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Subject: Cornucopia Hybrid Solar Project (Project)
Unclassified Conditional Use Permit Application No. 3777 & EIR No. 8511 Notice of Preparation (NOP)
SCH No.: 2024050219

Dear Jeremy Shaw:

The California Department of Fish and Wildlife (CDFW) received a NOP from Fresno County for the above-referenced Project pursuant to 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 Fish and Game Code. While the comment period may have ended, CDFW respectfully requests that the County of Fresno still consider our comments.

CDFW ROLE

CDFW is California's **Trustee Agency** for fish and wildlife resources and holds those resources in trust by statue 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

[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.

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 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 may 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. Fully protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except as follows:

Take is for necessary scientific research,

Efforts to recover a fully protected, endangered, or threatened species, live capture, and relocation of a bird species for the protection of livestock, or

They are a covered species whose conservation and management is provided for in a Natural Community Conservation Plan (Fish & G. Code, §§ 3511, 4700, 5050, & 5515)

Additionally, specified types of infrastructure projects may be eligible for an Incidental Take Permit (ITP) for unavoidable impacts to fully protected species if certain conditions are met (see Fish & G. Code §2081.15). Project proponents should consult with CDFW early in the project planning process if an ITP may be pursued 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).

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 to be considered E, R, or T under CEQA. If a species can be shown to meet the criteria for E, R, or T, as specified in the CEQA Guidelines section 15380, CDFW recommends it be fully considered in the environmental analysis for the Project.

PROJECT DESCRIPTION SUMMARY

Proponent: BayWa r.e. Solar Projects LLC

Objective: The Project proposes to construct, operate, and maintain a solar energy generation facility capable of generating approximately 300 MW of energy, an approximately 300 MW of alternating current (MWac) battery storage system, and associated infrastructure and buildings. The solar energy generation facility would consist of photovoltaic (PV) solar modules, a substation and switching station, an energy storage system, and two prefabricated structures to be used for maintenance and operation services and for control services. The generated energy would then be transferred from the inverters to a Pacific Gas and Electric (PG&E) switching station, to ultimately transfer the power to the local electrical grid. The substation would include an electrical control building and would tie into the PG&E switching station via a new transmission line. The energy storage system would consist of a battery storage system comprising of lithium-ion, flow, or sodium sulfur batteries and would be able to store approximately 300 MWac of electricity. The energy storage system would be located adjacent to the substation, with a footprint of approximately 12 acres in size.

Location: The proposed Project would be located on approximately 2,446 acres of private land within portions of Assessor Parcel Numbers (APNs) 090-030-065, 090-030-045, 090-030-025, 090-030-03, 090-040-01, 085-110-235, 085-110-12, and 085-110-135, in western Fresno County. The site is located approximately 11 miles southeast of the City of Coalinga in Fresno County, 2.75 miles northwest of the City of Avenal in Kings County, and 4 miles west of Interstate 5 (1-5). The community of Lost Hills is contiguous to the southeast portion of the Project of the site off SR 33. The Project site is intersected north to south by State Route (SR) 33 (South Lost Hills Road) and east to west by Sutter Avenue. The Project site is located within Township 21 South, Range 16 East, Sections 34, 35, and 36; Township 22 South, Range 16 East, Sections 1, 2; and Range 17 East, Section 6 of the Avenal, California United States Geological Survey (USGS) 7.5-minute Topographical Quadrangle Map.

Timeline: Unspecified

COMMENTS AND RECOMMENDATIONS

CDFW offers the following comments and recommendations to assist Fresno 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 prepared for this Project.

Aerial imagery of the Project site and its surroundings show the area contains several natural and agricultural habitats including tilled row crops and fallow fields. Annual grassland may also be present within the western portion of the Project site. These

