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June 1, 2021

Johnathan Jensen
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Subject: Sandrini Solar Project by EDPR CA Solar Park, LLC
Notice of Preparation (NOP)
State Clearinghouse No. 2021040761

Dear Mr. Jensen:

The California Department of Fish and Wildlife (CDFW) received a NOP for an Environmental Impact Report (EIR) from Kern County, as Lead Agency, for the Project pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1]

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 (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. 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.

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

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

proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority (Fish & G. 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 & G. Code, § 2050 et seq.), related authorization as provided by the Fish and Game Code will be required.

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.

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 is prohibited and CDFW cannot authorize their incidental take.

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).

PROJECT DESCRIPTION SUMMARY

Proponent: EDPR CA Solar Park, LLC

Objective: The Sandrini Solar Project (Project) as proposed by EDPR CA Solar Park, LLC (Project Proponent) would develop, construct, and operate a 300 megawatt (MW) alternating current (AC) solar photovoltaic facility and necessary associated infrastructure, including up to 100 MW of battery energy storage, on approximately 3,447.33 acres of privately-owned land. The Project site consists of four sites (Sites 1 through 4) located on 33 privately-owned parcels. The Project would be supported by both a 70 kilovolt (kV) and a 230 kV overhead and/or underground electrical transmission lines originating from two on-site Project collector substations and terminating at its interconnection point with Pacific Gas and Electric's (PG&E's) existing Wheeler Ridge Substation. The Wheeler Ridge Substation is located north of the project site near the City of Bakersfield. Both transmission lines will convey electricity back and forth between different phases of the Project and the larger electrical grid. In addition to the photovoltaic solar arrays and associated equipment as proposed, other permanent facilities would be installed as part of the Project including service access roads, a power collection system, communication cables, overhead and underground transmission lines, electrical switchyards, two collector substations, inverter stations, an

up to 100 MW battery energy storage system, and operations and maintenance (O&M) facilities.

Location: The proposed Project will be in the Valley Region of unincorporated Kern County on approximately 3,447.33 acres of undeveloped and agricultural land. The Project site is located adjacent to Interstate I-5, State Route SR-99, and SR-166 and is located northwest of the community of Mettler and southeast of the community of Kern Lake.

Timeframe: Unspecified

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the 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 Project area contains undeveloped land that may have suitable habitat for special status species. Based on a review of the Project description, a review of California Natural Diversity Database (CNDDB) records, and the surrounding habitat, several special-status species could potentially be impacted by Project activities.

The Project area is within the geographic range of several special-status animal species including the State and federally endangered and State fully protected blunt-nosed leopard lizard (*Gambelia sila*); the State and federally endangered Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*) and giant kangaroo rat (*Dipodomys ingens*); the State threatened and federally endangered San Joaquin kit fox (*Vulpes macrotis mutica*); the State threatened Swainson's hawk (*Buteo swainsoni*), tricolored blackbird (*Agelaius tricolor*), and San Joaquin (also known as Nelson's) antelope squirrel (*Ammospermophilus nelsoni*); the State Species of Special Concern short-nosed kangaroo rat (*Dipodomys nitratoides brevinasus*), American badger (*Taxidea taxus*), and burrowing owl (*Athene cunicularia*).

CDFW requests that the EIR fully identify potential impacts to biological resources, including the above-mentioned species. In order to adequately assess any potential impact to biological resources, focused biological surveys should be conducted by a qualified wildlife biologist/botanist during the appropriate survey period(s) in order to determine whether any special-status species and/or suitable habitat features may be present within the Project area. Properly conducted biological surveys, and the information assembled from them, are essential to identify any mitigation, minimization, and avoidance measures and/or the need for additional or protocol-level surveys, and to

identify any Project-related impacts under CESA and other species of concern. CDFW recommends that the following be incorporated into the EIR.

I. Environmental Setting and Related Impact

Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or the United States Fish and Wildlife Service (USFWS)?

