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**GAVIN NEWSOM, Governor**  
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Governor's Office of Planning & Research

**July 31 2023**

July 28, 2023

## STATE CLEARINGHOUSE

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**Subject: Chalan Solar and Storage Project, by Chalan CA Solar and Storage LLC  
(Project)  
Draft Environmental Impact Report (DEIR)  
State Clearinghouse No. 2021100003**

Dear Janice Mayes:

The California Department of Fish and Wildlife (CDFW) received a Draft Environmental Impact Report (DEIR) from the Kern County Planning and Natural Resources Department (Kern County), as Lead Agency, for the Chalan Solar and Storage Project, by Chalan CA Solar and Storage, LLC (Project) Project pursuant to the California Environmental Quality Act (CEQA) and CEQA Guidelines.<sup>1</sup>

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, CDFW appreciates the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

### **CDFW ROLE**

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

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

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CDFW is also submitting comments as a **Responsible Agency** under CEQA (Public Resources Code, § 21069; CEQA Guidelines, § 15381). CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish and Game Code, § 1600 et seq.). Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish and Game Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code will be required.

**Fully Protected Species:** CDFW has jurisdiction over fully protected species of birds, mammals, amphibians and reptiles, and fish, pursuant to Fish and Game Code sections 3511, 4700, 5050, and 5515. Take of any fully protected species was previously prohibited and CDFW was not able to authorize their incidental take. Senate Bill No. 147, which became effective on July 1, 2023, amended Fish and Game Code sections 3511, 4700, 5050, and 5515 to authorize CDFW to issue a permit under CESA that authorizes the take of a fully protected species resulting from impacts attributable to the implementation of specified projects, which includes industrial solar photovoltaic projects, if certain conditions are satisfied.

**Nesting Birds:** CDFW has jurisdiction over actions with potential to result in the disturbance or destruction of active nest sites or the unauthorized take of birds. Fish and Game Code sections that protect birds, their eggs and nests include, sections 3503 (regarding unlawful take, possession or needless destruction of the nest or eggs of any bird), 3503.5 (regarding the take, possession or destruction of any birds-of-prey or their nests or eggs), and 3513 (regarding unlawful take of any migratory nongame bird).

**Unlisted Species:** Species of plants and animals need not be officially listed as Endangered, Rare, or Threatened (E, R, or T) on any State or federal list pursuant to CESA and/or the federal Endangered Species Act (ESA) to be considered E, R, or T under CEQA. If a species can be shown to meet the criteria for a listing as E, R, or T under CESA and/or ESA as specified in the CEQA Guidelines (California Code of Regulations, tit. 14, Chapter 3, § 15380), it should be fully considered in the environmental analysis for the Project.

As a responsible agency, CDFW is responsible for providing, as available, biological expertise during public agency environmental review efforts (e.g., CEQA), focusing specifically on project activities that have the potential to adversely affect fish and wildlife resources. CDFW provides recommendations to identify potential impacts and possible measures to avoid or reduce those impacts.

## **PROJECT DESCRIPTION SUMMARY**

**Proponent:** Chalan CA Solar and Storage LLC

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**Objective:** The proposed Project would construct and operate a photovoltaic (PV) solar facility and associated infrastructure necessary to generate up to 65 megawatts (MW) of renewable electric energy with the ability to store up to 25 MW in battery energy storage systems (BESS), on approximately 618 acres of privately owned land. The proposed Project would include service roads, a power collection system, inverter stations, transformer systems, transmission lines, electrical switchyards, a Project substation, and an energy (battery) storage system. The Project would also be supported by a 230-kilovolt (kV) gen-tie overhead and/or underground electrical transmission line originating from the Project substation and terminating at the PG&E Arco Substation.

**Location:** The Project is located within Section 3 of Township 25 South, Range 19 East, Mount Diablo Base and Meridian (MDB&M), in the northwest portion of unincorporated Kern County along the northern border of Kern County and the southern border of Kings County in the Central San Joaquin Valley. The Project is approximately four miles east of Baker Road and Highway 33, approximately two miles west of King Road, and approximately seven miles west of Interstate 5 (I-5). The nearest public roadway is King Road and 25<sup>th</sup> Avenue, located approximately two miles to the east of the Project site.

**Timeframe:** Unspecified

## COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist Kern County in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct, and indirect impacts on fish and wildlife (biological) resources. Editorial comments or other suggestions may also be included to improve the CEQA document.

Aerial imagery of the Project boundary and its surroundings show the area contains annual grassland, disced agricultural lands, and developed access roads that may have suitable habitat for special status species. Based on a review of the Project description, a review of California Natural Diversity Database (CNDDDB) records, and the surrounding habitat, several special status species could potentially be impacted by Project activities.

Currently, the DEIR acknowledges that the Project area is within the geographic range of several special-status animal species and proposes specific mitigation measures to reduce impacts to less than significant. CDFW has concerns about the ability of some the proposed mitigation measures to reduce impacts to less than significant and avoid unauthorized take for several special status animal species, including the State and federally endangered giant kangaroo rat (*Dipodomys ingens*); the State threatened and federally endangered San Joaquin kit fox (*Vulpes macrotis mutica*); the State threatened San Joaquin antelope squirrel (*Ammospermophilus nelsoni*) and Swainson's hawk (*Buteo swainsoni*); the State and federally endangered and State fully protected

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blunt-nosed leopard lizard (*Gambelia sila*); the State candidate-listed as endangered Crotch bumble bee (*Bombus crotchii*); and the State species of special concern short-nosed kangaroo rat (*Dipodomys nitratoides brevinasus*), burrowing owl (*Athene unicularia*), and San Joaquin coachwhip (*Masticophis flagellum ruddocki*).

