APPENDIX C. BIOLOGICAL RESOURCES SURVEY REPORT

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BIOLOGICAL RESOURCES SURVEY REPORT FOR THE CAL POLY GOLD TREE SOLAR PROJECT

June 2016

SUBMITTED TO

California Polytechnic State University: Agricultural Operations and Maintenance, and Facilities Planning and Capital Projects
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San Luis Obispo, CA 93407

SUBMITTED BY

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Biological Resources Survey Report
For the
Cal Poly Gold Tree Solar Project
San Luis Obispo, California

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SWCA Project No. 35528

June 2016

EXECUTIVE SUMMARY

SWCA Environmental Consultants (SWCA) has prepared this Biological Resources Survey Report (BRSR) at the request of the Facilities Planning Department at California Polytechnic State University, San Luis Obispo (University) to support California Environmental Quality Act (CEQA) documentation for the Gold Tree Solar Project (project), located within the northern extent of the campus, east of Highway 1 (refer to Figure 1). The University proposes to retain a third-party developer to construct a two to five megawatt (MW) photovoltaic (PV) solar energy facility within an approximately 40-acre area. While the specific design and layout of the facility has not yet been identified, this report provides a reasonable worst-case scenario regarding facility components, size, layout, height, and area of disturbance.

The purpose of this BRSR is to document biological resources within and proximate to the project site and identify impacts that could occur from any reasonably foreseeable construction and operational activities associated with the proposed project. At the time the biological surveys were conducted, project plans were not available; therefore, the Biological Study Area (BSA) assumed a reasonable worst case scenario regarding construction and operation of the project, including: up to approximately 40 acres of site disturbance; construction, operation, maintenance, and decommissioning of a solar facility; and generation interconnect lines to the Pacific Gas & Electric (PG&E) Gold Tree Substation. The University has identified an approximately 20-acre development footprint for the proposed facility.

This analysis takes into consideration biological resources such as sensitive habitats (i.e., wetlands and drainages), and special-status plant and wildlife species known to occur within a 10-mile vicinity of the project site. For those instances where potential impacts to sensitive biological resources may occur, SWCA has proposed avoidance and minimization measures (AMMs) and best management practices (BMPs) with the objective of avoiding or minimizing impacts to special-status species and sensitive resources (refer to Section 7, Impact Assessment and Mitigation).

Sensitive Habitats

The project site is located within an agriculturally dominant portion of the Cal Poly campus and is used for livestock grazing. Habitat present within the project site is limited to annual grassland, and two drainage swales are present within the project site, but outside of the proposed development area. Information included in the discussion below is based on biological and floristic botanical surveys conducted by SWCA biologists in February 2016, April 2016, and May 2016.

The project site supports one habitat type, California annual grassland, which is currently and has historically been used by the University for livestock grazing units. This vegetation type is dominated by introduced Mediterranean annual grasses in association with many species of non-native and native forbs (herbaceous annual plants such as wildflowers). Annual grasses typically out-compete native grasses and forbs in this plant community. The grassland on within the development footprint was observed to be composed of mostly non-native annual grasses with a small occurrence of purple needlegrass (*Stipa pulchra*) that was not prevalent or dominant enough to be categorized as a separate vegetative community. The grasslands onsite provide foraging habitat for a variety of wildlife species, including raptors and other birds, and small mammals. The site may also provide foraging habitat for larger mammals such as foxes and coyotes; however, the area is currently fenced, which limits larger wildlife migration through the site. Wildlife observed foraging in annual grassland during field surveys included California ground squirrel, common rabbit, western fence lizard, red-tailed hawk, American kestrel, black phoebe, western scrub jay, northern mockingbird, and Asian-collared dove.

There are several drainage swales in the project area that flow during the rainy season. Drainage swales are often indicative of waters of the United States and/or jurisdictional wetland habitat, within U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW) jurisdiction. Additional jurisdictional features and natural communities in the project area include California bulrush marsh, arroyo willow thicket, California sycamore woodland, and California sagebrush scrub, and associated drainages to the north and east of the development boundary. The proposed development boundary avoids direct disturbance of these drainages and potentially jurisdictional features.

The proposed project has been sited to avoid any direct impacts to jurisdictional features and drainages, including a minimum 30-foot buffer from these features. Therefore, the project would not result in any direct impacts to sensitive natural communities, riparian resources, or wetlands regulated by applicable state, federal, or local plans or policies, or by the CDFW or USFWS. Potential indirect impacts to these habitats and features include inadvertent disturbance by equipment, additional foot traffic, and discharge of sediment and other pollutants.

Compliance with existing regulations (i.e. preparation of a SWPPP) and identified mitigation would address these potential impacts.

Special-Status Plant Species

Based on review of the California Natural Diversity Database (CNDDB), a total of 106 special-status plant species have been documented within an approximately 10-mile radius of the project site. Based on seasonally-appropriate floristic surveys conducted within the project site and surrounding areas, two special-status species were observed onsite including Cambria morning-glory (*Calystegia subacaulis*; California Native Plant Society [CNPS] Rare Plant Rank 4.2 species) and Blochman's dudleya (*Dudleya blochmaniae*; CNPS Rare Plant Rank 1B.1 species).

Mitigation is identified to address potential direct and indirect impacts to special-status plant species, that may occur during the construction, operation, and decommissioning of the project. Identified mitigation includes establishment of an in-kind conservation area proximate to the project site (within the 40-acre project area, which would allow for continued use for livestock grazing similar to existing conditions); and restoration of special-status plant species including Cambria morning-glory. Based on implementation of these measures, potential impacts would be mitigated to less than significant.

Special-Status Animal Species

Based on review of the CNDDB, a total of 45 special-status animal species have been documented within an approximately 10-mile radius of the project site. The following 13 special-status wildlife species have the greatest potential to occur within, or proximate to the project site: California red-legged frog (*Rana draytonii*), foothill yellow-legged frog (*Rana boylii*), coast range newt (*Taricha torosa torosa*), western pond turtle (*Emys marmorata)*, grasshopper sparrow (A*mmodramus savannarum*), burrowing owl (*Athene cunicularia*), purple martin (*Progne subis*), western yellow-billed kuckoo (*Coccyzus americanus*), tri-colored blackbird (*Agelaius tricolor*), loggerhead shrike (*Lanius ludovicianus*), California horned lark (*Eremophila alpestris actia*), white tailed kite (*Elanus leucurus*), Cooper's hawk (*Accipiter cooperi*), and other nesting birds protected by the Migratory Bird Treaty Act. Although no special-status species were observed during the field surveys, the site provides foraging and upland habitat for these species.

Mitigation is identified to address potential direct and indirect impacts to special-status animal species, that may occur during the construction, operation, and decommissioning of the project. Identified

mitigation includes establishment of an in-kind conservation area proximate to the project site (within the 40-acre project area, which would allow for continued use for livestock grazing similar to existing conditions); avoidance of drainages; pre-construction surveys; biological monitoring during construction and decommissioning; worker training; and, additional protection measures typically recommended and required by resource agencies including the USFWS and CDFW. Based on implementation of these measures, potential impacts would be mitigated to less than significant.

Agency Consultation

This BRSR would be used by the University, and affected state or federal regulatory agencies during the environmental review process for the project. Any direct impact of potentially jurisdictional drainages within the project area warrants consultation with the USACE, the RWQCB, and the CDFW prior to construction activities. The inferred presence of CRLF and their critical habitat in the BSA warrants formal consultation with the United States Fish and Wildlife Service (USFWS) prior to any construction activities.

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1 INTRODUCTION

1.1 Purpose of Biological Resources Survey Report

SWCA Environmental Consultants (SWCA) has prepared this Biological Resources Survey Report (BRSR) at the request of the Facilities Planning Department at California Polytechnic State University, San Luis Obispo (University) to support California Environmental Quality Act (CEQA) documentation for the Gold Tree Solar Project (project), located within the northern extent of the campus, east of Highway 1 (refer to Figure 1).

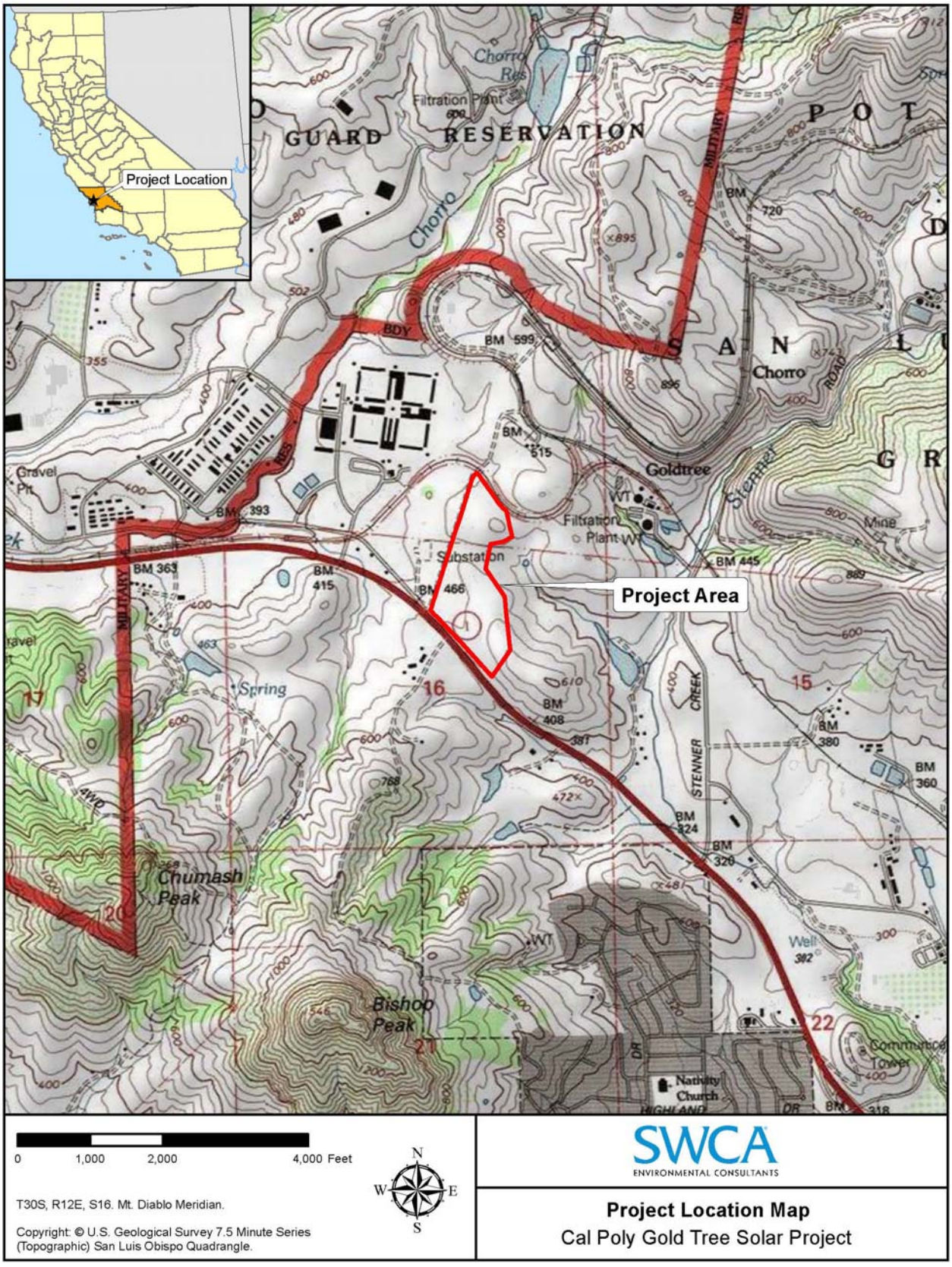
The purpose of this BRSR is to document biological resources within and proximate to the project site and identify impacts that could occur from any reasonably foreseeable construction and operational activities associated with the proposed project. At the time the biological surveys were conducted, project plans were not available; therefore, the Biological Study Area (BSA) assumed a reasonable worst case scenario regarding construction and operation of the project, including: up to approximately 40 acres of site disturbance; construction, operation, maintenance, and decommissioning of a solar facility; and generation interconnect lines to the Pacific Gas & Electric (PG&E) Gold Tree Substation. The University has identified an approximately 20-acre development footprint for the proposed facility. This analysis takes into consideration biological resources such as sensitive habitats (i.e., wetlands and drainages), and special-status plant and wildlife species known to occur within a 10-mile vicinity of the project site. For those instances where potential impacts to sensitive biological resources may occur, SWCA has proposed avoidance and minimization measures (AMMs) and best management practices (BMPs) with the objective of avoiding or minimizing impacts to special-status species and sensitive resources (refer to Section 7, Impact Assessment and Mitigation).