habitats 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, the Project is within the geographic range of several special-status animal species including, but not limited to, the State and federally endangered giant kangaroo rat (*Dipodomys ingens*), the State threatened San Joaquin [Nelson's] antelope squirrel (*Ammospermophilus nelson*), the State threatened and federally endangered San Joaquin kit fox (*Vulpes macrotis mutica)*, the State threatened Swainson's hawk (*Buteo swainsoni*) and tricolored blackbird (*Agelaius tricolor*), the state and federally endangered blunt-nosed leopard lizard (*Gambelia sila),* the State candidate endangered Temblor legless lizard (*Anniella alexanderae)* and Crotch's bumblebee (*Bombus crotchii)*, the State species of special concern American badger (*Taxidea taxus)*, San Joaquin pocket mouse (*Perognathus inornatus)*, short-nosed kangaroo rat (*Dipodomys nitratoides brevinasus),* Tulare grasshopper mouse (*Onychomys torridus tularensis)*, burrowing owl (*Athene cunnicularia*), loggerhead shrike (*Lanius ludovicianus)*, northern harrier (*Circus cyaneus)*, prairie falcon (Falco mexicanus), Blainville's horned lizard (*Phrynosoma coronatum blainsvillii),* California glossy snake *(Arizona elegans occidentalis*), and San Joaquin coachwhip (*Masticophis flagellum*), and the federally proposed threatened and State species of special concern western spadefoot (*Spea hammondii*).

Additionally, the Project area is within the geographic range of several special status plant species including, but not limited to, the State and federally endangered and California Rare Plant Rank CRPR 1B.1 California jewelflower (*Caulanthus californicus*), and the CRPR1B.2 and federally endangered Kern mallow (*Eremalche parryi ssp. kernensis*) and San Joaquin woollythreads (*Monolopia congdonii*). Finally, the Project is within the geographic range of many migratory and non-migratory nesting birds.

In order to support the adequate assessment of potential impacts to biological resources in the Draft Environmental Impact Report (DEIR), CDFW recommends that a qualified biologist perform relevant database reviews and other research of the Project area, then conduct focused habitat assessments and/or focused biological surveys during the appropriate survey period(s) in order to determine whether any special-status species may be present within the Project site.

CDFW recommends this initial work be documented within the DEIR and used to inform further efforts that may be needed thereafter including the need for additional protocol surveys and/or the development of avoidance, minimization, and/or mitigation measures. This information and analysis may then be used in the DEIR to consider the development of modified or new Project alternatives to avoid and minimize potentially significant environmental impacts on the biological environment. This information is critical to make an informed decision during the CEQA process and to ensure Project compliance with CESA, Fish and Game code, and other applicable State and federal laws and regulations.

Giant kangaroo rat

The Project site is within the known geographic range of giant kangaroo rat (GKR). GKR are known to inhabit grassland and scrub communities with sandy-loam soils and gentle slopes vegetated with annual grasses and scattered shrubs. Based on a review of aerial imagery, portions of the Project site may contain habitat for GKR. In order to determine if GKR currently occupy the Project site, CDFW recommends that a qualified biologist conduct a habitat assessment for GKR within the Project area as part of the biological studies conducted in support of the DEIR. CDFW also recommends that focused protocol-level live trapping surveys be conducted in areas of suitable habitat and that a trapping plan for determining presence of GKR be submitted to and approved by CDFW prior to subsequent trapping efforts. If surveys indicate the presence or potential presence of GKR, consultation with the CDFW is recommended for guidance on the development of mitigation measures such as take avoidance, minimization, and mitigation.

San Joaquin Antelope Squirrel

The Project site is within the known geographic range of San Joaquin antelope squirrel (SJAS) and there are historical occurrences of the species approximately three miles southeast of the Project site (CDFW 2024). Suitable habitat for SJAS includes areas of grassland, upland scrub, and alkali sink habitats that contain requisite habitat elements, such as small mammal burrows. Based on a review of aerial imagery, portions of the Project site may contain habitat for SJAS. In order to determine if SJAS currently occupy the Project site, CDFW recommends that a qualified biologist conduct a habitat assessment for SJAS within the Project site as part of the biological studies conducted in support of the DEIR. If suitable habitat is determined to be present, CDFW recommends that a qualified biologist conduct focused daytime visual surveys for SJAS in areas of suitable habitat as part of the biological studies conducted in support of the DEIR. If surveys indicate the presence or potential presence of SJAS, consultation with the CDFW is recommended for guidance on the development of mitigation measures such as take avoidance, minimization, and mitigation.