CDFW also has concerns about the ability of the some of the proposed mitigation measures to reduce impacts to less than significant and avoid unauthorized take for several special-status plant species including the State and federally endangered and California rare plant rank (CRPR) 1B.1 California jewelflower (*Caulanthus californicus*); the CRPR 1.2 Lost Hills crownscale (*Atriplex coronata var. vallicola*); and the federally endangered and CRPR 1B.2 San Joaquin woollythreads (*Monolopia congdonii*). Finally, CDFW is concerned with potential impacts to migratory and non-migratory nesting birds.

### **Giant Kangaroo Rat and Short-nosed Kangaroo Rat**

As mentioned previously in CDFW's November 5, 2021, Notice of Preparation (NOP) comment letter to this Project, there is a high likelihood that giant kangaroo rat (GKR) and short-nosed kangaroo rat (SNKR) are present within the Project Area, and the DEIR noted that focused surveys did not occur. The DEIR states that focused surveys did not occur as the potential for these species is low and the closest CNDDDB occurrences to the Project site are approximately three miles away. The DEIR also described the habitat as poor quality due to discing and a lack of food. CDFW does not concur that the habitat is poor quality. As described in the DEIR, there are portions of the project site, including a small hillside in the northwestern portion of the Project site and along access roads and transmission lines, that may provide habitat for the species. Additionally, the disced habitat located within the Project site is likely to improve in quality over the life of the Project, increasing the likelihood that GKR and SNKR would be able to occupy the majority of the site.

Please note that the CNDDDB is populated by and records voluntary submissions of species detections. As a result, species may be present in locations not depicted in the CNDDDB but where there is suitable habitat and features capable of supporting species. A lack of an occurrence record in the CNDDDB does not mean a species is not present. In order to adequately assess any potential Project-related impacts to biological resources, surveys conducted by a qualified biologist/botanist during the appropriate survey period(s) and using the appropriate protocol survey methodology are warranted in order to determine whether or not any special status species are present at or near the Project area. CDFW is aware of recent GKR occurrences directly adjacent to the Project site and while these occurrences have yet to be documented within CNDDDB, they are accurate and have been verified, further justifying the need to perform focused surveys for these species.

As there is a reasonable likelihood of GKR and SNKR occurrences within the Project site and this likelihood may continue to increase over the life of the Project, and the

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DEIR did not conduct focused surveys or provide mitigation measures specific to the species, CDFW reiterates the recommendation of consultation with CDFW to discuss GKR and SNKR. CDFW also recommends the following:

**Recommended Mitigation Measure 1: GKR and SNKR surveys**

CDFW recommends a qualified biologist conduct focused trapping surveys for GKR and SNKR prior to any ground disturbing activities. Prior to conducting these surveys, CDFW recommends that a trapping plan for determining presence of GKR and SNKR be submitted to and approved by CDFW.

**Recommended Mitigation Measure 2: GKR and SNKR Avoidance Buffer**

If trapping is not feasible, CDFW recommends implementing a 50-foot minimum no-disturbance buffer around all small mammal burrow entrances. Although these recommended buffer distances may be sufficient to avoid direct mortality or burrow destruction, encircling a burrow with development activities may inhibit the ability of GKR and SNKR to freely disperse to and from burrows and has the potential to be considered “capture” and/or ultimately result in take in the form of mortality. Therefore, CDFW recommends that in addition to the buffer distances, that no burrow is surrounded more than 180 degrees by development activities.

**Recommended Mitigation Measure 3: GKR Take Authorization**

As GKR have recently been documented within the Project vicinity, there is suitable habitat located within the Project site, and there is a high likelihood that GKR are utilizing the Project site, CDFW recommends acquiring an ITP prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081 subdivision (b).

**San Joaquin Kit Fox**

The DEIR notes that there is suitable habitat for San Joaquin kit fox (SJKF) within portions of the Project site, including a small hillside in the northwestern portion of the Project site and along access roads and transmission lines. Additionally, there is a historical record of SJKF approximately two miles from the Project site and SJKF may be attracted to Project areas due to the type and level of ground disturbing activities and the loose, friable soils resulting from intensive ground disturbance. It is also anticipated that the suitability of the habitat within the Project site will increase for SJKF over the life of the Project once the current regime of discing is discontinued.