COMMENT 1: Blunt-nosed Leopard Lizard (BNLL)

Issue: BNLL have been documented in the Project area (CDFW 2021). Suitable BNLL habitat includes areas of grassland and upland scrub that contain requisite habitat elements, such as small mammal burrows. BNLL also use open space patches between suitable habitats, including disturbed sites, unpaved access roadways, and canals. Review of aerial imagery indicates that the undeveloped portion of the Project area and its vicinity are comprised of these habitat features, making it potentially suitable for BNLL. Therefore, there is potential for BNLL to occupy or colonize the Project site.

Specific impact: Without appropriate avoidance and minimization measures for BNLL, potentially significant impacts associated with ground-disturbing activities include habitat loss, burrow collapse, reduced reproductive success, reduced health and vigor of eggs and/or young, and direct mortality.

Evidence impact is potentially significant: Habitat loss resulting from agricultural, urban, and industrial development is the primary threat to BNLL (ESRP 2020a). Little suitable habitat for BNLL remains in central Kern County (USFWS 1998). The Project and surrounding area contain undeveloped land; therefore, subsequent ground disturbing activities and conversion of suitable habitat associated with the Project may have the potential to significantly impact local BNLL populations.

Recommended Mitigation Measure 1: BNLL Surveys

CDFW recommends conducting surveys in accordance with the "Approved Survey Methodology for the Blunt-nosed Leopard Lizard" (CDFW 2019) prior to initiating any vegetation- or ground-disturbing activities. This survey protocol, designed to optimize BNLL detectability, reasonably assures CDFW that ground disturbance will not result in take of this fully protected species.

CDFW advises that BNLL surveys be completed no more than one year prior to initiation of ground disturbance. Please note that protocol-level surveys must be conducted on multiple dates during late spring, summer, and fall of the same calendar year, and that within these time periods, there are specific protocol-level

date, temperature, and time parameters that must be adhered to. As a result, protocol-level surveys for BNLL are not synonymous with 30-day "preconstruction surveys" often recommended for other wildlife species. In addition, the BNLL protocol specifies different survey effort requirements based on whether the disturbance results from maintenance activities or if the disturbance results in habitat removal (CDFW 2019).

Recommended Mitigation Measure 2: BNLL Take Avoidance

BNLL detection during protocol-level surveys warrants consultation with CDFW to discuss how to implement vegetation- and ground-disturbing activities and avoid take. Because BNLL is a State Fully Protected species, no take incidental or otherwise, can be authorized by CDFW.

COMMENT 2: San Joaquin Kit Fox (SJKF)

Issue: Review of aerial imagery indicates that portions of the Project area and its vicinity are comprised of annual grassland, a habitat type suitable to support SJKF. In addition, SJKF are known to occur in the Project area, both in grassland and/or shrubland habitats, as well as adjacent agricultural areas. SJKF also den in a variety of areas such as rights-of-way (ROWs), vacant lots, agricultural and fallow or ruderal habitat, dry stream channels, and canal levees, and populations can fluctuate over time. SJKF are also capable of occupying urban environments (Cypher and Frost 1999). 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. SJKF will forage in fallow and agricultural fields and utilize streams and canals as dispersal corridors. As a result, the entire Project area and surrounding area should be considered as known SJKF habitat.

Specific impact: Without appropriate avoidance and minimization measures for SJKF, potential significant impacts associated with Project related activities include, den collapse, inadvertent entrapment, reduced reproductive success, reduction in health and vigor of young, removal of occupied habitat, impacts to regional SJKF movement thorough the Project Area, and direct mortality of individuals.

Evidence impact is potentially significant: Habitat loss resulting from land conversion to agricultural, urban, and industrial development is the primary threat to SJKF (Cypher et al. 2013). Western Kern County supports relatively large areas of high suitability habitat and one of the largest remaining populations of SJKF (Cypher et al. 2013). The Project and surrounding area contain undeveloped land; therefore, subsequent ground disturbing activities and conversion of suitable habitat associated with the Project may significantly impact local SJKF populations.

