of the project's useful life (anticipated to be 35 years), the site would be decommissioned, per Sacramento County requirements.

For additional project details, see Chapter 2, "Project Description." **As noted in the Preface, the Reduced Footprint Project, which reduces the solar development area by 55 acres but is otherwise essentially the same as the original proposed project, is now the Staff Recommended Project. See the Preface for additional details.**

SUMMARY OF ALTERNATIVES

The following summary provides brief descriptions of the alternatives. For a more thorough discussion of project alternatives, see Chapter 16, "Alternatives."

NO PROJECT ALTERNATIVE

As described in Chapter 16, "Alternatives", of the Draft EIR, CEQA requires an evaluation of a No Project alternative so that decision makers can compare the impacts of approving the project with the impacts of not approving the project. Under the No Project alternative, the project would not be constructed on the project site, and as a result, none of the associated impacts would occur and none of the permits or approvals that would be required for the project would be needed. Therefore, for the purposes of the No Project alternative analysis, the applicant would not execute the lease option on the parcels comprising the proposed project site and the project would not be constructed. Existing conditions would likely remain unchanged (i.e., property would remain as agricultural land) and agricultural activities would likely continue. This alternative would not meet any of the objectives identified in Chapter 16, "Attainment of Project Objectives" section.

ALTERNATIVE 1: BIOLOGICAL RESOURCES ALTERNATIVE

As described in Chapter 16, "Alternatives", of the Draft EIR, a Biological Resources Alternative (Alternative 1) was developed to reduce the number of trees (including oak species) that would be removed compared to the proposed project. As identified in this EIR, the proposed project would not result in any significant and unavoidable impacts to biological resources with the exception of a cumulatively considerable impact related to oak woodlands. The focus of this alternative design refinement process was to reduce impacts to trees (including oak species) and the impact to oak woodlands that would be required for the project, while accomplishing the basic project objectives.

Alternative 1 is a proposed approximately 200 MW solar photovoltaic energy-generating facility located in the same general area as the proposed project, but would include shifting approximately 55 acres of solar panels from the proposed project's solar development area into a 480-acre parcel immediately adjacent to the southwest corner

of the proposed project site. This 480-acre parcel is not a part of the proposed project site or proposed project solar development area.

Like the proposed project, Alternative 1 would be developed by applicant to sell electricity and all renewable and environmental attributes to SMUD under long-term contracts to help meet California Renewables Portfolio Standard goals.

Alternative 1 would provide approximately the same amount of renewable energy as under the proposed project. The energy storage elements of Alternative 1 would help balance supply and demand by capturing and storing renewable energy generated during daylight hours to meet peak evening demand.

For additional details about Alternative 1, see Chapter 16, “Alternatives.”

ALTERNATIVE 2: SCOTT ROAD BUFFER ALTERNATIVE

As described in Chapter 16, “Alternatives”, of the Draft EIR, a Scott Road Buffer Alternative (Alternative 2) was developed to remove all portions of the solar development area within 500 feet of the centerline of Scott Road, with the intent to reduce visual effects from this viewing location. This would result in the removal of approximately 181 acres of solar development area that, under the proposed project, would be within 500 feet of the centerline of Scott Road.

The proposed project, as detailed in this EIR, would affect existing views available along Scott Road. The Circulation Element of the Sacramento County General Plan identifies Scott Road as warranting scenic corridor protection (Sacramento County General Plan, page 36). Policy CI-58 indicates that the County will “[c]ontinue to provide scenic corridor protection for Scott Road from White Rock Road south to Latrobe Road.” The impact to views from Scott Road is significant and unavoidable under the proposed project.

In the County’s Zoning Code, “[t]he scenic corridor for a scenic highway or scenic country route shall include a horizontal distance of 500 feet on each side of the center line with a minimum distance of 300 feet beyond the right-of-way or the edge of the stream” (Sacramento County Zoning Ordinance, Chapter 7, page 7-45). Under Alternative 2, a 500-foot buffer would be applied from the centerline of Scott Road in each direction.

Similar to Alternative 1, additional solar development area under Alternative 2 would be added to a property that is southwest of the proposed project site so that Alternative 2 would have approximately the same acreage in the solar development area as under the proposed project. Approximately 181 acres of solar development area would be located on this 480-acre parcel (Assessor Parcel Numbers [APN] 073-0020-015-0000), which would be added to the Alternative 2 site.

Alternative 2 would provide approximately the same amount of renewable energy as under the proposed project. The energy storage elements of Alternative 2 would help balance supply and demand by capturing and storing renewable energy generated during daylight hours to meet peak evening demand.

For additional details about Alternative 2, see Chapter 16, “Alternatives.”

ORGANIZATION OF THE ENVIRONMENTAL IMPACT REPORT

In accordance with CEQA, lead agencies must prepare an EIR to evaluate the potential consequences of development and operation of projects that could significantly affect the environment. The EIR process is specifically designed to objectively evaluate and disclose potentially significant direct, indirect, and cumulative impacts of a project; to identify alternatives that reduce or eliminate a project’s significant effects; and to identify feasible measures that mitigate significant environmental effects. In addition, CEQA requires that an EIR identify those adverse impacts that remain significant after mitigation. The purpose of an EIR is not to recommend approval or denial of a project, but to provide decision makers, public agencies, and the general public with information about the project.

The remainder of this document includes a detailed description of the proposed project, analysis of potential environmental impacts that could result from project implementation, discussion of cumulative and growth-inducing impacts, and evaluation of potential alternatives to the proposed project. This information is organized as detailed below:

- **Chapter 2, Project Description.** Describes the location of the proposed project, project background, existing conditions on-site, and the nature and location of specific elements of the proposed project.
- **Chapters 3-15, Environmental Analysis by Resource Topic.** Includes a topic-by-topic analysis of impacts that would or could result from the proposed project implementation. Each chapter includes a discussion of the environmental and regulatory setting, impact analysis, and mitigation measures.
- **Chapter 16, Alternatives.** Describes feasible alternatives to the proposed project, including the No Project alternative, describes the environmental impacts related to each alternative, and discusses alternatives that were considered but ultimately rejected for further analysis.
- **Chapter 17, Summary of Impacts and Their Disposition.** Includes a summary of the environmental findings in the Draft EIR, includes a discussion of effects found not be significant, and includes a discussion of cumulative impacts.
- **Chapter 18, Bibliography.** Lists all resources used to prepare the Draft EIR.
- **Chapter 19, Acknowledgements.** Identifies individual contributors to the preparation of the Draft EIR.
- **Chapter 20, Response to Comments. Includes verbatim comments on the DEIR and comprehensive responses to all comments.**
- **Appendices.** The appendices contain several reference items providing support and documentation of the analyses performed for this report.

SUMMARY OF IMPACTS AND MITIGATION MEASURES

The following environmental impact and mitigation summary table (Table ES-1) briefly describes the project impacts and the mitigation measures recommended to eliminate or reduce the impacts. The residual impact after mitigation is also identified. Detailed discussions of each of the identified impacts and mitigation measures, including pertinent support data, can be found in the specific topic sections in the remainder of this report.

Table ES-1: Executive Summary of Impacts and Mitigation

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
Chapter 3, Aesthetics			
Impact AE-1: Have a Substantial Adverse Effect on a Scenic Vista	S	No mitigation is available.	SU
Impact AE-2: Substantially Damage Scenic Resources within a State- or County- Designated Scenic Highway	S	<i>AE-2. Prepare and Implement a Landscape Screening and Irrigation Plan that Will be Monitored for Long-term Success.</i> The project applicant shall implement the County-approved landscape screening and irrigation plan (attached as Appendix AE-1), which shall include oak thickets comprised of evergreen interior live oaks (<i>Quercus wislizeni</i>) that will form a dense native tree with a low canopy that can live for many decades. Native shrubs shall also be planted, which shall be comprised of fast-growing drought-resistant locally native shrubs. Supplemental watering shall be provided at a minimum for the first 5 years after planting, and shall be continued thereafter as long as necessary to ensure the survival of the plantings. The landscape screening plan shall include specific details as to the species, sizes of plants, method of planting, method and frequency of watering, maintenance activities (such as weeding and inspection of watering systems), and frequency of monitoring. After the landscape planting has been implemented, annual monitoring reports related to the health of the plantings shall be provided to the County during the five-year establishment period. Dependent on establishment success, the county may request additional monitoring reports thereafter. Should the overall efficacy of the landscaping be reduced due to excess plant mortality, plantings shall be replaced by the project applicant, and supplemental watering for the replacement plants shall be provided by the project applicant until the replacement plants are established. The landscape planting shall be maintained by the project applicant throughout the project lifespan and if supplemental watering is required to support the landscape screening throughout the project's lifespan,	SU