San Joaquin Kit Fox

The Project site is within the known geographic range of San Joaquin kit fox (SJKF) and the species is known to inhabit the Project area and there are multiple nearby occurrences listed on CNDDB (CDFW 2024). SJKF den in a variety of areas such as arid grassland and alkali scrub/shrub habitats in open areas with sandy soils (Grinnel et al. 1937), agricultural and fallow/ruderal habitat, and dry stream channels, and populations can fluctuate over time. 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. Based on aerial imagery and the information provided in

the NOP, most of the Project site contains suitable habitat for SJKF denning and foraging.

As SJKF have a high potential to den and/or forage within the Project site and have been documented within the Project footprint, CDFW recommends that a qualified biologist assess the presence/absence of SJKF by conducting focused surveys to detect SJKF and their sign in all Project areas and a 500-foot buffer of Project areas as part of the biological studies conducted in support of the DEIR. In addition to the focused SJKF surveys, CDFW recommends the DEIR include the following measures:

Recommended Mitigation Measure 1: SJKF Avoidance Buffer

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) (USFWS Protocol) around potentially suitable or known SJKF den sites.

Recommended Mitigation Measure 2: SJKF Take Authorization

If the no-disturbance buffers outlined in the USFWS Protocol for SJKF is not feasible, CDFW recommends that consultation with CDFW occur to discuss how to implement the Project and avoid take. If take cannot be avoided, CDFW recommends the Project proponent pursue take authorization through the acquisition of an ITP, pursuant to Fish and Game Code section 2081 subdivision (b) to comply with CESA.

Recommended Mitigation Measure 3: SJKF Fencing

CDFW recommends that all fencing installed on the perimeter of the solar Project be designed to allow for passage of SJKF their prey and other wildlife, while impeding the passage of larger predators such as coyotes and similar species. Perimeter fencing should be installed with a four (4) to six (6) inch gap from the bottom of the fencing material and knuckled back to form a smooth edge and allow permeability for wildlife.

Swainson's hawk

The Project is within the known geographic range of Swainson's hawk (SWHA), and recent occurrences have been documented within the vicinity of the Project site (CDFW 2024). SWHA are known to breed within the Central Valley of California and prefer to nest and forage in alfalfa, fallow fields, field crops, and grassland habitats with a sufficient source of small mammals (CDFG 1994). Based on aerial imagery and the information provided in the NOP, most of the Project site contains suitable habitat for

SWHA foraging. In addition, there may be trees and structures located within the vicinity of the Project area that may provide suitable nesting habitat.

As SWHA have a high potential to use the Project site and have been documented within the Project vicinity, 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) as part of the biological technical studies conducted in support of the DEIR.

In addition to conducting SWHA surveys, CDFW recommends the DEIR include the following measures:

Recommended Mitigation Measure 4: SWHA Surveys Prior to Construction

Depending on the time between the initial survey efforts conducted in support of the DEIR and Project construction, CDFW recommends that additional surveys, following the survey methodology developed by the SWHA Technical Advisory Committee, be repeated the survey season immediately prior to construction.

Recommended Mitigation Measure 5: SWHA Avoidance Buffer

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, CDFW recommends a minimum ½-mile no-disturbance buffer be delineated and maintained around each nest, regardless of whether it was detected by surveys or observed incidentally. These buffers would 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, to prevent nest abandonment and other take of SWHA as a result of Project activities.

Recommended Mitigation Measure 6: SWHA Take Authorization

CDFW also 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 subdivision (b) is necessary to comply with CESA.

Recommended Mitigation Measure 7: SWHA Foraging Habitat Mitigation

Finally, 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.

Tricolored blackbird

The Project site is within the known geographic range of tricolored blackbird (TRBL) and a historical occurrence was documented within 10 miles of the Project site (CDFW 2024). TRBL breed within the vicinity of fresh water, primarily in marshy areas. Important sites for nesting colonies include heavy growths of cattails, tules, thistles, willows, blackberries, mustard, nettles, and salt cedar (Grinnell and Miller 1944). TRBL are also known to breed in alfalfa, wheat, and other low agricultural crop fields, and these fields are becoming an increasingly important nesting habitat type, particularly in the San Joaquin Valley (Beedy et al. 2023). Based on aerial imagery and the information provided in the NOP, portions of the Project site could provide potential foraging and nesting habitat for TRBL.

CDFW recommends that a qualified biologist conduct a habitat assessment as part of the biological technical studies conducted in support of the DEIR. If potentially suitable habitat is identified, consultation with CDFW is recommended for guidance on focused survey methods and mitigation measures such avoidance, minimization, and mitigation.

