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California State University, Bakersfield
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SUBJECT: Biological Resources Assessment for the California State University, Bakersfield Ground Mount Solar and Battery Project in Bakersfield, Kern County, California

Dear Kristine De Young,

Michael Baker International is pleased to submit this technical letter report documenting the results of a biological resources assessment for the proposed California State University, Bakersfield (CSUB) Ground Mount Solar and Battery Project (Project) located in Bakersfield, Kern County, California. The Project proposes to construct a solar farm over an existing undeveloped portion of the campus. This report is intended to satisfy the requirements of the California Environmental Quality Act (CEQA).

1.0 PROJECT LOCATION

The approximately 14-acre Project site is located within the CSUB campus (Attachment A, Figure 1, Regional Vicinity). The Project site is south of Kroll Way and west of the Arvin-Edison Canal and is within Section 5, Township 30 South, Range 27 East of the Gosford, California 7.5-minute United States Geological Survey (USGS) topographic quadrangle map (Attachment A, Figure 2, Project Vicinity).

2.0 PROJECT DESCRIPTION

CSUB proposes to implement the Project, which would consist of the installation of a 4.55-megawatt direct current ground-mounted photovoltaic solar energy system and associated electrical components on 15 acres on the main CSUB campus. A battery energy storage system with an energy capacity of 11.7 megawatt-hours would also be installed as part of the Project. The solar facility would be managed and operated by a solar energy operator and would provide an estimated annual production of 8.3 gigawatt-hours, or approximately 40 percent of the campus's electricity use, increasing renewable energy generation for the campus.

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3.0 EXISTING SITE CONDITIONS

The Project site is located within the CSUB campus in the San Joaquin Valley. The Project site is relatively flat with little elevation change throughout. Elevations on-site range from approximately 373 feet in the southeast corner to 378 feet within a small area at the northern end of the site. The site currently supports an existing soccer field with the remainder of the Project site consisting of undeveloped land (Attachment A, Figure 3, Project Site). Vegetation on-site is dominated by non-native species. Refer to Attachment B for representative photographs taken throughout the Project site.

Refer to Attachment A, Figure 4, USDA Soils for a map depicting soils present on-site. Soils on-site consist of the following types (USDA NRCS 2026):

- 174: Kimberlina fine sandy loam, 0 to 2 percent slopes MLRA 17
- 243: Wasco sandy loam

4.0 METHODS

4.1 Literature Review

Prior to the field survey, Michael Baker conducted a thorough literature review and records search to characterize existing site conditions and assess the potential for special-status[1] biological resources to occur that might pose a constraint to Project implementation. Michael Baker queried the California Natural Diversity Database (CNDDB, CNDDB 2026a-e) and California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2026) to obtain a list of special-status plant and wildlife species occurrence records within the USGS Gosford, Rosedale, Oildale, Oil Center, Lamont, Stevens, Millux, Connor, and Weed Patch, California 7.5-minute quadrangle maps. The U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Conservation (IPaC) (USFWS 2026a) online database was also reviewed to identify federally listed species and other resources, such as Critical Habitat, known or expected to occur on the Project site or within the immediate vicinity. Additionally, the USFWS Critical Habitat for Threatened & Endangered Species mapping tool (USFWS 2026b) was accessed to determine the location of designated Critical Habitat in relation to the Project site. Other sources of information about the Project site and surrounding area include the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA NRCS 2026) and the USFWS National Wetlands Inventory (USFWS 2026c). All information obtained was used to inform the understanding of the Project site and assist with the field survey and subsequent analysis. The results presented in this technical letter report provide a detailed assessment of the

1 Special-status refers to plant and wildlife species that are federal or state-listed, proposed, or candidates; plant species that have been designated a California Rare Plant Rank 1, 2, or 4 by the California Native Plant Society; wildlife species that are designated by the California Department of Fish and Wildlife as Fully Protected, or Species of Special Concern; and other state or locally rare vegetation communities.

suitability of the habitat on-site to support special-status plant and wildlife species and other sensitive natural resources.