SWCA understands this BRSR would be used by the University, and affected state or federal regulatory agencies during the environmental review process for the project. Any direct impact of potentially jurisdictional drainages within the project area warrants consultation with the United States Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife (CDFW) prior to construction activities. The inferred presence of CRLF and their critical habitat in the BSA warrants formal consultation with the United States Fish and Wildlife Service (USFWS) prior to any construction activities.

1.2 Biological Study Area

The approximately 82-acre Biological Study Area (BSA) as a whole encompasses the 40-acre project area and areas that are just outside project boundaries that should be discussed in terms of documenting biological resources and potential impacts (refer to Figure 2).. Representative photographs of the site are provided in Attachment A.

Figure 1. Project Location Map



2 DESCRIPTION OF THE PROPOSED ACTION

2.1 Project Location and Setting

The University is located northeast of the City of San Luis Obispo, approximately midway between San Francisco and Los Angeles on California's central coast. The campus occupies over 6,000 acres. University lands include range and agricultural areas as well as natural preserves, in addition to more developed areas. The more developed portion of campus is identified as the "campus instructional core" and includes agricultural support facilities, and academic, housing and administrative buildings. The campus instructional core is generally bound by Highland Drive on the north, California Boulevard on the west, Slack Street on the south, and foothills on the east.

The project site is located in the northern extent of the campus, within an area defined in the University Master Plan as Cheda Ranch, approximately 0.5 mile north of Stenner Creek Road, immediately east of Highway 1. The site is accessible from Highway 1 along Gold Tree Road, which provides access to existing campus agricultural areas and an active orchard to the east of the project site. The project site is, and has historically been, used for grazing sheep and goats. No irrigation is present onsite; however, water is provided for grazing livestock. Fencing and gates are present to enclose and protect the livestock. The PG&E Gold Tree substation is located northwest of the project site. Surrounding land uses include: the California Men's Colony (state prison) to the northwest; agricultural uses to the northeast, east, and southeast; Highway 1, agricultural uses, scattered residences, and vacant land to the northwest, west, and southwest.

2.2 Project Components

The University proposes to retain a third-party developer to construct a two to five megawatt (MW) photovoltaic (PV) solar energy facility within an approximately 40-acre area. While the specific design and layout of the facility has not yet been identified, this report provides a reasonable worst-case scenario regarding facility components, size, layout, height, and area of disturbance.

2.2.1 Solar Facility, Support Structures, and Interconnect

The proposed facility would consist of up to 1,500 single axis tracking solar modules containing approximately ten solar panels per module. Modules will be arranged in 20 to 60 rows depending upon final configuration. Each tracker module would be approximately 230 square feet in size, mounted onto a galvanized steel rack. Each tracker module would be tilted to the south, and installed at an approximate 20 degree angle in relationship to the horizontal plane, with the higher end at approximately 12 feet and the lower end at approximately 4 feet. Trackers would be mounted in the ground through foundation screws or helical piles, or rest on the ground with concrete ballasted feet. Each row of trackers would turn to follow the sun, powered by a single electric motor. One inverter enclosure and foundation is proposed for each four rows of trackers with an average of approximately 120 trackers per block. A total of up to approximately 1,500 PV panels are proposed; each panel would be approximately 42 inches tall by 82 inches wide. The panels would be made of crystalline silicon with an anti-reflective coating. During most times of day the panels will be tilted to either the east or west along the tracker's northerly axis.

Electrical energy generated by the tracker units would be gathered via a DC cable system laid in aboveground metal trays measuring at approximately six-by-six inches running the length of the tracker rows and underground trenches from the arrays to electrical equipment enclosures housing banks of inverters and a transformer. The inverter enclosures would be sized and spaced according to final design and engineering requirements with a typical metal enclosure housing two to four inverters to serve up to 1 MW (or approximately 270 trackers) of the array. The project would use 5 to 20 inverters that would be housed in inverter enclosures placed approximately ten feet above the ground.

In addition to the arrays, the project includes construction of a new transformer and a maintenance and storage building, which would house equipment and battery storage. The maintenance and storage building would be located near the existing power lines and northern fence (property boundary), and would consist of an approximately 200-square foot "c-train"-type structure, approximately ten feet in height. The proposed project would include 6-foot tall wood or metal post and barbed wire security fencing surrounding the perimeter of the facility and maintenance and storage structure. Locked gates equipped with "KNOX boxes" for emergency responder access would further secure the facility. No security lighting is proposed/motion-sensor security lighting is proposed at the maintenance and storage structures, consisting of six 24-foot tall poles and shielded light fixtures.

The proposed project would include a generation interconnection to the existing Pacific Gas & Electric (PG&E) Gold Tree substation, located approximately 200 feet north of the project site. There are existing power lines traversing the project site leading to the substation. The following options are currently identified for connection to the substation: 1) the project may tie into the existing 12 kilovolt (kV) or 70 kV lines with "T-tap" cut-outs; 2) the project may include the construction of a new overhead line and new cross arms; or 3) the project may include the construction of new poles, lines, and three conductors.

The site would be accessed via an existing ranch road extending from Highway 1, and internal 24-feet wide unpaved, decomposed granite access roads within the arrays. During construction, access roads would be treated with Air Pollution Control District-approved chemical soil stabilizer. During operation, these roads would be used for periodic maintenance and bi-annual panel washing. The project includes the planting, establishment, and maintenance of approximately 1 acre of landscaping located along Highway 1 and consisting of native vegetation that will reach a height of six to 8 feet.

2.2.2 Construction

While the footprint of the final project may be less than 20 acres, construction of the proposed project is anticipated to require up to approximately 40 acres of disturbance. At this time, no mass grading, substantial alterations to the existing topography, or hauling of excess fill or import of clean fill are proposed. Construction of the project is estimated to occur the following phases:

1. Site preparation, including vegetation removal, occurring over approximately 2 weeks, and resulting in approximately 5 to 10 construction round trips per day, in addition to approximately 20 haul round trips;

2. Site grading, including internal access road construction occurring over approximately 2 weeks, and resulting in approximately 10 to 20 construction round trips per day, in addition to approximately 40 haul round trips;

3. Construction of the solar arrays, generation interconnect, structures, and fencing occurring over approximately 8 weeks, resulting in approximately 20 to 30 construction round trips per day, in addition to approximately 80 haul round trips.

The construction phase includes a temporary covered assembly area (for tracker assembly) and a concrete wash-out area (approximately 150 square feet in size) for foundations for the maintenance/storage building, tracker motors, transformer, and inverters.

The University will implement sedimentation and erosion control measures in addition to a Regional Water Quality Control Board-approved Stormwater Pollution Prevention Plan. The sedimentation and erosion control plan will include typical devices including straw wattles, check dams, fabric blankets, and silt fencing. All erosion control materials will be biodegradable and natural fiber. Long-term drainage and stormwater management plans have not yet been developed.

Water for dust suppression would be supplied by the University, and is anticipated to result in a demand of 1 acre-foot during the 2-month construction period. Drinking water and portable toilets are anticipated to be provided by the construction manager.

2.2.3 Operation

The proposed project would not require any potable water or sewer connections. The facility would be unmanned. Maintenance would occur up to once a month, resulting in approximately 1-2 operational trips per month. Operational water would be provided by existing water hydrants on campus, and transported to the project site via water trucks and would be used for panel washing approximately twice a year (approximately .07 acre feet per year), resulting in approximately 8 operational trips per annual washing. Additional water demand would include approximately 1-5 acre feet per year to irrigate landscape screening, until established. The existing infrastructure that provides non-potable water to livestock watering troughs would be used to establish the vegetation. Therefore, the total anticipated operational water demand in the short-term would be approximately 6 acre feet per year, long-term demand would be 1 acre foot per year.

The University would implement an Integrated Pest Management Plan, which may include the following: weed control, including use of native ground cover, livestock grazing to control grasses, manual harvest, and use of herbicides if necessary; vegetative management for fuel load reduction; and, insect, pest, and disease management including manual trapping of vertebrate pests, eradication, use of Environmental Protection Agency (EPA)-approved rodenticides.

2.2.4 Decommissioning

The project includes de-commissioning the facility and reclamation of the site. The 40-day decommissioning process will include removal of all facility elements, including but not limited to: solar panels, trackers, racking, posts, electrical equipment, underground conduits and cables, concrete pads, fences, security lighting, and access road gravels. No grading is proposed. Reclamation (20-day duration) will include evaluation of adjacent grasses and vegetation, soil preparation, temporary irrigation, seed/crop/vegetation planting, and watering and fertilization (if necessary).

3 METHODOLOGY

3.1 Literature Review

Prior to the field survey, SWCA conducted a literature review to gain insight on what species have known occurrences in the project area. The review was initiated with a query of the most recent version of the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB 2016) to identify reported occurrences of sensitive resources within 10 miles of the project area. The query included the U.S. Geological Survey (USGS) quadrangle for San Luis Obispo and the surrounding eight quadrangles (i.e., Pismo Beach, Port San Luis, Morro Bay South, Morro Bay North, Arroyo Grande NE, Lopez Mountain, Santa Margarita, and Atascadero). The California Native Plant Society (CNPS) Electronic Inventory of Rare and Endangered Plants of California (2016) online was also reviewed to provide additional information on rare plants known to occur in the area. Existing environmental documents and various reports prepared by SWCA were also reviewed for background information and recent findings in the vicinity.

3.2 Field Surveys

Following the literature review, SWCA Biologist Barrett Holland conducted field surveys of the project BSA in February, April, and May 2016. The purpose of the field surveys was to characterize the existing

conditions within the project boundaries/BSA, to identify those biological resources that could be impacted by construction of the proposed solar farm. The survey effort was conducted by walking the 40 acre project site and the drainage areas located just outside project boundaries within the BSA. These areas were surveyed and mapped in order to document vegetation and wildlife species, habitat types, and any special-status plant and wildlife species that may be affected by construction activities. During the surveys, SWCA inventoried botanical resources within the BSA using dichotomous keys as necessary (Baldwin et al. 2012; Hoover 1970). It should be noted that surveys were not conducted during the appropriate blooming period for special-status plant species with potential to occur in the BSA. Wildlife species were documented based on visual observation, auditory cues (i.e., calls and songs), and indirect signs (e.g., tracks, scat, skeletal remains, burrows, etc.). No protocol-level surveys for special-status wildlife species were conducted as part of this study. A list of plant species observed is included as Attachment B.