Mitigation Measure 4.4-3(l) states that, “To enable kit foxes and other wildlife (e.g., American badger) to pass through the Project site after construction, the security fence, and any permanent interior fencing shall be a wildlife friendly design that meets the goals of allowing wildlife to move freely through the Project site during operation,

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leaving 4- to 7-inch openings or portals in the fence or the fence shall be raised 7 inches above the ground leaving a gap between the fence mesh and the ground. In the latter case the bottom of the fence fabric shall be knuckled (wrapped back to form a smooth edge) to protect wildlife that passes under the fence. Perimeter fencing shall not be electrified.” CDFW agrees with the recommendation for wildlife friendly fencing to be installed and recommends the fencing be installed as specified below:

#### **Recommended Mitigation Measure 4: Perimeter Fences**

CDFW recommends all perimeter fencing be raised four to six inches above ground level and knuckled under to allow SJKF movement through Project site and minimize impacts to SJKF habitat connectivity. In addition, CDFW does not recommend the use of portals in the fence as a wildlife friendly design and recommends that the perimeter fence design achieve a minimum of 80% permeability by raising the fence 4- to 6-inches above the ground.

Mitigation Measure 4.4-4 states that, “Preconstruction surveys shall be conducted by a qualified biologist for the presence of American badger or San Joaquin kit fox dens no less than 14 days and no more than 30 days prior to beginning of ground and/or vegetation disturbing activities. The surveys shall be conducted in the Project site for American badger and San Joaquin kit fox. Surveys need not be conducted for all areas of suitable habitat at one time; they may be phased so that surveys occur no less than 14 days and no more than 30 days prior to that portion of the Project site disturbed. If potential dens are observed and avoidance is feasible, the following buffer distances shall be established prior to construction activities:

- a. San Joaquin kit fox or American badger potential den: 50 feet.
- b. San Joaquin kit fox or American badger active den: 100 feet.
- c. San Joaquin kit fox or American badger natal den: 500 feet.”

As it is likely that SJKF are utilizing the Project site, CDFW agrees that preconstruction presence/absence surveys be conducted and recommends the surveys follow the USFWS’ “Standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance” (2011). Specifically, CDFW advises conducting these surveys in all areas of potentially suitable habitat within Project areas and a 500-foot buffer of Project areas. While these surveys will identify if there are SJKF dens on site, a lack of den detection does not mean that SJKF are not foraging and otherwise utilizing the site or will utilize the site over the life of the Project. As such, CDFW also recommends the following:

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### **Recommended Mitigation Measure 5: SJKF Take Authorization**

As there is a high likelihood that SJKF occupy the Project site and/or will be attracted to the site during construction, CDFW recommends acquiring an ITP prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081 subdivision (b).

### **San Joaquin [Nelson's] Antelope Squirrel**

The DEIR notes that one potential San Joaquin [Nelson's] antelope squirrel (SJAS) individual was incidentally observed within the Project site along the main access road during July 2021 surveys. Additionally, multiple historical occurrences of SJAS have been documented within five miles of the Project site (CDFW 2023a). Mitigation Measure 4.4-7 states that, "Preconstruction surveys for Nelson's antelope squirrel shall be conducted within the Project boundaries by the Lead Biologist or approved biological monitor within 14 days of the start of any vegetation clearing or grading activities. If potential Nelson's antelope squirrel burrows or signs are observed, consultation with CDFW would occur to discuss how to avoid take or how to acquire state ITP, pursuant to Fish and Game Code section 2081, prior to ground disturbing activities." CDFW agrees with the measure for preconstruction surveys prior to any ground disturbance activities; however, as a potential SJAS was observed during 2021 surveys and there is a high likelihood that SJAS would utilize the Project site over the life of the Project, CDFW recommends the following:

### **Recommended Mitigation Measure 6: SJAS Take Authorization**

As there is a high likelihood that SJAS occupy the Project site, CDFW recommends acquiring an ITP prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081 subdivision (b).

### **Swainson's Hawk**

The DEIR noted that focused raptor surveys were conducted within the Project site and a five-mile buffer surrounding the Project site in 2021. The surveys documented multiple Swainson's hawk (SWHA) individuals during these surveys. Mitigation Measure 4.4-6 states that, "The raptor survey shall focus on potential nest sites (e.g., cliffs, large trees, windrows) within a 0.5-mile buffer around the Project site. Swainson's hawk nest survey shall focus on potential nest sites (e.g., cliffs, large trees, windrows) within a 0.5-mile buffer around the Project site and follow the 2000 Swainson's hawk protocol surveys (Swainson's Hawk Technical Advisory Committee, 2000)." CDFW agrees with this measure that surveys should be conducted for nesting SWHA following the entire survey methodology developed by the SWHA Technical Advisory Committee (SWHA TAC 2000) during the nesting season.

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Mitigation Measure 4.4-6 also provides details on active SWHA nest avoidance and states that, "For non-listed species, encroachment into the avoidance buffer may occur at the discretion of a qualified biologist; however, for State-listed species, consultation with CDFW shall occur prior to encroachment into the aforementioned buffers." If an active SWHA nest is documented within 0.5 mile of the Project site and a minimum no disturbance buffer of 0.5 mile cannot be maintained around active nests until the breeding season has ended, CDFW recommends the following:

#### **Recommended Mitigation Measure 7: SWHA Take Authorization**

In the event an active SWHA nest is detected, and a 0.5-mile no-disturbance buffer is not feasible, consultation with CDFW is warranted to discuss how to implement the Project and avoid take. If take cannot be avoided, take authorization through the issuance of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA.