4.2 Habitat Assessment/Field Survey

Classification of the on-site vegetation communities and other land uses was based on the descriptions of terrestrial vegetation classification systems described in *A Manual of California Vegetation* (Sawyer et al. 2009). In addition, site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, indicator species, condition of on-site vegetation communities, and the presence of potentially regulated jurisdictional features were noted. A formal aquatic resources delineation was not conducted. Michael Baker used geographic information systems software to digitize the mapped vegetation communities and overlayed the data onto an aerial photograph to further analyze existing conditions and quantify the acreages of each vegetation community on-site.

All plant and wildlife species observed during the field survey were recorded in a field notebook. Plant species observed were identified by visual characteristics and morphology in the field while unusual and less familiar plant species were photographed and later identified using taxonomic guides. Plant species nomenclature and taxonomy followed *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et al. 2012), and scientific names are provided immediately following common names of plant species (first reference only). Wildlife detections were made through aural and visual detection, as well as observation of sign including scat, trails, tracks, burrows, and nests. Field guides used to assist with identification of species during the field survey included *The Sibley Guide to Birds, Second Edition* (Sibley 2014) for birds, *A Field Guide to Western Reptiles and Amphibians, Third Edition* (Stebbins 2003) for herpetofauna, and *A Field Guide to Mammals of North America, Fourth Edition* (Reid 2006) for mammals. Wildlife species taxonomy followed the North American Butterfly Association's (NABA) *Checklist of North American Butterflies, Butterflies Occurring North of Mexico* (NABA 2024) for butterflies, the Society for the Study of Amphibians and Reptiles' *Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico* (Nicholson 2025) for herpetofauna, the American Ornithological Society's *Checklist of North American Birds* (Chesser et al. 2025) for birds, and *Mammal Species of the World: A Taxonomic and Geographic Reference* (Wilson and Reeder 2005) for mammals. Scientific names are provided immediately following common names of wildlife species (first reference only).

The potential for special-status species to occur in the biological study area (BSA) was evaluated based on each species' known geographic distribution and elevation range; species-specific habitat requirements (e.g., vegetation communities/land covers, soils, hydrology, slope/aspect, and other requirements); life history traits (e.g., disturbance tolerance); and Michael Baker biologists' expertise, knowledge, and best professional judgement. Current and historic records of species identified during the literature review were also considered during the analysis; however, a species' potential to occur determination was not solely based on the age or location

of these previously documented records. The potential to occur categories used in this analysis are defined as follows:

- **Present**: The species was observed or detected within the BSA during 2026 surveys.
- **Expected**: The BSA is within the known geographic distribution and elevation range of the species, there is high quality suitable habitat present (considering vegetation, soils, and other factors), and there is viable landscape connectivity to local known extant population(s) or sighting(s) within the BSA.
- **Moderate**: The BSA is within the known geographic distribution and elevation range of the species, there is moderate to low quality suitable habitat present (considering vegetation, soils, and other factors), and there is limited or no landscape connectivity to a local known extant population.
- **Not Expected**: The BSA is outside the known geographic distribution and elevation range of the species, there is marginal to no suitable habitat, and there is no connectivity to known extant populations.
- **Absent**: The species was not detected during focused or agency-approved protocol surveys.

5.0 RESULTS

Michael Baker biologists Stephen Anderson and Luke Willet conducted a general biological resources survey and habitat assessment on February 12, 2026, between 9:15 A.M. and 11:15 A.M. Their purposes were to document existing conditions, conduct a habitat assessment for special-status plant and wildlife species and sensitive natural communities, and determine the presence of aquatic resources within the BSA (Project site plus 300-foot buffer surrounding the site). Weather conditions were generally sunny with minor cloud cover giving way to clear skies and temperatures ranging from 56 to 61 degrees Fahrenheit with wind speeds ranging from 0 to 5 miles per hour. A total of 47.72 acres were covered during the survey.

5.1 Vegetation Communities and Land Covers

The Project site and BSA support the following land cover types: Fremont cottonwood forest and woodland, non-native grassland, open water, landscaped/ornamental land, disturbed/ruderal land, and developed land. These land cover types are summarized in Table 1, Vegetation Communities and Land Cover Types, and depicted in Attachment A, Figure 5, Vegetation Communities and Land Cover Types. One native vegetation community occurs within the BSA. The majority of the Project site and BSA consists of non-native grassland and disturbed or developed land cover. A total of 17 species of native or naturalized plants, 5 native (29 percent) and 12 non-native (71 percent), were recorded on-site. Attachment C, Species Compendiums, lists the observed plant species.