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		the applicant shall provide it (anticipated to be at least 35 years, but potentially longer if the project remains economically viable).	
	S	<i>Implement Mitigation Measure BR-2a (Avoid, Minimize, and Mitigate for Impacts on Riparian Habitat and Other Sensitive Natural Communities).</i>	SU
Impact AE-3: Substantially Degrade the Existing Visual Character or Quality of the Project Site	S	<i>Implement Mitigation Measure AE-2 (Prepare and Implement a Landscape Screening and Irrigation Plan that Will be Monitored for Long-term Success).</i>	SU
	S	<i>Implement Mitigation Measure BR-2a (Avoid, Minimize, and Mitigate for Impacts on Riparian Habitat and Other Sensitive Natural Communities).</i>	SU
Impact AE-4: Create Substantial New Sources of Light and Glare	PS	AE-4. Prepare a Lighting Plan. The project applicant shall prepare a lighting plan for County review and approval that includes implementation of the following measures. <u>Construction and Decommissioning</u> • If nighttime lighting is required where construction areas are 500 feet or closer to Scott Road or to any facilities or roadways at the Prairie City SVRA, the construction contractor shall erect a temporary 6-foot-tall solid-screened fence at the edge of the construction area, between the work area and the roadway/SVRA facility. • All nighttime construction lighting, regardless of location within the project site, shall be shielded and recessed within each fixture so as to direct light downwards and focused on the area to be illuminated. • All work zone illumination shall use the minimum foot-candles necessary to safely perform the required work. • Any lighting systems with flood, spot, or stadium-type luminaires shall be aimed downward at the work area and rotated outward no greater than 30 degrees from straight down. <u>Operation</u> • Shield or screen all exterior lighting fixtures to direct the light downward, focus on the area to be illuminated, and prevent light spillover onto adjacent properties.	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		- Place and shield or screen lighting needed for security so as not to disturb adjacent properties or passing motorists. - High intensity or high brightness light fixtures (e.g., harsh mercury vapor, low-pressure sodium, or fluorescent bulbs) shall not be used. Light-emitting diode (LED) lighting shall be used to the maximum extent feasible. - All nighttime exterior lighting shall either be motion-controlled, or shall be turned on and off when needed using a manual switch.	
Chapter 4, Agricultural Resources			
Impact AG-1: Conversion of Agricultural Land to Non-Agricultural Use	PS	<i>AG-1. Implement the Agricultural Management Plan.</i> Prior to issuance of a building permit, the project applicant shall submit the draft Agricultural Management Plan to Sacramento County Planning and Environmental Review for review and approval. The Agricultural Management Plan shall be implemented throughout the operational life of the project and specify the following conditions to ensure ongoing use of the project site for grazing. <u>SITE PREPARATION/SOIL TREATMENT</u> After completion of construction activities, all construction materials, trash, and debris shall be removed from areas of the project site that are to be seeded. Any eroded areas shall be repaired uniformly without leaving pits, holes, or low areas. Soil preparation (decompaction, tillage, seeding) activities shall be conducted when soil conditions are dry or only slightly moist. Soil preparation shall not be undertaken if soils are so moist that traffic or tillage would lead to mold or smearing. Because it is not possible to predict the exact construction schedule, two different approaches may be used for soil preparation: Dry Season Construction: If construction activities are completed in fall, soil preparation activities shall be implemented to provide the best opportunity for seeding to be completed by October 15. Soil preparation activities may be conducted later in fall provided dry or only slightly moist soil conditions persist.	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		Wet Season Construction: If construction activities are completed in winter when soil conditions are too wet to allow for effective soil manipulation, soil preparation activities would be postponed until the following late summer or fall, as described above under Dry Season Construction. Under this scenario, it may be necessary to apply an herbicide treatment in late spring/early summer to minimize the spread of invasive species. Prior to seeding, any areas intended for revegetation that were compacted by construction activities shall be decompacted to not more than 12 inches depth on not less than 18-inch centers, such that clods remain and soil is not pulverized. Soil shall be left in a roughened condition if construction is completed in spring or early summer and several months remain until seeding. Before seeding, a disk and/or ring roller shall be used to reduce the soil surface to a suitable planting medium with a firm but not compacted surface and clods reduced to less than 1 inch. If organic soil amendments are used, compost shall be obtained from a producer fully permitted as specified under the California Integrated Waste Management Board, Local Enforcement Agencies, and any other State and Local Agencies that regulate Solid Waste Facilities. <u>SEEDING PLAN</u> Final site-specific seeding plans shall be developed based on assessment of the following factors: (1) soil conditions; (2) appropriate grassland species; (3) pollinator habitat; and (4) dietary preferences of the animals identified to graze on-site. These seeding plans shall be designed to be self-perpetuating; that is, the vegetation is intended to re-seed naturally. The site shall be seeded using seed drills or broadcast seeding followed by light raking. Hydroseeding and hydromulching may also be used depending on the timing and site-specific conditions. Seeding is not recommended in June, July, or August due to high temperatures in the region and subsequent low germination success. As such, seeding is recommended and optimal from October through January or February in this region to utilize natural precipitation for irrigation and increase overall germination survivorship. The vegetation is intended	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		to reestablish naturally following construction, additional seeding may; be required if a groundcover fails to be established and meet the requirements of the Agricultural Management Plan. <u>GRAZING AND POLLINATOR HABITAT PLAN</u> The project applicant shall enter into agreements with a grazing entity and/or habitat management contractors to manage the forage resources. Grazing and forage utilization shall be managed so that erosion and nutrient losses are minimized and so that overgrazing does not occur. These guidelines are designed to provide for sustainable forage production and to protect soil resources and water quality. Grazing would likely start between March 1 and April 30 with the timing dependent on weather and foraging conditions. During the grazing period, grass shall be maintained at a height of approximately six inches in accordance with local fire codes. The grazing entity and/or habitat manager shall also complete regular inspections for invasive weed populations to maintain a native grassland within the fenced solar array. As required by Mitigation Measure WF-1 (in Chapter 13, “Wildfire”), after the grazing period, the applicant shall keep grasses and weeds on the undeveloped upland portion of the project site to a height of six inches or less, and throughout the dry season months, between May and November, to manage grass height and fuel load on-site. To control the weed height, mowing may be required. <u>VEGETATION AND POLLINATOR HABITAT MONITORING PLAN</u> Annual Vegetation and Grazing Monitoring Reports shall be prepared by the project applicant for the first five years of the project’s operation and then every three years afterwards for the life of the project. The annual reports and subsequent reports shall be submitted to Sacramento County Planning and Environmental Review. These reports shall document the estimated species coverage and diversity, species health and overall vigor, the establishment of volunteer native species, topographical/soils conditions, problem weed species, whether there is significant drought stress, and remedial measures recommended to ensure the habitat function and value within the solar	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		facility is consistent with the habitat function and value outside of the solar facility. These reports shall include at a minimum: • The name, title, and company of all persons involved in restoration monitoring and report preparation. • Maps or aerials showing restoration areas, transect locations, and photo documentation locations. • An explanation of the methods used to perform the work, including the number of acres treated for removal of non-native plants, any revegetation or weed control efforts undertaken. • An assessment of the achievement of the relevant performance for vegetation success and how the vegetation management compares to non-managed areas located outside of the fenced solar facility. <u>GRAZING MONITORING PLAN</u> Annual Vegetation and Grazing Monitoring Reports shall be prepared by the project applicant for the first five years of the project's operation and then every three years afterwards for the life of the project regarding the level of grazing use at the project site. The annual reports and subsequent reports shall be submitted to Sacramento County Planning and Environmental Review, the County's Assessor's Office, and Sacramento County Agricultural Commissioner. These reports shall include at a minimum: • The name, title, and company of all persons involved in grazing contracts and report preparation. • Documentation of grazing timing and locations, equipment, and water use. • Maps or aerials showing clipping and photo documentation locations. • An assessment of native grassland ground cover that is utilized by biological resources native to the project area.	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
Chapter 5, Air Quality			
Impact AQ-1: Conflict with or Obstruct Implementation of the Applicable Air Quality Plan	PS	<i>Implement Mitigation Measures AQ-2a, AQ-2b, AQ-2c, AQ-2d, and AQ-2e.</i>	LTSM
Impact AQ-2: 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	PS	<i>AQ-2a. Implement Basic Construction Emission Control Practices (Best Management Practices) and Enhanced Fugitive PM Dust Control Practices during Construction and Decommissioning.</i> • The applicant shall include as a condition of the construction and decommissioning bidding, incorporation of dust control measures that shall include, at a minimum, the requirements of SMAQMD Rule 403. All fugitive dust control measures shall be shown on grading, improvement, and demolition plans, to be initiated at the start and maintained throughout the duration of construction and decommissioning. • Water all exposed active work areas two times daily, or with adequate frequency for continued moist soil. Exposed surfaces include, but are not limited to soil piles, graded areas, unpaved parking areas, staging areas, and access roads. However, do not overwater to the extent that sediment flows off the site. • Cover or maintain at least two feet of free board space on haul trucks transporting soil, sand, or other loose material on the site. Any haul trucks that would be traveling along freeways or major roadways should be covered. • Use wet power vacuum street sweepers to remove any visible trackout mud or dirt onto adjacent public roads at least once a day. Use of dry power sweeping is prohibited. • Limit vehicle speeds on unpaved roads to 15 miles per hour (mph). • Suspend excavation, grading, and/or demolition activity when average wind speeds exceed 20 mph. • All roadways, driveways, sidewalks, parking lots to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		• Install wheel washers, rattle plates and/or rock aprons for all exiting trucks or equipment leaving the site. • Treat site accesses from the paved road with a 6 to 12- inch layer of gravel to reduce generation of road dust and road dust carryout onto public roads. • Post a publicly visible sign with the telephone number and person to contact at the County of Sacramento regarding dust complaints. This person shall respond and take corrective action within 48 hours. The phone number of the SMAQMD shall also be visible to ensure compliance. • Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site. • Provide current certificate(s) of compliance for CARB's In-Use Off-Road Diesel-Fueled Fleets Regulation [California Code of Regulations, Title 13, sections 2449 and 2449.1]. For more information contact CARB at 877-593-6677, doors@arb.ca.gov, or www.arb.ca.gov/doors/compliance_cert1.html. • Maintain all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determine to be running in proper condition before it is operated.	
	PS	<i>AQ-2b. Reduce Off-Road Equipment Exhaust-Related Emissions during Construction and Decommissioning.</i> • The applicant shall require off-road diesel-fueled equipment with engines larger than 50 horsepower to meet or exceed EPA/CARB Tier 4 Final emissions standards. An exemption from these requirements may be granted by the County if the County documents that equipment with the required tier is not reasonably available and corresponding reductions in criteria air pollutant emissions are achieved from other construction equipment (see completion of the Construction Emissions Control Plan in Mitigation	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		Measure AQ-2c below). Before an exemption may be considered by the County, the applicant shall be required to demonstrate that two construction fleet owners/operators in Sacramento County were contacted and that those owners/operators confirmed Tier 4 equipment could not be located within Sacramento County.	
	PS	<i>AQ-2c. Submit Construction and Decommissioning Emissions Control Plans.</i> • Prior to the approval of grading plans, the construction contractor shall submit a Construction Emissions Control Plan to the SMAQMD and provide written evidence to the County of Sacramento that the plan has been submitted to and approved by SMAQMD. The applicant shall not initiate any on-site or off-site construction activity until SMAQMD has approved the Construction Emissions Control Plan. The Construction Emissions Control Plan shall include the following: • The contractor shall submit to the SMAQMD a comprehensive equipment inventory (e.g., make, model, year, emission (tier) rating, projected hours of use, and CARB equipment identification number) of all the heavy-duty off-road equipment (50 horsepower or greater) that will be used. If any new equipment is added after submission of the inventory, the contractor shall notify the SMAQMD before using the new equipment. At least three business days before the use of subject heavy-duty off-road equipment, the project representative shall provide the SMAQMD with the anticipated construction timeline including start date, name, and phone number of the property owner, project manager, and on-site foreman. • The contractor shall submit to the SMAQMD an anticipated off-site heavy-duty truck trip activity schedule (duration of truck trip activity, anticipated origin/destination of truck trips, and estimated total and daily truck trips per day) and anticipated truck fleet inventory (e.g., make, model, engine year). • With submittal of the equipment inventory and anticipated on-road heavy-duty truck trip activity, the contractor shall provide a written calculation of the project's total and daily construction emissions to	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		the SMAQMD for approval. If any new equipment or haul truck activity is added after the submission and approval of the inventory, the construction contractor shall update the inventory and construction emissions calculations and provide to the SMAQMD and County of Sacramento prior to the use of such equipment and trucks. The emissions calculations shall be calculated using the SMAQMD's Construction Mitigation Calculator; this tool is currently available on the SMAQMD's website at the following link: http://www.airquality.org/businesses/ceqa-land-use-planning/mitigation. • Prior to decommissioning of the facility, the construction contractor shall submit a Construction Emissions Control Plan, subject to the same requirements and stipulations as described above.	
	PS	<i>AQ-2d. Off-Site Construction and Decommissioning Mitigation.</i> • If, based upon the incorporation of all measures described above in Mitigation Measures AQ-2a through AQ-2c, NO_x or PM₁₀ emissions still exceed the daily SMAQMD threshold for NO_x and the non-zero threshold for PM₁₀, the project shall participate in the SMAQMD's Offsite Mitigation Program by paying to SMAQMD a mitigation fee for construction and decommissioning activities, to be determined at the time of construction and decommissioning based on the submitted equipment inventories and heavy-duty truck activity and emissions calculations for NO_x and PM₁₀ emissions, such that emissions are reduced to a less-than-significant level. The fee calculation to mitigate daily emissions shall be based on the SMAQMD mitigation fee rate, which is reviewed and adjusted annually, if needed. The current mitigation fee rate is \$30,000 per ton of emissions with a 5 percent administrative fee in addition to the mitigation fee. The total fee shall be determined based on the total emissions reductions of NO_x and PM₁₀ needed to reduce emissions to be less than the SMAQMD thresholds of 85 pounds per day for NO_x and 80 pounds per day for PM₁₀ (the non-zero threshold for PM₁₀). The fee shall be submitted for approval by SMAQMD as the total required to achieve emissions reductions that would reduce total emissions to a less-than-significant level after all other	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		mitigation measures are implemented. The fee shall be calculated, approved by SMAQMD, and paid prior to the issuance of grading or improvement plans.	
	PS	<i>AQ-2e. Implement Best Management Practices for Reducing Operational PM Emissions.</i> The applicant shall include as a condition of building permit issuance, the following best management practices for fugitive dust control during operational and maintenance activities associated with the project: • Limit vehicle speeds on unpaved roads to 15 mph. • Minimize idling time either by shutting equipment off when not in use or reducing the time of idling to 5 minutes [California Code of Regulations, Title 13, sections 2449(d)(3) and 2485]. Provide clear signage that posts this requirement for workers at the entrances to the site. • Compliance with anti-idling regulations for diesel powered commercial motor vehicles (greater than 10,000 gross vehicular weight rating). The current requirements include limiting idling time to 5 minutes and installing technologies on the vehicles that support anti-idling. Information can be found on the California Air Resources Board's website: https://ww2.arb.ca.gov/ourwork/programs/idle-reduction-technologies/idle-reduction-technologies.	LTSM
Impact AQ-3: Expose Sensitive Receptors to Substantial Pollutant Concentrations	PS	<i>AQ-3: Site Investigation for Potential Naturally Occurring Asbestos.</i> A site investigation shall be performed to determine whether and where NOA is present in the soil and rock on the project site in areas that would be disturbed by the project and that are within "areas moderately likely to contain NOA," as determined by the map in California Geological Survey's report titled Relative Likelihood for the Presence of Naturally Occurring Asbestos in Eastern Sacramento County, California and mapped in Plate AQ-1, above. The site investigation shall include the collection of soil and rock samples by a California Registered geologist as determined by the geologist and in coordination with the County. If the site investigation determines that NOA is not present on the project site, the project applicant shall submit a Geologic Exemption as allowed under Title 17, Section 93105,	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		Asbestos Airborne Toxic Control Measure for Construction, Grading, Quarrying, and Surface Mining (Asbestos ATCM). If the site investigation determines that NOA is present on the project site, the project applicant shall submit an Asbestos Dust Mitigation Plan that includes the control measures required by the Asbestos ATCM for review and approval by the District before beginning any ground disturbance activity. Upon approval of the Asbestos Dust Mitigation Plan by the District, the applicant shall ensure that construction contractors implement the terms of the plan throughout the construction period. The Asbestos Dust Mitigation Plan will also be a required component of the bonded decommissioning plan that the contractor shall implement throughout the decommissioning period.	
Impact AQ-4: Result in Other Emissions (Such as Those Leading to Odors) Adversely Affecting a Substantial Number of People	LTS	No mitigation is required.	LTS
Chapter 6, Biological Resources			
Impact BR-1: Have a Substantial Adverse Effect, Either Directly or Through Habitat Modifications, on Any Species Identified as a Candidate, Sensitive, or Special-Status Species in Local or Regional Plans, Policies, or Regulations, or by CDFW or USFWS	PS	<i>BR-1a: Implement Construction Best Management Practices to Avoid and Minimize Potential for Construction-Related Impacts on Special-Status Plants and Wildlife.</i> • Construction Fencing. Orange construction fencing, or equivalent, shall be installed to ensure that ground disturbance does not extend beyond the allowed construction footprint (i.e., the limit of project construction plus equipment staging areas, vehicle parking, materials storage, and newly-developed access roads). The fencing shall remain in place until project completion. • Erosion Control. Before implementing ground-disturbing activities, temporary control measures for sediment, stormwater, and pollutant runoff shall be installed to protect water quality and species habitat. Silt fencing or other appropriate sediment control device(s) shall be installed downslope of any activities that disturbs soils. Fiber rolls and seed mixtures used for erosion control shall be free of viable	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		noxious weed seed. Erosion controls installed in or adjacent to known or potential habitat for <u>northwestern</u> pond turtle and western spadefoot must be of appropriate design and materials that shall not entrap the species (e.g., not contain mesh netting). Regular monitoring and maintenance of the project's erosion control measures shall be conducted until project completion to ensure effective operation of erosion control measures. • Equipment Storage and Fueling. During construction activities, equipment storage and staging shall occur only in designated areas of the development footprint. Fuel storage and equipment fueling shall occur a minimum of 100 feet away from waterways, stream channels, stream banks, and other environmentally sensitive areas (e.g., known rare plant occurrences) within the development footprint. If construction activities result in a spill of fuel, hydraulic fluid, lubricants, or other petroleum products, the spill shall be absorbed, and waste disposed of in a manner to prevent pollutants from entering a waterway or stream setback. • Erodible Materials. Construction activities must not deposit erodible materials into waterways; vegetation clippings, brush, loose soils, or other debris material shall not be stockpiled within stream channels or on adjacent banks. Erodible material must be disposed of such that it cannot enter a waterway, stream setback or aquatic land cover type. If water and sludge must be pumped from a subdrain or other structure, the material shall be conveyed to a temporary settling basin to prevent sediment from entering a waterway. • Dust Control. During ground-disturbing construction activities, active construction sites shall be watered regularly, if warranted, to avoid or minimize impacts from construction dust on adjacent vegetation and wildlife habitats. No surface water shall be used from aquatic land covers and water shall be obtained from a municipal source or existing groundwater well. • Construction Lighting. All temporary construction lighting (e.g., lighting used for security or occasional nighttime equipment maintenance or other limited scope of work such as to avoid extreme	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		heat) shall be directed away from adjacent natural habitats, and particularly riparian and wetland habitats and wildlife movement areas. • Biological Monitor. A qualified biological monitor shall be on-site during construction activities as needed, as described below in Mitigation Measure BR-1b (Special Status Plants), Mitigation Measure BR-1c (Western Spadefoot), Mitigation Measure BR-1d (Northwestern Western Pond Turtle), Mitigation Measure BR-1f (Swainson's Hawk), Mitigation Measure BR-1g (Tricolored Blackbird), Mitigation Measure BR-1h (Valley Elderberry Longhorn Beetle)), Mitigation Measure BR-1k (Nesting Raptors and Migratory Birds), and Mitigation Measure BR-1m (Crotch's Bumble Bee), <u>and Mitigation Measure BR-1n (Ringtail).</u> ▪ Training of Construction Staff. A mandatory Worker Environmental Awareness Program (WEAP) shall be conducted by a qualified biologist for all construction workers, including contractors, prior to the commencement of construction activities. The training shall include how to identify special-status species that might enter the construction site, relevant life history information and habitats, statutory requirements and the consequences of non-compliance, the boundaries of the construction area and permitted disturbance zones, litter control training (SPECIES-1), and appropriate protocols if a special-status species is encountered. ▪ Supporting materials containing training information shall be prepared and distributed by the qualified biologist. When necessary, training and supporting materials shall also be provided in Spanish. Upon completion of training, construction personnel shall sign a form stating that they attended the training and understand all AMMs. • Soil Compaction. After construction is complete, all temporarily disturbed areas shall be restored similar to pre-project conditions, including impacts relating to soil compaction, water infiltration capacity, and soil hydrologic characteristics.	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		• Revegetation. Cut-and-fill slopes shall be revegetated <u>by seeding with a pollinator-friendly native or existing non-invasive, non-native plants (e.g., non-native grasses) seed mix of known genetic origin whose original stock seed was collected from a local seed bank (e.g., Sierra Nevada Foothills or the Great Central Valley)</u> suitable for the altered soil conditions. Non-native plants identified as a State listed noxious weed or as a California Department of Food and Agriculture rated A through C invasive plant are prohibited. <u>Revegetation shall be completed in the fall before the start of the rainy season and as soon as possible after project activities. Seeded areas shall be covered with broadcast straw, mulch, and/or erosion control blankets.</u> • Speed Limit. Project-related vehicles shall observe the posted speed limits on paved roads and a 10-mile-per-hour speed limit on unpaved roads and during travel in project areas. Construction crews shall be given weekly tailgate instruction to travel only on designated and marked existing, cross-country, and project-only roads. • Litter Removal Program. A litter control program shall be instituted for the entire project site. All workers shall ensure that their food scraps, paper wrappers, food containers, cans, bottles, and other trash are deposited in covered or closed trash containers. All garbage shall be removed from the project site at the end of each workday, and construction personnel shall not feed or otherwise attract wildlife to the area where construction activities are taking place. • No Pets in Construction Areas. To avoid harm and harassment of native species, workers and visitors shall not bring pets <u>except those in the possession of authorized security personnel or federal, State, or local law enforcement officials or working dogs and sheep present during grazing activities</u> onto a project site <u>during construction and Operation and Maintenance activities.</u> • Minimize Effects from Temporary Channel Re-Routing. If necessary to temporarily re-route <u>dewater</u> a stream, creek, or	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		drainage in order to conduct project work activities (i.e., conducting work when the channel is naturally dry is not feasible), <u>a temporary water diversion plan will be submitted for review and approval to Sacramento County.</u> ‡The re-routing<u>temporary diversion</u> will be completed in a manner that minimizes impacts to beneficial uses and habitat. The following measures will be employed to minimize disturbances that will adversely impact water quality: ▪ No equipment will be operated in areas of flowing or standing water. ▪ Construction materials and heavy equipment must be stored <u>in a designated staging area</u> outside of the active flow <u>and where they do not have the potential to enter</u> of any waters <u>of the state.</u> • Design for Stream Channel Alterations. Local, native materials will be used as fill material to the extent practicable. • Prevent Invasive Species Spread. Construction- and operations-related activities shall be conducted in a manner that avoids the spread of invasive species. Such prevention measures shall include the following: ▪ Before bringing any equipment onto the project site, equipment must be cleaned of mud, dirt, and plant material. Cleaning shall occur in the infested area, or another appropriate off-site location as approved by Sacramento County. ▪ Ground-disturbing activities shall start in un-infested areas and move to infested areas to the maximum extent feasible. Where work must occur in infested areas, equipment must be cleaned of any mud, dirt, and plant material before moving into un-infested areas; or the project proponent shall apply an appropriate manual, mechanical, or chemical (if authorized) treatment in accordance with County and State regulations prior to working in infested areas. ▪ Invasive plant prevention techniques shall be incorporated into operations and maintenance plans.	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		▪ A qualified biologist shall be retained to conduct an annual weed survey in spring for five years following construction along all road shoulders, ditches and other linear aquatic features, and the fence line within portions of the project site disturbed during construction for invasive weeds or other exotic plant species. Where new weed infestations (relative to pre-project conditions) have been identified or where known prior noxious weed infestations appear to have expanded as a result of project developments, the project proponent shall apply an appropriate manual, mechanical, or chemical (if authorized) treatment in accordance with County and State regulations. • Blasting Plan. Implement Mitigation Measure NOI-1b, Prepare and Implement a Blasting Plan, which includes optimizing blast design parameters (e.g., charge size, delay intervals, etc.) and using blast mats to cover the blast area to reduce noise levels; and implement noise monitoring to determine if additional real-time sound attenuating measures, as specified, are necessary. In addition to requirements in NOI-1b, which are intended to ensure compliance with noise related regulations, additional sound attenuating measures, as described in NOI-1b, may be needed to reduce potential noise- and vibration- related impacts to special-status species, as identified in the species-specific mitigation measures subsections provided below.	