Blunt-nosed Leopard Lizard

The Project site is within the known geographic range of Blunt-nosed leopard lizard (BNLL) and a historical occurrence was documented directly adjacent to the Project site (CDFW 2024). Suitable BNLL habitat includes all areas of grassland and shrub habitat that contains required habitat elements, such as small mammal burrows and open areas for basking. BNLL are also known to utilize open space patches between suitable habitat features including disturbed sites and unpaved access roadways. Based on aerial imagery and the information provided in the NOP, portions of the Project site may contain suitable habitat for BNLL.

As BNLL have the potential to occupy the Project site and have been documented within the Project vicinity, CDFW recommends that a qualified biologist conduct focused

protocol surveys in accordance with the “Approved Survey Methodology for the Blunt-nosed Leopard Lizard” (CDFW 2019) as part of as part of the biological technical studies conducted in support of the DEIR. This survey protocol, designed to optimize BNLL detectability, reasonably assures CDFW that ground disturbance will not result in take of this fully protected species.

In addition to conducting BNLL surveys, CDFW recommends the DEIR include the following measures:

> **Recommended Mitigation Measure 8: BNLL Consultation**
>
> CDFW recommends that consultation with CDFW occur to discuss how to implement the Project and avoid take over the life of the Project. 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. If take cannot be avoided, the potential to pursue an ITP pursuant Fish and Game Code section 2081 subdivision (b) will be discussed during the consultation process.

Temblor legless lizard

The Project site is within the known geographic range of Temblor legless lizard (TLL) and recent occurrences were documented within the annual grassland located west of the Project site (CDFW 2024). TLL occupy sparsely vegetated areas of desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Often can be found under surface objects such as rocks, boards, driftwood, and logs. Based on aerial imagery and the information provided in the NOP, portions of the Project site may contain suitable habitat for TLL. CDFW recommends that a qualified biologist conduct a habitat assessment as part of the biological technical studies conducted in support of the DEIR. If potentially suitable habitat is identified, consultation with CDFW is recommended for guidance on focused survey methods and mitigation measures such avoidance, minimization, and mitigation.

Crotch’s bumblebee

The Project site is within the known geographic range of Crotch bumble bee (CBB) and a historical occurrence has been documented approximately five miles west of the Project site (CDFW 2024). CBB was once common throughout most of central and southern California. CBB are known to inhabit areas of grasslands and scrub that contain requisite habitat elements for nesting, such as small mammal burrows and bunch/thatched grasses. CBB was once common throughout most of central and southern California. However, it now appears to be absent from most of their range, especially in the central portion of its historic range within California’s Central Valley (Hatfield et al. 2015). Analyses by the Xerces Society et al. (2018) suggest there have

been sharp declines in relative abundance by 98% and persistence by 80% over the last ten years.

CDFW recommends a qualified biologist conduct a habitat assessment to determine if the Project area and the immediate surrounding vicinity contain habitat suitable to support CBB. Potential nesting sites, which include all small mammal burrows, perennial bunch grasses, thatched annual grasses, brush piles, old bird nests, dead trees, and hollow logs would need to be documented as part of the assessment. If potentially suitable habitat is identified, CDFW recommends that a qualified biologist conduct focused surveys for CBB, and their requisite habitat features following the methodology outlined in the Survey Considerations for California Endangered Species Act Candidate Bumble Bee Species (CDFW 2023). If surveys indicate the presence or potential presence of CBB, consultation with the CDFW is recommended for guidance on the development of mitigation measures such as take avoidance, minimization, and mitigation.

American Badger

The Project site is within the geographic range of American Badger (AMBA) and multiple historic and recent occurrences have been documented adjacent to the Project site (CDFW 2024). AMBA occupy sparsely vegetated land cover with dry, friable soils to excavate dens, which they use for cover, and that support fossorial rodent prey populations (i.e., ground squirrels, pocket gophers, etc.). They can also burrow in dry farmed agricultural lands or lands that have been fallowed. As AMBA have the potential to den and/or forage within the Project area, CDFW recommends that a qualified biologist assess the presence/absence of AMBA by conducting a focused field survey in all areas of potentially suitable habitat as part of the biological studies conducted in support of the DEIR. If surveys indicate the presence or potential presence of AMBA, consultation with the CDFW is recommended for guidance on mitigation measures such as avoidance, minimization, and mitigation.