TABLE 1. VEGETATION COMMUNITIES AND LAND COVER TYPES

Vegetation Community/Land Cover	Project Site (acres)	BSA (acres)	Total Area (acres)
Fremont Cottonwood Forest and Woodland	--	1.68	1.68
Non-Native Grassland	11.36	11.15	22.51
Open Water	--	0.84	0.84
Landscaped/Ornamental	--	0.04	0.04
Disturbed/Ruderal	0.02	7.38	7.40
Developed	2.85	8.03	10.88
TOTAL	**14.23**	**29.12**	**43.35**

Fremont Cottonwood Forest and Woodland (Populus fremontii Forest and Woodland Alliance

A small area in the southwestern portion of the BSA consists of Fremont cottonwood forest and woodland. This vegetation community occurs within an area of the campus known as the *Environmental Studies Area - Outdoor Classroom and Research Area* and appears to be an area that was planted and is currently managed by the campus. This is not a naturally occurring vegetation community, but rather an area that has specifically been planted and irrigated for educational purposes for CSUB. In addition, this community is not associated with any aquatic features. This area was dominated by an overstory of Fremont cottonwood (*Populus fremontii*) with an understory dominated by mule fat (*Baccharis salicifolia*).

Non-Native Grassland

The majority of the Project site and BSA consists of non-native grassland. This community is dominated by red brome (*Bromus rubens*), ripgut brome (*Bromus diandrus*), foxtail barley (*Hordeum murinum*), big heron bill (*Erodium botrys*), and London rocket (*Sisymbrium irio*). Numerous California ground squirrels (*Otospermophilus beecheyi*) and burrow complexes were observed throughout the non-native grassland within the Project site limits. This area appears to occasionally be mowed.

Open Water

A concrete-lined channel, the Arvin-Edison Canal, is located just east and outside of the Project site. During the site visit, this canal contained flowing surface water throughout the bottom of the channel and was mapped as open water.

Landscaped/Ornamental

The landscaped/ornamental land cover mapping unit is located within a small area along the southern border of the BSA. This land use type is planted with vegetation that is typical of southern

California ornamental plantings, such as Mexican fan palm (*Washingtonia robusta*), pine species (*Pinus* sp.), and other various ornamental plantings.

Disturbed/Ruderal

The disturbed/ruderal land cover mapping unit includes areas of bare ground lacking any vegetation. This land cover type consists of a small area at the northern end of the Project site, along with access roads associated with the Arvin-Edison Channel east of the Project site.

Developed

The developed land cover mapping unit consists of the existing buildings, parking lots, and other sports fields that are currently managed and used by the campus within the Project site and BSA.

5.2 General Floral Inventory

A total of 17 plant species were observed during the field survey—5 native (29 percent) and 12 non-native (71 percent). The most commonly occurring plants observed during the field survey included foxtail barley, ripgut brome, and big heron bill. Attachment C lists all plant species detected on the Project site.

5.3 General Wildlife Inventory

A total of 15 wildlife species, mostly birds, were observed during the field survey—13 native (87 percent) and 2 non-native (13 percent). The most commonly occurring species observed during the field survey included California ground squirrel (*Otospermophilus beecheyi*), yellow-rumped warbler (*Setophaga coronata*), California scrub jay (*Aphelocoma californica*), mourning dove (*Zenaida macroura*), and house finch (*Haemorhous mexicanus*). Attachment C lists the wildlife species detected on the Project site.

5.4 Special-Status Biological Resources

Sensitive Natural Communities

Five natural communities considered sensitive by the California Department of Fish and Wildlife (CDFW) were reported in the CNDDB from the nine USGS 7.5-minute quadrangle maps reviewed. These include:

- Great Valley Cottonwood Riparian Forest
- Great Valley Mesquite Scrub
- Valley Sacaton Grassland
- Valley Saltbush Scrub
- Valley Sink Scrub

The BSA contains Fremont cottonwood forest and woodland. However, this community has been planted by CSUB and is used as a research and study area for the campus. It does not function as a typical riparian cottonwood forest and therefore would not be considered a sensitive natural community. Thus, there are no sensitive natural communities within the BSA.