	PS	<i>BR-1b: Avoid, Minimize, and Mitigate for Impacts on Special-Status Plants.</i> • Implement Mitigation Measure BR-1a, in particular the following: Construction Fencing, Erosion Control, Equipment Storage and Fueling, Erodible Materials, Dust Control, Construction Lighting, Biological Monitor, Training of Construction Staff, Soil Compaction, Revegetation and Prevent Invasive Species Spread. ▪ A discussion of special-status plant species with potential to occur, sensitive natural communities, and sensitive aquatic resources shall be included in the WEAP discussed under “Training of Construction Staff” Mitigation Measure BR-1a.	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		- For special-status plant occurrences identified during project surveys to be within 100 feet of the solar development area (i.e., spiked western rosinweed, <u>valley brodiaea</u>, Ahart's dwarf rush, and <i>pincushion navarretia</i>), install environmentally sensitive area (ESA) fencing to protect and avoid these occurrences from inadvertent encroachment from adjacent construction activities. ESA fencing and/or appropriate signage shall be installed at a minimum of 20 feet from the edge of special-status plant populations. The project shall avoid performing any construction-related activities within the ESA. For work that cannot be avoided in the ESA, a biological monitor shall be present when project construction-related activities occur. - For special-status plant occurrences within the solar development area (i.e., spiked western rosinweed <u>and valley brodiaea</u>), install ESA fencing to protect and avoid all (i.e., complete avoidance) or portions of known occurrences from direct disturbances during construction (i.e., spatial avoidance) to the maximum extent feasible <u>practicable</u>. ESA fencing shall be installed as described above. A biological monitor shall be present when project construction-related activities occur within the ESA. - Where spatial avoidance during construction, as described above, does not avoid effects, implement temporal avoidance by scheduling work activities (e.g., overland travel, grading, etc.) within known occurrences of spiked western rosinweed to occur after the majority of plants within the occurrence have set seed for the year (i.e., typically in late summer/early fall), as determined by a qualified botanist. If ground-disturbing activities must be conducted within known occurrences of this species, the following shall also be required in addition to temporal avoidance: - salvage topsoil from occupied areas prior to ground-disturbances for reestablishment once construction is complete, - retain a qualified botanist to monitor during initial ground-disturbing activities within known occurrences of this species to ensure all required measures are being implemented, and - retain a qualified botanist to conduct periodic surveys throughout the operational life of the project (including the first year post-	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		construction and approximately every five years on average thereafter, with the goal of targeting years with sufficient rainfall for successful germination of this species). The intent of monitoring during operations is to confirm the re-establishment and continued occupancy of spiked western rosinweed within each recorded occurrence where temporal avoidance is implemented and to ensure no net loss of occurrences of this species. <u>If monitoring indicates a net loss in occurrences of spiked western rosinweed, adaptive management strategies will be developed to promote re-establishment.</u> • <u>Implement Mitigation Measure BR-2b, which includes preservation of habitat for special-status plants, including spiked western rosinweed.</u> • Incorporate specific grazing/mowing regimes and other relevant management measures consistent with the long-term preservation of spiked western rosinweed occurrences on-site into the Agricultural Management Plan (see Mitigation Measure AG-1 in Chapter 4, “Agricultural Resources”), such as mowing after seed set, incorporating compatible grazing prescriptions, and installing permanent ESA signage near spiked western rosinweed occurrences within/adjacent to the solar development area to alert Operations and Management staff of the ESA and any associated operational restrictions. • Implement the Aquatic Resource Mitigation Plan, as required under Mitigation Measure BR-3, to protect adjacent wetlands/waters within 50 feet from the solar development area that support special-status plants from indirect impacts.	
	PS	<i>BR-1c: Avoid, Minimize, and Mitigate for Impacts on Western Spadefoot.</i> • Implement Mitigation Measure BR-3 (State or Federally Protected Wetlands and Other Waters). • Implement Mitigation Measure AG-1 (see Chapter 4, “Agricultural Resources”).	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		• Implement Mitigation Measure BR-1a (Construction Best Management Practices). ▪ Western spadefoot shall be included in the WEAP discussed under “Training of Construction Staff” in Mitigation Measure BR-1a. ▪ In addition, if erosion control (described in Mitigation Measure BR-1a) is implemented in the solar development area, non-entangling erosion control material shall be used to reduce the potential for entrapment. Tightly woven fiber netting (mesh size less than 0.25 inch) or similar material shall be used to ensure that western spadefoots are not trapped (i.e., no monofilament). Coconut coir matting and fiber rolls containing burlap are examples of acceptable erosion control materials. • Avoid Aquatic Habitat or Implement Work Window: Where feasible, temporary construction fencing shall be installed a minimum of 250 feet from the delineated wetland edge of any potentially suitable aquatic habitats (e.g., vernal pools, seasonal wetlands) for western spadefoot. All construction and operations activities are prohibited within this buffer area. If aquatic habitats are not avoided, project ground-disturbing activities within such areas (including overland driving of vehicles and equipment) shall be restricted to the Western Spadefoot Work Window (see below). • Western Spadefoot Work Window: Project ground-disturbing activities (including overland driving of vehicles and equipment) within suitable habitat for western spadefoot (e.g., grassland, woodland) shall occur outside of this species’ breeding and dispersal seasons (i.e., work to occur after May 15 and before October 15). • Pre-construction Survey: If project ground-disturbing activities must be implemented in potentially suitable habitat for this species during the breeding and dispersal season (October 15 to May 15), activities shall not start until 30 minutes after sunrise and must be completed 30 minutes prior to sunset. In addition, a qualified biologist shall conduct a pre-construction survey of the active work areas (including access roads) for western spadefoot prior to initial ground	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		disturbance and prior to work activities in mornings following measurable precipitation events. The survey will include searching small mammal burrows, crevices, and other potential refugia, as well as underneath equipment and inside uncapped stored pipes that are 3 cm (1.2 inches) or greater in diameter. Construction may commence once the biologist has confirmed that no spadefoot are in the work area. If western spadefoot is encountered, refer to Spadefoot Encounter Protocol, below. • Construction Monitoring: If project ground-disturbing activities must be implemented in potentially suitable habitat for this species during the breeding and dispersal season (October 15 to May 15), a qualified biologist experienced with western spadefoot identification and behavior shall monitor the solar development area. The qualified biologist shall be on-site daily while construction-related activities are taking place and shall inspect the solar development area for these species every morning prior to construction activities. The qualified biologist shall also train construction personnel on the required species avoidance procedures, and correct protocols in the event that a western spadefoot enters an active construction zone. If western spadefoot is encountered, refer to Spadefoot Encounter Protocol, below. • Spadefoot Entrapment Avoidance: All excavated steep-walled holes or trenches more than six inches deep shall be covered with plywood (or similar material) or provided with one or more escape ramps constructed of earth fill or wooden planks (maximum 2:1 slope) at the end of each workday or 30 minutes prior to sunset, whichever occurs first. All steep-walled holes or trenches shall be inspected by the qualified biologist each morning prior to and each evening after work activities for the day to ensure that no wildlife has become entrapped and/or to relocate any wildlife that may have become trapped to suitable habitat outside the construction area; relocation would take place only by a qualified biologist with appropriate handling permits. All construction pipes, culverts, similar structures, construction equipment, and construction debris left overnight within potential habitat shall be inspected for western spadefoot by the	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		qualified biologist prior to being moved. If western spadefoot is encountered, refer to WS-6, below. • Spadefoot Encounter Protocol: If a western spadefoot is encountered during project activities, the qualified biologist shall notify CDFW and any other appropriate responsible Agency (e.g., USFWS if the species has become federally listed) immediately. Project activities shall be suspended within a 100-foot radius of the animal until the animal moves out of the work area on its own volition, or is relocated by a qualified biologist with appropriate handling permits. Prior to relocation, the qualified biologist shall notify CDFW and USFWS (if relevant) to determine the appropriate procedures related to relocation. If the animal is handled, a report shall be submitted within one business day to CDFW and USFWS (if relevant) that includes the date, location, habitat description, circumstances requiring the animal to be handled, and any additional measures taken to further protect western spadefoot. Any worker who inadvertently injures or kills a western spadefoot or who finds any individual(s) dead, injured, or entrapped must immediately report the incident to the qualified biologist. The biologist shall report any take (i.e., injury or mortality) of listed species to CDFW and USFWS (if relevant) immediately. • Rodent Control: Rodent control shall be allowed only in and around human-occupied portions of the project site. • Spadefoot Friendly Fencing Specifications: During operations, if woven wire fence to be installed around the perimeter of solar array fields would not allow for the passage of western spadefoot (i.e., spacing of woven wire is not sufficient to allow for passage of a western spadefoot), incorporate appropriate design features along the bottom of the perimeter fencing to allow for the movement of western spadefoot across fencing (e.g., incorporate a minimum 63 inch-wide gap between the ground surface and bottom of the fence).	
	PS	<i>BR-1d: Avoid, Minimize, and Mitigate for Impacts on Northwestern Pond Turtle.</i>	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		• Implement Mitigation Measure BR-3 (State and Federally Protected Wetlands and Other Waters). • Implement Mitigation Measure AG-1 (see Chapter 4, “Agricultural Resources”). • Implement Mitigation Measure BR-1a (Construction Best Management Practices). ▪ In addition, if erosion control (described in Mitigation Measure BR-1a) is implemented in the solar development area, non-entangling erosion control material shall be used to reduce the potential for entrapment. Tightly woven fiber netting (mesh size less than 0.25 inch) or similar material shall be used to ensure that turtles are not trapped (i.e., no monofilament). Coconut coir matting and fiber rolls containing burlap are examples of acceptable erosion control materials. ▪ This species shall be included in the WEAP discussed under “Training of Construction Staff” in Mitigation Measure BR-1a. • Avoid Aquatic Habitat Where Feasible: Where feasible, temporary construction fencing shall be installed a minimum of 300 feet from the potential suitable aquatic habitat for northwestern pond turtle (e.g., streams, ponds, freshwater emergent wetlands, etc.). All construction and operations activities shall be prohibited within this buffer area, or implement the Northwestern Pond Turtle Work Window (see below). • Northwestern Pond Turtle Work Window: For any project-related activities that occur within 300 feet of suitable aquatic habitat, project ground-disturbing activities shall be conducted outside of northwestern pond turtle’s active season (i.e., work to occur after May 1 and before September 15). If project activities must be implemented during the breeding and dispersal season, they shall not start until 30 minutes after sunrise and must be completed 30 minutes prior to sunset. • Northwestern Pond Turtle Pre-Construction Survey: a qualified biologist shall conduct a pre-construction survey for northwestern pond turtle within 48 hours prior to the start of construction activities	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		within 300 feet of suitable aquatic habitat. Concurrently with the pre-construction survey, assessments for nesting pits and/or wintering site (e.g., burrows) shall be conducted and any identified sites shall be delineated with high visibility flagging or fencing and avoided during construction activities. • Northwestern Pond Turtle Encounter Protocol: If a northwestern pond turtle, nesting pits, and/or wintering sites are encountered during the pre-construction survey a qualified biologist shall be present during grubbing and clearing activities in suitable habitat to monitor for northwestern pond turtle. If a turtle is observed in the active construction zone, project activities shall be suspended within a 100-foot radius of the animal until the animal moves out of the work area on its own volition. If necessary, the qualified biologist shall notify CDFW to determine the appropriate procedures related to relocation to nearby suitable habitat. If the animal is handled, a report shall be submitted within one business day to CDFW that includes the date, location, habitat description, circumstances requiring the animal to be handled, and any additional measures taken to further protect northwestern pond turtle. Any worker who inadvertently injures or kills a northwestern pond turtle or who finds one dead, injured, or entrapped must immediately report the incident to the qualified biologist. • Work in Aquatic Habitat, Dewatering and Exclusion: If project does not avoid potential aquatic habitats, as described above, scheduled work activities when habitat is naturally dry (e.g., in seasonal aquatic habitats). If project activities must occur in suitable aquatic habitat that is wetted, the following shall be implemented: The wetted aquatic habitat shall be dewatered and remain dry and absent of aquatic prey (e.g., crustaceans and other aquatic invertebrates) for a minimum of 15 days prior to the initiation of construction activities. If complete dewatering is not possible, CDFW shall be contacted to determine what additional measures may be necessary to minimize effects to northwestern pond turtle. After aquatic habitat has been dewatered for a minimum of 15 days, exclusion fencing shall be installed extending a minimum of 300 feet into adjacent uplands to isolate both the aquatic and adjacent upland habitat within work area	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		boundaries. Exclusionary fencing shall be erected 36 inches above ground and buried at least 6 inches below the ground to prevent any northwestern pond turtles from attempting to burrow or move under the fence into the work area. In addition, high-visibility fencing shall be erected to identify work area limits and to protect adjacent habitat from encroachment of personnel and equipment. Northwestern pond turtle habitat outside exclusionary fencing shall be avoided by all construction or maintenance personnel. The fencing and work area shall be inspected by a qualified biologist before the start of each workday and periodically throughout each workday to ensure that the fencing is intact and that no northwestern pond turtles have entered the work area. Fencing shall be maintained by the contractor or maintenance entity until completion of the work, upon which it shall be completely removed. If, after exclusion fencing and dewatering, northwestern pond turtles are found within the work area, the qualified biologist shall contact CDFW to discuss the next best steps such as the relocation of the individual(s) to suitable aquatic habitat outside the exclusion fencing.	
	PS	<i>BR-1e: Avoid, Minimize, and Mitigate for Impacts on Western Burrowing Owl and Occupied Nesting Habitat.</i> • Implement Mitigation Measure AG-1 (see Chapter 4, “Agricultural Resources”). • Implement Mitigation Measure BR-1a (Construction Best Management Practices). ▪ This species shall be included in the WEAP discussed under “Training of Construction Staff” in Mitigation Measure BR-1a. • <u>Burrowing Owl Survey. Prior to construction, a qualified biologist shall conduct at least four surveys using the methods described in CDFW’s Staff Report on Burrowing Owl Mitigation, Appendix D (2012). Surveys shall be conducted during the breeding season (February 1 to August 31) and include no fewer than four survey visits: at least one site visit between February 15 and April 15 and a minimum of three survey visits, at least three weeks apart, between April 15 and July 15, with at least one visit after June 15. Surveys shall also be conducted</u>	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<u>during the non-breeding season (September 1 to January 31) before the start of construction activities to determine seasonal residency. Non-breeding season surveys shall consist of at least four visits, spread evenly, throughout the nonbreeding season. The presence of burrowing owl individuals, burrowing owl complexes or their sign (e.g., molted feathers, cast pellets, prey remains, eggshell fragments, owl whitewash, nest burrow decoration materials) anywhere on the site or within a 1650-foot accessible radius around the project site shall be recorded and mapped. The qualified biologist shall submit the results of the survey, including a burrow complex map to Sacramento County for approval in consultation with CDFW prior to beginning project activities. If changes in burrowing owl presence are detected (e.g., burrowing owl have moved onsite or changed burrow use), the qualified biologist shall contact Sacramento County within 24 hours of the observation to consult on appropriate measures to avoid or minimize impacts of the project to burrowing owl, and the qualified biologist shall establish buffers in consultation with CDFW.</u> • <u>Burrowing Owl Preconstruction Surveys. No more than 14 days prior to beginning project operations and maintenance activities, a qualified biologist shall conduct a preconstruction survey for burrowing owl. Surveys shall be conducted during the breeding (February 1 to August 31) and overwintering (September 1 to January 31) seasons. The presence of burrowing owl individuals, burrowing owl complexes prescribed by Condition of Approval 6.25 or their sign (e.g., molted feathers, cast pellets, prey remains, eggshell fragments, owl whitewash, nest burrow decoration materials.) anywhere on the site or within a 1650-foot accessible radius around the project site shall be recorded and mapped. The qualified biologist shall submit the results of the survey to Sacramento County for approval in consultation with CDFW prior to beginning project activities. If changes in burrowing owl presence are detected (e.g., burrowing owl have moved onsite or changed burrow use), the qualified biologist shall contact</u>	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<u>Sacramento County within 24 hours of the observation to consult on appropriate measures to avoid or minimize impacts of the project to burrowing owl, and the qualified biologist shall establish buffers in consultation with CDFW. If a lapse in Project-related work of 14 calendar days or longer occurs, another preconstruction survey and consultation with Sacramento County and CDFW shall be required before project work can be reinitiated. Survey results shall only be valid for the season (breeding or non-breeding) during which the survey was conducted.</u> A qualified biologist shall conduct a preconstruction survey for burrowing owl no more than 30 days prior to ground-disturbing activities to provide updated information on owl locations and occupied burrows for impact avoidance, minimization, and mitigation planning. The survey shall cover the limits of ground disturbance and potentially suitable habitat within 500 feet. The survey shall be consistent with CDFG (2012), or more current CDFW guidelines. If ground-disturbing activities are delayed, then additional surveys shall be conducted such that no more than 7 days elapse between the survey and ground-disturbing activities. - A Burrowing Owl Mitigation and Management Plan shall be developed in consultation with CDFW and consistent with CDFG's Staff Report on Burrowing Owl Mitigation (March 2012), or more current CDFW guidelines prior to project construction. The CDFW-approved Burrowing Owl Mitigation and Management Plan shall be submitted to the County of Sacramento for review prior to the start of construction. The plan shall address long-term ecological sustainability and maintenance of the site for burrowing owls, where feasible in the solar development area (i.e., temporary impact areas) and in adjacent areas. The Pplan shall require the applicant to achieve a performance standard of no net loss of burrowing owl nesting and-foraging habitat <u>(1:1) and a minimum of 3 acres for each acre habitat replacement for nesting sites</u>acreage, function, and values. <u>Alternatively, the plan may include provisions for nesting habitat enhancement (e.g., artificial burrow creation) on project mitigation lands in lieu of</u>	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<u>acquisition of additional mitigation lands. The plan</u> and shall include the following elements: ▪ A description of the preconstruction distribution and abundance of burrowing owls and existing habitat conditions at the project site, <u>including a burrow complex map showing natural burrow complexes and atypical burrows (e.g., culverts, buckled concrete) utilized by burrowing owl. The map shall show details and locations of all burrow sightings capable of supporting burrowing owl and shall indicate potential burrows, occupied burrows, satellite burrows, areas of concentrated burrows, and sign. The map shall include a title, an outline of the project site, north arrow, scale bar, and legend.</u> ▪ Avoidance and minimization measures to be implemented during project construction to avoid direct and indirect impacts on burrowing owls (e.g., establishment by a qualified biologist of a minimum of 50 meters, up to 500 meters, non-disturbance buffers around active burrows depending on the time of year and type of activity, consistent with CDFW's 2012 Staff Report guidelines), including a discussion of any proposed passive relocation activities, if necessary (e.g., non-breeding season active burrows that cannot feasibly be avoided). ▪ Proposed management of burrowing owl nesting and foraging habitat during project operation and maintenance to achieve the goal of no net loss of existing habitat value for burrowing owls within temporary impact areas. ▪ A monitoring and reporting plan addressing implementation and success of the management plan and identifying actions needed to maintain foraging and nesting habitat and reduce stressors on wintering and nesting burrowing owls. ▪ An adaptive management plan that includes additional measures described below if the performance standards of no net loss of burrowing owl nesting and foraging habitat value are not being met.	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		▪ If CDFW determines that off-site compensatory mitigation is necessary to comply with the performance standard of no net loss of habitat acreage, function, and values for burrowing owls, compensation shall be implemented consistent with the SSHCP goals of preserving and linking high-quality habitat, preserving and reestablishing natural land covers that provide suitable habitat, and maintaining or expanding the existing distribution of the species within the SSHCP Plan Area. The applicant may provide off-site compensatory mitigation to achieve the no net loss performance standard through acquisition of a conservation easement or mitigation credits from an appropriate mitigation bank, or another form of mitigation, as approved by CDFW. Compensation may be layered with other mitigation requirements, such as for Swainson's hawk foraging habitat (see Mitigation Measure BR-1f, if acceptable by CDFW). ▪ <u>If impacts on burrowing owl individuals cannot be avoided during the breeding or non-breeding season, obtain an Incidental Take Permit (ITP) from CDFW for anticipated exclusion of burrowing owl during construction and operations and maintenance activities.</u>	
	PS	<i>BR-1f: Avoid, Minimize, and Mitigate for Impacts on Swainson's Hawk and their Nesting and Foraging Habitat.</i> • Implement the Agricultural Management Plan (see Mitigation Measure AG-1 in Chapter 4, "Agricultural Resources"). • Implement Mitigation Measure BR-1a (Construction Best Management Practices). ▪ This species shall be included in the WEAP discussed under "Training of Construction Staff" in Mitigation Measure BR-1a. • During the two survey periods immediately preceding commencement of construction occurring during the nesting season (e.g., March 1 through September 15), a qualified biologist shall conduct preconstruction surveys in accordance with Recommended Timing and Methodology for Swainson's Hawk Nesting Surveys in	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		California's Central Valley (Swainson's Hawk Tech. Advisory Committee 2000). - Consistent with CDFW's recommendations identified in their Staff Report Regarding Mitigation for Impacts to Swainson's Hawks (<i>Buteo swainsoni</i>) in the Central Valley of California (CDFG 1994), if nesting Swainson's hawk are identified within 0.5 mile of the project site during preconstruction Swainson's nesting surveys described above, preconstruction nesting bird surveys (see Mitigation Measure BR-1I, below), or at any point during project construction, ongoing monitoring by a qualified biologist shall be required to ensure there are no unauthorized impacts to this species and its habitat; typically a 0.25- to 0.5-mile buffer of an active nest site shall be implemented during the nesting season (e.g., March 1 through September 15) until the young have fledged to avoid agitation to the nest. The requirement for monitoring shall be determined in consultation with CDFW biologists after they are notified of any nesting Swainson's hawk within 0.5 mile of the project site during construction. - If impacts on SWHA individuals cannot be fully avoided, obtain an incidental take permit from CDFW for anticipated take of SWHA nesting sites and foraging habitat and for potential project-related take of individuals. - To minimize potential for collision by or electrocution of nesting raptors, including Swainson's hawk, or migratory birds from project-related electrical infrastructure, the electrical collection infrastructure shall conform with the most current edition of the Avian Power Line Interaction Committee (APLIC) guidelines to prevent collisions and electrocutions, found at: https://www.aplic.org/mission. - Compensation shall be provided for the permanent loss of Swainson's hawk foraging habitat (e.g., grassland and other seasonal open areas) to achieve a performance standard of no net loss of habitat acreage, function and values to Swainson's hawk (<u>see Mitigation Measure BR-2b</u>). The project may achieve the performance standard through the County of Sacramento Swainson's Hawk Mitigation Program or other compensatory	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		programs (e.g., mitigation banks; conservation easements) that provide permanent protection of mitigation lands. Under the County of Sacramento program, mitigation for permanent loss of foraging habitat is required for the change in habitat value from the existing condition (100 percent of foraging habitat value remaining based on the AG-80 zoning) to the post-project habitat value. Permanent impacts to foraging habitat from the proposed project would be determined once final approved construction design plans are completed and shall be compensated for at 100 percent of the acres of permanent impact; at the time of writing of this document, the total permanent impact on foraging habitat was estimated at 911.10 acres corresponding to a compensatory mitigation requirement of 911.10 acres.¹ For permanent impacts to Swainson's Hawk foraging habitat totaling greater than 40 acres, the County Swainson's Hawk Mitigation Program would require the project to provide mitigation lands (i.e., via title and/or easement). For permanent impacts to foraging habitat totaling less than 40 acres, an impact mitigation fee (per acre fee plus administrative fee) may be paid to the County in-lieu of providing mitigation lands or paid for acquisition of credits from a mitigation bank approved by CDFW. If compensation for foraging habitat is achieved outside the Swainson's Hawk Mitigation Program, it shall at minimum meet the mitigation requirement of the Program. • The project applicant shall avoid removal of known active Swainson's hawk nest trees² to the maximum extent practicable. Compensation shall be provided for the permanent loss of occupied Swainson's hawk nesting habitat, (i.e., removal of known active nest sites/trees to achieve a performance standard of no net loss of habitat acreage, function and values to Swainson's hawk through implementation of a Tree Resource Revegetation Plan (see	