Recommended Mitigation Measure 3: SJKF Surveys

Prior to applying for an Incidental Take Permit (ITP), CDFW recommends assessing the number of active, known, potential, and natal SJKF dens within and adjacent to the Project Area by conducting surveys following the USFWS' "Standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance" (2011). The results of these surveys can help inform the take analysis necessary for CFW's issuance of an ITP.

Recommended Mitigation Measure 4: SJKF Avoidance

CDFW recommends implementing no-disturbance buffers, as described in the USFWS "Standardized recommendations for protection of the San Joaquin kit fox prior to or during ground disturbance" (2011) around den sites where feasible within the Project Area.

Recommended Mitigation Measure 5: SJKF Take Authorization

Given the large size of the Project and the known occurrences of SJKF within the Project area, CDFW recommends that the Project Proponent acquire an ITP prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081 subdivision (b). We also recommend early consultation with CDFW in order to help streamline the ITP process.

Recommended Mitigation Measure 6: Permeable Fencing for SJKF and Habitat Management Within Arrays

Given the size and location of the Project, and documentation of SJKF utilizing other constructed solar arrays, the Project site should have perimeter fencing that is permeable to SJKF. We recommend that this either be accomplished by lifting the bottom of the fence 6 inches from the ground around the entire array, placing openings every 50 feet, or using 6-inch wire mesh fence to allow unimpeded movement across fence lines. CDFW also recommends that SJKF habitat (grazed low vegetation) be maintained within the solar arrays so that SJKF can utilize the Project Area during operation (see Maricopa Solar, California Flats, California Valley Solar Ranch, Topaz Solar, Panoche Solar).

COMMENT 3: Tipton Kangaroo Rat (TKR), Giant Kangaroo Rat (GKR), and Short-Nosed Kangaroo Rat (SNKR)

Issue: TKR and SNKR have been documented to occur in the Project vicinity (CDFW 2021). The Project is also within the historic range of GKR, and all the species have the potential to use the suitable habitat within the Project site. These species inhabit sandy-loam soils located in grassland habitat with scattered shrubs. Suitable habitat includes areas of grassland, upland scrub, and alkali sink habitats

that contain requisite habitat elements, such as small mammal burrows. Therefore, there is potential for these species to occupy or colonize the undeveloped areas within the Project site.

Specific impact: Without appropriate avoidance and minimization measures for TKR, GKR, and SNKR, potential significant impacts from Project activities include loss of habitat, burrow collapse, inadvertent entrapment of individuals, reduced reproductive success such as reduced health or vigor of young, and direct mortality of individuals.

Evidence impact is potentially significant: Habitat loss resulting from agricultural, urban, and industrial development is the primary threat to TKR, GKR, and SNKR. Further, habitat fragmentation may accelerate the decline of these species. Little suitable intact habitat remains for these species (USFWS 1998, ESRP 2020b, ESRP 2020c, and ESRP 2020d). The Project and surrounding area contain undeveloped land; therefore, if the Project area is occupied by TKR, GKR, or SNKR subsequent ground-disturbing activities and conversion of suitable habitat associated with the Project may have the potential to significantly impact local populations of these species.

Recommended Mitigation Measure 7: TKR, GKR, and SNKR Habitat Assessment

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of Project implementation, to delineate suitable TKR, GKR, and SNKR habitat within the Project area and its immediate vicinity.