Special-Status Plant Species

A total of 31 special-status plant species were identified during reviews of the CNDDB, CNPS Inventory of Rare and Endangered Plants of California, and IPaC. No special-status plant species were observed during the field survey. After a review of specific habitat preferences, known distributions, and elevation ranges, no special-status plant species have the potential to occur in the BSA. Attachment D lists the special-status plant species identified during the literature review, their regulatory status, preferred habitats, and potential to occur on the Project site.

Special-Status Wildlife Species

A total of 39 special-status wildlife species were identified during reviews of the CNDDB and IPaC. No special-status wildlife species were observed during the field survey. After a review of results of the literature search and specific habitat preferences, known distributions, and elevation ranges, four special-status wildlife species are expected to occur on-site or have a moderate potential to occur within the Project site. San Joaquin kit fox (*Vulpes macrotis mutica*; Federally Endangered, State Threatened) is considered present, and burrowing owl (*Athene cunicularia*; State Candidate Endangered [SCE]), Bakersfield legless lizard (*Anniella grinnelli*; CDFW Species of Special Concern [SSC]), and San Joaquin coachwhip (*Masticophis flagellum ruddocki*; CDFW SSC) are determined to have moderate potential to occur on-site. Special-status wildlife species are not expected to occur on-site due to a lack of potentially suitable habitat for such species.

An earthen kit fox den was previously identified within the Project site but no longer exists. A CNDDB record of this species coincides with the Project site and indicates the species is known from the area of the campus, between the Kern River and Ming Street (CNNDB 2026a). As a result, this species is expected on-site.

No burrowing owls or known burrowing owl burrows have been observed by McCormick at the Project site or within a 200-foot buffer from 2024 to present. Non-native grassland habitat suitable for burrowing owl and numerous ground squirrel burrows potentially suitable for burrowing owl were found on-site, and this species was recorded in 2004 from less than one mile southwest of the Project site (CNNDB 2026a). However, on-site habitat quality for burrowing owl is limited when a cover of thick and tall non-native grasses is present, which was evident during the February field survey. In addition, although no known burrowing owl burrows have been identified within the CSUB campus areas surveyed by McCormick, a burrowing owl individual was observed just northeast of the facilities yard in 2025. No burrowing owl individuals were observed after that single sighting and no evidence of occupied burrows were observed during the two subsequent surveys conducted in the immediate area within the two weeks following the individual sighting. As a result, this species was determined to have a moderate potential to occur on-site.

Due to potentially suitable habitat on-site and CNDDB records from the project vicinity, Bakersfield legless lizard and San Joaquin coachwhip were determined to have moderate potential to occur on-site.

Although there are recent occurrence records (CNDDB 2026a) for Crotch's bumble bee (*Bombus crotchii*; SCE) approximately 2.5 miles east of the Project site, the non-native grassland on-site was determined not suitable habitat for this species. This habitat is dominated by grass species and appears to occasionally be maintained. In addition, no Crotch's bumble bee have been incidentally observed by McCormick during their surveys of the CSUB campus. While not expected, as the species are generalist foragers, Crotch's bumble bee may forage within the project site. Attachment D lists all special-status wildlife species identified during the literature review, their regulatory status, preferred habitats, and potential to occur in the Project site.

Critical Habitat

Under the U.S. Endangered Species Act (ESA), Critical Habitat may be established for species listed as threatened or endangered by USFWS. Critical Habitat refers to specific areas within the geographical range of a species that were occupied at the time it was listed that contain the physical or biological features that are essential to the survival and eventual recovery of that species and that may require special management considerations or protection, regardless of whether the species is still extant in the area. Areas that were not known to be occupied at the time a species was listed can also be designated Critical Habitat if they contain one or more of the physical or biological features that are essential to that species' conservation and if the other areas that are occupied are inadequate to ensure the species' recovery.

In the event that a project may result in take or adverse modification to a listed species' designated Critical Habitat, a project proponent may be required to engage in suitable mitigation. However, consultation for impacts to Critical Habitat is only required when a project has a federal nexus. This may include projects that occur on federal lands, require federal permits (e.g., Clean Water Act [CWA] Section 404 permit), or receive any federal oversight or funding. If there is a federal nexus, then the federal agency that is responsible for providing funds or permits would be required to consult with the USFWS under the ESA.

Critical Habitat is not present within the Project site. The closest Critical Habitat to the Project site is roughly 13 miles southwest of the Project site and is for Buena Vista Lake ornate shrew (*Sorex ornatus relictus*; Federally Endangered).