¹ If, at any point prior to final approval of the project by the County, CDFW recognizes any portion of solar array fields as providing foraging habitat value for Swainson's hawk during operations, the permanent impact on grassland foraging habitat from the proposed project, and associated required compensation, may be modified accordingly.

² An active nest site/tree includes any nest site/tree that has been documented to be active by Swainson's hawk within the prior five years.

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		Mitigation Measure BR-2a). A Tree Resource Compliance and Mitigation Memorandum prepared by the Applicant shall be updated to meet the requirements identified herein for the Tree Resource Revegetation Plan for approval of the County prior to project-related tree removal. • Incorporate measures into the Tree Resource Revegetation Plan that shall: (1) ensure mitigation be directed to lands identified on the Open Space Vision Diagram and associated component maps in the Sacramento County General Plan (per General Plan Policy CO-60), (2) ensure mitigation lands are permanently protected (per General Plan Policy CO-62) and have a monitoring and management program with established funding (per General Plan Policy CO-66), (3) ensure compensatory mitigation has similar nesting habitat value for Swainson's hawk (e.g., occupied nesting habitat or adjacent to occupied nesting habitat; occupied being equivalent to having one or more nests active in the past five years and adjacent being equivalent to being within 10 miles from known active nest sites for this species), (4) ensure removal of known nest sites/trees occurs outside the Swainson's hawk nesting season and when the nest site/tree is not active as determined by a qualified biologist (generally between October 1 and February 1), and (5) replace known active nest sites/trees² in kind at a minimum ratio of 3:1 and include monitoring annually for five years to assess the effectiveness of tree replacement. The performance standard for nest tree replacement shall be 65 percent survival of all replacement plantings after five years. The Tree Resource Revegetation Plan shall be reviewed and approved by CDFW and the County prior to removal of any trees, including those containing raptor nest structures. ² An active nest site/tree includes any nest site/tree that has been documented to be active by Swainson's hawk within the prior five years.	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
	PS	<i>BR-1g: Avoid, Minimize, and Mitigate for Impacts on Tricolored Blackbird.</i> • Implement the Agricultural Management Plan (see Mitigation Measure AG-1 in Chapter 4, “Agricultural Resources”). • Implement Mitigation Measure BR-1a (Construction Best Management Practices). ▪ This species shall be included in the WEAP discussed under “Training of Construction Staff” in Mitigation Measure BR-1a. • To the maximum extent feasible, clearing, grubbing, removal, and/or disturbance (e.g., trimming) to any vegetation that is suitable tricolored blackbird nesting habitat shall be performed outside of the nesting season (September through March) to avoid impacts to nesting birds. If vegetation disturbance/removal cannot be avoided during the nesting season for this species, the following measures shall be implemented. • A qualified biologist shall conduct a preconstruction survey for nesting tricolored blackbird approximately two days prior to vegetation or tree removal or ground-disturbing activities during the nesting season (approximately April through August). The survey shall cover the limits of construction and suitable nesting habitat within 500 feet0.25 mile. <u>The surveys shall be based on survey methods identified in the Results of the 2017 Tricolored Blackbird Statewide Survey, Appendix 1. If breeding colonies are found, the foraging behavior of the colony shall also be documented.</u> • If any active nests are observed during surveys, a qualified biologist shall establish a suitable avoidance (i.e., non-disturbance) buffer from the active nest. The buffer distance for tricolored blackbird shall generally be 500 feet0.25 mile and shall be determined based on factors such as topographic features, intensity and extent of the disturbance, timing relative to the nesting cycle, and anticipated ground disturbance schedule. Limits of construction shall be established in the field with flagging, fencing, or other appropriate barriers to avoid active nests. <u>This buffer may be modified with</u>	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<u>written approval from CDFW in areas with dense forest, building, or other features between the construction activities and the active nest colony; where there is sufficient topographic relief to protect the colony from excessive noise or visual disturbance; or where sound curtains have been installed.</u> Construction limits shall be based on the biologist-defined appropriate buffer distance and shall be maintained until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist. • If vegetation removal activities are delayed, additional nest surveys shall be conducted such that no more than 7 days elapse between the survey and vegetation removal activities. • If an active nest is identified within 500 feet 0.25 mile of the work area after construction has started, work within 500 feet 0.25 mile of the nest shall be suspended until the qualified biologist can provide appropriate avoidance and minimization measures to ensure that the nest is not disturbed by construction. Appropriate measures may include a no-disturbance buffer until the birds have fledged, limitations on construction activities that generate substantial vibration and/or noise, and/or full-time monitoring by a qualified biologist during construction activities conducted near the nest. This buffer may be modified with written approval from CDFW in areas with dense forest, buildings, or other features between the construction activities and the active nest colony; where there is sufficient topographic relief to protect the colony from excessive noise or visual disturbance; or where sound curtains have been installed.	
	PS	<i>BR-1h: Avoid, Minimize, and Mitigate for Impacts on Valley Elderberry Longhorn Beetle and Their Habitat.</i> • Implement Mitigation Measure BR-1a (Construction Best Management Practices). ▪ This species shall be included in the WEAP discussed under “Training of Construction Staff” in Mitigation Measure BR-1a.	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		• Project disturbances shall be avoided within 20 feet from elderberry shrubs potentially suitable for this species (i.e., with stems one inch or greater in diameter). • Indirect impacts to individual elderberry shrubs potentially suitable for inhabitation by Valley elderberry longhorn beetle (i.e., with stems one inch or greater in diameter) and that are located between 20 to 165 feet of project ground disturbances shall be avoided by implementation of the following additional measures: ▪ <i>Avoidance and Fencing.</i> Project activities that may damage or kill an elderberry plant (e.g., trenching, paving, etc.) shall be avoided or compensated through transplanting existing elderberry shrubs and/or planting new seedling elderberry plants in areas not subject to project disturbance at a performance standard ratio of 1:1. All areas to be avoided during construction activities shall be fenced and/or flagged as close to the project solar development area as feasible. Temporary construction fencing and flagging shall be installed at least 165 feet outside the edge of the driplines of the elderberry plants. Environmentally sensitive area signs shall be erected along the edge of the avoidance area. In areas where encroachment on the 165-foot buffer has been approved by USFWS, a minimum setback of at least 20 feet from the dripline of each elderberry plant shall be provided, as well as documentation of USFWS setback approval. ▪ <i>Transplanting.</i> If full avoidance of elderberry shrub(s) in the development footprint is not possible, the project proponent will transplant shrub(s) using appropriate best management practices. ▪ <i>Timing.</i> All project-related activities that could occur within 165 feet of an elderberry plant shall be conducted outside of the flight season of the valley elderberry longhorn beetle (i.e., March through July) to the maximum extent feasible. ▪ <i>Trimming.</i> Trimming may remove or destroy valley elderberry longhorn beetle eggs and/or larvae and may reduce the health and vigor of the elderberry plant. Therefore, to avoid and minimize direct impacts to valley elderberry longhorn beetle,	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		trimming shall occur between November and February and shall avoid the removal of any branches or stems that are greater than 1 inch in diameter. Measures to address regular and/or large-scale maintenance (trimming) shall be established and approved by USFWS. ▪ <i>Mowing.</i> Mechanical weed removal within the dripline of any elderberry plant within the solar development area shall be limited to the season when adult valley elderberry longhorn beetles are not active (i.e., August through February) and shall avoid damage to the elderberry plant. ▪ <i>Construction Monitoring.</i> A qualified biologist shall monitor the solar development area if work would occur within the 165-foot avoidance buffer to ensure that all avoidance and minimization measures are implemented, as applicable. The amount and duration of monitoring shall depend on the project specifics and shall be discussed with USFWS.	
	PS	<i>BR-1i: Avoid, Minimize, and Mitigate for Impacts on Vernal Pool Fairy Shrimp and Vernal Pool Tadpole Shrimp.</i> • Implement Mitigation Measure BR-1a (Construction Best Management Practices). • Federally listed vernal pool branchiopod species shall be included in the WEAP discussed under “Training of Construction Staff” in Mitigation Measure BR-1a. • Unless a smaller buffer is approved through formal consultation with USFWS, construction fencing shall be installed a minimum of 250 feet from the delineated wetland edge of any potentially suitable aquatic habitats (e.g., vernal pools, seasonal wetlands) for vernal pool fairy shrimp and vernal pool tadpole shrimp. All construction and operations activities are prohibited within this buffer area. If total avoidance is achieved, no further action is required. ▪ If avoidance, as described above, is not practicable, implement Mitigation Measure BR-3, Avoid, Minimize, Restore, and Mitigate for Impacts on State and Federally Protected Wetlands to achieve the performance standard of no net loss of State and	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		Federally Protected Wetlands, including vernal pool habitat acreage, function, and values for vernal pool fairy shrimp and vernal pool tadpole shrimp. Direct and indirect effects to on-site suitable aquatic habitats that may support federally listed vernal pool branchiopods shall be offset through on-site preservation and/or the purchase of tadpole shrimp and fairy shrimp species preservation credits from a USFWS-approved in-lieu fee program or other USFWS-approved conservation or mitigation bank. These effects and compensation will be quantified in the Aquatic Resources Mitigation Plan provided by the project applicant. The mitigation ratios shall, at minimum, comply with applicable mitigation ratios in terms and conditions of biological opinion issued by USFWS pursuant to section 7 of the ESA. As part of the Aquatic Resources Mitigation Plan to be implemented as part of Mitigation Measure BR-3, incorporate preservation of suitable aquatic habitat for special-status aquatic invertebrates that occurs within the Mather Core Area of the project site (i.e., Barton Ranch property) to the maximum extent practicable as a component of the compensatory mitigation, or otherwise compensate for the permanent, temporary, and indirect impacts on suitable habitat for special-status aquatic invertebrates within the Mather Core Area portion of the project site with mitigation lands that also occur within the Mather Core Area.	
	PS	<i>BR-1j: Avoid, Minimize, and Mitigate for Impacts on American Badger.</i> - Implement Mitigation Measure BR-1a (Construction Best Management Practices). - This species shall be included in the WEAP discussed under “Training of Construction Staff” in Mitigation Measure BR-1a. - A qualified biologist shall conduct focused surveys for American badger dens within two weeks 7 calendar days prior to ground-disturbing activities in suitable habitat (i.e., undeveloped grassland, blue oak woodlands, and seasonally inundated wetlands/waters) within the solar development area. The survey shall cover the limits	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		of ground disturbance and a 100-foot buffer. Any potentially active American badger dens located during the survey that show signs of recent activity shall be evaluated (typically with remote cameras) to determine activity status. - If an active American badger den is detected during the breeding season (typically from March <u>1</u> through May<u>June 1</u>), then prior to construction, the qualified biologist, <u>in coordination with CDFW, shall determine an appropriate no-disturbance buffer (e.g., staking, flagging, or similar measures) to avoid impacts to the den</u> shall establish a 100-foot no-disturbance buffer (e.g., staking, flagging, or similar measures) around the den. The buffer shall be maintained until the qualified biologist determines that the den is no longer active, and the young are no longer dependent upon the den for survival. If a natal den site cannot be avoided throughout the life of the project (including operations and maintenance), <u>excavation and exclusion implementation shall take place between the non-breeding season (typically September 1 through January 1) in consultation with CDFW</u> destruction of the natal den burrow shall only proceed after the natal den is no longer active and no badgers are present within the burrow. - If construction occurs during the non-breeding period (i.e., typically from June<u>September 1</u> through February<u>January 1</u>) and an active non-natal den is found in or immediately adjacent to the construction footprint, a qualified biologist, <u>in coordination with CDFW</u>, shall attempt to trap or flush the individual (e.g., passive exclusion with one-way doors) and relocate it to suitable habitat away from construction. After exclusion/relocation is completed, the vacated or unoccupied den can be excavated, and construction can proceed.	
	PS	<i>BR-1k: Avoid, Minimize, and Mitigate for Impacts on Nesting Raptors and Migratory Birds.</i> Implement Mitigation Measure BR-1a (Construction Best Management Practices)	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		▪ Protection measures for nesting raptors and migratory birds shall be included in the WEAP described under “Training of Construction Staff” in Mitigation Measure BR-1a. • A qualified biologist shall conduct a survey for nesting birds within one week prior to vegetation/tree removal or ground-disturbing activities within suitable habitat during the nesting season (i.e., February 1 through August 31). The survey shall cover the limits of construction and accessible suitable nesting habitat within 500 feet (and within 0.25 mile for potential raptor nests) a minimum 0.25-mile radius of project activities. If vegetation removal activities are delayed, additional nest surveys shall be conducted such that no more than seven days elapse between the survey and vegetation removal activities. • If any active nests are observed during surveys, a qualified biologist shall establish a suitable avoidance buffer from the active nest. The buffer distance shall <u>be determined and established by a qualified biologist, in coordination with Sacramento County. The buffer shall be kept in place until after the breeding nesting season or the qualified biologist confirms the young have fledged, are foraging independently, and the nest is no longer active for the season</u>typically range from 50 to 500 feet (or more for some raptors) and. <u>The extent of these buffers</u> shall be determined based on factors such as the species of bird, topographic features, existing background disturbance levels, intensity and extent of the disturbance, timing relative to the nesting cycle, and anticipated ground disturbance schedule. Limits of construction to avoid active nests shall be established in the field with flagging, fencing, or other appropriate barriers and shall be maintained until the chicks have fledged and the nests are no longer active, as determined by the qualified biologist.Typical nest buffers implemented are as follows: • 50-150 feet for passerines and other non-raptors • 500 feet for raptors and owls	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		• If an active nest is identified in or adjacent to the construction zone after construction has started, work in the vicinity of the nest shall be suspended as needed until the project-<u>qualified biologist, in coordination with Sacramento County</u>, can provide appropriate avoidance and minimization measures to ensure that the nest is not disturbed by construction. Appropriate measures may include a no-disturbance buffer until the nest has fledged and/or full-time monitoring by a qualified biologist during construction activities conducted near the nest. • Vegetation or tree removal shall be restricted to the period of September 1 through January 31, to avoid the bird nesting season, including for Swainson's hawk (see Mitigation Measure BR-1f). If any vegetation or trees are to be removed during the nesting season (February 1 through August 31), preconstruction nesting bird surveys shall be conducted by a qualified biologist, as described above, and such vegetation or tree removal shall only be conducted if no nesting migratory birds are found or if removal is delayed until the nest site is no longer active, as determined by a qualified biologist. Tree removal must also conform to requirements stated in Mitigation Measure BR-1f, for Swainson's hawk, as applicable. • An Avian Protection Plan (APP) shall be prepared and implemented in coordination with CDFW and USFWS to reduce/eliminate impacts to avian species during construction, operations, and maintenance. An Avian Protection Plan is often prepared in combination with a Bat Protection Plan (see Mitigation Measure BR-1l, for Bats) for solar facilities, becoming the Avian and Bat Protection Plan (ABPP). The APP (or ABPP, if combined) shall include the following elements: ▪ A description of conditions for bird species present in and near the solar development area, including results of site-specific surveys. ▪ An assessment of potential risks of project construction, operation, and maintenance on birds based on the proposed activities.	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		- Conservation measures that shall be employed to avoid, minimize, and/or mitigate potential adverse effects to these species. - A description of the bird mortality monitoring and reporting that shall take place during project operation. - Remedial actions and an adaptive management process that shall be used to address potential adverse effects on bird species. - A discussion of the collection system which shall conform with the most current edition of the Avian Power Line Interaction Committee guidelines to prevent electrocutions, found at: https://www.aplic.org/mission.	
	PS	<i>BR-1I: Avoid, Minimize, and Mitigate for Impacts on Bats.</i> - Implement Mitigation Measure BR-1a (Construction Best Management Practices). - Native bats shall be included in the WEAP discussed under “Training of Construction Staff” in Mitigation Measure BR-1a. - A qualified biologist shall conduct a preconstruction habitat assessment for potential communal bat roosts within the solar development area and a 300-foot buffer to the solar development area, ideally one year in advance of, but no less than 30 days prior to the start of construction. The habitat assessment should include a visual inspection of potential roosting features (e.g., hollows in trees, bridges, <u>and culverts</u>), including looking for the presence of guano. If potential maternity roosts or winter hibernacula are found, their locations shall be mapped, and the project shall avoid all areas within a 300-foot buffer around the potential roost sites. <u>The qualified biologist shall identify the bats to the species level, evaluate the colony to determine its size and develop appropriate mitigation measures for review and approval by Sacramento County. The bat survey shall include: 1) the exact location of all roosting sites (location shall be adequately described and drawn on a map), 2) the number of bats present at the time of the visit (count or estimate), 3) each species of</u>	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<u>bat present shall be named (include how the species was identified), 4) the location, amount, distribution of all bat guano shall be described and pinpointed on a map, 5) the type of roost: night roost (rest at night while out feeding) versus a day roost (resting during the day) must also clearly be stated, and 6) species-specific measures to compensate for the loss of suitable bat habitat.</u> The non-disturbance buffer shall remain in place during the maternity and winter hibernation seasons (May 1 through August 15, and November 1 through March 31) or until bats have vacated the roost, unless otherwise authorized by <u>Sacramento County in consultation with</u> CDFW and USFWS, as relevant. • A Bat Protection Plan (BPP) shall be prepared and implemented for approval by CDFW and USFWS prior to construction. The intent of the BPP is to reduce/eliminate impacts to native bat species during construction, operations, and maintenance. A BPP is often prepared in combination with an APP for solar facilities (see Mitigation Measure BR-1k, for Birds), referred to as an ABPP. The BPP (or ABPP, if combined) shall include the following elements: ▪ A description of conditions for bat species present in and near the solar development area, including results of site-specific surveys. ▪ An assessment of potential risks of project construction, operation, and maintenance on bats based on the proposed activities. ▪ Conservation measures that shall be employed to avoid, minimize, and/or mitigate potential adverse effects to these species. ▪ A description of the bat mortality monitoring and reporting that shall take place during project operation. ▪ Remedial actions and an adaptive management process that shall be used to address potential adverse effects on bat species.	
	PS	<i>BR-1m: Avoid, Minimize, and Mitigate for Impacts on Crotch's Bumble Bee.</i>	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		- Implement Mitigation Measure BR-1a (Construction Best Management Practices). - Crotch's bumble bee shall be included in the WEAP discussed under "Training of Construction Staff" in Mitigation Measure BR-1a. - Prior to construction, a qualified biologist shall conduct (1) a habitat assessment and (2) focused surveys to detect foraging Crotch's bumble bees and potential nesting sites, that are consistent with CDFW's Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species (CDFW's Survey Considerations) (CDFW, dated June 6, 2023 or more current CDFW guidelines if available), in potential suitable habitat prior to construction (i.e., ground disturbing activities) within the solar development area during the peak Colony Active period (i.e., approximately April through September) when floral resources are present, ideally during the peak bloom. The habitat assessment shall include historical and current species occurrences; document potential habitat on site including foraging, nesting, and/or overwintering resources; and quantify which plant species are in bloom and their percent cover, and other items described in CDFW's Survey Considerations. Focused surveys for foraging bees and nesting sites shall be conducted on 3 separate occasions spaced 2-4 weeks apart during the Colony Active Period, in accordance with details specified in CDFW's Survey Considerations. Only individuals with appropriate handling authorizations shall be allowed to capture or handle bumble bees. Because bumble bees move their nests every year, focused surveys shall be conducted prior to project activities resulting from potential ground and vegetation disturbance in each year construction activities occur. - Consistent with CDFW's Survey Considerations, if no Crotch's bumble bees are found during focused surveys, but the habitat assessment identified suitable nesting, foraging, or overwintering habitat within the solar development area, it is recommended that a biological monitor be on-site during vegetation or ground disturbing	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		activities that take place during any of the Queen and Gyne Flight Period and Colony Active Period. • If Crotch's bumble bee is detected, the qualified biologist shall notify CDFW, and survey data shall be submitted to CDFW via a written report and also via CNDDDB. The written survey report will be submitted to CDFW within 30 days of the pre-construction survey. The report will include survey methods, weather conditions, <u>proposed no-disturbance buffers</u>, and survey results, including a list of insect species observed and a figure showing the locations of any Crotch's bumble bee nest sites or individuals observed. If nests are observed, the survey report will also include the qualifications/resumes of the surveyor and qualified biologists for identification of photo vouchers, detailed habitat assessment, photo vouchers, and recommendations for avoidance. In addition, if Crotch's bumble bee is detected in the solar development area, then a site-specific Crotch's Bumble Bee Avoidance and Minimization Plan shall be prepared and implemented in coordination with CDFW to avoid take, or consult with CDFW to obtain an Incidental Take Permit (ITP) if take of Crotch's bumble bees may occur during project activities. The plan shall include a description of on-site habitat, potential nest and overwintering sites present, recommendations for avoidance and minimization (such as active nest avoidance buffers). If an ITP is sought, mitigation for the loss of potential nest sites will be fulfilled at a minimum 43:1 <u>nesting habitat replacement and a minimum 1:1 foraging habitat replacement</u> of equal or better functions and values to those impacted by the project, and may include measures such as incorporation of appropriate native flower resources into the Agricultural Management Plan that would support this species throughout the flight period and promote development of queens (i.e., perennial plants), and reducing use of harmful pesticides. All the measures included in the approved plan and/or ITP shall be implemented during project activities. • <u>For both the construction and operation and maintenance phases, native or non-native flowering vegetation removal shall occur prior to bloom and before the Colony Active Period</u>	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<u>(approximately February 1 through October 31). If project activities cannot be avoided during this time and vegetation needs to be removed during the bloom period for those species, the project proponent shall remove flowering vegetation in a patched manner, to the extent feasible, while also being cognizant of wildfire concerns, leaving areas of floral resources as refugia for foraging Crotch's bumblebee or wait until bloom has ceased. During the bloom period and Colony Active Period, removal of non-native plants should be prioritized over native plants.</u> • <u>Project activities involving vegetation and ground disturbance in Crotch's bumblebee habitat shall be avoided to the extent feasible during the queen/gyne flight seasons, when queens emerge in the spring (February to March) searching for nest sites and during the fall flight period (September to October) when gynes mate and search for overwintering habitat.</u> • <u>During construction, project activities will be restricted to daytime hours. If nighttime construction is needed, the following measures will be implemented within 500 feet of Crotch's bumblebee habitat:</u> ▪ <u>All construction-related lighting shall not have significant illumination pass beyond the immediate work area. Shielding techniques may include, but should not be limited to, the use of fence slats, netting, mesh, or tarps; and all construction lighting used shall be yellow or orange lighting.</u> ▪ <u>To minimize light effects during the operational period, the project shall not install lighting (e.g., street lighting, trail lighting) that produces illuminance (lux) outside of the project site, onto adjacent habitat areas.</u> ▪ <u>If Crotch's bumblebee is detected within 100 feet of project activity, a qualified biologist or biological monitor will be onsite during any ground disturbance and/or vegetation removal activities that occur when Crotch's bumblebee are present within the activity footprint. A 25-foot no-disturbance buffer will be implemented around Crotch's</u>	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<u>bumblebee individuals within the area and monitored until the Crotch's bumblebee leaves the area on its own.</u> ▪ <u>If no Crotch's bumblebee nests or adults are detected during the Crotch's bumblebee surveys, at the discretion of the qualified biologist, additional surveys or biological monitoring may be prescribed depending on site conditions and work activities, as well as seasonal factors.</u>	
	PS	<u><i>BR-1n: Avoid, Minimize, and Mitigate for Impacts on Ringtail.</i></u> • <u>Implement Mitigation Measure BR-1a (Construction Best Management Practices).</u> ▪ <u>This species shall be included in the WEAP discussed under "Training of Construction Staff" in Mitigation Measure BR-1a.</u> • <u>The Project Applicant(s) shall retain a qualified biologist to conduct a survey for ringtails and ringtail dens in conjunction with the bat surveys (see Mitigation Measure BR-1l) within 7 calendar days of the initiation of project activities within suitable habitat for ringtail. If no individuals and/or dens are found during the preconstruction survey, the biologist shall document the findings in a letter report to Sacramento County, and no further mitigation shall be required. If individuals and/or dens are found, the qualified biologist shall consult with lead agency and CDFW to determine appropriate avoidance measures.</u>	
Impact BR-2: Have a Substantial Adverse Effect on Any Riparian Habitat or Other Sensitive Natural Community Identified in Local or Regional Plans, Policies, or Regulations, or by CDFW or USFWS	PS	<i>BR-2a: Avoid, Minimize, and Mitigate for Impacts on Riparian Habitat and Other Sensitive Natural Communities.</i> • Implement Mitigation Measure BR-1a (Construction BMPs). ▪ Riparian habitat and other sensitive natural communities shall be included in the WEAP discussed under "Training of Construction Staff" in Mitigation Measure BR-1a. • Implement Mitigation Measure BR-1f (Swainson's Hawk). • Implement Mitigation Measure BR-3 (State or Federally Protected Wetlands and Other Waters).	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		• Implement Valley Needlegrass Grassland Protection Measures as follows: ▪ A qualified biologist shall conduct a preconstruction survey in advance of ground disturbing activities and vegetation removal occurring in areas with potential for this sensitive community type, to map any occurrences of Valley needlegrass grassland within the solar development area. Surveys shall be conducted at an appropriate time of year for detection of purple needlegrass (<i>Stipa [Nassella] pulchra</i>). ▪ If mapped occurrences of Valley Needlegrass Grassland are identified within the solar development area impact footprint, prior to project implementation, project designs shall be refined within the solar development area boundaries (e.g., location, orientation, and shape of solar arrays; perimeter fence alignment; location of pole risers supporting medium voltage electrical lines) to avoid and/or minimize potential impacts on mapped areas of this sensitive natural community to the maximum extent feasible without increasing impacts on other resources. Areas to be avoided will be fenced off or otherwise identified (e.g., with flagging, on site plan maps) for avoidance and a qualified biologist will be present to monitor all construction work activities within 100 feet from identified avoidance areas to ensure no unauthorized impacts occur. ▪ If mapped occurrences of Valley Needlegrass Grassland are identified within the solar development area impact footprint and cannot be avoided, incorporate specific restoration and management prescriptions consistent with the long-term preservation of Valley Needlegrass Grassland occurrences on-site into the Agricultural Management Plan to be implemented as part of Mitigation Measure AG-1 (see Chapter 4, “Agricultural Resources”). This could include specific prescriptions such as plant or topsoil salvage for replacement after ground disturbing activities, incorporating purple needlegrass (<i>Stipa pulchra</i>) and other associated species seed into the restoration seed mix in areas where Valley Needlegrass grassland have been impacted by the project, mowing after seed set of purple needlegrass,	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		prohibiting ground-disturbing operational activities in these areas, restricting operational activities to “drive and crush.” A monitoring and adaptive management approach shall also be identified for implementation throughout the operational life of the project (including the first year post-construction and every five years on average thereafter) to confirm re-establishment and continued occupancy of the solar development area by Valley Needlegrass Grassland throughout the operational live of the project, at a performance standard of no net loss of mapped occurrences of this community type within the solar development area. • Implement Oak Woodland and Native Tree Mitigation, as follows: ▪ The project applicant shall mitigate for impacts to oak woodlands (i.e., oak canopy loss), and for the loss of native oaks and other native trees species (i.e., native tree removal) by implementing the following three mitigation components: 1) avoidance and minimization of native trees retained within and adjacent to the solar development area, 2) preservation of oak woodlands at a 1:1 preservation to impact ratio of native oak tree canopy area lost, and 3) in-kind establishment plantings of native trees at a 1:1 tree replacement ratio, as further detailed below, and as described in a Tree Resource Mitigation Plan developed by the project applicant and subject to approval by Sacramento County prior to issuance of a grading permit. 1) Avoidance and Minimization: ▪ Retain and protect native trees within the solar development area that would not conflict with construction or operational activities of the project, as determined by a qualified arborist upon review of final construction drawings in collaboration with the project applicant. Retained and protected trees could include those located within identified exclusion zones or in temporary work areas outside of the facility fenceline (e.g., along the gen-tie and within earthwork limits). ○ Identify root protection zones (at a minimum inclusive of the tree dripline) for all native trees to be retained and protected within the solar development area. Root protection zones shall	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		be clearly identified on final construction drawings. Temporary orange construction fencing or a similar protective barrier shall be installed one foot outside the root protection zones of retained native trees prior to initiating project construction. To the maximum extent feasible, soil disturbance (e.g., scraping, grading, trenching, excavation) is to be avoided within root protection zones. If work is necessary within identified root protection zones, a qualified arborist shall provide specifications for this work such as methods for root pruning, backfilling specifications, and irrigation management guidelines. ▪ For native trees identified to be retained and protected within the solar development area (see above), retain a qualified arborist who shall: ○ Clearly designate an area within the solar development area that is outside the root protection zones of all trees where construction materials may be stored/stockpiled and where vehicle and equipment parking can take place. No materials storage/stockpiling or parking shall take place within the root protection zones of retained trees. ○ Establish specifications for care of the retained trees within the solar development area. Implement recommended tree care or oversee the implementation of tree care if conducted by a construction contractor, and develop and implement a tree inspection schedule to ensure tree health is being maintained throughout the construction period and for one year post construction. Tree care specifications may be adjusted by the qualified arborist as needed to provide optimal tree health as a result of inspections. Potential tree care performance standards shall at minimum include: ○ Prior to any grading or other work within 50 feet of any tree to be retained, a qualified arborist shall determine whether irrigation needs to be installed from April through September and/or placement of a 4- to 6-inch layer of chip mulch over the	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		root protection zone of any trees is required to minimize potential for impact. ○ All work to be performed inside the root protection zone shall have fencing (i.e., exclusion fencing) installed at the edge of construction in accordance with recommendations of a qualified arborist; the exclusion fencing shall be inspected by the qualified arborist prior to grading and/or grubbing to ensure it is functional; any fence deficiencies shall be corrected before associated work activities may begin. ○ The qualified arborist shall supervise any recommended clearance pruning, irrigation, fertilization, and placement of mulch and/or chemical treatments. Chemical treatments shall not occur without authorization by the qualified arborist. ○ Trenching inside the root protection zone, if necessary, shall be by a hydraulic or air spade, placing pipes underneath the roots, or boring deeper trenches underneath the roots. ○ Clearance pruning, if necessary, shall include removal of all the lower foliage that may interfere with equipment prior to having grading or other equipment on-site. A qualified arborist shall approve the extent of foliage removal in accordance with ANSI A300 standards and oversee the pruning to be performed by a contractor. • Grading beneath trees to be retained shall be given special attention. A qualified arborist shall identify actions to avoid creating conditions adverse to any retained tree's health. The natural ground within the root protection zones of retained/protected trees shall remain undisturbed as determined by a qualified arborist to increase the likelihood of survival of the retained/protected trees. Grading within the root protection zones of native trees shall not be permitted unless specifically authorized by Sacramento County. • No grade cuts greater than one foot shall occur within the root protection zones of native trees to be retained, and no grade cuts whatsoever shall occur within five feet of their trunks. ○ Major roots two inches or greater in diameter encountered within any retained tree's root protection zone during	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		excavation shall not be cut and shall be kept moist and covered with earth as soon as possible. ○ Roots one inch to two inches in diameter encountered within any retained tree's root protection zone during excavation that are severed shall be trimmed and treated with pruning compound and covered with earth as soon as possible. ○ Support roots encountered within any retained tree's root protection zone during excavation shall be protected. A qualified arborist shall be required to hand-dig in the vicinity of retained trees to prevent root cutting and mangling that may be caused by heavy equipment. ○ All stumps within the root protection zone of trees to be retained shall be ground out using a stump router or left in place. No trunk within the root protection zone of retained trees shall be removed using a backhoe or other piece of grading equipment. ▪ No fill greater than one foot shall be placed within the root protection zones of native trees to be preserved and no fill whatsoever shall be placed within five feet of their trunks. Fill material shall not be placed in such a manner that encases the tree. Surface water drainage must be able to move away from the tree. ▪ No irrigation system shall be installed within the root protection zones of native tree(s) to be retained that may be detrimental to the preservation of the native tree(s) unless specifically authorized by Sacramento County. 2) Oak Preservation (see also Mitigation Measure BR-2b): ▪ Consistent with Sacramento County Policy CO-140, compensation for the unavoidable loss of native oak tree canopy area as a result of project construction shall be provided by the project applicant to achieve a performance standard of no net loss, defined as a minimum 1:1 preservation to impact ratio of native oak tree canopy area lost, through one or more of the following options. The removal of, and compensation for native oak tree canopy area shall be quantified in the Tree Resource	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		Mitigation Plan, subject to Sacramento County review and approval: ▪ On-site preservation of native oak tree canopy shall be considered as a first priority for fulfillment of this preservation mitigation requirement. For the purposes of this mitigation measure, “on-site” constitutes being within Adjacent Other Lands (Plate PD-2, Project Setting) of the project site, or immediately adjacent to the project site such that at least a portion of the boundary of the preservation area directly borders oak woodlands in the project site. On-site native oak tree canopy preservation shall preserve the main, central portions of consolidated and isolated groves constituting the existing canopy on-site, and provide an area on-site that compensates for canopy area lost. On-site preservation areas shall prioritize areas that provide connectivity between existing oak woodlands and forest and/or riparian habitat that may serve as potential wildlife movement corridors. The native oak canopy preservation area must be a single contiguous area on-site, adjacent to existing oak canopy to ensure opportunities for regeneration, and at least equal to the size of canopy area lost or else additional compensation as described below (i.e., off-site preservation, preservation bank credit purchase, or in-lieu fee to a tree preservation fund) shall be required to ensure no net loss. ▪ If on-site mitigation does not achieve the no net loss performance standard, off-site preservation may be considered in entirety or in combination with on-site preservation. The off-site preservation area shall meet all the following criteria to preserve, enhance, and maintain a natural woodland habitat in perpetuity. Protected woodland habitat could be used as a suitable site for establishment tree plantings (see 3, Establishment, below), if appropriate and approved by Sacramento County. ○ Be equal or greater in area to the total area that is included within a radius of 30 feet of the root protection zone of all trees to be removed;	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		○ Be adjacent to a protected stream corridor or other preserved natural areas; ○ Support a significant number of native broadleaf trees; ○ Offer good potential for continued regeneration of an integrated woodland community; ○ Be located within the boundaries of Sacramento County; and ○ Be within parcels immediately adjacent to and surrounding the project site parcels such that the boundary of the off-site preservation parcel(s) share a boundary, at least in part, with the project site parcel boundaries. If preservation of adjacent parcels is not feasible, then preservation shall be within mapped areas of Savannah and Blue Oak Woodland on the Habitat Component map of the Open Space Vision Diagram included in the Sacramento County General Plan. ▪ A combination of on-site or off-site preservation, as described above. ▪ Oak tree canopy area lost shall be calculated as the total collective area of contiguous canopy cover representing the downward projection of the crown or crowns of overlapping adjacent tree canopies (i.e., outer extent of leaves and small twigs) for all native oak trees to be removed according to the County-approved final project designs. Oak tree canopy area shall be calculated using a consistent method for determining canopy area impacts as for identifying a suitable mitigation area and may be calculated as described in the Arborist Report Coyote Creek Agrivoltaic Ranch Project, dated August 2023 (Dudek 2023). At the time of preparation of this environmental impact report, a total of 54.61 acres of native oak tree canopy area was estimated to be permanently lost and an equal amount would be required for preservation as described in this mitigation measure. ▪ If neither on-site nor off-site preservation is sufficient to achieve the no net loss performance standard, or if the full preservation mitigation requirement cannot be accomplished with on-site and	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		off-site preservation alone, the project applicant shall fulfill any remaining preservation mitigation requirement through either: ○ a preservation bank credit purchase for an equivalent oak canopy area of blue oak woodland, or ○ a sum equivalent to the replacement cost for all unmitigated trees within the solar development area shall be paid by the project applicant as an “in-lieu fee” to the County’s Tree Preservation Funds or another appropriate tree preservation fund (e.g., Sacramento Valley Conservancy). The total amount to be paid shall be based on the current cost per inch in DBH inch for all trees to be mitigated and shall be approved by Sacramento County. ▪ Any on- and/or off-site preservation lands used or acquired to fulfill this compensatory mitigation requirement shall include legal protections for protection into perpetuity (e.g., conservation easement, restrictive covenant, or other Sacramento County-approved mechanism). In addition, the project applicant shall provide funding for (1) acquisition in fee title or any legal protections of the preservation lands, (2) initial habitat improvements (if needed), (3) long-term habitat maintenance and management of the preservation lands in perpetuity, and (4) preparation of a Preserve Management Plan that describes the preserved oak canopy resources on-site, responsible parties, management goals and objectives, management activities, and reporting requirements. The responsibilities for acquisition and management of the preservation lands may be delegated by written agreement to CDFW or to a third party, such as a non-governmental organization dedicated to habitat conservation, subject to approval by the County. Funding for on- and/or off-site preservation lands shall be estimated through preparation of a Property Analysis Record (PAR), or PAR-Equivalent Analysis, which is an itemized cost estimate of the initial and capital period costs and annual, ongoing costs of in-perpetuity land management.	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		▪ Preservation as described in this measure either through on-site or off-site means, a preservation bank credit purchase, in-lieu fee, or a combination thereof representing the full mitigation requirement as identified in this mitigation measure shall be completed within 24 months from the start of project-related tree removal activities; any extension must be approved by Sacramento County. If preservation is not completed prior to the start of tree removal activities, the project applicant shall provide financial assurances to guarantee that an adequate level of funding is available to implement the acquisition, initial improvements (if needed), and long-term maintenance and management of preservation lands and/or to cover any additional mitigation options (e.g., bank credit purchase, in-lieu fees). Financial assurance shall be provided to Sacramento County prior to the issuance of a grading permit and can be provided in the form of irrevocable letter of credit, bond, a pledged savings account, or another form of security as approved by the County. The total amount of financial assurances shall be determined by an updated appraisal and PAR or PAR-Equivalent Analysis as described above. 3) Additional Establishment and Enhancement: ▪ In addition to the first two steps of this three-part mitigation measure described above, the effects of the removal of oak trees shall be further mitigated and compensated for by the project applicant through establishment and enhancement of oak trees and native trees other than oaks. ▪ In consideration of the Sacramento County General Plan Policies CO-139 and CO-140, compensation for the loss of native oak trees, and native trees other than oaks, that are greater than 6 inches DBH shall be provided by the project applicant through in-kind establishment plantings of native tree species with a minimum performance standard of a 1:1 tree replacement ratio of	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		surviving trees³ at 7 years after replacement (i.e., planting) to those removed/lost. The removal of, and compensation for native trees shall be quantified in the Tree Resource Mitigation Plan, subject to Sacramento County review and approval. ▪ The establishment planting area shall be described in the Tree Resource Mitigation Plan, including rationale demonstrating the value of the establishment planting area to oak woodlands conservation in Sacramento County and the region (e.g., wildlife movement corridor) and the characteristics that make the planting area well suited for successful establishment. The establishment planting area shall, at minimum, meet the following listed criteria: ○ be suitable for tree planting – in particular for native tree and oak species targeted for mitigation (consistent with Sacramento General Plan Policy CO-133), ○ be large enough to accommodate the planned establishment plantings, ○ be located within the boundaries of Sacramento County, ○ be within parcels immediately adjacent to, and surrounding project site parcels such that the boundary of the off-site preservation parcel(s) share a boundary, at least in part, with the project site parcel boundaries. If preservation of adjacent parcels is not feasible, then preservation shall be within mapped areas of Savannah and Blue Oak Woodland on the Habitat Component map of the Open Space Vision Diagram included in the Sacramento County General Plan or in areas which support the appropriate soil characteristics to support oak woodland growth and regeneration, and ○ Mitigation tree plantings within the establishment planting area shall not: • conflict with current or planned land uses,	