4 EXISTING CONDITIONS

4.1 Soils, Topography, and Elevation

According to the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) Web Soil Survey and the U.S. Department of Agriculture NRCS *San Luis Obispo County, California (Coastal Part)* maps (USDA-NRCS 1984, 2016), soils in the BSA include Diablo clay loam, 5 to 9 percent slopes; Diablo and Cibo clays, 9 to 15 percent slopes; Diablo- Lodo complex, 15 to 50 percent slopes; Lodo clay loam, 5 to 15 percent slopes; Lodo clay loam clay loam, 15 to 30 percent slopes; Los Osos-Diablo complex, 5 to 9 percent slopes; and Los Osos-Diablo complex, 9 to 15 percent slopes. Lodo clay loams are the predominant soil types within the BSA. The topography of the property is flat, rolling to hilly with an elevation of approximately 450 to 550 feet.

4.2 Drainages

A total of four drainage swales are located within the BSA that flow during the rainy season (refer to Figure 2 and Attachment A, Photo 2). Two drainage swales extend into the project area; however, there are no drainage swales within the proposed development footprint. Drainage swales are often indicative of waters of the United States and/or jurisdictional wetland habitat, within USACE, RWQCB, and CDFW jurisdiction. The proposed development footprint has been sited to avoid any direct impacts to jurisdictional features and drainages, including a minimum 30-foot buffer from these features. Descriptions of each of the drainage swales located within and adjacent to the BSA (refer to Figure 2) are provided below.

Drainage Swale A

Drainage Swale A is located within the BSA, bisects the northernmost portion of the project boundary along the east side of Gold Tree Road, and is located approximately 30 feet northwest of the proposed development footprint (refer to Figure 2). This feature is a stormwater drain that extends approximately 75 feet along Gold Tree Road and conveys stormwater runoff to a culvert located approximately 50 feet north of the project boundary, where it is then transported beneath Gold Tree Road and northwest of the BSA. No signs of an ordinary high water mark were observed within this drainage swale.

Drainage Swale B

Drainage Swale B is located within the eastern portion of the BSA, approximately 30 feet east of the project boundary and proposed development footprint (refer to Figure 2). This drainage swale is approximately 420 feet long and ranges in width from 1.5 to 3 feet and conveys stormwater runoff within the BSA, through a culvert beneath an unpaved agricultural access road, east toward the California bulrush marsh habitat. No signs of an ordinary high water mark were observed within this drainage swale.

Drainage Swale C

Drainage Swale C is located within the eastern portion of the BSA, approximately 30 feet east of the project boundary and proposed development footprint (refer to Figure 2). This drainage swale consists of three tributary drainages: one extending approximately 500 feet and ranging from 2 to 3 feet in width, one extending approximately 353 feet in length and ranging from 1 to 3 feet in width, and one extending approximately 97 feet in length and ranging from 1 to 3 feet in width. No signs of an ordinary high water mark were observed within any of the tributaries of this drainage swale. Drainage Swale C conveys stormwater runoff within the BSA, east toward the California bulrush marsh habitat.

Drainage Swale D

Drainage Swale D is located within the eastern portion of the BSA, approximately 100 feet east of the project boundary and proposed development footprint (refer to Figure 2). This drainage swale is approximately 461 feet long and conveys stormwater runoff within the BSA east toward the California bulrush marsh habitat. No signs of an ordinary high water mark were observed within this drainage swale.

Drainage Swale E

Drainage Swale E is located within the BSA, bisects the western portion of the project boundary and conveys stormwater runoff from the west side of Highway 1, beneath Highway 1, through the project boundary, approximately 50 feet southwest of the proposed development footprint, exits the project boundary through a culvert beneath Gold Tree Road, exits the western boundary of the BSA toward the California Men's Colony and connects with Chorro Creek downstream (USFWS 2016). This drainage swale extends approximately 985 feet through the BSA and ranges from 3 to 8 feet wide with no signs of an ordinary high water mark.

Drainage Swale F

Drainage Swale F is located outside of the BSA, approximately 30 feet east of the eastern BSA boundary (refer to Figure 2). This drainage swale consists of four tributary drainages extending approximately 353 feet, 84 feet, 212 feet, and 70 feet in length, respectively. No signs of an ordinary high water mark were observed within any of the tributaries of this drainage swale. Drainage Swale F conveys stormwater runoff east of the BSA, east toward the California bulrush marsh habitat.

4.3 Plant Communities

Plant communities within the proposed development footprint and the BSA were classified per the Manual of California Vegetation (Sawyer et al. 2009; Holland 1986). Plant communities within the BSA include California annual grassland, arroyo willow thicket, California bulrush marsh, California sycamore woodland, California sagebrush scrub, and agriculture. Plant communities within the proposed development footprint are limited to California annual grassland (refer to Figure 2). Habitat acreages are presented in Table 1 below.

Table 1. Habitat Acreages within Project Site and BSA

Habitat Type	Sensitive Community	Acreage within Project Site	Acreage within BSA
California annual grassland	Not Sensitive	39.17	71.28
Arroyo willow thicket	Sensitive (61.201.01)	0	0.10
California bulrush marsh	Not Sensitive	0	1.11
California sycamore woodland	Sensitive (61.310.00)	0	0.07
California sagebrush scrub	Not Sensitive	0	0.31
Agriculture	Not Sensitive	0.20	9.03
Total		39.37	81.91

Source: Sawyer et al. 2009; Holland 1986; CDFW 2010

Figure 2. Biological Resources

4.3.1 California Annual Grassland Series

The BSA supports approximately 71.28 acres of California annual grassland habitat, and the project area supports approximately 39.17 acres of California annual grassland habitat (also known as Valley and foothill grassland, non-native grassland as defined by Holland 1986). California annual grassland is currently, and has historically been, used by the University for livestock grazing units. California annual grasslands are found throughout most of California, primarily below 3,000 feet on fine-textured soils. This vegetation type is dominated by introduced Mediterranean annual grasses in association with many species of non-native and native forbs (herbaceous annual plants such as wildflowers). Annual grasses typically out-compete native grasses and forbs in this plant community. The grassland on within the development footprint was observed to be composed of mostly non-native annual grasses with a small occurrence of purple needlegrass (*Stipa pulchra*) that was not prevalent or dominant enough to be categorized as a separate vegetative community. California annual grassland was the primary plant community within the project boundaries and BSA, and was observed to be composed of mostly non-native annual grasses (refer to Attachment A; Photo 1 and Attachment B; plants observed). At the time of the field survey, the grassland areas within project boundaries (i.e., the development footprint) were grazed by goats, and the project site has been consistently used for livestock grazing, including a sheep unit. As a result of these conditions and activities, this grassland is considered marginal habitat with low potential to support special-status plant species; however, as noted below, two rare plants were observed within the project area (refer to Attachment C, Table C-1). Similarly, the grassland areas outside of project boundaries but within the BSA were dominated by non-native plant species which also hinders the area's support of special-status plants.

Non-native grasses observed within project boundaries and the BSA include oats (*Aven*a spp.), smilo grass (*Piptatherum miliaceum*), ripgut brome (*Bromus diandrus*), soft chess (*Bromus hordeaceus*), red brome (*Bromus madritensis* ssp. *rubens*), Italian rye grass (*Festuca perennis*), barley (*Hordeum* spp.), kikuyu grass (*Pennisetum clandestinum*), and rattail fescue (*Festuca myuros*). Introduced broadleaf herbaceous species (forbs) occurring within annual grassland include red-stemmed filaree (*Erodium cicutarium*), artichoke thistle (*Cynara cardunculus*), teasel (*Dipsacus fullonum*), Italian thistle (*Carduus pycnocephalus*), large-flowered filaree (*Erodium botrys*), plantain (*Plantago lanceolata*), bur-clover (*Medicago polymorpha*), black mustard (*Brassica nigra*), sweet fennel (*Foeniculum vulgare*), bristly-ox tongue (*Helminthotheca echioides*), cheeseweed (*Malva parviflora*), vetch (*Vicia americana*), and short-pod mustard (*Hirschfeldia incana*). Native plant species observed during surveys of this grassland area include sky lupine (*Lupinus nanus*), arroyo lupine (*Lupinus succulentus*), coyote brush (*Baccharis pilularis*), and California poppy (*Eschscholzia californica*).

California grasslands provide foraging habitat for a variety of wildlife species. Raptors, such as red-tailed hawk (*Buteo jamaicensis*), Cooper's hawk (*Accipiter cooperi*), white-tailed kite (*Elanus leucurus*), and American kestrel (*Falco sparverius*) often forage in annual grasslands. A variety of birds use annual grasslands as foraging habitat, including horned larks (*Eremophila alpestris*) and western meadowlarks (*Sturnella neglecta*). Where California ground squirrel (*Spermophilus beecheyi*) burrows and low growing vegetation is present, burrowing owls (*Athene cunicularia*) may use annual grasslands for foraging during the winter months. Reptiles commonly found within annual grasslands include western fence lizard (*Sceloporus occidentalis*) and gopher snake (*Pituophis melanoleucus*). Common mammals potentially present in annual grasslands include Botta's pocket gopher (*Thomomys bottae*), voles (*Microtus* spp.), deer mice (*Peromyscus maniculatus*), California voles (*Microtus californicus*), and Botta's pocket gophers (*Thomomys bottae*) are common residents in annual grasslands in central California. Larger mammals such as coyotes (*Canis latrans*) likely forage in these areas as well. Wildlife observed foraging in annual grassland during surveys of the BSA was limited to California ground squirrel, western fence lizard, red-tailed hawk, American kestrel, black phoebe (*Sayornis nigricans*), western scrub jay (*Aphelocoma californica*), northern mockingbird (*Mimus polyglottos*), and Asian-collared dove (*Streptopelia decaocto*).

4.3.2 Agriculture Land

In addition to the grassland habitat currently used for livestock grazing, the BSA supports approximately 9.03 acres of agricultural land and the project boundary consists pf approximately 0.20 acre of agricultural land, primarily consisting of an orchard. Agricultural land is located within the northern and eastern portions of the BSA. . These areas were included as part of the BSA since they are associated with the drainages and wetland features immediately adjacent to project boundaries. The agricultural areas convey irrigation water to the California bulrush marsh and arroyo willow thicket areas within the BSA and likely keep these areas inundated with water year-round. The citrus trees appear to be regularly maintained to keep weeds and vegetation in the understory to a minimum, and soils within the orchards were observed to be bare. Though citrus trees may provide nesting bird habitat, no special-status species concerns are expected in these areas. However, the irrigation water supports potentially suitable aquatic habitat for sensitive aquatic species (i.e., California red-legged frog [*Rana draytonii*]) to occur downstream and within the BSA/project boundaries. Vocalizations from Brewer's blackbirds (*Euphagus cyanocephalus*) and European starlings (*Sturnus vulgaris)* were heard during surveys.

4.3.3 California Bulrush Marsh

The BSA supports two areas of California bulrush habitat (also known as coastal and valley freshwater marsh as defined by Holland 1986) , approximately 50 feet north of the project boundary and approximately 500 feet east of the project boundary, constituting approximately 1.11 acres within the BSA (refer to Figure 2 and Attachment A, Photos 4 and 5). These marshes are fed by irrigation water from the adjacent agriculture areas and stormwater that flows into the Drainage Swales A, B, C, D, and F (refer to Figure 2) during the rainy season. California bulrush marsh communities can occur in areas of slow-moving (i.e., ditches between reservoirs) or stagnant shallow water along streams and drainages, edges of ponds and lakes, or in areas where the low-permeability of soils results in the prolonged presence of surface water or saturated soils.