State and Federal Jurisdictional Aquatic Features

Three key agencies regulate activities within inland lakes, streams, wetlands, and riparian areas in California. The U.S. Army Corps of Engineers Regulatory Branch regulates activities that result in the discharge of dredged or fill material into waters of the U.S., including wetlands, pursuant to Section 404 of the CWA and Section 10 of the Rivers and Harbors Act. Of the state agencies, the Regional Water Quality Control Board regulates discharges to waters of the State, including

wetlands, pursuant to Section 401 of the CWA, Section 13263 of the California Porter-Cologne Water Quality Control Act, State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State; and the CDFW regulates alterations to lakes, streambeds, and associated riparian habitat pursuant to Section 1600 et seq. of the California Fish and Game Code (CFGC).

Based on a review of aerial photographs, USGS 7.5-minute quadrangle maps, USFWS National Wetland Inventory maps, and observations made during the field survey, there is one drainage feature in the immediate vicinity of the Project site. The Arvin-Edison Canal occurs off-site, just east of the Project site. The NWI map classifies this feature as riverine, intermittent streambed, seasonally flooded, and excavated (R4SBCx).

The site visit confirmed the absence of any drainage features within the Project site. Therefore, a formal aquatic resources delineation is not recommended.

5.5 Wildlife Corridors and Habitat Linkages

Wildlife corridors link areas of suitable habitat that are otherwise separated by areas of non-suitable habitat such as rugged terrain, changes in vegetation, or human disturbance. Wildlife corridors are essential to the regional ecology of a species because they provide avenues of genetic exchange and allow animals to access alternative territories as dictated by fluctuating population densities. Fragmentation of open space areas by urbanization creates “islands” of wildlife habitat that are more or less isolated from each other. Corridors mitigate the effects of this fragmentation by (1) allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange; (2) providing escape routes from fire, predators, and human disturbances, thus reducing the risk of catastrophic events (such as fire or disease) that could lead to local extinction; and (3) serving as travel routes for individual animals as they move within their home ranges in search of food, water, mates, and shelter. Wildlife corridors are usually bound by urban land areas or other areas unsuitable for wildlife. The corridor generally contains suitable cover, food, and/or water to support species and facilitate movement while in the corridor. Larger, landscape-level corridors (often referred to as “habitat or landscape linkages”) can provide both transitory and resident habitat for a variety of species. Although it is commonly used as a synonym for wildlife corridor, a habitat linkage refers to a more substantial, or wider, land connection between two habitat areas. Habitat linkages allow for the periodic exchange of animals between habitat areas, which is essential to maintain adequate gene pools.

The Project site is within an undeveloped portion of the CSUB campus that is generally surrounded by development and isolated from adjacent native habitats. As a result, the Project site does not serve as a wildlife corridor or linkage, although it may provide dispersal opportunities for local populations. The Arvin-Edison Canal is located just east of the Project site and may serve as a travel route for local wildlife species adapted to an urban environment. Because the Project

site is within an area of undeveloped land within the CSUB campus, it does not serve as a habitat linkage or wildlife corridor.

6.0 IMPACT ANALYSIS

The following discussion examines the impacts to biological resources that may occur as a result of the Project. The determination of impacts is based on both the features of the Project and the biological values of the habitat and sensitivity of plant and wildlife species potentially affected.

Impacts to biological resources are assessed using impact significance threshold criteria, which mirror the policy statement contained in CEQA, Section 21001(c) of the California Public Resources Code. The questions below model those included in the checklist of threshold questions listed in Appendix G of the CEQA Guidelines that are used to determine if the Project would have significant impacts to biological resources.

6.1 Impacts to Special-Status Species

a) 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 the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less than significant with mitigation incorporated. The Project site consists primarily of non-native grassland habitat. No special-status plant species are expected to occur within the Project site; however, five special-status wildlife species are expected or have moderate potential to occur on-site, including burrowing owl, San Joaquin kit fox, Bakersfield legless lizard, San Joaquin coachwhip, and Crotch's bumble bee. Avoidance and Mitigation Measures BIO-1 through BIO-5 provided below would reduce potential impacts to special-status wildlife species to a less than significant level.

