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December 6, 2021

Terrance Smalls
Kern County Planning and Natural Resources Department
2700 "M" Street, Suite 100
Bakersfield, California 93301

Subject: Azalea Solar Project by SF Azalea (Project)
Notice of Preparation (NOP)
State Clearinghouse No. 2021090602

Dear Terrance Smalls:

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. While the comment period may have ended, we appreciate your consideration of our comments.

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

[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.

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 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. However, CDFW may authorize, pursuant to Fish and Game Code section 2081.12, by permit, the take or possession of the State fully-protected blunt-nosed leopard lizard (*Gambelia sila*) resulting from impacts attributable to or otherwise related to the Project.

Other Rare 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 (Cal. Code Regs. tit. 14, Chapter 3, § 15380), it should be fully considered in the environmental analysis for the Project.

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: SF Azalea, LLC

Objective: The Azalea Solar Project, as proposed by SF Azalea, LLC would develop a photovoltaic solar facility and associated infrastructure necessary to generate up to 60 megawatt-alternating current (MW-AC) of renewable energy, on approximately 640 acres of privately-owned land. The project site consists of 1 site located on 2 parcels. The project would be supported by a 230-kilovolt (kV) gen tie overhead and/or underground electrical transmission line(s) originating from one or more on-site substations and terminating at the nearby PG&E Substation. The project's permanent facilities would include, but are not limited to, service roads, a power collection system, inverter stations, transformer systems, transmission lines, electrical switchyards, project substations, energy (battery) storage system, and operations and maintenance facilities.

Location: The proposed project is located approximately 2.5 miles northeast of Twisselman Road and Kings Road, approximately 16 miles south of Kettleman City, approximately 14 miles northwest of the community of Lost Hills, approximately 6 miles west of the Interstate 5, and approximately 4 miles east of the State Route 33. The proposed Project is located in the northwest portion of the Southern San Joaquin Valley.

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.

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 giant kangaroo rat (*Dipodomys ingens*); the State threatened and federally endangered San Joaquin kit fox (*Vulpes macrotis mutica*); and the State threatened Swainson's hawk (*Buteo swainsoni*) and San Joaquin (also known as Nelson's) antelope squirrel (*Ammospermophilus nelsoni*). The Project area is also in the range of several special-status plant species including the State and federally endangered and California rare plant rank (CRPR) 1B.1 California jewelflower (*Caulanthus californicus*); the federally endangered and CRPR 1B.2 San Joaquin woollythreads (*Monolopia congdonii*), the State species of special concern American badger (*Taxidea taxus*), short-nosed kangaroo rat

(*Dipodomys nitratoides brevinasus*), burrowing owl (*Athene cunicularia*), and western spadefoot (*Spea hammondi*).

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 (*Gambelia sila*; BNLL)

Issue: BNLL have been documented to occur 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. Based on our familiarity with BNLL in the Project Area vicinity, there is a high likelihood that BNLL are present within the Project Area.

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 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). 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 and/or vegetation 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 ground-disturbing activities and avoid take, which may not be possible for a project this size if BNLL are present; this scenario would affect the viability of the Project in its entirety. To avoid "take," construction and operations activities would have to avoid all observed lizards 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. Because BNLL is a State Fully Protected species, no take incidental or otherwise, can be authorized by CDFW.

Avoidance of BNLL is difficult, if not infeasible, when the Project site is known to be occupied by the species, the Project site is comprised entirely of suitable habitat, and the actual distribution of the species across the Project site has not yet been determined. When specific avoidance measures are ultimately proposed in response to survey detections of BNLL, the following should be considered:

- BNLL are not in the center of their home range when detected on the surface, and they may in fact be on the perimeter of their home range where detected.
- BNLL surveys detect only some of the lizards at a given location.
- The location where a BNLL is detected on the surface is not where it will be when construction commences, and the location of that lizard underground will be unknown when construction commences.