Finally, as the Project site contains suitable habitat for SWHA foraging, which will be permanently impacted as a result of the project, CDFW recommends the following:

#### **Recommended Mitigation Measure 8: Loss of SWHA Foraging Habitat**

CDFW recommends compensation for the loss of SWHA foraging habitat as described in CDFW's "Staff Report Regarding Mitigation for Impacts to Swainson's Hawks" (CDFG 1994) to reduce impacts to foraging habitat to less than significant. The Staff Report recommends that mitigation for habitat loss occur within a minimum distance of 10 miles from known nest sites. CDFW has the following recommendations based on the Staff Report:

- For projects within 1 mile of an active nest tree, a minimum of 1 acre of habitat management (HM) land for each acre of development is advised.
- For projects within 5 miles of an active nest but greater than 1 mile, a minimum of  $\frac{3}{4}$  acre of HM land for each acre of development is advised.
- For projects within 10 miles of an active nest tree but greater than 5 miles from an active nest tree, a minimum of  $\frac{1}{2}$  acre of HM land for each acre of development is advised.

#### **Blunt-nosed Leopard Lizard**

The DEIR notes that the Project site only contained approximately 3.2 acres of suitable blunt-nosed leopard lizard (BNLL) habitat located on the small hillside in the northwestern portion of the Project site and along access roads and transmission lines within the Project boundary. Protocol BNLL surveys were conducted within these areas



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in 2021 and 2022. Mitigation Measure 4.4-10 details the requirement for preconstruction surveys and states, "Protocol level surveys for the BNLL shall be conducted by a qualified biologist at the Project site from April to July, in suitable habitat that will be disturbed by construction, to determine the potential for occupancy by BNLL." CDFW does not recognize this survey methodology as sufficient for the detection of BNLL. As there are many historical occurrences of BNLL located within the Project vicinity, including an occurrence from 1996 that directly overlaps with the Project site (CDFW 2023a), and surveys were last conducted during fall of 2022, CDFW recommends the following prior to construction:

### **Recommended Mitigation Measure 9: BNLL Survey Prior to Construction**

CDFW strongly recommends that a qualified biologist conduct focused protocol surveys in accordance with the "Approved Survey Methodology for the Blunt-nosed Leopard Lizard" (CDFW 2019) the survey season immediately prior to construction. It should be noted that the approved methodology for Projects with construction activities that remove suitable habitat requires surveys during the adult optimal survey period (April 15<sup>th</sup> to July 31<sup>st</sup>) and the hatchling optimal survey period between August 15<sup>th</sup> and September 30<sup>th</sup> (CDFW 2019). To satisfy the protocol, surveys would need to be conducted during this time. CDFW also recommends that these surveys occur within the entirety of the 618-acre Project boundary, and not just the 3.2 acres of potentially suitable habitat identified during 2021 and 2022 surveys.

Mitigation Measure 4.4-10 also states that, "Project actions in areas where BNLL are located shall be restricted to the species active period (April to early November) to ensure that no aestivating BNLL in burrows are impacted while in their burrows. In conjunction with CDFW or other involved agencies, sensitive areas shall be established and protected with appropriate signage." CDFW does recognize that restricting work within occupied BNLL habitat to the species active period would be sufficient to prevent take. To avoid take, construction and operations activities would have to avoid all observed lizards and potential occupied burrows by a distance of no less than the distance that BNLL are known or expected to travel within their home range, based on telemetry, mark-recapture, or other data, and regardless of the time of year. For complete avoidance within BNLL occupied habitat, CDFW recommends the following:

### **Recommended Mitigation Measure 10: BNLL Avoidance Buffer**

CDFW recommends that any BNLL detection, known or potentially occupied burrows, or egg clutch sites have a minimum 395-acre buffer. This buffer is based on unpublished data from Dr. David Germano documenting that "male BNLL have home ranges up to 52 acres and that female BNLL have home ranges exceeding 98 acres, the known maximum home range sizes observed for the species, the unknown specific footprint of the individual BNLL's home range relative to where the

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lizard was observed on the surface, and the unknown location of the lizard underground when construction commences.”

Given the size of the buffer recommendation outlined above relative to the overall size of the proposed Project, the lack of protocol surveys over the entirety of the project site, and the numerous historical records of BNLL, CDFW strongly recommends the project seek take coverage for impacts to BNLL under CESA and recommends the following measure be included in the FEIR:

### **Recommended Mitigation Measure 11: BNLL Take Authorization**

With the passage of Senate Bill No. 147, the incidental take of BNLL may be authorized for certain categories of projects, including industrial solar photovoltaic projects. As such, CDFW strongly recommends that an ITP is acquired prior to any ground disturbing activities pursuant to Fish and Game Code section 2081 subdivision (b).

Mitigation Measure 4.4-10 continues with the proposal to establish and maintain “50 foot no-work buffers around burrows and egg clutch sites identified during surveys. The 50-foot no-work buffers will be established around burrows in a manner that allows for a connection between the burrow site and the suitable natural habitat adjacent to the Construction Footprint so that blunt-nosed leopard lizards and/ or hatchlings may leave the area after eggs have hatched. Construction activities will not occur within the 50-foot no-work buffers until such time as the eggs have hatched and blunt-nosed leopard lizards have left the area.” The measure mentions these buffers would be installed during the active period when BNLL are moving above ground. CDFW does not recognize the 50-foot no work buffer distance as appropriate for protection of the species and to avoid take. As mentioned above, CDFW recommends that a BNLL detection, known burrows, or egg clutch sites have a minimum 395-acre buffer or that the project should obtain an ITP pursuant to Fish and Game Code section 2081 (b).