6.2 Impacts to Sensitive Natural Communities

b) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

No impact. The Project site is dominated by non-native grassland habitat. A small area in the southwest portion of the BSA buffer contains Fremont cottonwood forest and woodland within a research area managed by CSUB. The vegetation community appears to be planted and used for educational purposes within CSUB, and no impacts are anticipated to this area. There are no riparian habitats or other sensitive natural communities present within the Project site. Therefore, the Project would have no impact on riparian habitats or other sensitive natural communities.

6.3 Impacts to State or Federal Wetlands

c) *Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*

No impact. The Project site does not contain any state or federally protected wetlands. Therefore, there would be no impact to state or federally protected wetlands.

6.4 Impacts to Wildlife Movement or Wildlife Corridors

d) *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

Less than significant with mitigation incorporated. The Project site consists of an undeveloped lot surrounded on all sides by existing development and disturbance associated with the CSUB campus and neighboring residential developments. The Project site has no connectivity to any natural habitats that would serve as migration corridors. The adjacent concrete channel may serve as a corridor for localized wildlife adapted to an urban environment, and the Project is not anticipated to impact the channel. There would be no impact to native wildlife movement or wildlife corridors. Nevertheless, the Project's proposed perimeter fence, approximately 6 feet high and 3,300 linear feet with multiple access gates, would be designed to allow wildlife to pass through underneath with a continuous opening at the bottom.

Nesting birds are protected pursuant to the Federal Migratory Bird Treaty Act (MBTA) of 1918 and CFGC.[2] To maintain compliance with the MBTA and CFGC, clearance surveys are typically required during the breeding season (generally February 1 to August 31 but as early as January 1 for raptors) prior to any ground disturbance or vegetation removal activities to avoid direct and indirect impacts to active bird nests and/or nesting birds. Consequently, if an active bird nest is destroyed or if project activities result in indirect impacts to nesting birds (e.g., nest abandonment, loss of reproductive effort), it is considered "take" and is potentially punishable by fines and/or imprisonment. Although no nests were observed during the field survey, vegetation within and adjacent to the Project site, in particular ornamental landscaped areas, provides suitable nesting opportunities for a variety of bird species.

Nesting activity typically occurs from February to August. Disturbing or destroying active nests is a violation of the MBTA. In addition, nests and eggs are protected under CFGC Section 3503. The removal of vegetation during the breeding season is considered a potentially significant

[2] Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by CFGC or any regulation made pursuant thereto; Section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey); and Section 3513 makes it unlawful to take or possess any migratory non-game bird except as provided by the rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA, as amended (16 U.S.C. § 703 *et. sq.*).

impact. Mitigation Measure BIO-1 provided below would reduce this impact to a less than significant level.

6.5 Conflicts with Local Policies or Ordinances

e) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. The Project is not anticipated to conflict with any local policies or ordinances. Therefore, no impacts are anticipated.

6.6 Conflicts with Adopted Habitat Conservation Plan

f) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No impact. The Project site does not occur within any adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan. However, the CSUB campus is in the process of preparing a habitat conservation plan for the campus as part of the incidental take permit for the San Joaquin kit fox. Proposed measures to avoid and minimize impacts to the San Joaquin kit fox that are applicable to this Project have been incorporated into Mitigation Measure BIO-4 below. Therefore, no conflicts with plans are anticipated, and there is no impact.

7.0 MITIGATION MEASURES

BIO-1: Project activities, including, but not limited to, staging, vegetation removal, installation of solar components, including pile driving, should occur outside of the avian breeding season which generally runs from February 1 – August 31 (as early as January 1 for some raptors) to avoid take of birds or their eggs. If avoidance of the avian breeding season is not feasible, qualified biologists with experience in conducting breeding bird surveys shall conduct two nesting bird surveys within one week prior to the initiation of Project activities to detect protected native birds occurring on-site and, as access to adjacent areas allows, other suitable habitats within 500 feet of the Project site. The second survey shall be conducted no more than three days prior to the initiation of Project activities. Further nesting bird surveys shall be conducted within three days prior to Project activities occurring within a new area of the Project site, based on the qualified biologist's evaluation of the need for further surveys as work shifts into a new area. If a lapse in Project-related work of five days or longer occurs, another nesting bird survey shall occur prior to work resuming. The results of all nesting bird surveys shall be provided to CSUB.