- Surveys detect only some of the lizards; some BNLL will be underground during surveys and some or all will be underground during construction.
- We now know that many BNLL have much larger home ranges than previously thought.

Dr. David Germano's unpublished data show that male BNLL have home ranges up to 52 acres and that female BNLL have home ranges exceeding 98 acres. As a result, CDFW recommends a minimum 395-acre buffer around any BNLL detections, which is based on 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 lizard was observed on the surface, and the unknown location of the lizard underground when construction commences. Given the size of this recommended buffer relative to the overall size of the proposed Project, along with the known presence of BNLL in the Project Area vicinity, we recommend early consultation with CDFW, ideally well in advance of DEIR circulation, to discuss BNLL.

COMMENT 2: San Joaquin Kit Fox (SJKF)

Issue: SJKF occurrences have been documented near the Project site (CDFW 2021). The NOP states that the Project site is comprised of agricultural field, non-native annual grassland habitat, and patches of ruderal habitat, all of which are habitat types known to support SJKF. In addition to grasslands, SJKF den in a variety of areas such as rights-of-way, 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 the Project area due to the type and level of ground-disturbing activities and the loose, friable soils resulting from intensive ground disturbance. There is a high likelihood that SJKF occupy the Project site and surrounding area.

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, 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 have the potential to significantly impact local SJKF populations.

Recommended Mitigation Measure 3: SJKF Surveys

CDFW recommends assessing presence/absence of SJKF by conducting surveys following 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 no less than 14-days and no more than 30-days prior to beginning of ground and/or vegetation disturbing activities. 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. Given the Project site location, it is likely that SJKF are utilizing the Project site.

Recommended Mitigation Measure 4: SJKF Den 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.

Recommended Mitigation Measure 5: SJKF Take Authorization

While den surveys should be conducted to determine if SJKF are denning on site, CDFW recommends assuming presence of SJKF acquiring an Incidental Take Permit (ITP) prior to ground-disturbing activities, pursuant to Fish and Game Code section 2081 subdivision (b).

Recommended Mitigation Measure 6: Perimeter Fences

CDFW recommends all perimeter fencing be raised five to seven inches above ground level and knuckled under to allow SJKF movement through the Project site and to minimize impacts to SJKF habitat connectivity.

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

Issue: GKR, and SNKR have been documented to occur near the Project site (CDFW 2021). 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. The land use described in the NOP indicates that suitable habitat is present on the Project site therefore, there is potential for these species to occupy or colonize the Project.

Specific impact: Without appropriate avoidance and minimization measures for 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 GKR and SNKR. Further, habitat fragmentation may accelerate the decline of these species. The Project and surrounding area contain undeveloped land; therefore, if the Project area is occupied by 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: GKR and SNKR Trapping Surveys

CDFW recommends that a trapping plan for determining presence of 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 GKR and SNKR, and any appropriate USFWS permit(s). CDFW further recommends that these surveys be conducted between April 1 and October 31, when kangaroo rats are most active and well in advance of ground- and/or vegetation-disturbing activities in order to determine if impacts to GKR and SNKR could occur. Once completed, all survey results should be sent to CDFW.

Recommended Mitigation Measure 8: GKR and SNKR Avoidance

In addition to trapping surveys, CDFW advises maintenance of a 50-foot minimum no-disturbance buffer around all small mammal burrow entrances where feasible. In addition, CDFW advises that Fish and Game Code section 86 defines take as hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill. Although these recommended buffer distances may be sufficient to avoid direct mortality or burrow destruction, encircling a burrow with development activities would 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 9: GKR Take Authorization

If GKR are found within the Project area during trapping as described above, preconstruction surveys, or construction activities, consultation with CDFW is advised to immediately occur to discuss how to implement the Project and avoid take; or if avoidance is not feasible, to acquire an ITP prior to any ground-disturbing activities, pursuant Fish and Game Code Section 2081 subdivision (b).