Recommended Mitigation Measure 8: TKR, GKR, and SNKR Trapping Surveys

CDFW recommends that a qualified biologist survey (i.e., trap) for TKR, GKR, and SNKR within suitable habitat identified as part of Recommended Mitigation Measure 6. CDFW also recommends that a trapping plan for determining presence of TKR, GKR, and SNKR be submitted to and approved by CDFW prior to subsequent trapping efforts. CDFW recommends these surveys be conducted by a qualified biologist who holds a CDFW Memorandum of Understanding for TKR, GKR, and SNKR, and any appropriate USFWS permit(s). CDFW further advises that these surveys be conducted between April 1 and October 31, when kangaroo rats are most active and well in advance of ground-disturbing activities in order to determine if impacts to TKR, GKR, and SNKR could occur.

Recommended Mitigation Measure 9: TKR, GKR, and SNKR Avoidance

If trapping is not feasible, CDFW advises maintenance of a 50-foot minimum no-disturbance buffer around all small mammal burrow entrances.

Recommended Mitigation Measure 10: TKR and GKR Take Authorization

If TKR and GKR are found within the Project area during preconstruction surveys or construction activities, consultation with CDFW is advised to discuss how to implement the Project and avoid take; or if small mammal burrow avoidance is not feasible, to acquire an ITP prior to any ground-disturbing activities, pursuant Fish and Game Code section 2081(b).

COMMENT 4: San Joaquin Antelope Squirrel (SJAS)

Issue: SJAS have the potential to occur within the Project area. Suitable SJAS inhabit sandy-loam soils in areas of grassland, upland scrub, and alkali sink habitats that contain requisite habitat elements, such as small mammal burrows. Therefore, there is potential for SJAS to occupy or colonize the undeveloped land, dry farmed crops, and any fallow fields within the Project site.

Specific impact: Without appropriate avoidance and minimization measures for SJAS, potential significant impacts include loss of habitat, burrow collapse, inadvertent entrapment of individuals, reduced reproductive success such as reduced health or vigor of young, and direct mortality of individuals.

Evidence impact is potentially significant: Habitat loss resulting from agricultural, urban, and industrial development is the primary threat to SJAS. Further, habitat fragmentation may accelerate the decline of the species. Very little suitable habitat for this species remains outside of the western Kern County and eastern San Luis Obispo County area (ESRP 2020e, USFWS 1998). The Project and surrounding area contain undeveloped land; therefore, subsequent ground-disturbing activities and habitat conversion associated with the Project may have the potential to significantly impact local SJAS. populations.

Recommended Mitigation Measure 11: SJAS Habitat Assessment

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of project implementation to delineate suitable SJAS habitat within the Project area and its immediate vicinity.

Recommended Mitigation Measure 12: SJAS Surveys

In areas of suitable habitat, CDFW recommends that a qualified biologist conduct focused daytime visual surveys for SJAS using line transects with 10- to 30-meter

spacing. CDFW further advises that these surveys be conducted between April 1 and September 20, during daytime temperatures between 68° and 86° F, to maximize detectability (CDFG 1990).

Recommended Mitigation Measure 13: SJAS Avoidance

If surveys are not feasible, CDFW advises maintenance of a 50-foot minimum no-disturbance buffer around all small mammal burrow entrances until the completion of Project activities.

Recommended Mitigation Measure 14: SJAS Take Authorization

SJAS detection warrants consultation with CDFW to discuss how to avoid take or, if avoidance is not feasible, to acquire a State ITP prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081(b).

COMMENT 5: Swainson's Hawk (SWHA)

Issue: The Project site is within the historic range of SWHA. Undeveloped and agricultural land in the surrounding area provide suitable foraging habitat for SWHA. Any trees in or near the Project area may also provide suitable nesting habitat.

Specific impact: Without appropriate avoidance and minimization measures for SWHA, potential significant impacts that may result from Project activities include: nest abandonment, loss of nest trees, loss of foraging habitat that would reduce nesting success (loss or reduced health or vigor of eggs or young), and direct mortality. All trees, including non-native or ornamental varieties, near the Project site may provide potential nesting sites.