If an active nest is located, Project activities within 300 feet of the nest (within 500 feet for raptor nests), or as determined appropriate by a qualified biological monitor, must be

postponed until the nest is vacated and juveniles have fledged and there is no evidence of a second attempt at nesting. The qualified biological monitor shall evaluate species-specific information; ambient conditions and the birds' habituation to them; and the terrain, vegetation, and birds' lines of sight between Project activities and the nest and foraging areas should a nest buffer reduction be determined appropriate. Flagging, stakes, and/or construction fencing shall be used to demarcate the inside boundary of the buffer. CSUB, Project personnel, including all contractors working on site, shall be instructed on the sensitivity of the area.

BIO-2: A qualified biological monitor shall be present on-site during site preparation activities involving ground disturbance and vegetation removal, gravel road installation, and installation of solar components, at the discretion of the biological monitor who will consider time of year, construction activity occurring, and observations of any special-status species to date. Biological monitors shall conduct daily pre-activity clearance surveys of the Project site to confirm status of any active nests, that no new nests are present, and that no anticipated special-status species are present, including Bakersfield legless lizard and San Joaquin coachwhip. If any wildlife is found, the biological monitor shall flush or relocate the animal(s) to appropriate habitat offsite, or stop work in the vicinity of the species and allow individual species to leave on their own accord. The biological monitor shall confirm that construction activities remain within the Project footprint and outside any demarcated nest buffer, that nest buffer flagging/stakes/fencing is in place, and that the likelihood of project activities causing any active nests to be abandoned or fail is minimized. and to flush or remove any special-status or common reptile species that may be present. During monitoring, the biologist shall also confirm that Project avoidance and minimization measures are adequately protecting sensitive resources, or if additional measures are needed to provide protection from Project impacts. In the event the biological monitor determines additional protection measures are needed or an unanticipated special-status species is detected on-site, the biological monitor shall stop all work within an avoidance buffer determined appropriate to protect the resource and immediately inform CSUB and support further coordination with responsible agencies (CDFW or USFWS), as appropriate. The biological monitor shall prepare a monitoring report for each day on-site and provide reports to CSUB on a weekly basis.

BIO-3: A qualified biologist shall conduct four non-breeding season surveys inclusive of a preconstruction survey for burrowing owl 14 days prior to initiation of ground-disturbing activities. If the species is detected or a known burrowing owl den is detected, an avoidance buffer determined appropriate to protect the species or den shall be implemented. Furthermore, if the species is present and an avoidance buffer is not feasible, coordination with CDFW regarding the need for an Incidental Take Permit pursuant to California Fish and Game Code Section 2080 et al will be required. Additional preconstruction surveys may be necessary within three days prior to construction to verify the species has not recolonized.

BIO-4: CSUB is currently in the process of obtaining an Incidental Take Permit for impacts to San Joaquin kit fox (SJKF). In the absence of an approved Incidental Take Permit for construction of the solar photovoltaic system on the project site, or in the event the project is not a covered activity under the Incidental Take Permit, prior to and throughout construction of the proposed project, the following mitigation and avoidance measures shall be adhered to:

- A qualified biologist shall survey the construction site for potential SJKF dens no less than 14 days and no more than 30 days prior to ground disturbance. The survey area shall include the entire construction site, including any access and laydown areas, plus a 100-foot buffer of the site or to the edge of the project site boundaries, whichever comes first. The biologist shall produce a map of all potential SJKF dens in the survey area.
- If a potential SJKF den is found during the pre-construction den survey and cannot be avoided by a buffer distance determined in consultation with CDFW and USFWS, the qualified biologist shall conduct den monitoring prior to ground disturbance. The biologist shall monitor the den for three (3) consecutive nights using tracking medium and/or infrared motion sensor cameras. If no kit fox activity is observed at the potential den during this period, CSUB shall consult with and obtain approvals from CDFW and USFWS regarding measures to protect SJKF during construction-related activities.
- If SJKF activity is observed at a potential den during the monitoring period, the qualified biologist shall monitor the den for five (5) consecutive nights using tracking medium and/or infrared motion sensor cameras from the time of the observation to allow any resident animal to move to another den during its normal activity. With coordination and approval from CDFW and USFWS, use of the den may be prevented or discouraged during this period.
- Prior to ground disturbance, a qualified biologist shall prepare and conduct an employee education program for all construction personnel. The training shall include a brief review of the biology of SJKF, the measures that will be implemented to protect the species during construction-related activities, guidelines to avoid impacts to the species, the penalties for non-compliance, and the boundaries of the construction site. A fact sheet or other supporting materials containing this information shall be prepared by the biologist and distributed to construction personnel. Educational programs will be conducted for any new personnel before they join construction activities. The crew foreman will be responsible for ensuring that all crew members comply with the guidelines.
- A qualified biologist shall monitor all initial ground disturbance to ensure SJKF protective measures are being implemented. Following initial ground disturbance and vegetation removal, the biologist shall train a member of the construction crew (typically the foreman) to act as the construction monitor. The determination of when the construction monitor is sufficiently trained to act independently shall be made by