One man-made retention pond is located within the California bulrush habitat approximately 500 feet east of project area boundary and stormwater flow is present due to an access road that causes the water to back up (refer to Attachment A, Photo 6). The retention pond drains once water levels get to the height of the culvert. Seepage that occurs downstream of the road (below the culvert outlet) and the pond also creates marsh conditions downstream. The bulrush marsh habitat within the BSA flows southeast and eventually connects with University's Nelson Reservoir downstream. California bulrush marsh is often indicative of waters of the United States and/or jurisdictional wetland habitat, within USACE, RWQCB, and CDFW jurisdiction.

California bulrush marsh habitat in the BSA is dominated primarily by California bulrush (*Schoenoplectus californicus*) and cattails (*Typh*a spp.), however, tall flat sedge (*Cyperus eragrostis*), tule (*Schoenoplectus acutus*), mountain bog bulrush (*Scirpus microcarpus*), spikerush (*Eleocharis macrostachya*), brown-head rush (*Juncus phaeocephalus*), and rush (*Juncus patens*) also have the potential to be present at different times of the year depending on water levels and grazing activities.

Wildlife species with potential for occurrence include the federally threatened California red-legged frog (*Rana draytonii*), bullfrog (*Rana catesbeiana*), Pacific chorus frog (*Pseudacris regilla*), western toad (*Bufo boreas*), and western pond turtle (*Emys marmorata*). Wildlife observed in this habitat during surveys was limited to red-winged blackbird (*Agelaius phoeniceus*) and mallard (*Anus platyrhynchos*).

4.3.4 Arroyo Willow Thicket

The BSA supports approximately 0.10 acre of arroyo willow thicket (also known as Central Coast arroyo willow riparian forest as defined by Holland 1986) located approximately 30 feet north of the immediately adjacent to the northernmost portion of the project boundary and proposed development footprint (refer to Figure 2). This area is saturated from irrigation water and from stormwater that flows down the project site access road (refer to Figure 2 and Attachment A, Photo 7). This area contains similar vegetation to the bulrush marsh areas discussed above in the understory, but has an overstory dominated by arroyo willow (*Salix lasiolepis*). The arroyo willow thicket habitat receives irrigation water and stormwater runoff via Drainage Swale A (refer to Figure 2 and Attachment A, Photo 8) when water is present. Arroyo willow thickets are typically associated with active flowing drainages or riverine areas (Cowardin et al. 1979), and thus considered waters of the United States and/or jurisdictional wetland habitat, within USACE, RWQCB, and CDFW jurisdiction.

Arroyo willow thickets support a wide diversity of wildlife due to the availability of important features such as nesting sites, escape and thermal cover, food, and dispersal corridors. Animals that utilize the arroyo willow thicket habitats include, but are not limited to, species such as striped skunk (*Mephitis mephitis*), raccoon *(Procyon lotor*), Virginia opossum (*Didelphis virginianus*), common garter snake (*Thamnophis sirtalis*), and various birds. Numerous bushtits (*Psaltriparus minimus*) were observed foraging in the willow canopy and vocalizations from Pacific chorus frog where heard during surveys.

4.3.5 California Sycamore Woodland

The BSA supports approximately 0.07 acre of California sycamore woodland habitat (also known as sycamore alluvial woodland as defined by Holland 1986) in association with California bulrush marsh habitat, located approximately 600 feet east of the eastern project boundary and proposed development footprint (refer to Figure 2). Similar to arroyo willow thicket, this habitat type is typically associated with active flowing drainages or riverine areas, and thus associated with waters of the United States and/or jurisdictional wetland habitat, within USACE, RWQCB, and CDFW jurisdiction. This habitat in the BSA is dominated by California sycamore with an understory primarily composed of marsh and annual grassland species as discussed above. This habitat may provide suitable aquatic habitat for various species as well as roosting habitat for bats, and nesting and foraging opportunities for various bird species, including raptors. Northern mockingbirds were observed in this area during surveys.

4.3.6 California Sagebrush Scrub

The BSA supports approximately 0.31 acre of California sagebrush scrub habitat (also known as Central Coastal scrub as defined by Holland 1986) located within the eastern portion of the BSA, approximately 220 feet east of the eastern project boundary and proposed development footprint (refer to Figure 2). Plant species observed in this habitat were limited to California sagebrush (*Artemisia californica*) and species observed in the California annual grassland section described above. California ground squirrels were observed during surveys of this plant community.

4.4 Sensitive Natural Communities and Critical Habitats

The BSA supports two sensitive natural communities including arroyo willow thicket, also known as Central Coast arroyo willow riparian forest as defined by Holland 1986 (CA Code *61.201.01; CDFW 2010); and California sycamore woodland habitat, also known as sycamore alluvial woodland as defined by Holland 1986 (CA Code *61.310.00; CDFW 2010). None of these sensitive natural communities are present within the project boundaries.

The entire BSA, including the proposed development footprint, is located within the southern portion of CRLF Critical Habitat Unit SLO-3—Willow and Toro Creeks to San Luis Obispo. This Unit consists of approximately 116,517 acres of land, and extends from just north of Morro Bay to just north and east of San Luis Obispo.

5 SPECIAL-STATUS SPECIES

The following describes those sensitive biotic resources that have been documented within an approximate 10-mile radius of the project area. Sensitive biotic resources include sensitive plant and/or animal species as described below.

5.1 Special-Status Plant Species

For the purposes of this section, special-status plant species are defined as the following:

- Plants listed or proposed for listing as threatened or endangered under the Federal Endangered Species Act (FESA) (50 Code of Federal Regulations [CFR] 17.12 for listed plants and various notices in the Federal Register for proposed species).
- Plants that are candidates for possible future listing as threatened or endangered under the FESA.
- Plants that meet the definitions of rare or endangered species under the California Environmental Quality Act (CEQA) (State CEQA Guidelines, Section 15380).
- Plants considered by the CNPS to be "rare, threatened, or endangered" in California (Lists 1B and 2 in CNPS 2015).
- Plants listed by CNPS as plants about which we need more information and plants of limited distribution (Lists 3 and 4 in CNPS 2015).
- Plants listed or proposed for listing by the State of California as threatened or endangered under the California Endangered Species Act (CESA) (14 California Code of Regulations [CCR] 670.5).
- Plants listed under the California Native Plant Protection Act (California Fish and Game Code 1900 et seq.).
- Plants considered sensitive by other federal agencies (i.e., United States Forest Service, Bureau of Land Management), state and local agencies, or jurisdictions.

Based on the literature review for this project, a total of 106 special-status plant species have been documented in a 10-mile radius of the project site (refer to Attachment C, Table C-1). Because the plant list presented in Attachment C is considered regional, SWCA evaluated the listed species to identify which special-status plant species have the potential to occur on the project site. This analysis compared the known habitat requirements of those 106 species to the project site's existing conditions, elevation, and soils. Through the analysis, SWCA determined that the existing habitats within the BSA could potentially support the following 21 plants: Coulter's saltbush (*Atriplex coulteri*), round-leaved filaree (*California macrophylla*), Catalina mariposa lily (*Calochortus catalinae*), club-haired mariposa lily (*Calochortus clavatus* var. *clavatus*), La Panza mariposa-lily (*Calochortus obispoensis*), Cambria morning-glory (*Calystegia subacaulis* ssp. *episcopalis*), San Luis Obispo sedge (*Carex obispoensis*), San Luis Obispo owls clover (*Castilleja densiflora* ssp. *obispoensis*) Congdon's tarplant (*Centromadia parryi* ssp. *congdonii*), Palmer's spineflower (*Chorizanthe palmeri*), potbellied spineflower (*Chorizanthe*

ventricosa), La Graciosa thistle (*Cirsium scariosum* var. *loncholepis*), Eastwood's larkspur (*Delphinium parryi* ssp. *eastwoodiae*), Betty's dudleya (*Dudleya abramsii* ssp. *bettinae*), Blochman's dudleya (*Dudleya blochmaniae* ssp. *blochmaniae)*, stinkbells (*Fritillaria agrestis*), Jones's layia (*Layia jonesii*), woodland woolly threads (*Monolopia gracilens)* shining navarretia *(Navarretia nigelliformis* ssp. *radians*), adobe sanicle (*Sanicula maritima*), and most beautiful jewel-flower (*Streptanthus albidus* ssp. *peramoenus*).

Although the species noted above have the potential to occur within the BSA, suitable habitat for these special-status plant species (as described in Table C-1 in Attachment C) is not present within the project boundaries due to ongoing grazing activities and abundance of non-native plant species observed within the project boundaries. However, based on the results of botanical surveys of the BSA conducted during the appropriate blooming period identified two special-status plant species: Cambria morning glory (*Calystegia subacaulis*; CNPS Rare Plant Rank 4.2 species) and Blochman's dudleya (*Dudleya blochmaniae*; CNPS Rare Plant Rank 1B.1 species). A list of plant species observed within the BSA during the botanical surveys is included in Attachment B.

5.2 Special-Status Animal Species

For the purposes of this section, special-status animal species are defined as the following:

- Animals listed or proposed for listing as threatened or endangered under the FESA (50 CFR 17.11 for listed animals and various notices in the Federal Register for proposed species).
- Animals that are candidates for possible future listing as threatened or endangered under the FESA.
- Animals that meet the definitions of rare or endangered species under the CEQA (State CEQA Guidelines, Section 15380).
- Animals listed or proposed for listing by the State of California as threatened and endangered under the CESA (14 CCR 670.5).
- Animal species of special concern to the CDFW (Remsen 1978 for birds; Williams 1986 for mammals).
- Animal species that are fully protected in California (California Fish and Game Code, Sections 3511 [birds], 4700 [mammals], and 5050 [reptiles and amphibians]).

Based on a CNDDB query and a review of existing literature, 45 sensitive wildlife species have been documented within an approximate 10-mile radius of the project area. Because this list of species is considered regional, an analysis of the range and habitat preferences of those wildlife species was conducted to identify which sensitive wildlife species have the potential to occur within the BSA (refer to Attachment C, Table C-2). SWCA determined that the following thirteen special-status wildlife species have the greatest potential to occur within, or directly adjacent to the BSA: California red-legged frog, foothill yellow-legged frog (*Rana boylii*), coast range newt (*Taricha torosa torosa*), western pond turtle, grasshopper sparrow (*Ammodramus savannarum*), burrowing owl, purple martin (*Progne subis*), western yellow-billed kuckoo (*Coccyzus americanus*), tri-colored blackbird (*Agelaius tricolor*), loggerhead shrike (*Lanius ludovicianus*), California horned lark (*Eremophila alpestris actia*), white tailed kite, Cooper's hawk, and other nesting birds protected by the Migratory Bird Treaty Act.

6 REGULATORY OVERVIEW

6.1 Federal Policies and Regulations

6.1.1 Federal Endangered Species Act of 1973

The FESA provides legislation to protect federally listed plant and animal species. Impacts to listed species resulting from the implementation of a project would require the responsible agency or individual to formally consult with the U.S. Fish and Wildlife Service (USFWS) or National Oceanic and Atmospheric Administration National Marine Fisheries Service (NOAA Fisheries) to determine the extent of impact to a particular species. If USFWS or NOAA Fisheries determine that impacts to a federally listed species would likely occur, alternatives and measures to avoid or reduce impacts must be identified. USFWS and NOAA Fisheries also regulate activities conducted in federal critical habitat, which are geographic units designated as areas that support primary habitat constituent elements for listed species. The project site supports marginally suitable upland habitat for federally threatened California red-legged frog.