Evidence impact would be significant: SWHA exhibit high nest-site fidelity year after year and lack of suitable nesting habitat limits their local distribution and abundance (CDFW 2016). Approval of the Project may lead to subsequent ground-disturbing activities that involve noise, groundwork, construction of structures, and movement of workers that could affect nests and has the potential to result in nest abandonment and loss of foraging habitat, significantly impacting local nesting SWHA. In addition, conversion of undeveloped and agricultural land can directly influence distribution and abundance of SWHA, due to the reduction in foraging habitat.

Recommended Mitigation Measure 15: Focused SWHA Surveys

To evaluate potential Project-related impacts, CDFW recommends that a qualified wildlife biologist conduct surveys for nesting SWHA following the entire survey methodology developed by the SWHA Technical Advisory Committee (SWHA TAC 2000) prior to Project implementation (during CEQA analysis).

Recommended Mitigation Measure 16: SWHA Avoidance

CDFW recommends that if Project-specific activities will take place during the SWHA nesting season (i.e., March 1 through September 15), and active SWHA nests are present, a minimum ½-mile no-disturbance buffer be delineated and maintained around each nest, regardless if when it was detected by surveys or incidentally, 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, to prevent nest abandonment and other take of SWHA as a result of Project activities.

Recommended Mitigation Measure 17: SWHA Take Authorization

CDFW recommends that in the event an active SWHA nest is detected, and a ½-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 acquisition of an ITP, pursuant to Fish and Game Code section 2081(b) is necessary to comply with CESA.

Recommended Mitigation Measure 18: 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 ¾ 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 ½ acre of HM land for each acre of development is advised.

Recommended Mitigation Measure 19: SWHA Tree Removal

CDFW recommends that the removal of known SWHA nest trees, even outside of the nesting season, be replaced with an appropriate native tree species planting at a ratio of 3:1 at or near the Project area or in another area that will be protected in

perpetuity. This mitigation would offset the local and temporal impacts of nesting habitat loss.

COMMENT 6: Tricolored Blackbird (TRBL)

Issue: TRBL colonies require suitable nesting habitat, nearby freshwater, and nearby foraging habitat including semi-natural grasslands, agricultural croplands or alkali scrub (Beedy et al. 2017). Based upon aerial photography, suitable TRBL habitat appears to be present both within and surrounding the Project area.

Specific impact: Without appropriate avoidance and minimization measures for TRBL, potential significant impacts associated with Project activities include nest and/or colony abandonment, reduced reproductive success, and reduced health and vigor of eggs and/or young.

Evidence impact would be significant: The Project site contains elements that have the potential to support TRBL nesting colonies. TRBL aggregate and nest colonially, forming colonies of up to 100,000 nests (Beedy et al. 2017). This species has been steadily declining due to annual breeding losses due to crop-harvesting activities, insufficient insect resources, and habitat loss due to land conversion for agriculture, rangeland, and urban development (Beedy et al. 2017).

Recommended Mitigation Measure 20: TRBL Surveys

CDFW recommends that Project activities be timed to avoid the normal bird breeding season (February 1 through September 15). However, if Project activities must take place during that time, CDFW recommend that a qualified biologist conduct surveys for nesting TRBL no more than 10 days prior to the start of implementation to evaluate presence/absence of TRBL nesting colonies in proximity to Project activities and to evaluate potential Project-related impacts.

Recommended Mitigation Measure 21: TRBL Avoidance

If an active TRBL nesting colony is found during preconstruction surveys, CDFW recommends implementation of a minimum 300-foot no-disturbance buffer in accordance with CDFW's "Staff Guidance Regarding Avoidance of Impacts to Tricolored Blackbird Breeding Colonies on Agriculture Fields in 2015" (CDFW 2015). CDFW advises that this buffer remain in place until the breeding season has ended or until a qualified biologist has determined that nesting has ceased, the birds have fledged, and are no longer reliant upon the colony or parental care for survival. It is important to note that TRBL colonies can expand over time and for this reason, the colony should be reassessed to determine the extent of the breeding colony within 10 days for Project initiation.