Finally, Mitigation Measure 4.4-10 concludes by stating that wildlife exclusion fence (WEF) will be installed “during the active season in areas where BNLL or signs of BNLL have been observed” and “the Project biologist will confirm that no blunt-nosed leopard lizard are present within a Work Area by conducting focused blunt-nosed leopard lizard observational surveys for 12 days over the course of a 30 to 60-day period. At least one survey session will occur over 4 consecutive days. These observational surveys may be paired with scent detection dog surveys for blunt-nosed leopard lizard scat.” As mentioned above, any BNLL detection, known burrows, or egg clutch that is not completely avoided by a distance of no less than the distance that BNLL are known or expected to travel within their home range, which should be conservatively estimated with a 395-acre buffer, may result in take. BNLL are often difficult to detect as activity patterns can vary considerably daily and seasonally (Tollestrup 1976) and there is the potential that the installation and implementation of WEF within areas where BNLL and

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BNLL sign have been observed would result in take. As such, CDFW reiterates the recommendation above for consultation with CDFW if WEF is anticipated to be installed in areas where BNLL or signs of BNLL have been observed.

### **Crotch Bumble Bee**

The DEIR notes that Crotch bumble bee (CBB) have a low potential and Mitigation Measure 4.4-3 was provided to mitigate potential impacts. Mitigation Measure 4.4-3 (m) states that, "Areas within the Project site containing one or more of the following habitat requisites shall be surveyed by a qualified biologist between March 1 and June 30: flowering vegetation, potential preferred nectar plants, small mammal burrows, bunch grasses, thatch, brush piles, old bird nests, or dead trees. A minimum of two surveys shall be completed between the hours of 0800 and 1600 when temperatures are between 65°F and 90°F and will not be conducted during inclement weather conditions (e.g., foggy, raining, drizzling, or sustained winds greater than 8 mph). Surveyors will photograph potential Crotch Bumble Bees (CBB) from various angles to ensure recordation of key identifying characteristics. The survey results shall be submitted to the County within 30-days of completion of the surveys. All detection information collected during survey efforts will be submitted to the California Natural Diversity Data Base at <https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. Surveys will be valid for the duration of the current season lasting until the beginning of the next season (i.e., through March 1 the following year)." CDFW agrees with the need to conduct surveys for CBB within areas of suitable habitat and recommends the following:

#### **Recommended Mitigation Measure 12: CBB Surveys**

CDFW recommends that a qualified biologist conduct focused surveys for CBB, and their requisite habitat features during the blooming period immediately prior to Project implementation, following the methodology outlined in the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023b).

#### **Recommended Mitigation Measure 13: CBB Avoidance Buffer**

If surveys cannot be completed, CDFW recommends that all small mammal burrows and thatched/bunch grasses be avoided by a minimum of 50 feet to avoid take and potentially significant impacts. If ground-disturbing activities will occur during the overwintering period (October through February), consultation with CDFW is warranted to discuss how to implement Project activities and avoid take. Any detection of CBB prior to or during Project implementation warrants consultation with CDFW to discuss how to avoid take.

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#### **Recommended Mitigation Measure 14: CBB Take Authorization**

If CBB is identified during surveys, consultation with CDFW is warranted to determine if the Project can avoid take. If take cannot be avoided, take authorization prior to any ground disturbing activities may be warranted. Take authorization would occur through issuance of an ITP by CDFW, pursuant to Fish and Game Code section 2081(b).

#### **Burrowing Owl**

The DEIR notes that burrowing owl (BUOW) could potentially utilize the habitat within the Project site and Mitigation Measure 4.4-5 requires a qualified biologist to conduct pre-construction surveys following the survey guidelines in the “Staff Report on Burrowing Owl Mitigation” (CDFG 2012) and also provides buffer guidelines, which state, “If burrowing owls are detected onsite, no ground-disturbing activities shall be permitted within a buffer of no fewer than 100 meters (330 feet) from an active burrow during the breeding season (i.e., February 1 to August 31), unless otherwise authorized by CDFW. During the non-breeding (winter) season (i.e., September 1 to January 31), ground disturbing work can proceed as long as the work occurs no closer than 50 meters (165 feet) from the burrow. Depending on the level of disturbance, a smaller buffer may be established in consultation with CDFW.” CDFW does not recognize that these buffer distances would be sufficient to prevent the take of burrowing owls within occupied habitat. Human-related disturbances were documented to cause degradation and abandonment of active burrows at distances up to 500 meters (Scobie and Faminow 2000, Lehman et al. 1999). Mitigation Measure 4.4-5 also states that, “If burrow avoidance is infeasible during the non-breeding season or during the breeding season (February 1 through August 31) where resident owls have not yet begun egg laying or incubation, or where the juveniles are foraging independently and capable of independent survival, a qualified biologist shall implement a passive relocation program in accordance with Appendix E (i.e., Example Components for Burrowing Owl Artificial Burrow and Exclusion Plans) of the 2012 CDFW Staff Report on Burrowing Owl Mitigation.” CDFW does not recognize the method of passively relocating BUOW from active burrows during the breeding season as appropriate and recommends the following measures:

#### **Recommended Mitigation Measure 15: BUOW Avoidance Buffer**

Should a BUOW be detected, CDFW recommends that no-disturbance buffers, as outlined in the “Staff Report on Burrowing Owl Mitigation” (CDFG 2012), be implemented prior to and during any ground-disturbing activities. Specifically, CDFW’s Staff Report recommends that impacts to occupied burrows be avoided in accordance with the following table unless a qualified biologist approved by CDFW verifies through non-invasive methods that either: 1) the birds have not begun egg

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laying and incubation; or 2) that juveniles from the occupied burrows are foraging independently and are capable of independent survival.

Location	Time of Year	Level of Disturbance		
		Low	Med	High
Nesting sites	April 1-Aug 15	200 m*	500 m	500 m
Nesting sites	Aug 16-Oct 15	200 m	200 m	500 m
Nesting sites	Oct 16-Mar 31	50 m	100 m	500 m

\* meters (m)

### **Recommended Mitigation Measure 16: BUOW Passive Relocation and Mitigation**

If BUOW are found within these recommended buffers and avoidance is not possible, it is important to note that according to the Staff Report (CDFG 2012), excluding birds from burrows is not a take avoidance, minimization, or mitigation method and is instead considered a potentially significant impact under CEQA. However, if it is necessary for Project implementation, CDFW recommends that burrow exclusion be conducted by qualified biologists and only during the non-breeding season, by a qualified biologist, before breeding behavior is exhibited and after the burrow is confirmed empty through non-invasive methods, such as surveillance. CDFW recommends replacement of occupied burrows with artificial burrows at a ratio of one (1) burrow collapsed to one (1) artificial burrow constructed (1:1) to mitigate for evicting BUOW and the loss of burrows. BUOW may attempt to colonize or re-colonize an area that will be impacted; thus, CDFW recommends ongoing surveillance at a rate that is sufficient to detect BUOW if they return.

### **San Joaquin Coachwhip**

The DEIR did not include San Joaquin Coachwhip (Coachwhip) within the biological resources discussion. Coachwhip are known to occur within annual grassland, saltbush scrub, and mixed oak chaparral woodland habitats throughout the San Joaquin Valley and South Coast Ranges (Stebbins and McGinnis 2012). While the closest recorded CNDDDB occurrence of Coachwhip is located approximately nine miles southeast of the Project site, CDFW is aware of recent Coachwhip occurrences directly adjacent to the Project site, and suitable habitat is located within the Project footprint.

Mitigation Measure 4.4-4 states that, "Preconstruction surveys for special-status species shall be conducted within the Project boundaries by the Lead Biologist or approved biological monitor within 14 days of the start of any vegetation clearing or grading activities. Methodology for preconstruction surveys shall be appropriate for each potentially occurring species-status species and shall follow U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife preconstruction survey

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guidelines where appropriate.” CDFW recommends that Coachwhip be included as one of the species that is surveyed for prior to construction.

Mitigation Measure 4.4-4 continues by listing specific buffer distances for SJKF and American Badger (AMBA). There is no mention of buffer distances for other special-status species and their burrows that may be found during construction of the Project, such as Coachwhip. As such, CDFW recommends the following:

**Recommended Mitigation Measure 17: Special-status Species Avoidance Buffer**

CDFW recommends that a 50-foot no-disturbance buffer is implemented around the entrances of burrows that can provide refuge for special-status species, including San Joaquin coachwhip.

**Special-status plants**

The DEIR notes that during the general biological survey conducted in March 2021, rare plant surveys were conducted in accordance with the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Population and Sensitive Natural Communities (CDFW 2018). However, this does not appear to be a valid statement as only one visit was made to survey for rare plants. It should be noted that this protocol generally necessitates multiple site visits within a survey season. While no mitigation measures for rare plants are explicitly stated within the DEIR, Mitigation Measure 4.4-4 states that, “Preconstruction surveys for special-status species shall be conducted within the Project boundaries by the Lead Biologist or approved biological monitor no less than 14 days and no more than 30 days prior to beginning of the start of any vegetation clearing or grading activities. Methodology for preconstruction surveys shall be appropriate for each potentially occurring species-status species and shall follow U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife preconstruction survey guidelines where appropriate.” This measure seems to necessitate surveys for rare plants prior to construction; however, the timing aspect may not be appropriate. As the general surveys only documented one site visit to survey for rare plants, and the timing for surveys outlined in Mitigation Measure 4.4-4 may not be appropriate to detect special-status plants species, CDFW recommends the following:

**Recommended Mitigation Measure 18: Special-status Plant Focused Surveys**

CDFW recommends that the Project area be surveyed for special-status plants by a qualified botanist following the “Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities” (CDFW 2018), which includes multiple site visits over the survey season to maximize the detection of rare plants. This protocol, which is intended to maximize detectability, includes identification of reference populations to facilitate the likelihood of field investigations occurring during the appropriate floristic period.