³ A surviving tree is any tree determined to be alive and with a health rating of fair or better, as assessed by a qualified arborist.

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		• require removal of existing natural habitats to accommodate establishment plantings (although removal of dead trees to facilitate plantings that serve to promote stand recruitment may occur), • create unnatural canopy closure that would reduce wildlife value or contribute to increased fire hazard. ▪ Establishment plantings shall be accomplished by any of the following approaches, or a combination thereof, and to be detailed in a Sacramento County-approved Tree Resource Mitigation Plan. ○ Stand infill plantings within on-site or off-site preservation areas serving as compensation for oak tree canopy area lost (see #1, Preservation, above). This could include actions such as replacing dead/dying trees or providing additional understory recruitment at natural densities in an otherwise healthy stand. ○ Restoration focused plantings on new lands acquired in fee title or for which an easement is obtained that historically supported but current lack presence of trees/woodland habitat in all or some areas that would be targeted for large-scale establishment plantings. ○ Funding one or more tree planting projects in partnership with a local conservancy or existing preserve that would at minimum meet the required establishment performance standard. An example includes providing mitigation funding for blue oak woodland regeneration projects in Deer Creek Hills Preserve as identified in the Deer Creek Hills Preserve Master Plan. ○ Any combination of above. ○ Establishment plantings shall be accomplished through one or more of the following methods, to be detailed in the Tree Resource Mitigation Plan: 1) for oak trees, acorn plantings, shall be completed by collecting acorns from on-site or nearby locations off-site (i.e., local sources) in accordance with published guidance specific to blue oak acorn regeneration (McCreary 2001; UC Oak 2024),	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		2) for native trees, container tree plantings may be used for establishment plantings. ▪ This mitigation measure does not preclude over-planting such that the minimum performance standard (see above) shall be accomplished at the end of the 7-year maintenance and monitoring period. ▪ Establishment planting plans shall be developed by a qualified oak restoration specialist and detailed in the Tree Resource Mitigation Plan to be reviewed and approved by Sacramento County. Establishment planting plans shall address, at minimum, the following: ○ project-related impact on native tree resources, including oak trees and riparian trees. ○ establishment planting goals and performance standards (i.e., success criteria), including interim performance targets for evaluating progress towards success criteria. ○ suitability of the site for proposed tree plantings demonstrated with soil information, aerial photography, and/or other resources. ○ for native oak tree plantings, provide information on acorn collection, storage, planting methods, and planting schedule; for native tree plantings, other than for oak trees, provide information on tree container sizes targeted for planting, planting methods, and planting schedule ○ planting densities per species based on plant material type (e.g., acorn, size of tree container), accepted practice, current research, site-specific conditions, establishment goals, performance standards, and the recommendations of a qualified arborist. ○ consistency with accepted native tree planting standards, including those for oak trees outlined in Regenerating Rangeland Oaks in California (McCreary 2009), How to Grow California Oaks (McCreary 1995), How to Collect, Store and Plant Acorns (McCreary undated), and other applicable	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		publications and protocols that may be established by the University of California, Division of Agriculture and Natural Resources. ○ maintenance (e.g., weed control/pest management, fertilization, tree/seedling protection, or other best management practices, etc.), monitoring, and reporting requirements and schedules to ensure performance targets are being met throughout the 7-year establishment period, calculated from the day of planting. At minimum, performance monitoring and reporting shall be required annually for 3 years post-planting and at the end of years 5 and 7. ○ contingencies (i.e., adaptive management) if interim performance targets or success criteria at the end of the 7-year monitoring term are not met, such as additional or replacement plantings or payment of an “in lieu” fee similar to that described under 2-Preservation, above, based on the current cost per DBH inch⁴ set by the County that remains unmitigated by the end of the 7-year monitoring term. ▪ Any on- and/or off-site mitigation lands used or acquired to fulfill this establishment mitigation requirement shall include legal protections for protection in perpetuity, including restrictions on land use (if necessary) to ensure compatibility with long term goals for tree establishment (e.g., conservation easement, restrictive covenant, or other Sacramento County-approved mechanism). In addition, the project applicant shall provide funding for 1) acquisition in fee title or any legal protections of mitigation lands, 2) establishment plantings necessary to meet performance standards, 3) long-term habitat maintenance and management of mitigation lands in perpetuity, and 4) preparation of a Preserve Management Plan that describes the mitigated tree resources established on-site, responsible parties, management	

⁴ One inch DBH is equivalent to one seedling.