Burrowing owl

The Project site is within the known geographic range of burrowing owl (BUOW) and there are multiple historic and recent occurrences located adjacent to the Project site (CDFW 2024). BUOW inhabit open grasslands and desert scrublands containing small mammal burrows, a requisite habitat feature used by BUOW for nesting and cover. Based on aerial imagery and the information provided in the NOP, most of the Project site contains suitable habitat for BUOW nesting and foraging.

As BUOW have the potential to nest and/or forage within the Project site, CDFW recommends assessing presence/absence of BUOW by having a qualified biologist conduct surveys following the California Burrowing Owl Consortium's (CBOC) "Burrowing Owl Survey Protocol and Mitigation Guidelines" (CBOC 1993) and CDFW's

"Staff Report on Burrowing Owl Mitigation" (CDFG 2012) as part of the biological studies conducted in support of the DEIR.

In addition to conducting BUOW surveys, CDFW recommends the DEIR include the following measures:

Recommended Mitigation Measure 9: BUOW Surveys Prior to Construction

Depending on the time between the initial survey efforts conducted in support of the DEIR and Project construction, CDFW recommends that additional surveys, following the "Burrowing Owl Survey Protocol and Mitigation Guidelines" (CBOC 1993) and CDFW's "Staff Report on Burrowing Owl Mitigation" (CDFG 2012) be repeated the survey season immediately prior to construction.

Recommended Mitigation Measure 10: 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 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 11: BUOW Consultation

If BUOW are found within these recommended buffers and avoidance is not possible, consultation with the CDFW is recommended for guidance on the development of mitigation measures such as take avoidance, minimization, and mitigation.

Other State Species of Special Concern

The Project site is within the known geographic range of the San Joaquin pocket mouse, short-nosed kangaroo rat, Tulare grasshopper mouse, Blainville's horned lizard,

California glossy snake, San Joaquin coachwhip, and Western spadefoot, , and, to evaluate Project-related impacts to these species, CDFW recommends that a general habitat assessment be conducted as part of the biological technical studies conducted in support of the DEIR.

Special-Status Plant Species

The Project site is within the known geographic range of several special status plant species including California jewelflower, Kern mallow, and San Joaquin woollythreads, and these species were documented historically within the Project vicinity (CDFW 2024). The Project site may contain suitable habitat for special status plant species, including the species mentioned above.

CDFW recommends that the Project site(s) be surveyed for special status plants within areas of suitable habitat by a qualified botanist following the “Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities” (CDFW 2018) as part of the biological technical studies conducted in support of the DEIR. 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. If surveys indicate the presence or potential presence of special status plants, consultation with CDFW is recommended for guidance on mitigation measures such as avoidance, minimization, and mitigation.

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, GKR, SJKF, BNLL, California jewelflower, Kern Mallow, 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: Multiple streams subject to CDFW’s regulatory authority pursuant Fish and Game Code section 1600 et seq. appear to be present within the Project site based on a review of aerial imagery. Project activities that substantially change the bed, bank, and channel of any river, stream, or lake are 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 and may include those that are highly modified such as canals and retention basins.

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 encourages that Project ground-disturbing activities occur during the bird non-nesting season; however, if ground-disturbing or vegetation-disturbing activities must occur during the nesting season (February 1st through September 15th), 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 Code sections as referenced above.

To evaluate Project-related impacts on nesting birds, CDFW recommends that a general habitat assessment for nesting birds, including loggerhead shrike, northern harrier, and prairie falcon be conducted as part of the biological technical studies conducted in support of the CEQA document. Depending on the results of that assessment, CDFW further recommends that the CEQA document for this Project include that a qualified biologist conduct a pre-construction survey for active nests no more than 10 days prior to the start of ground or vegetation 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 Project site to identify nests and determine their status. A sufficient area means any area potentially affected, either directly or indirectly, by the Project. In addition to direct impacts (i.e., nest destruction), noise, vibration, and movement of workers or equipment could also affect nests. CDFW recommends that a qualified biologist establish a behavioral baseline of all identified nests. Once Project activities begin, CDFW recommends having a qualified biologist continuously monitor nests to detect behavioral changes resulting from the Project. If behavioral changes occur, CDFW recommends halting the work causing that change and consulting with CDFW 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 the birds have fledged and are no longer reliant upon the nest or on-site 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 Project site 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.