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### **Recommended Mitigation Measure 19: Special-status Plant Avoidance**

CDFW recommends special-status plant species be avoided whenever possible by delineating and observing a no-disturbance buffer of at least 50 feet from the outer edge of the plant population(s) or specific habitat type(s) required by special-status plant species. If buffers cannot be maintained, then consultation with CDFW is warranted to determine appropriate minimization and mitigation measures for impacts to special-status plant species.

### **Recommended Mitigation Measure 20: Special-status Plant Take Authorization**

If a State-listed or State rare plant is identified during botanical surveys, consultation with CDFW is warranted to determine if the Project can avoid take. If take cannot be avoided, acquisition of an ITP or a Native Plant Protection Act Incidental Take Permit issued by CDFW Pursuant to Fish and Game Code section 2081 subdivision (b) and/or section 1900 et seq is necessary to comply with CESA and the Native Plant Protection Act.

### **Nesting Birds**

Mitigation Measure 4.4-6 states that, "If construction is scheduled to commence during the non-nesting season (i.e., September 1 to January 31), no preconstruction surveys or additional measures are required. To avoid impacts to nesting birds in the Project area, a qualified wildlife biologist shall conduct preconstruction surveys of all potential nesting habitat within the Project site for construction activities that are initiated during the breeding season (i.e., February 1 to August 31). The raptor survey shall focus on potential nest sites (e.g., cliffs, large trees, windrows) within a 0.5-mile buffer around the Project site." Mitigation Measure 4.4-6 continues by stating, "Surveys shall be conducted no more than 14 days prior to construction activities. Surveys need not be conducted for the entire Project site at one time; they may be phased so that surveys occur shortly before a portion of the Project site is disturbed. The surveying biologist must be qualified to determine the status and stage of nesting by migratory birds and all locally breeding raptor species without causing intrusive disturbance. If active nests are found, a suitable no disturbance buffer (e.g., 200–300 feet for common raptors; 0.5 mile for Swainson's hawk; 30–50 feet for passerine species) shall be established around active nests until a qualified biologist has determined that the nest is no longer active (e.g., the nestlings have fledged and are no longer reliant on the nest). For non-listed species, encroachment into the avoidance buffer may occur at the discretion of a qualified biologist; however, for State-listed species, consultation with CDFW shall occur prior to encroachment into the aforementioned buffers." CDFW does not recognize the buffer distances as appropriate for protection of the species and therefore does not concur with the mitigation measure as proposed and recommends the following:

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### **Recommended Mitigation Measure 21: Nesting Bird Surveys Prior to Construction**

If ground-disturbing activities occur during the nesting bird season (February 1 – September 15), CDFW recommends that a qualified biologist conduct pre-activity surveys for active nests no more than one week prior to the start of ground disturbance to maximize the probability that nests that could potentially be impacted are detected. CDFW also recommends that surveys cover a sufficient area around the work site to identify nests and determine their status. A sufficient area means any area potentially affected by a project. In addition to direct impacts (i.e., nest destruction), noise, vibration, odors, and movement of workers or equipment could also affect nests. Prior to initiation of construction activities, CDFW recommends a qualified biologist conduct a survey to establish a behavioral baseline of all identified nests.

### **Recommended Mitigation Measure 22: Nesting Bird Monitoring and/or Avoidance Buffer**

Once construction begins, CDFW recommends a qualified biologist continuously monitor nests to detect behavioral changes resulting from the Project. If behavioral changes occur, CDFW recommends the work causing that change cease and that CDFW be consulted for additional avoidance and minimization measures. If continuous monitoring of identified nests by a qualified biologist is not feasible, CDFW recommends a minimum no-disturbance buffer of 250 feet around active nests of non-listed bird species and a 500-foot no-disturbance buffer around active nests of non-listed raptors. These buffers are advised to remain in place until the breeding season has ended or until a qualified biologist has determined that the birds have fledged and are no longer reliant upon the nest or parental care for survival. Variance from these no-disturbance buffers is possible when there is a compelling biological or ecological reason to do so, such as when the construction area would be concealed from a nest site by topography. CDFW recommends that a qualified biologist advise and support any variance from these buffers and notify CDFW in advance of implementing a variance.

### **Editorial Comments and/or Suggestions**

**Federally Listed Species:** CDFW recommends consulting with USFWS regarding potential impacts to federally listed species including but not limited to the giant kangaroo rat, San Joaquin kit fox, blunt-nosed leopard lizard, California jewelflower, and San Joaquin woollythreads. Take under the Federal Endangered Species Act (FESA) is more broadly defined than CESA; take under FESA also includes significant habitat modification or degradation that could result in death or injury to a listed species by interfering with essential behavioral patterns such as breeding, foraging, or nesting.



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Consultation with the USFWS in order to comply with FESA is advised well in advance of any Project activities.

**Project Alternatives Analysis:** CDFW recommends that the information and results obtained from the biological technical surveys, studies, and analysis conducted in support of the Project's CEQA document be used to develop and modify the Project's alternatives to avoid and minimize impacts to biological resources to the maximum extent possible. When efforts to avoid and minimize have been exhausted, remaining impacts to sensitive biological resources should be mitigated to reduce impacts to a less than significant level, if feasible.