6.1.2 Migratory Bird Treaty Act of 1918

The Migratory Bird Treaty Act (MBTA) protects all migratory birds, including their eggs, nests, and feathers. The MBTA was originally drafted to put an end to the commercial trade in bird feathers, popular in the latter part of the 1800s. The MBTA is enforced by the USFWS, and potential impacts to species protected under the MBTA are evaluated by the USFWS in consultation with other federal agencies. Existing habitats within project boundaries and the BSA have the potential to support migratory birds during the nesting bird season.

6.1.3 U.S. Army Corps of Engineers

The USACE regulates discharges of dredged or fill material into waters of the United States. These waters include wetland and non-wetland water bodies that meet specific criteria. USACE regulatory jurisdiction, pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 United States Code [U.S.C.] 403), regulates almost all work in, over, and under waters listed as "navigable waters of the U.S." that results in a discharge of dredged or fill material within USACE regulatory jurisdiction, pursuant to Section 404 of the Clean Water Act. Under Section 404, the USACE regulates traditional navigable waters, wetlands adjacent to traditional navigable waters, relatively permanent non-navigable tributaries that have a continuous flow at least seasonally (typically 3 months), and wetlands that directly abut relatively permanent tributaries. The USACE will determine jurisdiction over waters that are non-navigable tributaries, that are not relatively permanent and wetlands adjacent to non-navigable tributaries, and that are not relatively permanent only after making a significant nexus finding. CFR 328.3 defines waters of the United States as:

> *(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;*
>
> *(2) All interstate waters including interstate wetlands;*
>
> *(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters:*

> *(4) All impoundments of waters otherwise defined as waters of the United States under the definition;*
>
> *(5) Tributaries of waters identified in paragraphs (a) (1) through (4) of this section;*
>
> *(6) The territorial seas;*
>
> *(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1) through (6) of this section.*
>
> *(8) Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA.*

USACE jurisdiction over nontidal waters of the United States extends laterally to the Ordinary High Water Mark (OHWM) or beyond the OHWM to the limit of any adjacent wetlands, if present (33 CFR 328.4). The OHWM is defined in 33 CFR 328.3 as:

> *"…that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding area."*

USACE jurisdiction considers areas below the OHWM along stream channels and wetland areas to be jurisdictional. Therefore, the drainage swales, arroyo willow thicket and California bulrush marsh areas present within the BSA are likely jurisdictional and subject to regulation by USACE. No jurisdictional features are present within the proposed development footprint.

6.2 State Policies and Regulations

6.2.1 California Endangered Species Act

The CESA ensures legal protection for plants listed as rare or endangered, and wildlife species formally listed as endangered or threatened. The state also maintains a list of California Species of Special Concern (SSC). SSC status is assigned to species that have limited distribution, declining populations, diminishing habitat; or unusual scientific, recreational, or educational value. Under state law, the CDFW is empowered to review projects for their potential to impact special-status species and their habitats. Under CESA, CDFW reserves the right to request the replacement of lost habitat that is considered important to the continued existence of CESA-protected species. CESA wildlife species with the potential to occur on the project site include foothill yellow-legged frog, California red-legged frog, western pond turtle, Cooper's hawk, tricolored blackbird, grasshopper sparrow, western yellow-billed cuckoo, burrowing owl, loggerhead shrike, and purple martin.

6.2.2 California Fish and Game Code

California Fish and Game Code Section 3511 includes provisions to protect Fully Protected (FP) species, such as: (1) prohibiting take or possession "at any time" of the species listed in the statute, with few exceptions; (2) stating that "no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to "take" the species; and (3) stating that no previously issued permits or licenses for take of the species "shall have any force or effect" for authorizing take or possession. The

CDFW is unable to authorize incidental take of "fully protected" species when activities are proposed in areas inhabited by those species. Sections 3503 and 3503.5 of the Fish and Game Code state that it is unlawful to take, possess, or destroy the nest or eggs of any bird, with occasional exceptions. In addition, Section 3513 states that it is unlawful to take or possess any migratory bird as designated in the MBTA or any part of such migratory birds except as provided by rules and regulations under provisions of the MBTA. White tailed kite is a FP species with potential to occur on the project site.

6.2.3 State Water Resources and Regional Water Quality Control Boards

The State Water Resources Control Board (SWRCB) and nine Regional Water Quality Control Boards (RWQCBs) regulate discharges of fill and dredged material in California, under Section 401 of the Clean Water Act and the State Porter-Cologne Water Quality Control Act, through the State Water Quality Certification Program. State Water Quality Certification is necessary for all projects that require a USACE permit, or fall under other federal jurisdiction, and have the potential to impact waters of the State. Waters of the State are defined by the Porter-Cologne Act as:

> *"…any surface water or groundwater, including saline waters, within the boundaries of the state."*

In order for a Section 404 permit to be valid, Section 401 of the Clean Water Act requires a Water Quality Certification or waiver to be obtained. The Water Quality Certification (or waiver) determines that the permitted activities will not violate water quality standards individually or cumulatively over the term of the action. Water quality certification must be consistent with the requirements of the federal Clean Water Act, California Environmental Quality Act (CEQA), CESA, and Porter-Cologne Act.

The SWRCB and RWQCB have not established a formal wetland definition nor have they developed a wetland delineation protocol; however, these agencies generally adhere to the same delineation protocol set forth by the USACE. Therefore, the methods used to determine potential Waters of the State were the same as those described above for potential Section 404 jurisdiction. USACE jurisdiction considers areas below the OHWM and along stream channels to be jurisdictional. Since the drainages within project boundaries and the BSA are likely subject to USACE regulation, they are also subject to regulation by SWRCB.

6.2.4 California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the California Fish and Game Code, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. CDFW defines a "stream" (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW jurisdiction within altered or artificial waterways is based upon the value of those waterways to fish and wildlife. The drainages within the project boundaries and the BSA are likely considered jurisdictional under Sections 1600-1602 of the California Fish and Game Code due to presence of a defined bed and bank and wetland vegetation.

7 IMPACT ASSESSMENT AND MITIGATION

This impact assessment focuses on identifying potential impacts associated with any construction, operational, maintenance, and decommissioning activities proposed within project boundaries that could have an adverse effect on special-status species, habitats, and jurisdictional areas within project boundaries and the BSA. The impact analysis is based on the existing conditions, regulatory setting, and the activities proposed within the project boundaries. Adverse impacts could occur if implementation of any activities would result in temporary or permanent modification to sensitive habitats or to habitats occupied by special-status species. Where potential project-related impacts to sensitive resources have been identified, measures for avoiding, minimizing, or mitigating adverse effects to these resources are recommended.

7.1 Sufficiency of Biological Data

SWCA considers the information provided within this report to be sufficient in order to determine potential impacts to biological resources related to the proposed project. However, it should be noted that no protocol-level surveys for California red-legged frog or migratory nesting birds were conducted prior to the preparation of this BRSR.

7.2 Project Effect on Special-status Species

7.2.1 Plants

Based on the disturbed conditions observed (i.e., grazing,) during surveys, the BSA is considered to support marginal habitat with a low potential to support special-status plants that have the potential to occur in the region (refer to Table C-1 in Attachment C). Despite the absence of suitable habitat, two special-status plant species were observed within the project boundary and proposed development footprint during botanical surveys of the BSA conducted during the appropriate blooming period (refer to Figure 2). Descriptions of each of the special-status plant species observed are provided below.

7.2.1.1 CAMBRIA MORNING-GLORY

Cambria morning-glory (*Calystegia subacaulis*) is a California Native Plant Society (CNPS) Rare Plant Rank 4.2 species. Plants in the Rank 4.2 category are of limited distribution or infrequent throughout a broader area in California, and are considered fairly threatened in California. While the CNPS does not call these plants "rare" from a statewide perspective, they are uncommon enough that their status should be monitored regularly. Very few of the plants constituting California Rare Plant Rank 4 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and few, if any, are eligible for state listing. Nevertheless, many of them are significant locally, and the CNPS strongly recommends that California Rare Plant Rank 4 plants be evaluated for consideration during preparation of environmental documents relating to CEQA. This may be particularly appropriate for: the type locality of a California Rare Plant Rank 4 plant; populations at the periphery of a species' range; areas where the taxon is especially uncommon; areas where the taxon has sustained heavy losses; or populations exhibiting unusual morphology or occurring on unusual substrates (CNPS 2015).

Cambria morning-glory is located along the eastern portion of the project site, both within and outside the proposed development area. Disturbance of these populations would result in a potentially significant impact; therefore, recommended mitigation includes the salvage of observed Cambria morning glory individuals through preservation of the seed bank. This would be accomplished by scraping the top six inches of soil to be disturbed during construction and stockpiling it until construction of the project is complete. The salvaged soil would essentially preserve the seed bank, and allow for reapplication within

areas surrounding the facility, that would not be impacted directly or indirectly by the project, such as proximate to existing populations just outside of the proposed development footprint. Based on implementation of this measure, potential impacts would be less than significant.

7.2.1.2 BLOCHMAN'S DUDLEYA

Blochman's dudleya (*Dudleya blochmaniae*) is a CNPS Rare Plant Rank 1B.1 species. Plants in the Rank 1B.1 category are rare throughout their range with the majority of them endemic to California, and are considered seriously threatened in California. Most of the plants that are ranked 1B have declined significantly over the last century. All of the plants constituting California Rare Plant Rank 1B meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA (CNPS 2015).

All occurrences of this species are located outside of the proposed development footprint, and would not be directly impacted by the project. The individuals are located upslope of the development area, and would not be adversely affected by any changes in drainage patterns. To ensure avoidance of accidental disturbance of these populations, mitigation is identified including installation of protection fencing by a qualified biologist, to remain throughout the construction and decommissioning phases of the project.

7.2.2 Natural Communities of Concern

As described in Section 4.4, the BSA supports two sensitive natural communities including arroyo willow thicket and California sycamore woodland habitat. As shown in Figure 2, the California sycamore woodland habitat is located approximately 600 feet east of the eastern project boundary and proposed development footprint in association with the California bulrush habitat. This habitat is supported by Drainage Swales D and F, which have no connectivity to the project area or proposed development footprint. The arroyo willow thicket habitat is located immediately adjacent to the northernmost portion of the project boundary and proposed development footprint. This habitat is supported by Drainage Swale A, which is located approximately 30 feet northwest of the proposed development footprint. The proposed project has been sited to avoid any direct impacts to jurisdictional features and drainages, including a minimum 30-foot buffer from these features. Therefore, the project would not result in any direct impacts to sensitive natural communities.

The entire BSA, including the proposed development footprint, is located within the southern portion of CRLF Critical Habitat Unit SLO-3—Willow and Toro Creeks to San Luis Obispo. This Unit consists of approximately 116,517 acres of land, and extends from just north of Morro Bay to just north and east of San Luis Obispo. The proposed development footprint supports potentially suitable upland habitat for California red-legged frog. Implementation of the proposed project would result in the conversion and modification of approximately 18.5 acres of upland dispersal habitat for this species; however, grassland habitat beneath the solar arrays will be available for California red-legged frog and other species' dispersal during operation of the facility.