California Natural Diversity Database: Please note that the CNDDB is populated by records through voluntary submissions of species detections. As a result, species may be present in locations not depicted in the CNDDB but where there is suitable habitat features capable of supporting species. A lack of an occurrence record in the CNDDB 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 during the appropriate survey period(s) 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 site.

Artificial Lighting: Installation of outdoor artificial night lighting can disrupt the circadian rhythms of many wildlife species. Many species use photoperiod cues for communication, determining when to begin foraging, thermoregulation behavior, and migration (Longcore and Rich 2004, Miller 2006, Nightingale et al. 2006, Perry et al. 2008, Stone et al. 2009). Phototaxis, a phenomenon which results in attraction and movement towards light, can disorient, entrap, and temporarily blind wildlife species that experience it (Longcore and Rich 2004). Project activities could result in disruption of wildlife behavior, inadvertent injury, or mortality.

CDFW recommends that the DEIR for the Project include an analysis of artificial lighting as it relates to biological resources and incorporate enforceable mitigation measures to decrease the impacts of artificial outdoor lighting on wildlife species. Potentially feasible mitigation measures include motion sensitive lighting; mounting light fixtures as low as possible to minimize light trespass; use of light fittings that direct and confine the spread of light downward; and use of long-wavelength light sources. In addition, CDFW recommends that lighting is not installed in ecologically sensitive areas (e.g., streams, wetlands, and habitat used by special status species, such as nesting/roosting sites and riparian corridors) and the use of the white/blue wavelengths of the light spectrum be avoided.

Wildlife Movement and Connectivity: The Project area supports significant biological resources and contains habitat connections and supports movement across the broader landscape, sustaining both transitory and permanent wildlife populations. CDFW recommends that on-site features that contribute to habitat connectivity should be evaluated and maintained. Aspects of the Project that could create physical barriers to wildlife movement, including direct or indirect Project-related activities, should be identified, and addressed in the DEIR.

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 DEIR 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, CDFW advises that remaining impacts to sensitive biological resources be mitigated to reduce impacts to a less than significant level, if feasible.

Cumulative Impacts: 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). Cumulative impacts are recommended to be analyzed 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 also be identified and mapped for each resource being analyzed and utilized for this analysis. CDFW recommends closely evaluating the need for a cumulative impacts analysis for the following species as part of the DEIR due to these species being in poor or declining health or at risk: GKR, SJAS, SJKF, SWHA, TRBL, BNLL, TLL, CBB, AMBA, San Joaquin pocket mouse, short-nosed kangaroo rat, Tulare grasshopper mouse, BUOW, loggerhead shrike, northern harrier, prairie falcon, Blainville's horned lizard, California glossy snake, San Joaquin coachwhip, western spadefoot, California jewelflower, Kern mallow, and San Joaquin woollythreads. 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 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 to assist Fresno County in identifying and mitigating Project impacts on biological resources. Please see the enclosed Mitigation Monitoring and Reporting Program (MMRP) table which corresponds with recommended mitigation measures in this comment letter. If you have any questions, please contact Ren Cotter, Environmental Scientist, at the address provided on this letterhead, by telephone at (559) 767-0956, or by electronic mail at Ren.Cotter@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Julie Vance
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Julie A. Vance
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REFERENCES

Beedy, E., W. Hamilton III, R. Meese, D. Airola, W. Schackwitz, and P. Pyle. 2023. Tricolored Blackbird (*Agelaius tricolor*), version 2.0. Birds of the World. P. G. Rodewald and B. K. Keeney, editors. Cornell Lab of Ornithology, Ithaca, NY, USA. https://birdsoftheworld.org/bow/species/tribla/cur/demography. Accessed 25 May 2024.

California Burrowing Owl Consortium. 1993. Burrowing owl survey protocol and mitigation guidelines. Pages 171-177 *in* Lincer, J. and K. Steenhof (editors). 1993. The burrowing owl, its biology and management. Raptor Research Report Number 9.