**Cumulative Impacts:** Currently, the DEIR has a very broad analysis of cumulative impacts to biological resources and does not adequately evaluate impacts to specific resources. CDFW recommends that a cumulative impact analysis be conducted for all biological resources that will either be significantly or potentially significantly impacted by implementation of the Project, including those whose impacts are determined to be less than significant with mitigation incorporated or for those resources that are rare or in poor or declining health and will be impacted by the Project, even if those impacts are relatively small (i.e., less than significant). CDFW recommends cumulative impacts be analyzed for the following species using an acceptable methodology to evaluate the impacts of past, present, and reasonably foreseeable future projects on resources and be focused specifically on the resource, not the Project. An appropriate resource study area should be identified and mapped for each resource being analyzed and utilized for this analysis. CDFW recommends a scientifically sound cumulative impacts analysis be conducted and the DEIR be recirculated with this updated analysis for the following species: giant kangaroo rat, San Joaquin kit fox, San Joaquin antelope squirrel, Swainson's hawk, blunt-nosed leopard lizard, Crotch bumble bee, short-nosed kangaroo rat, San Joaquin coachwhip, burrowing owl, California jewelflower, Lost Hills crownscale, San Joaquin woollythreads, and nesting birds. CDFW staff is available for consultation in support of cumulative impacts analyses as a trustee and responsible agency under CEQA.

## **ENVIRONMENTAL DATA**

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database, which may be used to make subsequent or supplemental environmental determinations (Pub. Resources Code, § 21003, subd. (e)). Accordingly, please report any special-status species and natural communities detected during Project surveys to the CNDDDB. The CNDDDB field survey form can be found at the following link:

<https://www.wildlife.ca.gov/Data/CNDDDB/Submitting-Data>. The completed form can be mailed electronically to CNDDDB at the following email address: [CNDDDB@wildlife.ca.gov](mailto:CNDDDB@wildlife.ca.gov). The types of information reported to CNDDDB can be found at the following link: <https://www.wildlife.ca.gov/Data/CNDDDB/Plants-and-Animals>.

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## FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089).

## CONCLUSION

CDFW appreciates the opportunity to comment on the DEIR to assist Kern County Planning and Natural Resources in identifying and mitigating Project impacts on biological resources.

If you have any questions, please contact Jeremy Pohlman, Senior Environmental Scientist (Specialist), at the address provided on this letterhead, by telephone at (805) 588-5674 or by electronic mail at [Jeremy.pohlman@wildlife.ca.gov](mailto:Jeremy.pohlman@wildlife.ca.gov).

Sincerely,

DocuSigned by:  
*Bob Stafford*  
5343A684FF02469...

for Julie A. Vance  
Regional Manager

ec: Patricia Cole, United States Fish and Wildlife Service (USFWS)  
[Patricia\\_cole@fws.gov](mailto:Patricia_cole@fws.gov)

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**Attachment 1****MITIGATION MONITORING AND REPORTING PROGRAM (MMRP)  
FOR CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE  
RECOMMENDED MITIGATION MEASURES****PROJECT: Chalan Solar  
SCH No.: 2021100003**

<b>RECOMMENDED MITIGATION MEASURE</b>	<b>STATUS/DATE/INITIALS</b>
<i>Before Disturbing Soil or Vegetation</i>	
GKR and SNKR	
Recommended Mitigation Measure 1: GKR and SNKR Trapping Surveys	
Recommended Mitigation Measure 3: GKR Take Authorization	
SJKF	
Recommended Mitigation Measure 5: SJKF Take Authorization	
SJAS	
Recommended Mitigation Measure 6: SJAS Take Authorization	
SWHA	
Recommended Mitigation Measure 7: SWHA Take Authorization	
Recommended Mitigation Measure 8: Loss of SWHA Foraging Habitat	
BNLL	
Recommended Mitigation Measure 9: BNLL Survey Prior to Construction	
Recommended Mitigation Measure 11: BNLL Take Authorization	
CBB	
Recommended Mitigation Measure 12: CBB Surveys	
Recommended Mitigation Measure 14: CBB Take Authorization	
BUOW	
Recommended Mitigation Measure 16: BUOW Passive Relocation and Mitigation	
Special-status Plants	
Recommended Mitigation Measure 18: Special-status Plant Focused Surveys	
Recommended Mitigation Measure 20: Special-status Plant Take Authorization	
Nesting Birds	
Recommended Mitigation Measure 21: Nesting Bird Surveys Prior to Construction	

RECOMMENDED MITIGATION MEASURE	STATUS/DATE/INITIALS
<i>During Construction</i>	
GKR and SNKR	
Recommended Mitigation Measure 2: GKR and SNKR Avoidance Buffer	
SJKF	
Recommended Mitigation Measure 4: SJKF Perimeter Fences	
BNLL	
Recommended Mitigation Measure 10: BNLL Avoidance Buffer	
CBB	
Recommended Mitigation Measure 13: CBB Avoidance Buffer	
BUOW	
Recommended Mitigation Measure 15: BUOW Avoidance Buffer	
Coachwhip	
Recommended Mitigation Measure 17: Special-status Species Avoidance Buffer	
Special-status Plants	
Recommended Mitigation Measure 19: Special-status Plant Avoidance	
Nesting Birds	
Recommended Mitigation Measure 22: Nesting Bird Monitoring and/or Avoidance Buffer	