Recommended Mitigation Measure 22: TRBL Take Authorization

If a TRBL nesting colony is detected during surveys, consultation with CDFW is warranted to discuss how to implement the Project and avoid take, or if avoidance is not feasible, to acquire an ITP, pursuant to Fish and Game Code section 2081(b), prior to any ground-disturbing activities.

COMMENT 7: Burrowing Owl (BUOW)

Issue: BUOW are known to occur in the Project area vicinity (CDFW 2021). BUOW inhabit open grassland, fallow fields, or adjacent canal banks, ROWs, vacant lots, etc. containing small mammal burrows, a requisite habitat feature used by BUOW for nesting and cover. Therefore, there is potential for BUOW to occupy or colonize the Project.

Specific impact: Potentially significant direct impacts associated with subsequent activities and land conversion include habitat loss, burrow collapse, inadvertent entrapment, nest abandonment, reduced reproductive success, reduction in health and vigor of eggs and/or young, and direct mortality of individuals.

Evidence impact is potentially significant: BUOW rely on burrow habitat year-round for their survival and reproduction. Habitat loss and degradation are considered the greatest threats to BUOW in California's Central Valley (Gervais et al. 2008). The Project and surrounding area contain undeveloped land; therefore, subsequent ground-disturbing activities associated with the Project have the potential to significantly impact local BUOW populations. In addition, and as described in CDFW's "Staff Report on Burrowing Owl Mitigation" (CDFG 2012), excluding and/or evicting BUOW from their burrows is considered a potentially significant impact under CEQA.

Recommended Mitigation Measure 23: BUOW Surveys

CDFW recommends assessing presence or absence of BUOW by having a qualified biologist conduct surveys following the California Burrowing Owl Consortium's "Burrowing Owl Survey Protocol and Mitigation Guidelines" (CBOC 1993) and the "Staff Report on Burrowing Owl Mitigation" (CDFG 2012), which suggest three or more surveillance surveys conducted during daylight with each visit occurring at least three weeks apart during the peak breeding season (i.e., April 15 to July 15), when BUOW are most detectable. In addition, CDFW advises that surveys include a minimum 500-foot buffer area around the Project area.

Recommended Mitigation Measure 24: BUOW Avoidance

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 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 25: 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, 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.

COMMENT 8: American badger

Issue: American badger have been documented to occur in the vicinity of the Project (CDFW 2021). Undeveloped land, fallow field, and any dry farmed crops within the Project site support the requisite habitat elements for this species.

Specific impact: Without appropriate avoidance and minimization measures for American badger, potentially significant impacts associated with ground disturbance include habitat loss, nest/den/burrow abandonment, which may result in reduced health or vigor of eggs and/or young, and direct mortality.

Evidence impact is potentially significant: Habitat loss threatens American badger (Gittleman et al. 2001). The Project and surrounding area contain undeveloped land; therefore, subsequent ground disturbing activities and habitat conversion associated with the Project may have the potential to significantly impact local the populations of this species.

Recommended Mitigation Measure 26: American badger Habitat Assessment

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of project implementation to delineate suitable habitat within the Project area and its immediate vicinity.

Recommended Mitigation Measure 27: American badger Surveys

Within suitable habitat, CDFW recommends that a qualified biologist conduct focused surveys for American badgers and their requisite habitat features (e.g., dens) to evaluate potential impacts resulting from ground and vegetation disturbance.

Recommended Mitigation Measure 28: American badger Avoidance

Avoidance whenever possible is encouraged via delineation and observance a 50-foot no-disturbance buffer around American badger dens.

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 blunt-nosed leopard lizard (*Gambelia sila*), Tipton kangaroo rat (*Dipodomys nitratoides nitratoides*), giant kangaroo rat (*Dipodomys ingens*), and San Joaquin kit fox (*Vulpes macrotis mutica*). 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. Consultation with the USFWS in order to comply with FESA is advised well in advance of any Project activities.