7.2.3 Wildlife

Suitable habitat conditions occur within the project boundaries and BSA for several special-status wildlife species. The special-status wildlife species with potential for occurrence within the BSA are identified below, with some taxa combined as a group for conciseness because they will potentially be subjected to similar project-related impacts. Taxa combined into one section will be protected by similar avoidance and mitigation measures.

7.2.3.1 CALIFORNIA RED-LEGGED FROG

The California red-legged frog (CRLF) was formally listed by the USFWS as federally threatened in 1996, and is considered a SSC species by CDFW. Critical habitat has been designated for the species within the BSA. The subspecies historically ranged from Marin County southward to northern Baja California (Stebbins 1972, 2003). Monterey, San Luis Obispo, and Santa Barbara Counties support the largest remaining CRLF populations within California. The CRLF prefers aquatic habitats with little or no flow, the presence of surface water to at least early June, surface water depths to at least 2.3 feet, and the presence of fairly sturdy underwater supports such as cattails. Riparian habitat degradation, urbanization, predation by bullfrogs, and historic market harvesting have all reportedly contributed to its population decline (USFWS 2002).

Although this species was not observed during surveys, and the project would avoid creeks and drainages, the presence of California red-legged frog within upland grassland should be inferred since there are numerous occurrences of this species on Camp San Luis property near Chorro Creek (approximately 1.7 miles northwest of the project site) and there is a known occurrence of this species near Shepard and Smith Reservoirs located approximately 1.3 miles southeast of the project site. If present, California red-legged frog may be impacted during vegetation removal, grading, and construction activities. Direct impacts could include injury or mortality from construction equipment, construction debris, and worker foot traffic. Indirect effects of construction activities, including noise and vibration, erosion, sedimentation, and accidental leaks or spills from construction equipment could also impact the species. Proposed mitigation, including installation of barrier fencing, a pre-construction survey by a qualified biologist, and worker training would mitigate potential inadvertent impacts to individuals during potential upland migration. In addition, mitigation is identified to protect air and water quality, which would also mitigate potential impacts to this species.

Operation of the project would result in the loss of grassland, foraging, and upland habitat for California red-legged frog. Based on the boundaries of the proposed development footprint, the project would have no direct effect on any drainages or potential breeding habitat. The project would result in the conversion and modification of upland dispersal habitat for the species. Up to approximately 18.5 acres of upland habitat would be permanently impacted; however, grassland habitat beneath the solar arrays will be available for California red-legged frog dispersal during operation of the facility. Potential direct impacts include mortality or injury of individuals, which is most likely to occur during the construction phase; however, mortality could result from periodic vehicle presence during the operational phase of the project when this species may be dispersing across the project site during the breeding season.

The inferred presence of CRLF and their critical habitat in the BSA warrants formal consultation with USFWS prior to any construction activities.

7.2.3.2 FOOTHILL YELLOW-LEGGED FROG, WESTERN POND TURTLE, AND COAST RANGE NEWT

Foothill yellow-legged frog is a SSC that ranges from northern Oregon into Baja California, Mexico. They occupy coastal California foothills in flowing streams and rivers with rocky substrate or sunny banks. This species has been documented in tributaries to San Luis Obispo Creek, approximately five miles southeast of the project area.

The western pond turtle is considered a SSC species by the CDFW. This species historically has been present in most Pacific slope drainages between the Oregon and Mexican borders (Jennings and Hayes 1994). Pond turtles live where water persists year-round in ponds along foothill streams or in broad washes near the coast. The western pond turtle is mostly aquatic, leaving its aquatic site to reproduce, aestivate, and over-winter in nearby upland areas.

Coast range newt is a SSC that breeds in ponds, reservoirs, and slow-moving streams. There is a historical occurrence of this species in Brizzolara Creek approximately 2.5 miles east of the project area.

Direct impacts to foothill yellow-legged frog, western pond turtle, and coast range newt could include injury or mortality in adjacent uplands from construction equipment, construction debris, and worker foot traffic. Indirect effects of construction activities, including noise and vibration, may cause these species to temporarily abandon habitat adjacent to work areas. This disturbance may increase the potential for predation and desiccation if individuals abandon shelter sites. The indirect effects of erosion and sedimentation could also impact the species. The removal of any encountered exotic wildlife species from drainages within the project area (Drainage Swales A and E) may result in a beneficial effect by reducing predation and competition pressures for these sensitive native species.

Operation of the project would result in the loss of grassland, foraging, and upland habitat for foothill yellow-legged frog, western pond turtle, and coast range newt. Based on the boundaries of the proposed development footprint, the project would have no direct effect on any drainages or potential breeding habitat. The project would result in the conversion and modification of upland dispersal habitat for these species. Up to approximately 18.5 acres of upland habitat would be permanently impacted; however, grassland habitat beneath the solar arrays will be available for dispersal of these species during operation of the facility. Potential direct impacts include mortality or injury of individuals, which is most likely to occur during the construction phase; however, mortality could result from periodic vehicle presence during the operational phase of the project when these species may be dispersing across the project site during the breeding season.

7.2.3.3 RAPTORS, MIGRATORY BIRDS, NESTING BIRDS.

These bird species have been addressed as a group because they have similar potential project-related impacts and avoidance and minimization measures.

The Cooper's hawk is considered a SSC species by the CDFW. It is a fairly large accipiter hawk that ranges throughout the United States and is widely distributed throughout California. This species is a resident of San Luis Obispo County, nesting and foraging in and near deciduous riparian areas. The Cooper's hawk occupies forests and woodlands, especially near edges. It is rarely found in areas without dense tree stands or patchy woodland habitat. Nests are built in deciduous trees usually 20 to 50 feet above ground (Zeiner et al. 1990).

The white-tailed kite is a FP species by the California Fish and Game Code. It is a yearlong resident ranging throughout valley and coastal lowlands in California, and most commonly, near agricultural areas. Within San Luis Obispo County, this species is considered an uncommon resident. Nesting and roosting occurs in dense, broad-leafed deciduous groves of trees.

The western yellow-billed cuckoo is a federal candidate for listing and a state endangered species. It is a casual spring and fall transient in San Luis Obispo County (Edell 2004). Although its historic status within the county is unknown, it was likely a regular breeder in large cottonwood-willow riparian woodlands. There are only eight San Luis Obispo County records for the species over the last 50 years, two of which pertain to nesting birds. The six recent non-breeding records are from Morro Bay (1961, 1989), Los Osos (1980), Carrizo Plain (1991), Oso Flaco Lake (1999), and San Simeon Creek (1999). The County's two nesting records involve a fledgling collected in San Luis Obispo in 1921 (San Bernardino County Museum) and an egg set taken in 1932 at "Mile's Station" in upper Avila Valley, which is incorrectly mapped by the CNDDB as a City of San Luis Obispo record (Edell 2004). There are no known recent nesting records in San Luis Obispo County and there are no known breeding locations outside of the currently known breeding locations, none of which occur in San Luis Obispo County (Edell

2004). The subspecies is not expected to nest within the BSA or otherwise be impacted by the proposed project.

The loggerhead shrike is considered a SSC species by the CDFW. It is a medium-sized passerine (perching) bird that ranges from southern Canada to southern Mexico and from the Gulf States west into California. This species prefers open habitats with scattered shrubs, trees, posts, fences, utility lines, or other perches. Nests are built on a stable branch in a densely foliaged shrub or tree, usually well concealed and 1.3 to 50 feet above ground.

The purple martin is considered a SSC species by the CDFW. It is a dark purple-black swallow. At one time, the species was a fairly common breeder in the Coast Range, but in the last 15 years there has been a dramatic decrease in southern California where it was once a common breeder in the mountains and in some lowland residential areas. The purple martin inhabits hardwood, hardwood-conifer, riparian, and coniferous habitats. It usually nests in old woodpecker cavities, but will occasionally nest in man-made structures.

The California horned lark is considered a SSC species by the CDFW. It is ground-dwelling bird that is a widespread occupant of open habitats across North America. It inhabits areas with sparse vegetation and exposed soil. In western North America, this species is associated with desert scrub, grasslands, and similar open habitats, as well as alpine meadows (Andrews and Righter 1992; Garrett and Dunn 1981).

Burrowing owl is considered a SSC species by the CDFW. Burrowing owls are small, brown, long-legged owls of the open country. They are found in open, dry grasslands, agricultural and range lands, and desert habitats often associated with burrowing animals. They can also inhabit grass, forb, and shrub stages of pinyon and ponderosa pine habitats at elevations ranging from 200 feet below sea level to 9,000 feet.

Grasshopper sparrow is considered a SSC species by the CDFW. This species is a locally uncommon summer visitor in the breeding season from March to September. The species breeds in open grasslands, pastures, ruderal fields, sparse scrublands, grain fields and prairies that are located on rolling hills. These sparrows migrate from Canada to the southern United States, Mexico and Central America. Grasshopper sparrows build their nest on the ground under vegetation. They forage on the ground feeding mostly on insects and seeds.

Tri-colored blackbird is considered a SSC species by the CDFW. The tricolored blackbird is similar to the more common red-winged blackbird, except for a prominent white stripe under the red wing patch, and more pointed wings and bill. It is common locally throughout the Central Valley and along the coast south of Sonoma County. This species breeds near freshwater, preferably in emergent wetlands, and forages in grasslands and croplands. It should be noted that this species was emergency listed to the CESA as State Endangered; however, this emergency listing lapsed as of June 30, 2015 (Weiland 2015).

The species described above are each protected by the MBTA and California Fish and Game Code §3503. In addition to these species, numerous other nesting bird species protected by these two regulatory laws have the potential to nest in habitats within the BSA.

The project site supports foraging habitat for special-status bird species, in addition to common nesting birds. The project site supports ground nesting and burrowing habitat. No tree nesting habitat is present within the project site; however, tree nesting habitat may be present within nearby drainages and riparian areas. These species may be affected by construction equipment, noise, dust, and increased human presence. If any migratory bird (common species, raptors, or other special-status birds) nests in areas where direct construction disturbance would occur, work during the breeding season (typically February 1 through September 15) could result in the destruction or abandonment of nests, eggs, or young. Active nests could be removed, trampled, or crushed by construction and use of access roads during construction;

in addition, the noise, vibration, and movement of construction equipment and personnel proximate to active nests could cause adults to abandon eggs or young. Artificial lights used during night construction (if proposed) may result in an increased potential for disturbance or mortality of species that prey on insects attracted to light sources. Loss of foraging habitat could also negatively affect nesting raptors and bird species. The removal of vegetation could directly impact bird nests and any eggs or young residing in nests. Indirect impacts could also result from noise and disturbance associated with construction, which could alter perching, foraging, and/or nesting behaviors. The implementation of the avoidance and minimization measures such as appropriate timing of vegetation removal, pre-activity surveys, and exclusion zones will reduce the potential for adverse effects to nesting bird species during construction activities.

Implementation of the project would result in the loss of grassland, foraging, and upland habitat for the above-listed animal species. While the solar facility would allow for areas of usable habitat between and under the solar panels, the panels would create shade and limit visibility and foraging opportunities. Identification of compensatory mitigation within the 40-acre project area is recommended to ensure future protection of habitat proximate to the project area.