COMMENT 4: San Joaquin (also known as Nelson's) Antelope Squirrel (SJAS)

Issue: SJAS have been documented to occur near the Project site (CDFW 2021). 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. The Project site and its surrounding area consist of undisturbed habitat, therefore, there is potential for SJAS to occupy or colonize the Project.

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 10: SJAS Surveys

Prior to initiating ground- and/or vegetation- disturbing activities, 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). All survey results should be sent to CDFW after completion.

Recommended Mitigation Measure 11: SJAS Avoidance

If potential habitat is present and 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. As recommended for GKR and SNKR, CDFW recommends that in addition to the buffer distances, that no burrow is surrounded more than 180 degrees by development activities.

Recommended Mitigation Measure 12: 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 subdivision (b).

COMMENT 5: Swainson's Hawk (SWHA)

Issue: SWHA have the potential to nest near the Project site, and forage within the Project site. SWHA have been documented to occur approximately 2 miles from the Project site (CDFW 2021). The habitat types present at the Project site all provide suitable foraging habitat for SWHA, increasing the likelihood of SWHA occurrence within the vicinity. In addition, any trees in the Project vicinity have the potential to 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). If potential nest site occur in the Project vicinity, 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/or loss of foraging habitat, significantly impacting local nesting SWHA. In addition, conversion of undeveloped land can directly influence distribution and abundance of SWHA, due to the reduction in foraging habitat.

Recommended Mitigation Measure 13: 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). SWHA detection during protocol-level surveys warrants consultation with CDFW to discuss how to implement Project activities and avoid take.

Recommended Mitigation Measure 14: 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 15: 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 issuance of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) is necessary to comply with CESA.

Recommended Mitigation Measure 16: 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 17: 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: Special-status Plants

Issue: Several special-status plant species meeting the definition of rare or endangered under CEQA section 15380 are known to occur near the Project area, but not limited to, the State and federally endangered and CRPR 1B.1 California jewelflower and the federally endangered and CRPR 1B.2 San Joaquin woollythreads.

Specific impact: Without appropriate avoidance and minimization measures for special-status plants, potential significant impacts associated with subsequent construction include loss of habitat, loss or reduction of productivity, and direct mortality.

Evidence impact would be significant: The California jewelflower, San Joaquin woollythreads, and many other special-status plant species are threatened by grazing and agricultural, urban, and energy development. Many historical occurrences of these species are presumed extirpated (CNPS 2020). Though new populations have recently been discovered, impacts to existing populations have the potential to significantly impact populations of plant species.

Recommended Mitigation Measure 18: Special-Status Plant Surveys

CDFW recommends that individual Project sites 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” (CDFG 2018). This protocol, which is intended to maximize detectability, includes the identification of reference populations to facilitate the likelihood of field investigations occurring during the appropriate floristic period.

Recommendation Mitigation Measure 19: Sensitive Natural Communities

In addition to surveying for special-status plants as stated above, CDFW recommends the Project area is also surveyed for the presence of sensitive natural communities, which is also part of CDFW’s botanical survey protocol (CDFW 2018). If sensitive natural communities are found, CDFW recommend impacts to them are fully evaluated in the CEQA document.

Recommended Mitigation Measure 20: Special-Status Plant Avoidance

CDFW recommends that 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 may be warranted to determine appropriate minimization and mitigation measures for impacts to special-status plant species.

Recommended Mitigation Measure 21: Listed Plant Species Take Authorization

If a State-listed plant species is identified during botanical surveys, consultation with CDFW is warranted to determine if the Project can avoid take. If take cannot be avoided, take authorization is warranted. Take authorization would occur through acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b).

COMMENT 7: Burrowing Owl (BUOW)

Issue: BUOW are known to occur in the Project area vicinity (CDFW 2021). BUOW inhabit open grassland and similar habitat types containing small mammal burrows, a requisite habitat feature used by BUOW for nesting and cover. The NOP reports that these habitat features are present on the Project site, 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 22: 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 23: 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 24: 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: Other State Species of Special Concern

Issue: San Joaquin pocket mouse, western spadefoot, and American badger, and have the potential to occur in the Project area. These species have been documented to occur in the vicinity of the Project site, which supports requisite habitat elements (CDFW 2021).