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).

CDFW encourages Project implementation to occur during the bird non-nesting season; however, if Project activities must occur during the breeding season (i.e., February through mid-September), the Project applicant is responsible for ensuring that implementation of the Project does not result in violation of the Migratory Bird Treaty Act or relevant Fish and Game Codes as referenced above.

To evaluate Project-related impacts on nesting birds, CDFW recommends that a qualified wildlife biologist conduct pre-activity surveys for active nests no more than 10 days prior to the start of ground disturbance to maximize the probability that nests that could potentially be impacted by the Project 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, and movement of workers or equipment could also affect nests. Prior to initiation of construction activities, CDFW recommends that a qualified biologist conduct a survey to establish a behavioral baseline of all identified nests. Once construction begins, CDFW recommends that a qualified biologist continuously monitor nests to detect behavioral changes resulting from the project. If behavioral changes occur, CDFW recommends that the work causing that change cease and CDFW be consulted for additional avoidance and minimization measures.

If continuous monitoring of identified nests by a qualified wildlife 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 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 wildlife biologist advise and support any variance from these buffers and notify CDFW in advance of implementing a variance.

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 CNDDB. The CNDDB field survey form can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed form can be mailed electronically to CNDDB at the following email address:

CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: https://www.wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

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 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 NOP to assist Kern County in identifying and mitigating Project impacts on biological resources.

If you have any questions, please contact Jaime Marquez, Environmental Scientist, at the address provided on this letterhead, by telephone at (559) 243-4014, extension 291, or by electronic mail at Jaime.Marquez@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Julie Vance
FA83F09FE08945A...

Julie A. Vance
Regional Manager

Attachment

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Attachment 1

MITIGATION MONITORING AND REPORTING PROGRAM (MMRP) FOR CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE RECOMMENDED MITIGATION MEASURES

PROJECT: Sandrini Solar Project
SCH No.: 2021040761

RECOMMENDED MITIGATION MEASURE	STATUS/DATE/INITIALS
Before Disturbing Soil or Vegetation	
Mitigation Measure 1: BNLL Surveys	
Mitigation Measure 3: SJKF Surveys	
Mitigation Measure 5: SJKF Take Authorization	
Mitigation Measure 7: TKR, GKR and SNKR Habitat Assessment	
Mitigation Measure 8: TKR, GKR and SNKR Trapping Surveys	
Mitigation Measure 10: TKR and GKR Take Authorization	
Mitigation Measure 11: SJAS Habitat Assessment	
Mitigation Measure 12: SJAS Surveys	
Mitigation Measure 14: SJAS Take Authorization	
Mitigation Measure 15: Focused SWHA Surveys	
Mitigation Measure 17: SWHA Take Authorization	
Mitigation Measure 18: Loss of SWHA Foraging Habitat	
Mitigation Measure 19 SWHA Tree Removal:	
Mitigation Measure 20: TRBL Surveys	
Mitigation Measure 22: TRBL Take Authorization	
Mitigation Measure 23: BUOW Surveys	
Mitigation Measure 25: BUOW Passive Relocation and Mitigation	
Mitigation Measure 25: American Badger Habitat Assessment	
Mitigation Measure 26: American Badger Surveys	
During Construction	
Mitigation Measure 2: BNLL Take Avoidance	
Mitigation Measure 4: SJKF Avoidance	
Mitigation Measure 6: Permeable Fencing for SJKF and Habitat Management Within Arrays	
Mitigation Measure 9: TKR, GKR and SNKR Avoidance	
Mitigation Measure 13: SJAS Avoidance	
Mitigation Measure 14: SWHA Avoidance	
Mitigation Measure 21: TRBL Avoidance	
Mitigation Measure 24: BUOW Avoidance	
Mitigation Measure 28 American Badger Avoidance	