Implementation of the project may permanently impact up to 18.5 acres of potential burrowing owl habitat, as a result of grading, construction, and shading. This species, or evidence of burrows, was not observed during the biological surveys conducted for the project. Installation of the solar arrays would reduce habitat availability for the species because burrowing owls tend to shy away from habitats with vertical structures that obscure visibility of the surrounding landscape and reduce the owls' ability to remain vigilant for potential predators. If ground squirrel burrows are readily available and prey is abundant in the area, some owls may choose to occupy and forage within the margins of panel arrays and to use the edge panels as sentinel perches. However, it is less likely that burrowing owls would occupy burrows or forage deep within large panel arrays. Direct impacts to burrowing owls include mortality, injury, destruction of burrows and loss of suitable foraging and nesting habitat. Direct impacts may also include disturbances to adjacent occupied burrows such that normal foraging, sheltering, or nesting behaviors are altered, potentially resulting in abandonment of nests and exposure to predation.

The grassland within the project site and riparian areas near the site provide suitable breeding and foraging habitat for a variety of native and migratory birds, which are discussed above. The modification of 18.5 acres of grassland habitat represents a small percentage of the available habitat both within the University campus and proximate areas, which include large spans of open space and rangeland in the immediate area. Some foraging and roosting/perching habitat would be available for birds within grassland and vegetation to remain within the solar facility and adjacent areas.

Solar facilities also present risk for bird collisions with solar panels. Birds migrating at night or moving between the riparian areas in the area would also be at an increased risk of collision with the solar panels as the panels might be mistaken for open sky or water. Based on the extent of foraging habitat in the region and lack of observed nests or burrows within the project site, population-level impacts are unlikely. The project could also indirectly affect smaller raptors and other special status bird species through increased availability of perches for, and a resulting increase in predation activity of larger raptors.

7.2.4 Project Effect on Extent, Diversity, or Quality of Native or Other Important Vegetation

It is anticipated that some native vegetation would be removed as part of the proposed project; however, vegetation within project boundaries consists of California annual grassland habitat which is primarily composed of non-native plant species. Therefore, the project is not likely to have an effect on any native/important vegetation.

7.2.5 Project Effect on Wetland or Riparian Habitat

As discussed in Section 4.2, a total of four drainage swales are located within the BSA that flow during the rainy season (refer to Figure 2 and Attachment A, Photo 2). Two drainage swales extend into the project area; however, there are no drainage swales within the proposed development footprint. Drainage swales are often indicative of waters of the United States and/or jurisdictional wetland habitat within USACE, RWQCB, and CDFW jurisdiction.

Wetlands are typically within USACE jurisdiction if they support wetland indicators for all three parameters (i.e., hydrophytic vegetation, hydric soils, and wetland hydrology) below the OHWM or in areas that are hydrologically connected to a drainage or aquatic site. Jurisdictional other waters typically occur below the OHWM of a drainage channel and lack one or more of the three wetland parameters. Riparian habitat may fall within USACE jurisdiction in areas below the OHWM along stream channels, and within CDFW jurisdiction toward the outer extent of riparian growth. In the event the project would affect identified drainages, a Jurisdictional Determination report should be prepared to identify potential USACE and CDFW jurisdictional areas within the proposed project site boundaries and the BSA. These jurisdictional results would be subject to review by the USACE prior to issuance of any permits that would be used to determine the potential effects the wetland and riparian habitats within project boundaries and the BSA

The proposed project has been sited to avoid any direct impacts to jurisdictional features and drainages, including a minimum 30-foot buffer from these features. Therefore, the project would not result in any direct impacts to sensitive natural communities, riparian resources, or wetlands regulated by applicable state, federal, or local plans or policies, or by the CDFW or USFWS. Potential indirect impacts to these habitats and features include inadvertent disturbance by equipment, additional foot traffic, and discharge of sediment and other pollutants.

7.2.6 Project Effect on Movement of Resident or Migratory Fish and Wildlife Species

The University is located along the Pacific Flyway, an important migratory route for many birds traveling between North and South America. Riparian areas, freshwater marshes, and other wetland areas are particularly important areas to migratory birds of the Pacific Flyway. The site is bound by an electric fence for livestock management and does not provide migration linkages for larger common or special-status wildlife; therefore, the site would operate similar to existing conditions. Therefore, the project would not substantially interfere with wildlife movements or behaviors, aside from impacts identified above

7.3 Avoidance and Mitigation Measures

BIO-1 Prior to initiation of construction, the University shall prepare a compensatory mitigation plan showing the location of a protected conservation area proximate to the project site. The mitigation plan shall result in a minimum 1:1 ratio of in-kind habitat, consisting of grasslands, drainages, and other features similar to the project site. The primary purpose of the conservation area shall be conservation of impacted species and habitats, but the area shall also allow livestock grazing when and where it is deemed beneficial for the habitat needs of impacted species, such as continued grazing by sheep and goats. No future development of this area shall be permitted for the life of the project. The mitigation plan shall include, at a minimum, the following information:

a. Summary of habitat and species impacts and the proposed mitigation for each element;

b. Description of the location and boundaries of the mitigation site and description of existing site conditions;

c. Description of any measures to be undertaken to enhance (e.g., through focused management) the mitigation site for special status species;

d. Description of management and maintenance measures intended to maintain and enhance habitat for the target species (e.g., weed control, fencing maintenance);

e. Compilation of a dedicated, site-specific managed grazing plan, prepared in consultation with the University's Department of Agriculture, including a description of the adaptive management scheme for this plan;

f. Description of habitat and species monitoring measures on the mitigation site, including specific, objective performance criteria, monitoring methods, data analysis, reporting requirements, monitoring schedule for a minimum period of three years; monitoring shall document compliance with each element requiring habitat compensation or management;

g. A contingency plan for mitigation elements that do not meet performance or final success criteria within described periods; the plan shall include specific triggers for remediation if performance criteria are not met and a description of the process by which remediation of problems with the mitigation site (e.g., presence of noxious weeds) shall occur;

h. Reporting shall include an annual monitoring report to be submitted to the University; and

i. For any species listed under the federal Endangered Species Act (FESA) or California Endangered Species Act (CESA), demonstration that the compensatory mitigation and management (1) will fully mitigate for any take of a CESA-listed species as defined by CESA, (2) minimize and mitigate any take of an FESA-listed species to the maximum extent practicable as defined by FESA, and (3) ensure that impacts from the project are not likely to jeopardize the listed species continued existence as defined by FESA.

BIO-2 Upon preparation of construction plans, and prior to ground disturbance, the University shall ensure that grading plans and associated notes incorporate the following:

a. Within the areas supporting Cambria morning-glory, the top six inches of soil to be disturbed during construction shall be scraped and stockpiled onsite, consistent with the erosion and sedimentation control plan for the project.

b. The stockpiled top soil shall be reapplied proximate to the site, within the identified conservation area.

c. Early successional grasses consistent with the surrounding area including Cambria morning-glory shall be added to the seed base within the stockpiled top soil.

d. The revegetated area shall be irrigated and stabilized pursuant to the final erosion and sedimentation control plan.

e. Restoration shall be monitored on a quarterly basis for a period of three years (minimum) to ensure successful restoration of Cambria morning-glory.

f. Restoration actions shall be conducted and monitored by a qualified biologist. The biological monitor shall submit quarterly monitoring reports to the University. Any additional actions to ensure successful restoration (i.e., removal of weeds, irrigation) shall be documented in the reports. Implementation of such actions shall be documented by the biological monitor and verified by the University.

BIO-3 Upon preparation of construction plans, and prior to ground disturbance, the plans shall delineate "Environmentally Sensitive Areas" to protect observed populations of Blochman's dudleya, drainages and wetland habitat (minimum 30-foot buffer). Highly visible temporary construction fencing shall be installed along the boundary of the "Environmentally Sensitive Areas" and shall remain in place until the biological monitor recommends removal. No ground disturbance, construction worker foot traffic, storage of materials, or storage or use of equipment shall occur within the "Environmentally Sensitive Areas".

BIO-4 Only USFWS-approved biologists shall participate in activities associated with the capture, handling, and monitoring of California red-legged frog. Ground disturbance shall not begin until written approval is received from the USFWS that the biologist is qualified to conduct the work. The University would be the federal lead agency for the project. Therefore, the University shall request approval of the biologist from USFWS.

BIO-5 A USFWS-approved biologist shall survey the project area no more than 48 hours before the onset of work activities. If any life stage of the California red-legged frog is found and these individuals are likely to be killed or injured by work activities, the approved biologist shall be allowed sufficient time to move them from the site before work activities begin. The USFWS-approved biologist shall relocate the individual(s) the shortest distance possible to a location that contains suitable habitat and will not be affected by the activities associated with the project. The USFWS-approved biologist shall maintain detailed records of any individuals that are moved (e.g., size, coloration, any distinguishing features, photographs [digital preferred]) to assist him or her in determining whether translocated animals are returning to the point of capture.

BIO-6 Prior to initiation of construction and decommissioning activities, a USFWS-approved biologist shall conduct a training session for all construction personnel. At a minimum, the training shall include a description of the special-status species potentially present in the area, jurisdictional habitats present proximate to the project site, California red-legged frog and its habitat, the specific measures that are being implemented to protect special-status species, and the boundaries within which the project may be accomplished. Brochures, books, and briefings may be used in the training session, provided that a qualified person is on hand to answer any questions.

BIO-7 A USFWS-approved biologist shall be present at the work site until all California red-legged frogs have been removed, workers have been instructed, and disturbance of the habitat has been completed. After this time, the state or local sponsoring agency shall designate a person to monitor on-site compliance with all minimization measures. The USFWS-approved biologist shall ensure that this monitor receives the required training in the identification of California red-legged frog. If the monitor or the USFWS-approved biologist recommends that work be stopped because this species would be adversely

affected they shall immediately notify the appropriate University representative that is directly overseeing and in command of construction activities. The University representative shall either resolve the situation by eliminating the effect immediately or require that all actions that are causing these effects be halted. If work is stopped, the appropriate University personnel and USFWS shall be notified as soon as is reasonably possible.

BIO-8 During project activities, all trash that may attract predators shall be properly contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris shall be removed from work areas.

BIO-9 All refueling, maintenance and staging of equipment and vehicles shall occur at least 60 feet from wetland habitat or water bodies and not in a location from where a spill would drain directly toward aquatic habitat. The monitor shall ensure contamination of habitat does not occur during such operations. Prior to the onset of work, the University shall ensure that a plan is in place for prompt and effective response to any accidental spills. All workers shall be informed of the importance of preventing spills and of the appropriate measures to take shall a spill occur.

BIO-10 Project areas to remain undeveloped shall be revegetated with an assemblage of vegetation suitable for the area. Locally collected plant materials shall be used to the extent practicable. Invasive, exotic plants shall be controlled to the maximum extent practicable. Topographic contours shall remain in their original configuration to the maximum extent feasible.

BIO-11 The number of access routes, size of staging areas, and the total area of activity shall be limited to the minimum necessary to achieve the project. Environmentally Sensitive Areas shall be established to confine access routes and construction areas to the minimum area necessary to complete construction, and minimize the impact to California red-legged frog habitat. Drainages, riparian areas, and wetland habitat shall be avoided.

BIO-12 The University will attempt to schedule work for times of the year when impacts to the California red-legged would be minimal, including avoiding construction during the breeding season, which is generally November through May. Habitat assessments, surveys, and technical assistance between the University and the USFWS during project planning shall be used to assist in scheduling work activities to avoid sensitive habitats during key times of year.

BIO-13 Unless approved by the USFWS, water shall not be impounded in a manner that may attract California red-legged frogs.