Specific impact: Without appropriate avoidance and minimization measures for these species, 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 all of the species mentioned above (Gittleman et al. 2001, Shuford and Gardali 2008, Thomson et al. 2016). 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 these species.

Recommended Mitigation Measure 25: Habitat Assessment

CDFW recommends that a qualified biologist conduct a habitat assessment in advance of project implementation, to determine if project areas or their immediate vicinity contain potential habitat for the species mentioned above.

Recommended Mitigation Measure 26: Surveys

If potential habitat is present, CDFW recommends that a qualified biologist conduct focused surveys for applicable species and their requisite habitat features to evaluate potential impacts resulting from ground and vegetation disturbance.

Recommended Mitigation Measure 27: Avoidance

Avoidance whenever possible is encouraged via delineation and observance a 50-foot no-disturbance buffer around dens of mammals like the American badger as well as the entrances of burrows that can provide refuge for special-status small mammals and western spadefoots.

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, giant kangaroo rat, San Joaquin kit fox, 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. Consultation with the USFWS in order to comply with FESA is advised well in advance of any Project activities.

Lake and Streambed Alteration: If streams, swales, or drainages occur on the Project site, Project activities may be subject to CDFW's regulatory authority pursuant Fish and Game Code section 1600 et seq. Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may (a) substantially divert or obstruct the natural flow of any river, stream, or lake; (b) substantially change or use any material from the bed, bank, or channel of any river, stream, or lake (including the removal of riparian vegetation): (c) deposit debris, waste or other materials that could pass into any river, stream, or lake. "Any river, stream, or lake" includes those that are ephemeral or intermittent as well as those that are perennial.

CDFW is required to comply with CEQA in the issuance of a Lake or Streambed Alteration Agreement (LSAA); therefore, if the CEQA document approved for the Project does not adequately describe the Project and its impacts to lakes or streams, a subsequent CEQA analysis may be necessary for LSAA issuance. For information on notification requirements, please refer to CDFW's website (https://wildlife.ca.gov/Conservation/LSA) or contact CDFW staff in the Central Region Lake and Streambed Alteration Program at (559) 243-4593

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 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 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) 580-3200, or by electronic mail at Jaime.Marquez@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Julie Vance
FA83F09FE08945A...
Julie A. Vance
Regional Manager

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Attachment 1

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

PROJECT: Azalea Solar
SCH No.: 2021090602

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: GKR and SNKR Trapping Surveys	
Mitigation Measure 9: GKR Take Authorization	
Mitigation Measure 10: SJAS Surveys	
Mitigation Measure 12: SJAS Take Authorization	
Mitigation Measure 13: Focused SWHA Surveys	
Mitigation Measure 15: SWHA Take Authorization	
Mitigation Measure 16: Loss of SWHA Foraging Habitat	
Mitigation Measure 17: SWHA Tree Removal	
Mitigation Measure 18: Special-Status Plant Surveys	
Mitigation Measure 19: Sensitive Natural Communities	
Mitigation Measure 21: Listed Plant Species Take Authorization	
Mitigation Measure 22: BUOW Surveys	
Mitigation Measure 24: BUOW Passive Relocation and Mitigation	
Mitigation Measure 25: Habitat Assessment	
Mitigation Measure 26: Surveys	
During Construction	
Mitigation Measure 2: BNLL Take Avoidance	
Mitigation Measure 4: SJKF Avoidance	
Mitigation Measure 6: Perimeter Fences	
Mitigation Measure 8: GKR and SNKR Avoidance	
Mitigation Measure 11: SJAS Avoidance	
Mitigation Measure 14: SWHA Avoidance	
Mitigation Measure 20: Special-Status Plant Avoidance	

Mitigation Measure 23: BUOW Avoidance	
Mitigation Measure 27: Avoidance	