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		goals and objectives, management activities, and reporting requirements. The responsibilities for acquisition and management of the mitigation lands may be delegated by written agreement to CDFW or to a third party, such as a non-governmental organization dedicated to habitat conservation, subject to approval by the County. Funding for mitigation lands shall be estimated through preparation of a PAR, or PAR-Equivalent Analysis, which is an itemized cost estimate of the initial and capital period costs and annual, ongoing costs of in-perpetuity land management. Establishment planting representing the full mitigation requirement as identified in this above mitigation measure shall be completed within 24 months from the start of project-related tree removal activities; any extension must be approved by Sacramento County. If establishment planting is not completed prior to the start of tree removal activities, the project applicant shall provide financial assurances to guarantee that an adequate level of funding is available to implement the acquisition, establishment plantings, and long-term maintenance and management of mitigation lands and/or to cover any additional mitigation options (e.g., contingency plantings, in lieu fees). Financial assurance shall be provided to Sacramento County prior to the start of tree removal activities and can be provided in the form of irrevocable letter of credit, bond, a pledged savings account, or another form of security as approved by the County. The total amount of financial assurances shall be determined by an updated appraisal and PAR or PAR-Equivalent Analysis as described above.	
		<u>BR-2b: Preserve Oak Woodlands and Special-Status Wildlife Habitat.</u> <u>Implement Mitigation Measure BR-1a (Construction BMPs).</u> <u>Oak woodland and special-status wildlife habitat shall be included in the WEAP discussed under “Training of Construction Staff” in Mitigation Measure BR-1a.</u> <u>Implement Mitigation Measure BR-1f (Swainson’s Hawk).</u>	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		• <u>Implement Mitigation Measure BR-2a (Riparian Habitat and Sensitive Natural Communities)</u> • <u>Implement Oak Woodland and Special-Status Wildlife Habitat Preservation Measures as follows:</u> ▪ <u>Prior to the issuance of a grading permit, the project applicant shall identify no less than 1,150 acres (“Permittee Responsible Mitigation Lands”) from within the project’s “adjacent other lands”, generally defined as areas not to be developed as part of the project, or on parcels directly adjacent to the Project site for long-term preservation of oak woodlands and/or habitat for the Swainson’s Hawk and/or other Special Status Wildlife Species as may be required to comply with conditions of a permit issued by CDFW to the applicant pursuant to California Fish and Game Code section 2081 (“CESA Permit”).</u> ▪ <u>The applicant shall cause to be granted and recorded, a conservation easement, deed restriction or similar mechanism (collectively, the “Conservation Easements”) in a form approved by CDFW and covering that portion of the Permittee Responsible Mitigation Lands required to be preserved as a condition of the issuance of the CESA Permit. The Conservation Easements shall be granted to an entity approved by CDFW. The Conservation Easements shall be granted and recorded prior to the start of construction or within a reasonable timeframe after the start of construction as determined by CDFW in the CESA Permit conditions. Should the Conservation Easements not be granted prior to the start of construction, financial assurances shall be posted in accordance with the CESA Permit conditions.</u> ▪ <u>The grant of Conservation Easements as provided in paragraph (ii) shall qualify as mitigation and compensation for effects of the project on oak woodlands, and/or the habitat of the Swainson’s Hawk and other Species Status Wildlife Species identified in the Final EIR, and may, at the applicant’s sole discretion, be applied to satisfy and</u>	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		<u>otherwise comply with mitigation measures and/or project conditions adopted by the County of Sacramento regarding the preservation of oak woodlands, and/or the habitat of Swainson's Hawk and other Special Status Wildlife Species.</u>	
Impact BR-3: Have a Substantial Adverse Effect on State or Federally Protected Wetlands (including, but not limited to, Marsh, Vernal Pool, Coastal) through Direct Removal, Filling, Hydrological Interruption, or Other Means	PS	<i>BR-3: SAvoid, Minimize, Restore, and Mitigate for Impacts on State and Federally Protected Wetlands and Other Waters, including Riparian Habitat, through the Development and Implementation of an Aquatic Resources Mitigation Plan.</i> - Implement standard construction BMPs provided in Mitigation Measure BR-1a, in particular Construction Fencing, Erosion Control, Equipment Storage and Fueling, Dust Control, Soil Compaction, and Revegetation to protect adjacent wetlands and other waters from unauthorized encroachment and/or impacts outside the solar development area. - Jurisdictional aquatic resources shall be included in the WEAP discussed under "Training of Construction Staff" in Mitigation Measure BR-1a. - Prior to project implementation, project designs shall be refined within the solar development area boundaries (e.g., location, orientation, and shape of solar arrays; perimeter fence alignment; location of pole risers supporting medium voltage electrical lines) to avoid and/or minimize potential impacts on State and federally-protected wetlands and other waters, including riparian habitat, and to maintain hydrological and biological connectivity through the solar development area without increasing impacts on other resources. - If the final approved project does not avoid all State and federally-protected wetlands and other waters (including riparian habitat), the applicant must submit a jurisdictional delineation of waters of the U.S. and/or State prior to project implementation in support of required project permit applications for approval by USACE and subsequently all necessary permits shall be obtained for residual impacts on jurisdictional features. These typically include the following permits: CWA Section 404 Nationwide or Individual Permit, CWA Section 401 Water Quality Certification, CFGC Section 1600 Lake and Streambed Alteration Agreement, and Floodplain	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		Encroachment Permit). All conditions of acquired permits shall be implemented to achieve the mitigation performance standards of the above-mentioned regulatory programs, including any compensatory mitigation, performance monitoring if required for on-site restoration, and reporting on the results of the monitoring to the appropriate agencies at the frequency and duration included in the permits. Concurrently, an Aquatic Resources Mitigation Plan shall be prepared and implemented that includes compensation for impacted jurisdictional resources to achieve the performance standard of no net loss of State and federally protected wetlands and other waters. The Aquatic Resources Mitigation Plan may include requirements such as: ▪ Directing construction traffic along access roads until they reach active work sites to limit soil compaction and disturbance to the site. ▪ Minimizing site grading and maintaining the overall pre-project site drainage patterns across the solar development area. ▪ Restricting unavoidable temporary construction and maintenance activities within wetlands/other waters (e.g., driving vehicles/equipment through jurisdictional aquatic resources) to occur during the dry season or dewatered areas that have been dry for a minimum of 15 days, and implementing soil compaction prevention via use of rubber mats or other similar materials to protect the soil surface from and distribute the weight of equipment/vehicles when driving over wetlands/other waters for the purposes other than vegetation maintenance. ▪ Restricting use of heavy equipment within wetlands/other waters within the permanent construction footprint to occur under dry conditions (e.g., during dry season or so as not to form ruts of 6 inches or more) or dewatered areas. ▪ Delineation of the work site boundaries such that no work occurs outside the defined impact footprint of the solar development area. ▪ Hardpan/Duripan Protection: to protect the soil perched aquifer and the micro-watersheds supporting existing vernal pool	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		hydrology, activities that have the potential to result in a puncture or other disruption to the soil hardpan or duripan, the puncture will be sealed using bentonite clay or other material that maintains the functionality of the soil's restrictive layer and associated perched aquifer once construction is complete. ▪ Restoring all temporary impacts to wetlands to pre-existing conditions. ▪ Establishing wetland avoidance buffers to the maximum extent feasible (e.g., typically a minimum of 50 feet although may be reduced to 10 feet in some circumstances) with flagging, staking, or other appropriate barriers. ▪ Developing final project designs to maintain existing on-site drainage patterns and ensure no reduction or increase in existing surface water flow off-site into adjacent lands. ▪ For all work conducted in or within 50 feet of aquatic resources, a qualified biologist shall be on-site to monitor construction activities to ensure avoidance and minimization measures are properly implemented to protect sensitive aquatic resources and that no un-authorized impacts occur. • Compensation shall be provided for project-related residual impacts (i.e., impacts after taking into account reductions in impact by mitigation measures) to State and federally protected wetlands and other waters to achieve a performance standard of no net loss of the acreage, function, and values of jurisdictional resources. Compensatory mitigation requirements shall apply to residual impacts on all wetland and water features, whether preliminarily identified as potentially jurisdictional or not. Potential compensation options include one or more of the following: on-site restoration, off-site preservation (such as within Adjacent Other Lands within the Barton Ranch property, or other areas within the same watershed as the solar development area), or purchasing mitigation credits from an agency-approved wetlands mitigation bank (e.g., Clay Station, Bryte Ranch, Laguna Creek, and Van Vleck Ranch), paying an agency-approved in-lieu fee, and/or developing conservation lands to compensate for permanent loss of resources. Mitigation	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		ratios are expected to be no less than 1:1 and shall be determined during the permitting process. Jurisdictional wetlands within and adjacent to the solar development area provide habitat to special-status species (e.g., western spadefoot and large-listed branchiopods). Additional mitigation for potential direct and indirect impacts to special-status species habitat is required per Mitigation Measures BR-1c and BR-1i, and shall be included in the Aquatic Resources Mitigation Plan to achieve a no net loss of habitat acreage, function, and values at a mitigation ratio acceptable to the USFWS and CDFW for species within their respective jurisdiction and consistent with performance standards of applicable permits issued by USFWS and/or CDFW.	
Impact BR-4: Interfere Substantially with the Movement of Any Native Resident or Migratory Fish or Wildlife Species or with Established Native Resident or Migratory Wildlife Corridors, or Impede the Use of Native Wildlife Nursery Sites	PS	<i>Implement Mitigation Measure AG-1 (see Chapter 4, "Agricultural Resources").</i>	LTSM
	PS	<i>Implement Mitigation Measure BR-1e (Burrowing Owl).</i>	LTSM
	PS	<i>Implement Mitigation Measure BR-1f (Swainson's Hawk).</i>	LTSM
	PS	<i>Implement Mitigation Measure BR-3 (State or Federally Protected Wetlands and Other Waters).</i>	LTSM
Impact BR-5: Conflict with Any Local Policies or Ordinances Protecting Biological Resources, such as a Tree Preservation Policy or Ordinance	PS	<i>BR-5: Address Inconsistencies with Local Policies Protecting Biological Resources.</i> A minimum buffer of 100 feet shall be maintained from the top of bank of Carson Creek and Coyote Creek to protect riparian functions consistent with the Sacramento County General Plan Policy CO-115, unless a Qualified Biologist determines that a buffer of less than 100 feet will sufficiently protect riparian habitat functions. If work is planned within this 100-foot avoidance buffer, then a site-specific	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		Aquatic and/or Riparian Resource Avoidance Plan shall be developed and implemented that includes the following: ▪ Flagging or fencing aquatic features under the oversight of a Qualified Biologist for avoidance and to clearly identify the limits of construction. ▪ All crews will be provided with maps showing the locations of aquatic habitats in and near the work area. ▪ Measures to minimize erosion and runoff, or altered surface flow during construction and ongoing operations, in accordance with Mitigation Measure BR-1a (in particular Erosion Control); and implementation of BMPs and pollutant source control measures, along with preparation of a SWPPP with associated BMPs designed to control construction-related erosion and pollutants as identified in Impact HYD-1 (see Chapter 10, "Hydrology and Water Quality"). ▪ Worker environmental awareness training (see Mitigation Measure BIO-1b) covering relevant laws, location(s) of wetlands and other waters, including riparian habitat in the work site, and project activity-specific avoidance and minimization measures.	
Impact BR-6: Conflict with the Provisions of an Adopted HCP, Natural Community Conservation Plan, or other approved Local, Regional, or State HCP	LTS	No mitigation is required.	LTS
Chapter 7, Climate Change			
Impact CC-1: Generate Greenhouse Gas Emissions, Either Directly or Indirectly, that May have a Significant Impact on the Environment	Potentially Cumulatively Considerable (Construction) & Less than Cumulatively	<i>CC-1: Implement Construction GHG Emission Best Management Practices during Construction Activities.</i> Improve fuel efficiency from construction equipment by: • Minimizing idling time either by shutting equipment off when not in use or reducing the time of idling to no more than 3 minutes (5-minute limit is required by the state airborne toxics control measure [Title 13, sections 2449(d)(3) and 2485 of the CCR]). Provide clear	Less than Cumulatively Considerable