California Department of Fish and Game. 1994. Staff report regarding mitigation for impacts to Swainson's hawks (*Buteo Swainsoni*) in the Central Valley of California. Sacramento, California, USA.

California Department of Fish and Game. 2012. Staff report on burrowing owl mitigation. Sacramento, California, USA.

California Department of Fish and Wildlife. 2018. Protocols for surveying and evaluating impacts to special status native plant populations and sensitive natural communities. Sacramento, California, USA.

California Department of Fish and Wildlife. 2019. Approved survey methodology for the blunt-nosed leopard lizard. Sacramento, California, USA.

California Department of Fish and Wildlife. 2023. Survey considerations for California endangered species act candidate bumble bee species. Sacramento, California, USA.

California Department of Fish and Wildlife. 2024. Biogeographic information and observation system (BIOS). https://www.wildlife.ca.gov/Data/BIOS. Accessed 8 May 2024.

Grinnell, J., J. Dixon, and J. Linsdale. 1937. Fur-bearing mammals of California. University of California Press. Berkeley, California. 777 pages.

Grinnell, J., and A. Miller. 1944. The distribution of the birds of California. Pacific Coast Avifauna 27.

Hatfield, R., S. Jepsen, R. Thorp, L. Richardson, and S. Colla. 2015. *Bombus crotchii*. The IUCN Red List of Threatened Species. The Xerces Society for Invertebrate Conservation, Portland, OR, USA.

Longcore, T., and C. Rich. 2004. Ecological light pollution - Review. Frontiers in Ecology and the Environment, 2:191–198.

Miller, M. 2006. Apparent effects of light pollution on singing behavior of American robins. The Condor, 108:130–139.

Nightingale, B., T. Longcore, and C. Simenstad. 2006. Artificial night lighting and fishes. Pages 257–276 *in* C. Rich and T. Longcore, editors. Ecological consequences of artificial light at night. Island Press, Washington, D.C., USA.

Perry, G., B. Buchanan, R. Fisher, M. Salmon, and S. Wise. 2008. Effects of night lighting on urban reptiles and amphibians. Chapter 16 in: Urban Herpetology: Ecology, Conservation and Management of Amphibians and Reptiles in Urban and Suburban Environments. J. C. Mitchell, R. E. Jung Brown and B. Bartholomew (ed.). Herpetological Conservation, 3:211-228.

Stone, E., G. Jones, and S. Harris. 2009. Street lighting disturbs commuting bats. Current Biology, 19:1123–1127.

Swainson's hawk technical advisory committee (SWHA TAC). 2000. Recommended timing and methodology for Swainson's hawk nesting surveys in the central valley of California. Swainson's Hawk Technical Advisory Committee.

U. S. Fish and Wildlife Service. 2011. Standard Recommendations for the Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance. U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office, Sacramento, California.

Xerces Society for Invertebrate Conservation, Defenders of Wildlife, and Center for Food Safety. 2018. A petition to the state of California fish and game commission to list the Crotch bumble bee (*Bombus crotchii*), Franklin's bumble bee (*Bombus franklini*), Suckley cuckoo bumble bee (*Bombus suckleyi*), and western bumble bee (*Bombus occidentalis occidentalis*) as Endangered under the California Endangered Species Act.

Attachment 1

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

PROJECT: Cornucopia Hybrid Solar
SCH No.: 2024050219

RECOMMENDED MITIGATION MEASURE	**STATUS/DATE/INITIALS**
Before Disturbing Soil or Vegetation	
SJKF	
Recommended Mitigation Measure 1: SJKF take authorization	
Recommended Mitigation Measure 3: SJKF fencing	
SWHA	
Recommended Mitigation Measure 4: SWHA surveys prior to construction	
Recommended Mitigation Measure 6: SWHA take authorization	
Recommended Mitigation Measure 7: SWHA foraging habitat mitigation	
BNLL	
Recommended Mitigation Measure 8: BNLL consultation	
BUOW	
Recommended Mitigation Measure 9: BUOW surveys prior to construction	
Recommended Mitigation Measure 11: BUOW consultation	
During Construction	
SJKF	
Recommended Mitigation Measure 2: SJKF avoidance buffer	
SWHA	
Recommended Mitigation Measure 5: SWHA avoidance buffer	

Recommended Mitigation Measure 10 BUOW avoidance buffer	