the biologist. The biologist shall inspect the project site at a frequency determined by the biologist during this phase of construction. Both the biologist and the construction monitor shall have the authority to stop work and/or redirect project activities to ensure protection of SJKF and compliance with all environmental permits and conditions of the project. The biologist or the construction monitor shall complete a daily log summarizing activities.

- If a SJKF moves into the construction site during project activities, the qualified biologist, CDFW, and USFWS shall immediately be contacted. If the qualified biologist determines that the fox is not a nuisance (e.g., it is not impeding work or posing a safety hazard to property operators or the foxes themselves), it will be left alone and not harassed. In the case of a trapped kit fox, escape ramps or structures shall be installed immediately to allow the animal to escape, or the biologist and CSUB shall contact USFWS and CDFW for guidance.
- Any contractor, employee, or other personnel who inadvertently injures or kills a SJKF shall immediately report the incident to construction monitor, the qualified biologist, or the University Police Department. CSUB shall immediately report the incident to USFWS and CDFW.
- The contractor shall implement the following best management practices during construction activities:
  - All pipes or openings with a diameter of three (3) inches or larger shall be inspected and then capped or covered.
  - All holes and trenches shall be inspected and covered at the end of each workday. If a trench cannot be closed, one or more escape ramps constructed of earthen-fill or wooden planks shall be installed.
  - Screening (e.g., chain-link fence) shall be laid on the ground underneath elevated structures to reduce den digging.
  - No pallets shall be left on the ground that could allow SJKF to colonize the area.
  - All vehicles shall be inspected (under and around) for SJKF before they are moved.
  - Construction-related vehicle traffic shall be restricted to established roads and designated access, staging, and parking areas.
  - Construction vehicle speeds shall not exceed 20 miles per hour on paved roads and five miles per hour on dirt roads.
  - Feeding of SJKF shall be prohibited.
  - Firearms shall be prohibited
  - Pets shall be prohibited in construction sites.
  - During project activities, all trash that may attract SJKF shall be properly contained, removed from the work site, and disposed of at least once a week from the project site. Following construction, all trash and construction debris shall be removed from work areas.

- Work shall be prohibited after sunset and before sunrise, when kit foxes are most active.
- Use of rodenticides on the project site shall be prohibited and the use of herbicides shall be restricted. All uses of herbicides shall observe label and other restrictions mandated by the U.S. Environmental Protection Agency, California Department of Food and Agriculture, and other State and Federal legislation, and be approved for use by the University.

BIO-5: A qualified biologist shall conduct two preconstruction surveys, the first of which would include a habitat assessment, for nesting Crotch's bumble bee prior to initiation of ground-disturbing activities. A report documenting the results of the habitat assessment and surveys shall be submitted to CSUB for their records. If the species is detected, a 50-feet avoidance buffer of small mammal burrows shall be implemented until coordination with CDFW can occur. If avoidance is not feasible, coordination with CDFW regarding the need for an Incidental Take Permit pursuant to CFGC Section 2080 et seq. will be required.

8.0 CONCLUSIONS

The Project, inclusive of the five mitigation measures outlined above, will mitigate potentially significant adverse impacts to biological resources. Please feel free to contact me at (949) 330-4147 or at stephen.anderson@mbakerintl.com with any questions you may have regarding the results and/or conclusions of this technical letter report.

Sincerely,

Stephen Anderson

Stephen Anderson
Senior Biologist

Attachments

A. Figures
B. Site Photographs
C. Species Compendium
D. Special-Status Species Potential to Occur Tables

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