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
	Considerable (Operational)	signage that posts this requirement for workers at the entrances to the site. • Maintaining all construction equipment in proper working condition according to manufacturer's specifications. The equipment must be checked by a certified mechanic and determined to be running in proper condition before it is operated. • Training equipment operators in proper use of equipment. • Using the proper size of equipment for the job. • Using equipment with new technologies (repowered engines, electric drive trains). ▪ Perform on-site material hauling with trucks equipped with on-road engines (if determined to be less emissive than the off-road engines). ▪ Use alternative fuels for generators at construction sites such as propane or solar or use electrical power. ▪ Use CARB-approved low carbon fuel for construction equipment. ▪ Encourage and provide carpools, shuttle vans, transit passes and/or secure bicycle parking for construction worker commutes. ▪ Develop a plan to efficiently use water for adequate dust control. ▪ Reduce electricity use in the construction office by using compact fluorescent bulbs or light emitting diodes, powering off computers every day, and replacing heating and cooling units with more efficient ones. ▪ Recycle or salvage non-hazardous construction and demolition debris, when practicable (goal of at least 75% by weight). ▪ <u>GHG emissions reductions used to offset construction emissions cannot be sold on the voluntary market. In the event that the applicant desires to sell a portion of GHG emissions reductions within the first year of operation on the voluntary market, the applicant must first prepare a report to the satisfaction of the lead agency that details GHG emissions reductions produced and the percentages applied for offsets and for the voluntary market.</u>	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
Impact CC-2: Conflict with an Applicable Plan, Policy or Regulation Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases	Less than Cumulatively Considerable	No mitigation is required.	Less than Cumulatively Considerable
Chapter 8, Cultural and Paleontological Resources			
Impact CR-1: Cause a Substantial Adverse Change in the Significance of a Historical Resource Pursuant to Section 15064.5	NI	No mitigation is required.	NI
Impact CR-2: Cause a Substantial Adverse Change in The Significance of an Archaeological Resource Pursuant to Section 15064.5	PS	<i>CR-2a. Cultural Resource Management Plan (CRMP).</i> In order to mitigate impacts to known archaeological resources and those resources that may inadvertently be encountered during construction-related activities, a Cultural Resource Management Plan (CRMP) shall be prepared and implemented. The CRMP shall be reviewed by the County and finalized prior to construction permit issuance. The CRMP shall, at a minimum, include the following components: Recorded sites with precontact indigenous components within the project site shall be avoided by project design. Specific avoidance buffers and management strategies pertaining to precontact indigenous resources shall be addressed in the <i>Tribal Cultural Resources Avoidance and Minimization Plan</i> (TCR AMP). The CRMP and TCR AMP shall act as a pre-construction record of the recorded boundaries of these resources and ensure compliance with regulatory requirements pertaining to both precontact indigenous resources and/or TCRs. Definition of environmentally sensitive area (ESA) and methods of delineation (e.g., exclusion fencing, signage, definition on project design drawings) to ensure that both	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		precontact and unevaluated historic-era sites outside of the solar development area remain undisturbed. ESAs will be established around all precontact and historic-era archaeological resources, including an appropriate buffer, adjacent to the solar development area and must be physically delineated prior to construction. The ESAs shall be clearly delineated and marked using methods that do not conflict with other resource or construction styles. The ESAs shall not detail the cultural nature of that avoidance area on signage or plans. The ESAs shall be maintained through the duration of construction. Construction monitoring protocol (<i>see Mitigation Measure CR-2b, below</i>). To the extent construction activities uncover previously unknown or unanticipated cultural resources, all such activities will stop in the vicinity of the resource until the significance of the resources is determined. An appropriate buffer for avoidance during construction is typically 100 feet, which may be adjusted at the recommendation of a qualified archaeologist meeting Secretary of the Interior Qualifications, so that the exclusion buffer allows key areas of construction to proceed while ensuring that no ongoing project activities will affect the find. Where complete avoidance is determined infeasible, archaeological resources shall be evaluated for eligibility to the CRHR by a qualified archaeologist. Research questions relevant to the evaluation of anticipated resource types within the project area, and a research design for the evaluation of such resources. Historic-era mining-related archaeological resources may retain physical Criterion 3 and Criterion 4 values that require detailed mapping and documentation prior to any disturbance. This will require field documentation, updating DPR forms, and preparation of an additional technical report. In addition, if impacted, stacked rock features, also described as “residential features,” shall be disassembled and excavated to inspect these features for possible chronological indicators of the specific mining period,	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		since they may be contributors to the CRHR-eligible Walltown Historic Mining District. Evaluation of precontact archaeological resources and historic-era archaeological sites with artifact deposits and/or domestic-type features will likely require an archaeological testing phase that consists of systematic excavations of a portion of the site within the solar development area to determine the integrity of the archaeological deposits, the horizontal and vertical extent of the deposits, the quantity and diversity of artifacts contained within the deposits (as they relate to the ability to answer potential research questions), and the potential for human remains. The qualified archaeologist shall assess if the archaeological site qualifies as a significant or unique archaeological resource under the criteria of CEQA Guidelines Section 15064.5, in consultation with the lead agency, who may request review by consulting tribes and a Tribal Archaeologist based on requirements of the TCR AMP, as dependent on the age and/or association of the identified cultural resource. If a potentially-eligible resource is encountered, then the archaeologist and/or tribal monitor, Planning and Environmental Review staff, and project proponent shall arrange for either (1) total avoidance of the resource; or if total avoidance is not feasible (2) data recovery as mitigation. The determination shall be documented in writing and submitted to the County Environmental Coordinator as verification that the provisions of CEQA Guidelines Section 15126.4(b) for managing unanticipated discoveries have been met. When data recovery through excavation is selected as the appropriate mitigation measure, a data recovery plan, which makes provision for recovering the scientifically consequential information from and about the historical resource, shall be prepared and adopted prior to any excavation being undertaken. Define the requirements for communication and notification to the lead agency and consulting parties, daily monitoring log preparation, and final construction monitoring report. The final	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		monitoring report shall be submitted to the lead agency, consulting tribes, and NCIC.	
	PS	<i>CR-2b. Construction Monitoring.</i> Prior to the start of ground-disturbing activities, and with any changes in personnel, work crews shall receive an archaeological awareness training notifying them of the archaeologically sensitive nature of the project site, focusing on common artifact/feature types, stop-work protocol, and notification protocol in the event of a potential unanticipated discovery. A qualified archaeologist shall monitor initial grading, subsurface disturbances as outlined by the CRMP. If unanticipated cultural resources are encountered during construction, the process outlined by the final CRMP shall be followed. No additional action is required with regard to previously recorded historic-era resources within the solar development area. These areas shall be observed by an archaeological monitor during initial disturbance by construction to ensure that no additional features or unidentified deposits are encountered. In the event that newly recorded features or deposits are encountered within these areas, equipment shall be redirected while these areas are further inspected by the archaeologist. These elements shall be subject to recordation sufficient to capture their physical data potential and to inform updates to the records of these features. Information shall be captured through field methods of recordation meeting standards applied during inventory/evaluation technical studies completed for the project. If these findings do not introduce potentially significant information that would revise the individual eligibility of this resource for NRHP/CRHR eligibility under Criteria D/4, construction may resume. Any newly identified potentially significant resource or contributing element to an existing site shall be subject to provisions provided for unanticipated discovery under Mitigation Measure CR-2a and as defined in the CRMP, including review for feasibility of avoidance and/or other management options such as data recovery, should this be required. The archaeological monitor shall monitor construction, prepare daily monitoring logs, report and assess inadvertent discoveries, communicate with on-site Native American monitors and contractors,	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		guide installation and tracking maintenance of ESA marking, and ensure implementation of the CRMP and approved mitigation. The final CRMP shall act as a record of compliance with guiding documents and mitigation. Native American monitoring should be inclusive of those traditionally culturally affiliated tribes and related tribal cultural values expressed through the process of government-to-government consultation. If unanticipated cultural resources are encountered during construction, the process outlined by the final TCR AMP shall be followed.	
	PS	<i>CR-2c. Walltown Mining District Historic Study and Interpretive Plan.</i> A Historic Mining Study and Interpretive Plan shall be prepared and implemented. While the documentation may commence prior to or during construction, these elements may be prepared as separate documents or combined, and final drafts are anticipated post-construction, within one year of starting commercial operations on-site. The study component shall focus on providing in-depth research and documentation pertaining to the defining characteristics of Walltown Historic Mining District, specifically those elements that inform ethnicity and nineteenth-century regional mining history (NRHP/CRHR eligibility under Criteria A/1). The study shall address research themes related to placer mining and the social environment, technology, and lifeways of marginalized Chinese immigrant communities. It shall seek out and document how this group interacted with the Euro-American population. The study shall make an effort to contact and interview modern Chinese American descendent communities and/or pertinent historical societies in the region and gain insights as to how these past activities may inform or otherwise interplay with community heritage values. The history of the Walltown Historic Mining District is a public community resource. As such, the Interpretive Plan shall provide methods for distilling, conveying, and sharing the information gathered in the Walltown Historic Mining District Study to the public. This should build on technical documentation prepared as part of this report and may take the form of a publicly accessible interpretive display, website, interactive map, or other options to be determined by the County. The	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		project proponent shall fund the preparation of the Walltown Historic Mining District Study and Interpretive Plan and implementation of the decided interpretive method for conveying this information to the public.	
Impact CR-3: Disturb Any Human Remains, Including Those Interred Outside of Dedicated Cemeteries	PS	<i>CR-3a. Treatment of Human Remains.</i> If human remains are found during any project-related ground-disturbing activity, the remains shall be treated with appropriate dignity pursuant to the procedures for the treatment of Native American human remains are contained in California Health and Safety Code Section 7050.5 and Section 7052 and California Public Resources Code Section 5097.98 and CEQA Guidelines Section 15064.5(e). Project-specific requirements shall be included in the CRMP. Management of any human remains of Native American origin must occur in coordination and compliance with agreements and management strategies developed in consultation with traditionally culturally affiliated tribes, as outlined by the TCR AMP.	LTSM
	PS	<i>Implement Mitigation Measure CR-2a (Cultural Resource Management Plan [CRMP])</i>	LTSM
	PS	<i>Implement Mitigation Measure CR-2b (Construction Monitoring)</i>	LTSM
	PS	<i>Implement Mitigation Measure TCR-1 (Tribal Cultural Resource Avoidance and Minimization Plan).</i>	LTSM
Impact CR-4: Damage to or Destruction of Unique Paleontological Resources During Earthmoving Activities	PS	<i>CR-4. Avoid Impacts to Unique Paleontological Resources.</i> Prior to the start of earthmoving activities associated with the proposed substation, BESS, maintenance yard, solar panels, and all proposed access roads south and east of the Prairie City SVRA, the project applicant shall do the following: 1. Retain the services of either a qualified archaeologist or a qualified paleontologist to provide training to all construction personnel involved with earthmoving activities regarding the possibility of encountering fossils, the appearance and types of fossils likely to be seen during construction, and proper notification procedures should fossils be encountered. 2. If paleontological resources are discovered during earthmoving activities, the construction crew shall immediately cease work within	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		100 feet of the find and shall notify the project applicant and Sacramento County. 3. If paleontological resources are discovered during earthmoving activities, the project applicant shall retain a qualified paleontologist to evaluate the resource and prepare and implement a recovery plan. The recovery plan may include, but is not limited to, a field survey, construction monitoring, sampling and data recovery procedures, museum curation for any specimen recovered, and a report of findings. The recovery plan shall be submitted to Sacramento County for review and approval. Recommendations in the recovery plan shall be implemented before construction activities can resume at the site where the paleontological resource(s) were discovered.	
Chapter 9, Hazards and Hazardous Waste			
Impact HAZ-1: Routine Transport, Use, or Disposal of Hazardous Materials or Reasonably Foreseeable Upset and/or Accident Conditions Involving the Release of Hazardous Materials	PS	<i>Implement Mitigation Measure AQ-3 (Site Investigation for Potential Naturally Occurring Asbestos).</i>	LTSM
	PS	<i>HAZ-1: Prepare an Emergency Response and Emergency Action Plan.</i> Prior to issuance of grading permits, the operator of the proposed facility shall coordinate with the appropriate local emergency management agencies, unified program agencies, and local first responders to develop an emergency response and emergency action plan. The plan must establish response procedures for an equipment malfunction or failure; include procedures that provide for the safety of surrounding residents, neighboring properties, emergency responders; and establish notification and communication procedures between the battery storage facility and local emergency management agencies. The plan shall be submitted to the County for review and approval.	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
Impact HAZ-2: Hazards from Development on a Site Listed in California Government Code Section 65962.5 (Cortese List)	PS	<i>HAZ-2a: Prohibit New Groundwater Wells and Use of Existing Groundwater Wells Within the Contaminant Plume Consultation Zone.</i> 1. No new project-related groundwater wells shall be installed within the 2,000-foot Consultation Zone established by County Municipal Code 6.28.000(G) adjacent to the boundary of the Aerojet contaminated groundwater plume. 2. Existing groundwater wells within the project site that are within the 2,000-foot Consultation Zone shall not be used for project-related water supply.	LTSM
	PS	<i>HAZ-2b: Prepare and Implement a Health and Safety Plan.</i> To protect the health of construction workers and the environment, the project applicant or construction contractor(s) shall prepare and implement a Health and Safety Plan (HASP) as described below: • The HASP shall be prepared in accordance with State and federal OSHA regulations (29 CFR 1910.120) and approved by a certified industrial hygienist. Copies of the HASP shall be made available to construction workers for review during their orientation training and/or during regular health and safety meetings. The HASP shall identify potential hazards (including stained or odiferous soils at any location where earthmoving activities would occur, <u>particularly at Area 39</u>), chemicals of concern (e.g., perchlorate, PCE, TCE, NDMA), personal protective equipment and devices, decontamination procedures, the need for personal or area monitoring, and emergency response procedures. • The HASP shall also require notification of Aerojet, USEPA, and the Central Valley RWQCB, <u>and DTSC</u> if evidence of previously undiscovered soil or groundwater contamination (e.g., stained soil, odorous groundwater, or groundwater with a surface sheen) is encountered within the area underlain by the Aerojet groundwater plume, <u>Area 39</u>, or the vicinity of the White Rock Dump North. All excavation activities within 100 feet of encountering such soil or groundwater shall cease until consultation occurs with Aerojet and the appropriate regulatory agencies.	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		The HASP shall state that if previously undiscovered underground storage tanks related to ranch activities, or stained or odiferous soil or groundwater are encountered outside the areas of the Aerojet groundwater plume, Area 39, or the White Rock Dump North during construction activities, Sacramento County EMD shall be notified and the situation shall be remediated in accordance with Sacramento County EMD requirements. If directed by Sacramento County EMD, the project applicant shall retain a licensed environmental professional to conduct a Phase II ESA that includes appropriate soil and/or groundwater analysis. Recommendations contained in the Phase II ESA to address any contamination that is found shall be implemented before reinitiating ground-disturbing activities in these areas.	
	PS	<i>HAZ-2c: Coordinate with Aerojet to Close, Relocate, or Avoid Monitoring Wells.</i> During the project's design phase, the project applicant and its engineer(s) shall consult with Aerojet with oversight by Sacramento County to ensure that project-related facilities are placed far enough away from existing remediation and monitoring wells to avoid damage or destruction and to ensure that Aerojet retains appropriate access to the wells. If construction activities would occur within 100 feet of any existing remediation or monitoring wells, exclusionary fencing shall be placed around the wells prior to the start of construction activities. If avoidance of remediation or monitoring wells is infeasible, the project applicant shall coordinate with Aerojet for the closure, relocation, or replacement of wells in a manner that complies with Aerojet remedial activities and monitoring plans. The locations of existing remediation and monitoring wells at the project site, and wells that are off-site but within 100 feet, shall be shown on the construction drawings and the construction contractor shall be informed of the locations of the wells with instructions to avoid them. If any remediation or monitoring wells are damaged during construction, the project applicant shall be responsible for paying for repairs, at the discretion of Aerojet.	LTS
Impact HAZ-3: Airport Safety Hazards	LTS	No mitigation is required.	LTS

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
Impact HAZ-4: Impair Implementation of or Physically Interfere with an Adopted Emergency Response Plan or Emergency Evacuation Plan	LTS	No mitigation is required.	LTS
Chapter 10, Hydrology and Water Quality			
Impact HYD-1: Violate Water Quality Standards or Substantially Degrade Surface or Groundwater Quality	LTS	No mitigation is required.	LTS
Impact HYD-2: Impede Sustainable Groundwater Management of the Basin by Substantially Decreasing Groundwater Supplies or Interfering with Groundwater Recharge	PS	<i>Implement Mitigation Measure HAZ-4a-2a (Prohibit New Groundwater Wells and Use of Existing Groundwater Wells Within the Contaminant Plume Consultation Zone).</i>	LTSM
	PS	<i>HYD-2: Perform a Groundwater Hydrologic Study If On-site Groundwater Wells are Utilized for Project Construction and Decommissioning Activities.</i> Prior to the issuance of permits for grading, buildings, or improvement plans, the project applicant shall do the following: • Retain the services of an independent consultant specializing in groundwater hydrology to perform a groundwater hydrologic study. The groundwater study shall utilize hydrologic modeling to investigate whether the potential location of the proposed or existing groundwater well(s) and the amount of groundwater withdrawal that would be necessary to serve the proposed project would cause significant drawdown of the existing groundwater table such that existing groundwater wells would be adversely affected. The completed groundwater hydrologic study shall be submitted to the Sacramento County Department of Water Resources for review.	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		Demonstrate that appropriate permits have been obtained for a permanent source of on-site or off-site water supply that would not result in a localized drawdown of the groundwater table such that other existing nearby wells would be affected (including the potable water supply well at the Prairie City SVRA). If modeling determines that significant drawdown would occur for other water wells would be adversely affected, the project applicant shall not be permitted to install a groundwater well.	
Impact HYD-3: Substantially Alter Drainage Patterns or Add Impervious Surfaces That Would Result in Increased Erosion, Exceed Storm Drainage Systems, Substantially Degrade Water Quality, Result in Increased Flooding, or Impede or Redirect Flood Flows	PS	<i>HYD-3. Prepare a Project-specific Level 4 Drainage Study</i> Prior to obtaining a construction permit, the applicant shall prepare and submit a project-specific Level 4 Drainage Study to Sacramento County Department of Water Resources for approval. This study shall include all project components, including the switchyard components. Once approved, the applicant shall ensure that all measures are incorporated into project design and construction plans, as required by the Sacramento County Department of Water Resources.	LTSM
Impact HYD-4: Conflict with a Water Quality Control Plan or Sustainable Groundwater Management Plan	PS	<i>Implement Mitigation Measure HAZ-4a-2a (Prohibit New Groundwater Wells and Use of Existing Groundwater Wells Within the Contaminant Plume Consultation Zone).</i>	LTSM
	PS	<i>Implement Mitigation Measure HYD-2 (Perform a Groundwater Hydrologic Study If On-site Groundwater Wells are Utilized for Project Construction and Decommissioning Activities).</i>	LTSM
Chapter 11, Land Use			
Impact LU-1: Consistency with Plans, Policies, and Regulations	LTS	No mitigation is required.	LTS
Chapter 12, Noise			
Impact NOI-1. Temporary, Short-Term Exposure of	PS	<i>NOI-1a. For Evening and Nighttime Construction (i.e., Outside of Permitted Construction Hours (Section 6.68.090[e] of the County of</i>	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
Sensitive Receptors to Construction Noise		<i>Sacramento Code), Implement Noise-Reducing Construction Practices and Monitor and Record Construction Noise near Sensitive Receptors.</i> The project applicant(s) and their primary contractors for engineering design and construction shall ensure that the following requirements are implemented at each worksite during project construction to avoid and minimize construction noise effects on sensitive receptors. The project applicant(s) and primary construction contractor(s) shall employ noise-reducing construction practices. Measures that shall be used to limit noise shall include the measures listed below: Pile driving shall be limited to the hours between 7 a.m. and 8 p.m. Monday through Friday, and between 8 a.m. and 6 p.m. on Saturdays and Sundays. • Pile driving shall be limited to the hours between 7 a.m. and 8 p.m. Monday through Friday, and between 8 a.m. and 6 p.m. on Saturdays and Sundays. • Blasting activities shall be prohibited within 0.5 miles of off-site noise sensitive receptors, and shall be limited to the hours between 7 a.m. and 8 p.m. Monday through Friday. • Construction equipment and equipment staging areas for equipment that generates noise levels of 70 dB or more at 50 feet shall be located as far as possible from nearby noise-sensitive receptors, shown in Plate NOI-2. • All construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation. • All motorized construction equipment shall be shut down when not in use to prevent idling. • Individual operations and techniques shall be replaced with quieter procedures (e.g., using welding instead of riveting, mixing concrete off-site instead of on-site). • Noise-reducing enclosures shall be used around stationary noise-generating equipment (e.g., compressors and generators).	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		- Written notification of construction activities shall be provided to all noise-sensitive receptors located within 500 feet of the project site. Notification shall include anticipated dates and hours during which construction activities are anticipated to occur and contact information, including a daytime telephone number, for the project representative to be contacted in the event that noise levels are deemed excessive. Recommendations to assist noise-sensitive receptors in reducing interior noise levels (e.g., closing windows and doors) shall also be included in the notification. - Provide real-time noise monitoring at the boundary of the nearest sensitive receptor(s) during evening and nighttime construction activity occurring outside the hours exempted by the County Noise Ordinance. Any activity resulting in a measured exterior noise level that exceeds 50 dB at the property boundary of an occupied residence shall immediately cease.	
	PS	<i>NOI-1b. Prepare and Implement a Blasting Plan.</i> To minimize the noise and vibration impacts related to blasting activities, the applicant shall prepare a Blasting Plan for the proposed project for County review and approval that shall include the following information: - Public Communication: Notify all sensitive receptors within 0.5 miles of blast locations of the timing of planned blasting at least two weeks in advance by mail, and include contact information with a daytime telephone number for the project representative to be contacted in the event that noise levels are deemed excessive. Recommendations to reduce interior noise levels (e.g., closing windows and doors) shall also be included in the notification. - If blasting activities occur within 0.5 miles of the occupied residential property at 3850 Scott Road within the project site, the notification provided as part of this measure shall include the option to receive temporary relocation for the residents of this residential property for the duration of blasting activities within 0.5 miles of this receptor. - Blast Timing: Blasting shall be limited to the hours between 7 a.m. and 8 p.m. Monday through Friday.	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		• Blast Design: Optimize blast design parameters, such as charge size, delay intervals, rock preconditioning, and stemming, to reduce peak noise levels. • Equipment Maintenance: Ensure all blasting equipment is well-maintained to prevent excessive noise from malfunctioning or inefficient machinery. • Blast Mats: Use blast mats to cover the blast area, reducing airborne noise and debris. • Noise Monitoring: Implement a noise monitoring program during blasting activities to ensure compliance with Chapter 6.68 of the County Code and apply additional sound-attenuating measures in real-time, if necessary. There are several real-time sound-attenuating measures that can be implemented, if noise monitoring during blasting activities indicates that noise levels exceed 55 dB at the property boundary of any noise-sensitive receptors. Some examples include: 1. Adjust Blast Timing: ○ Modify the Blasting Schedule: Adjust the timing of blasts to avoid sensitive times of the day (e.g., early morning, late evening, or during periods when wind direction favors noise propagation towards sensitive receptors). ○ Avoid Adverse Weather Conditions: Postpone blasts during temperature inversions and when wind speeds and directions could enhance noise propagation. 2. Use Additional Blast Mats or Heavy Tarps: ○ Cover the blast site with additional Blast Mats or Heavy Tarps to reduce airborne noise and control fly-rock. The mats act as a physical barrier, absorbing some of the noise energy produced during blasting. ○ Increase Matting Coverage: If monitoring shows high noise levels, add mats or reposition for better coverage. 3. Modify Blasting Techniques:	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		○ Reduce Charge Size: By reducing the charge size per delay, noise levels can be lowered. This may require splitting the blast into smaller, sequential blasts (using decked charges or micro-sequencing). ○ Stemming Optimization: Increasing the amount or using different types of stemming materials can help reduce noise from blast holes. High-density materials like gravel can be more effective at noise attenuation. 4. Install Temporary Noise Barriers: ○ Mobile Noise Barriers: Erect temporary noise barriers or screens (e.g., noise curtains, portable barriers) close to the blast area to block direct line-of-sight noise transmission to noise-sensitive receptors. ○ Use Acoustical Blankets: Wrap acoustical blankets around machinery or hang along barriers to further reduce noise transmission. 5. Real-time Monitoring, Communication, and Alerts: ○ Set up automated systems that send alerts if noise levels exceed thresholds, allowing the blast crew to make adjustments immediately. This may include delaying the blast or making on-site adjustments. 6. Modify Blast Design: ○ Change the Blast Geometry: Altering the angle, depth, or configuration of the blast holes can influence the direction of the energy release, potentially reducing noise. ○ Use Delayed Detonation Patterns: Using precise, millisecond delays between charges can help control the release of energy, reducing the peak noise levels. • Alternative Methods: Where feasible, explore the use of alternative rock excavation methods that generate less noise and vibration, such as hydraulic splitting or chemical expansion.	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		Post-Blast Reporting: Provide post-blast reports to the County, detailing the noise and vibration levels recorded, any exceedances of thresholds, and actions taken to mitigate impacts.	
Impact NOI-2. Temporary, Short-Term Exposure of Sensitive Receptors to Potential Groundborne Noise and Vibration from Project Construction	PS	<i>Implement Mitigation Measure NOI-1b: Prepare and Implement a Blasting Plan.</i>	LTSM
	PS	<i>NOI-2a: Implement Vibration Control Measures.</i> The construction contractor(s) shall implement the following measures to reduce construction- and decommissioning-generated noise and vibration: - The construction contractor/s shall use construction equipment that is as small as practicable, particularly pile drivers. - The construction contractor(s) shall prohibit the use of pile drivers within 250 feet of existing off-site structures. If pile driving is necessary within 250 feet of on-site structures where vibration levels exceed human annoyance thresholds or create undue disturbance, the option for temporary relocation shall be provided to affected residents at no cost during the duration of these activities. - The construction contractor(s) shall prohibit blasting and the use of pile drivers during nighttime (for blasting, these activities shall be limited to the hours between 7 a.m. and 8 p.m. Monday through Friday, and for pile driving, these activities shall be limited to the hours between 7 a.m. and 8 p.m. Monday through Friday, and between 8 a.m. and 6 p.m. on Saturdays and Sundays) to avoid annoyance (refer to Mitigation Measure NOI-1a, above, for additional restrictions on blasting and pile driving activities). - The construction contractor(s) shall designate a “noise and vibration disturbance coordinator” who shall be responsible for responding to any local complaints about construction vibration. The disturbance coordinator shall determine the cause of any vibration complaint (e.g., human annoyance and structural damage) and require that	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		reasonable measures be implemented to correct the problem. The disturbance coordinator's telephone number shall be posted at the construction site for the entirety of the construction and decommissioning periods.	
	PS	<i>NOI-2b: Additional Vibration Controls for Blasting to Avoid Human Annoyance.</i> • Structural Damage: Blasting activities shall not occur within 340 feet of the on-site structures. • Human Annoyance: Blasting activities shall not occur within 1,500 feet of occupied sensitive receptors unless mitigation measures are implemented to reduce vibration levels to less than 80 VdB. If blasting is conducted within 1,500 feet of occupied sensitive receptors, strategies shall be implemented, as needed, to achieve vibration levels below 80 VdB at occupied sensitive receptors, which may include: 1. Reduce Charge Weight ○ Reduce the maximum instantaneous charge (MIC) needs to be reduced. 2. Optimize Blasting Patterns ○ Use decking or delayed detonations to split the total charge into smaller sections. This strategy reduces the effective charge weight per delay and ensures compliance with vibration criteria. 3. Use Blast Mats ○ Place blast mats over the blasting area to absorb and diffuse some of the vibration energy. Blast mats can reduce PPV levels by 10 to 15 percent, allowing slight flexibility in MIC, if used. 4. Verify Compliance for Vibration Levels in VdB ○ To ensure vibration levels meet the human annoyance threshold of 80 VdB, additional mitigation measures, such as optimizing delays or using mats, or relocation of the occupants may be necessary to reduce levels further.	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
Impact NOI-3. Permanent Exposure of Off-Site Noise-Sensitive Receptors to Generation of Non-Transportation Noise Levels in Excess of Local Standards	PS	<i>NOI-3. Site Project Facilities Sufficiently Distant to Reduce Operational Noise Levels Below County General Plan Standards.</i> - Prior to issuance of building permits, the applicant shall provide sufficiently detailed designs demonstrating that operation of the proposed project facilities would not exceed County noise standards as prescribed by Table 2 of the County General Plan Noise Element, including the nighttime standard of 50 dB L50. The design of the facility shall be based on reference noise levels for operation equipment (e.g., transformer) from the manufacturer's specifications document, enclosure type and material, and calculations demonstrating that the siting of the project facilities is sufficiently distanced and the project's operational noise reduced to comply with the applicable County noise standards. - Upon request from the County in instances when complaints are received, the applicant shall provide an acoustical analysis consistent with the requirements provided in the Noise Element of the County General Plan.	LTSM
Chapter 13, Traffic and Circulation			
Impact TC-1: Conflict with a Program, Plan, Ordinance or Policy Addressing the Circulation System, Including Transit, Roadway, Bicycle, and Pedestrian Facilities	LTS	No mitigation is required.	LTS
Impact TC-2: Conflict or be Inconsistent with CEQA Guidelines Section 15064.3, Subdivision (B)	LTS	No mitigation is required.	LTS
Impact TC-3: Substantially Increase Hazards Due to a Geometric Design Feature (e.g. Sharp Curves or Dangerous	PS	<i>TC-3. Prepare and Implement Traffic Control Plan.</i> To address potential traffic hazards during construction and decommissioning, prior to the commencement of construction or demolition activities, the applicant shall prepare a traffic control plan for	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
Intersections) or Incompatible Uses (e.g., Farm Equipment)		review and approval by the County Department of Transportation. The measures to be included in the traffic control plan include signage, traffic cones, and flaggers to help ensure safe and efficient movement of traffic through the affected area, with a focus on safety for cyclists on Scott Road. In addition, the traffic control plan would provide for notification of emergency responders regarding the planned construction activities.	
Impact TC-4: Result in Inadequate Emergency Access	LTS	No mitigation is required.	LTS
Chapter 14, Tribal Cultural Resources			
Impact TCR-1: Cause a Substantial Adverse Change in the Significance of a Tribal Cultural Resource	S	TCR-1. <i>Tribal Cultural Resource Avoidance and Minimization Plan.</i> In order to mitigate impacts to known TCRs and those resources that may inadvertently be encountered during construction-related activities, the applicant shall prepare a <i>Tribal Cultural Resources Avoidance and Minimization Plan</i> (TCR AMP). The TCR AMP shall be reviewed by the County and consulting tribes, and finalized and approved prior to construction. The TCR AMP shall, at a minimum, include specific guidelines and direction on the following components: Pre-Construction Elements <u>Avoidance and Preservation in Place.</u> The applicant shall demonstrate to the County's satisfaction that the 14 identified indigenous archaeological sites, plus a minimum 100-foot buffer around them (Environmentally Sensitive Areas [ESAs]), will be fenced prior to construction and shall be avoided during project construction. No project activity can occur within an ESA without County approval and a tribal monitor present. Prior to issuance of a grading permit, the applicant and the landowner shall jointly propose to the County for review and approval a measure to avoid impacts within the ESAs throughout the life of the project, including ongoing management responsibility of the ESAs throughout the life of the project.	SU

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		The ESA locations shall be noted on project construction and engineering plans as “Environmentally Sensitive Areas” and shall be fenced prior to commencement of construction activities (detailed below). In order to achieve preservation in place, it is important to confirm the boundaries of the ESAs in coordination with the consulting tribes and archaeologists. • <u>Pre-Designation of Reburial Area.</u> The applicant shall pre-identify a reburial location in consultation with culturally affiliated tribes, to serve as a reburial location in the event that tribal cultural resources are identified during ground-disturbing activities associated with project construction. The location pre-selected shall be recorded with a GPS device capable of sub-meter accuracy and be under the control of the property owner and in an area not planned for future disturbance. A copy of a map showing the reburial location and GPS-recorded shapefiles shall be filed with the County for proof of compliance and shall remain confidential. • <u>Communication Protocols for Monitoring.</u> The applicant shall develop a set of communication protocols, to the satisfaction of the County and tribes, to identify all points of contact and to ensure that tribes are notified when the applicant will proceed with authorized construction activities. Points of contact shall be established for the applicant, construction supervisor, monitoring tribes, project archaeologist, and County staff, and the cell phone numbers and email addresses must be documented and shared among all parties. Points of contact are responsible for identifying backup representatives in the event they are unable to perform due to an absence or other reasons. Construction-Period Elements <u>Reburial Lab Facility.</u> The applicant or prime contractor shall provide one standard office-style construction trailer that is to be used exclusively by tribal monitors. In the event that there	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		is a discovery of tribal cultural resources during construction, this trailer will be converted into a lab space for tribal monitors to prepare the materials in a culturally appropriate manner prior to reburying them. The lab facility shall remain until all ground disturbing activities have been completed and any tribal cultural resources have been reburied. <u>Temporary Fencing.</u> All ESAs shall be protected from incidental disturbances during construction activities by the placement of high visibility temporary exclusionary fencing. The fencing shall be installed under the direction of a tribal monitor and archaeological monitor (collectively, “Monitors”) and shall remain intact throughout project construction. The Monitors will be responsible for periodic checks of the fencing, and any deficiencies reported to the contractor must be remedied before resumption of ground disturbing activities within 100 feet of the repair site. <u>Worker Awareness Training.</u> The County shall ensure that a worker awareness training program is developed in coordination with the Tribes and delivered to train the Contractor’s equipment operators and the project’s field consultants about tribal cultural resources and the requirements for avoidance and minimization. The County shall offer the opportunity to the consulting tribes to provide content for the training program. The training shall be given first to construction supervisors. The construction supervisors are responsible for ensuring that all workers that will operate ground-disturbing equipment receive this training prior to operating equipment that will disturb original ground. All trained workers will be required to receive a brochure and hardhat sticker and sign a form indicating their understanding of the requirements and restrictions and copies of the forms shall be provided to the County as proof of compliance. <u>Tribal Monitoring.</u> All construction-related ground-disturbing activity shall be monitored by a qualified tribal monitor from a consulting tribe on this project to ensure that the procedures for unanticipated discoveries are addressed expeditiously and	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		in accordance with the plan. The requirements for a monitor should be inclusive of all day and night construction activity that has the potential to result in ground disturbance. “Ground-disturbing activity” is defined as any activities that have the potential to disturb soil beyond that which was reasonably visible to tribal monitors and archaeologists during the pre-project pedestrian survey. This includes, but is not limited to, ground disturbing activities such as: grading; trenching; excavation for below-ground utility installation or foundation work; and any other below the ground activities. An adequate number of tribal monitors must be present to sufficiently cover multiple locations of ground disturbing activities. Tribal Monitors will have the authority to request a temporary and reasonable pause of ground-disturbing activities within 100 feet of a discovery of up to 30 minutes to safely and initially examine the ground more closely for indications of potential tribal cultural resources, without being impeded by construction equipment. In the event of the discovery of a potential tribal cultural resource, treatment plan protocol must be completed before resuming work at that location. • <u>Response to Unanticipated Discoveries of Tribal Cultural Resources.</u> If potential tribal cultural resources are encountered at the project site during construction, work shall be temporarily suspended within 100 feet of the find (based on the apparent distribution of cultural materials), and the construction Contractor shall immediately notify the County. Within two business days of the County receiving notification of an unanticipated discovery of a tribal cultural resource outside of the ESA, the County, tribal monitors, and applicant shall perform a field visit to the location of the discovery and confer on the appropriate treatment of the resource. The applicant shall be afforded the opportunity to review the feasibility of avoidance and preservation in place. The County shall review available information and comments from the traditionally culturally affiliated tribes and determine if the	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		resource meets the definition of a tribal cultural resource, as defined by Section 21074(a) of the Public Resources Code. If the County concludes on the basis of substantial evidence that the resource qualifies as a tribal cultural resource under Section 21074(a) of the Public Resources Code, the County shall require the project proponent to implement the following mitigation measure to comply with the standards in Public Resources Code section 21084.3 (1) preservation in place where feasible; (2) if preservation in place is not feasible, mitigation shall be undertaken pursuant to the TCR AMP. The County's determination of the presence of a tribal cultural resource should not be unreasonably withheld. If the discovery includes human remains, the procedures under Health and Safety Code Section 7050.5 or 7000 and, if applicable, Public Resources Code Section 5097.9 et seq. shall be carried out prior to any further action described below. The Contractor shall take protective measures to install temporary high-visibility fencing around the limits of the stop-work radius until consultation and treatment is completed in accordance with this mitigation measure and the AMP. Fence installation must be monitored by a tribal representative and shall include a sign indicating an Environmentally Sensitive Area. The Contractor may also use plywood sheets or metal plates to cover the exposure, in consultation with the tribal representative, in the event that the discovery must remain protected during non-working hours. The Contractor is responsible for ensuring that the security measures that are taken to protect the entire construction site are extended to the location of the discovery as well. Additional boundary delineation may be necessary to understand the horizontal and vertical extent of the discovery outside of the ESA area. Selection of the appropriate method will be made by the applicant, in consultation with the parties participating in the consultation process described in this Plan.	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		Options may include ground penetrating radar (including ground truthing of identified anomalies), geoarchaeological trenching, shovel testing or auguring, and/or controlled mechanical grading. Evaluation of the significance of identified tribal cultural resources is the responsibility of tribal monitors. Where such a resource includes archaeological components, the evaluation shall be a cooperative effort with the archaeologists, whereas the archaeologists will record and evaluate relative to NRHP/CRHR criteria, and tribal monitors evaluate relative to TCR criteria and provide their preferences on recovery, relocation, and/or repatriation. The consulting tribes will be invited to provide recommendations on culturally appropriate treatment to the County and the applicant. Avoidance and preservation in place are the preferred manner of mitigating impacts to cultural resources and tribal cultural resources. Discoveries of cultural resources that are determined not to meet the definition of a tribal cultural resource but that are determined to be otherwise historic resources under Public Resources Code section 5024.1(c) will be subject to the cultural resources mitigation measures which are documented separately in the environmental document. Post-Construction Elements <u>Repatriation of Tribal Cultural Resources.</u> Reburial methods will ensure that reasonable measures have been taken to prevent future disturbance. This may include a reburial process that will use a series of layered soil or materials that serve to warn future excavators of the presence of repatriated materials, upon mutual agreement of the parties, and through consultation with the MLD, if one is designated by the NAHC. Culturally affiliated tribes shall be afforded the opportunity to prepare collected materials in a culturally appropriate manner prior to reburial. Reburial can occur at any time but must be completed no later than 30 days after the conclusion of	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		construction. If the reburial does not occur within 30 days of the completion of construction because tribal monitors require additional time to prepare the materials for reburial in a culturally appropriate way, the County may authorize operation of the project prior to reburial. Recognizing the importance of culturally appropriate preparation of materials for reburial, the applicant shall provide funding for tribal repatriation specialists to prepare the materials. In addition, in the event human remains or cultural materials are reburied, in accordance with Section 5097.98(e) of the Public Resources Code, the location of the reburial shall be recorded on a Department of Parks and Recreation (DPR) 523-Series Primary Record and Location Map and submitted to the California Historical Resources Information Center [5097.98(e)(1)], NAHC, and a reinternment record filed with the County [5097.98(e)(3)], within 30 days of the reburial. Recording of the location of reburial is required by state law (5097.98(e)) and is critical to ensuring that the reburial site is not inadvertently disturbed in the future. The reburial location will be documented on a DPR 523 series form and filed with the CHRIS and California NAHC within 30 days, unless tribe choose to rebury on tribal-owned land. • <u>Restrictive Instrument for Preservation.</u> The applicant recognizes that they hold a lease option over the entire project site, but the resulting project will impact a smaller footprint (the “solar development area”). It is anticipated that areas outside of the solar development area, including avoidance areas, of the project will not be leased by the applicant, and the land outside of the solar development area will generally be released to the landowner for their use. Thus, within six (6) months of the completion of construction of the project, the applicant shall exercise good faith, reasonable efforts to cause to be recorded, by the landowner, a restrictive instrument to the County or other entity agreed to by the County and landowner over the avoidance areas (and the reburial	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		location, if used) (collectively, the “ESAs”) and restricting future uses of the avoidance areas consistent with the conservation of the applicable tribal cultural resource. Such restrictions shall not disclose the nature of the ESAs. In the event that the landowner is unwilling to record a restrictive instrument over the ESAs, the applicant shall direct the project Archaeologist to fully record the boundaries of the ESAs with the California NAHC, CHRIS, and County. In addition, the applicant shall notify the landowner in writing, with copies to the Tribes, County, and SMUD, that these ESAs are recommended to be preserved in place in perpetuity; the applicant proposes to do so without additional consultation with said entities. The intent of these notifications is to help ensure that future unrelated project proponents are alerted to the presence of restricted areas. • <u>Monitoring Report</u>. At the conclusion of monitoring activities, the project Archaeologist shall submit to the County a Monitoring Report for the project, which incorporates all previously unknown discoveries and presents the methods and results of all monitoring activities. The draft report shall be submitted to the County within 18 months of the completion of all project construction. Tribal monitors shall be invited to review or contribute to the report. For funerary objects and human remains, only sketches of materials shall be documented with DPR forms; no photography is permitted. • <u>Ethnography Deliverable Phase 2</u>. The ethnography may be prepared in both confidential and public-facing versions, shall be subject to review by consulting tribes in draft form, and approved by the County prior to dissemination to appropriate repositories. The draft report shall be submitted to the County within 24 months of the completion of all project construction. The approval of the	

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		final report by the County will deem the implementation of the deliverables complete.	
Chapter 15, Wildfire			
Impact WF-1: Substantially Impair an Adopted Emergency Response Plan or Emergency Evacuation Plan	LTS	No mitigation is required.	LTS
Impact WF-2: Exacerbate Wildfire Risk	PS	<i>WF-2a. Demonstrate Compliance with the California Fire Code, California Building Code, and SB 38 Requirements, and Manage Vegetation On-site.</i> Prior to the approval of project designs and issuance of grading permits, the applicant shall demonstrate compliance with California Fire Code requirements, California Building Code requirements, and SB 38, including those related to the design of solar panels and associated electrical components; defensible space requirements (100 feet from each side of a structure, but not beyond the property line per PRC Section 4291); clearance around electrical equipment; keeping portable fire-fighting equipment on-site; and storing water for emergency use. The applicant shall further demonstrate that ignition-resistant building materials have been incorporated into project designs consistent with the California Building Code. The applicant shall keep grasses and weeds on the undeveloped portion of the project site to a height of six inches or less after the grazing season, and throughout the dry season months, between May and November, to manage grass height and fuel load on-site.	LTSM
	PS	<i>WF-2b. Fire Hazard Reduction Measures for Temporary Wood Chip Stockpiling.</i> To minimize the risk of fire hazards associated with the temporary stockpiling of wood chips on-site, the following management and safety practices shall be applied to the project: • Select stockpile locations that are at least 100 feet away from structures, vegetation, and other combustible materials and ensure	LTSM

Impacts	Level of Significance Before Mitigation	Mitigation Measure	Level of Significance After Mitigation
		these locations are accessible for fire suppression equipment and personnel. • Establish and maintain firebreaks around stockpile areas by clearing vegetation and other combustible materials and create 30-foot buffer zones around stockpiles to act as a barrier against fire spread. • Conduct regular inspections of stockpile sites to identify and mitigate potential fire hazards. • Spread and distribute wood chips in the intended areas of the site as soon as possible, in order to reduce the time that the materials are temporarily stockpiled on-site.	

Notes: LTS= less than significant, LTSM= less than significant with mitigation, NI= no impact, PS= potentially significant, S=Significant, SU = Significant and Unavoidable

MITIGATION MONITORING AND REPORTING PROGRAM

It shall be the responsibility of the project applicant to comply with the Mitigation Monitoring and Reporting Program (MMRP) for this project and to reimburse the County for all expenses incurred in the implementation of the MMRP, including any necessary enforcement actions. The project applicant shall pay an initial deposit of \$15,000.00. This deposit includes administrative costs of \$1,097.00, which must be paid to the County of Sacramento Planning and Environmental Review prior to recordation of the MMRP and prior to recordation of any final parcel or subdivision map. The remaining balance will be due prior to review of any plans by the Environmental Coordinator or issuance of any building, grading, work authorization, occupancy or other project-related permits. Over the course of the project, the County of Sacramento Planning and Environmental Review will regularly conduct cost accountings and submit invoices to the Project Applicant when the County monitoring costs exceed the initial deposit.

TERMINOLOGY USED IN THIS EIR

This EIR uses the following terminology to describe environmental effects of the project.

Significance Criteria. A set of criteria used by the lead agency to determine at what level, or “threshold,” an impact would be considered significant. Significance criteria used in this EIR include those that are set forth in the CEQA Guidelines, or can be discerned from the CEQA Guidelines; criteria based on factual or scientific information; criteria based on regulatory standards of local, State, and federal agencies; and criteria based on goals and policies identified in the Sacramento County General Plan.

Less-than-Significant Impact. A project impact is considered less than significant when it does not reach the standard of significance and would, therefore, cause no substantial change in the environment. No mitigation is required for less-than-significant impacts.

Potentially Significant Impact. A potentially significant impact is a substantial, or potentially substantial, adverse change in the environment. Physical conditions that exist within the area could be directly or indirectly affected by the project. Impacts may also be short-term or long-term. A project impact is considered significant if it reaches the threshold of significance identified in the EIR. Mitigation measures may reduce a potentially significant impact to less than significant.

Significant Unavoidable Impact. A project impact is considered significant and unavoidable if it is significant and cannot be avoided or mitigated to a less-than-significant level once the project is implemented.

Cumulative Significant Impact. A cumulative impact can result when a change in the environment results from the incremental impact of a project when added to other related

past, present or reasonably foreseeable future projects. Significant cumulative impacts may result from individually minor but collectively significant effects.

Mitigation. Mitigation measures are revisions to the project that would minimize, avoid, or reduce a significant effect on the environment. CEQA Guidelines Section 15370 identifies the following five types of mitigation:

- Avoiding the impact altogether by not taking a certain action or parts of an action.
- Minimizing impacts by limiting the degree or magnitude of the action and its implementation.
- Rectifying the impact by repairing, rehabilitating, or restoring the impacted environment.
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- Compensating for the impact by replacing or providing substitute resources or environments.