BIO-14 A USFWS-approved biologist shall permanently remove any individuals of exotic species, such as bullfrogs, crayfish, and centrarchid fishes from the project area, to the maximum extent possible. The USFWS-approved biologist shall be responsible for ensuring his or her activities are in compliance with the California Fish and Game Code.

BIO-15 The USFWS-approved biologist shall follow the fieldwork code of practice developed by the Declining Amphibian Task Force at all times.

BIO-16 The construction manager/contractor shall avoid the use of herbicides as the primary method to control invasive, exotic plants to the maximum extent feasible. If herbicides are used, such use shall be subject to the following measures:

a. Herbicides shall not be used within 50 feet of drainages, riparian areas, and wetland areas during the breeding season for California red-legged frog.

b. Surveys for special-status aquatic species including, but not limited to, California red-legged frog shall be conducted immediately prior to the start of herbicide use. If found, use of herbicides shall only occur far enough from the occurrence area to ensure that no direct contact with herbicide would occur.

c. Giant reed and other invasive plants will be cut and hauled out by hand and painted with glyphosate-based products, such as Aquamaster or Rodeo.

d. Licensed and experienced University staff or a licensed and experienced contractor will use a hand held sprayer for foliar application of Aquamaster or Rodeo where large monoculture stands occur at a project site.

e. All precautions will be taken to ensure that no herbicide is applied to native vegetation.

f. Herbicide will not be applied on or near open water surfaces (no closer than 60 feet from open water).

g. Foliar applications of herbicide will not occur when wind speed is in excess of 3 miles per hour.

h. No herbicides will be applied within 24 hours of forecasted rain.

i. Application of all herbicides will be done by a qualified University staff or contractors to ensure that overspray is minimized, that all applications is made in accordance with the label recommendations, and with implementation of all required and reasonable safety measures. A safe dye will be added to the mixture to visually denote treated sites. Application of herbicides will be consistent with the U.S. Environmental Protection Agency County Bulletins.

j. All herbicides, fuels, lubricants, and equipment will be stored, poured, or refilled at least 60 feet from riparian habitat or water bodies in a location where a spill would not drain directly toward aquatic areas. The University will ensure that contamination of aquatic habitat does not occur during such operations. Prior to the onset of work, University will ensure that a plan is in place for a prompt and effective response to accidental spills. All workers will be informed of the importance of preventing spills and of the appropriate measures to take should a spill occur.

BIO-17 Prior to construction, the qualified biological monitor shall obtain a letter of permission from the California Department of Fish and Wildlife to relocate Foothill yellow-legged frog western pond turtles, and coast range newt, and other SSC species from work areas encountered during construction, as necessary. Qualified biologists shall conduct a pre-construction survey for these species in proposed work areas where construction will occur. The qualified biologists shall capture and relocate any SSC species (if present) or other native species to suitable habitat outside of the area of impact. Observations of SSC species or other special-status species shall be documented on California Natural Diversity Database forms and submitted to the California Department of Fish and Wildlife upon project completion.

BIO-18 Vegetation removal shall be scheduled to occur outside of the nesting season (avoidance period would be September 1 to February 14) if possible, to avoid birds that may be nesting within areas of disturbance during or just prior to construction.

BIO-19 Prior to construction, if construction activities are proposed to occur during the typical nesting season (which is February 15 to August 31) within 200 feet of potential nesting habitat, a nesting bird survey shall be conducted by qualified biologists in potential nesting habitat at least two weeks prior to construction to determine presence/absence of nesting birds within the project area. Work activities shall be avoided within 100 feet of active bird nests and 200 feet of active raptor nests until young birds have fledged and left the nest. Readily visible exclusion zones shall be established in areas where nests must be avoided. The University shall be contacted if any state or federally listed bird species are observed during surveys. The U.S Fish and Wildlife Service and California Department of Fish and Wildlife shall be contacted for additional guidance if nesting birds are observed within or near the boundaries of the project site. Nests, eggs, or young of birds covered by the Migratory Bird Treaty Act and California Fish and Game Code would not be moved or disturbed until the end of the nesting season or until young fledge, whichever is later, nor would adult birds be killed, injured, or harassed at any time.

BIO-20 Vegetation removal in potential nesting habitats shall be monitored and documented by the biological monitor(s) regardless of time of year.

BIO-21 During construction, the cleaning and refueling of equipment and vehicles will occur only within a designated staging area and at least 60 feet from wetlands, other waters, or other aquatic areas. This staging area will conform to Best Management Practices applicable to attaining zero discharge of stormwater runoff. At a minimum, all equipment and vehicles will be checked and maintained on a daily basis to ensure proper operation and avoid potential leaks or spills.

BIO-22 During construction, the biological monitor shall ensure that the spread or introduction of invasive exotic plant species will be avoided to the maximum extent possible. When practicable, invasive exotic plants in the project site will be removed and properly disposed.

BIO-23 During construction, trash will be contained, removed from the work site, and disposed of regularly. Following construction, all trash and construction debris will be removed from work areas. All vegetation removed from the construction site shall be taken to a certified landfill to prevent the spread of invasive species. If soil from weedy areas (such as areas with poison hemlock or other invasive exotic plant species) must be removed off-site, the top 6 inches containing the seed layer in areas with weedy species shall be disposed of at a certified landfill.

BIO-24 During construction, no pets shall be allowed in the proposed work area.

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Attachment A.
Photo Documentation

PHOTO 1:

View of California annual grassland habitat within project boundaries / BSA.

Note non-native annual grasses within project boundaries / BSA, and goats grazing along the south project boundary (refer to arrow).

Photo taken on February 03, 2016.

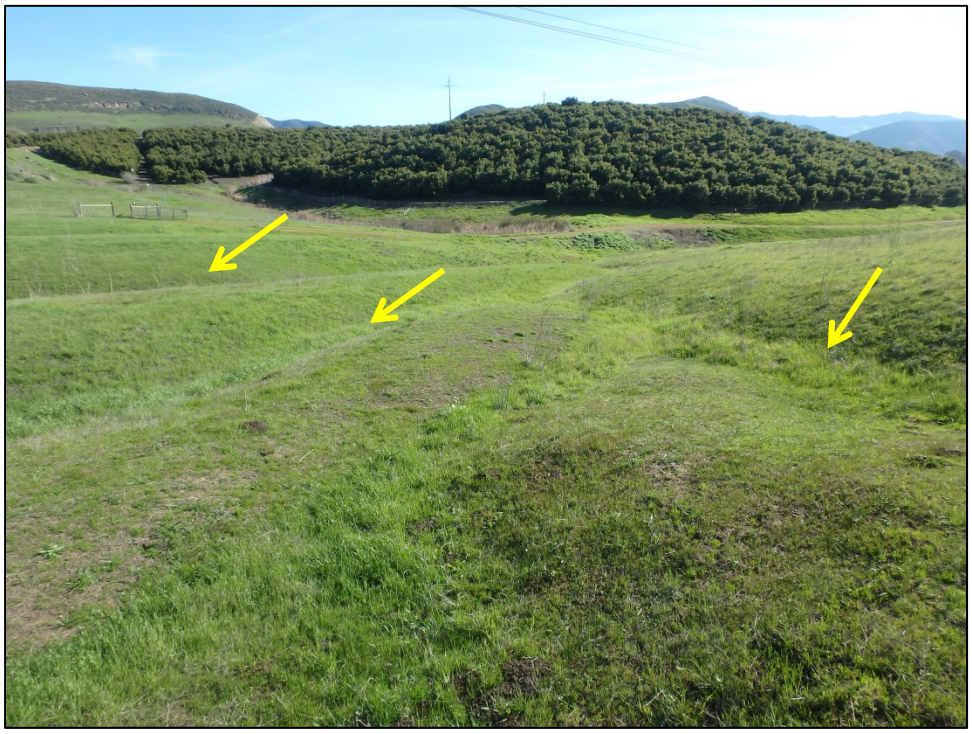

PHOTO 2:

View of drainage swales (refer to arrows) located within the BSA that flow into a California bulrush marsh dominated drainage that connects with Nelson Reservoir. This photo was taken from the project east boundary looking east towards agriculture areas.

Photo taken on February 4, 2016

PHOTO 3:

View of a drainage swale located within project boundaries and California annual grassland. This photo was taken from the project access road at the culvert inlet looking southeast towards Highway 1 north.

Note drainage dominated by non-native annual grasses.

Photo taken on February 4, 2016

PHOTO 4:

View of California bulrush marsh habitat (refer to arrow) located within the BSA. This drainage that connects with Nelson Reservoir downstream. Note small area of California sycamore woodland within the drainage (red arrow)

Photo taken on February 4, 2016.

PHOTO 5:

View of California bulrush marsh located at the north corner of the BSA looking northwest towards the California Men's Colony. This photo was taken from the project access road. Note California bulrush and broadleafed cattail dominating this drainage

Photo taken on February 3, 2016.

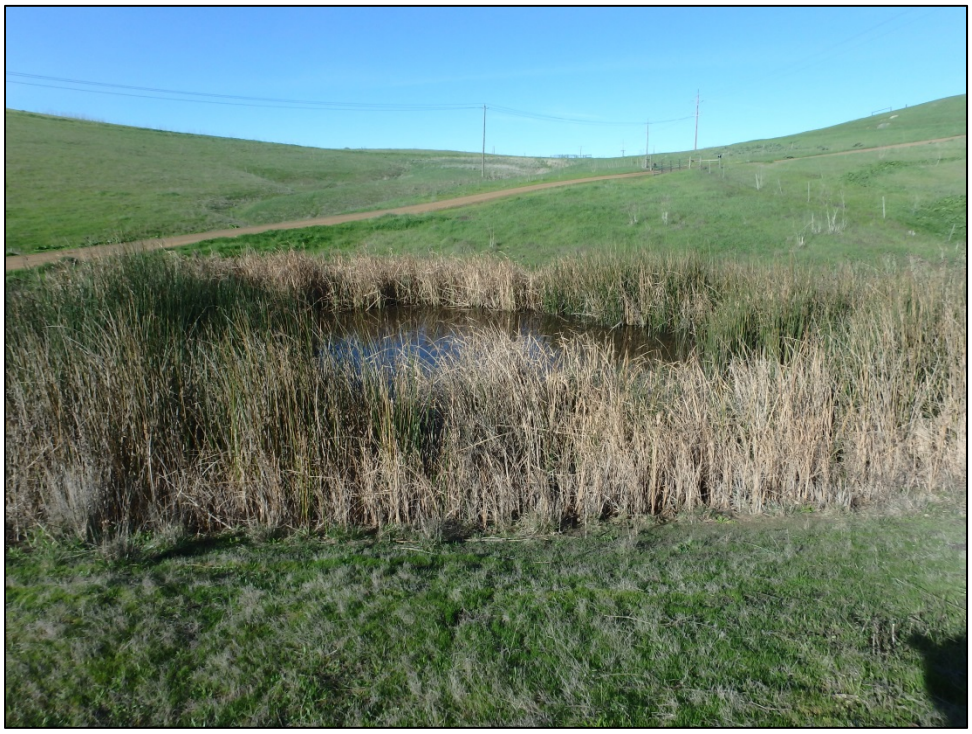

PHOTO 6:

View of a retention pond dominated by California bulrush marsh. This pond flows into the drainage shown in photo 4 once water levels reach the height of the culvert inlet. Seepage from this pond is likely responsible for the wetland vegetation observed downstream of the culvert outlet.

Photo taken on February 4, 2016.

PHOTO 7:

View of the arroyo willow thicket (refer to yellow arrow) located at the north corner of the BSA looking north. The arroyo willow thicket is connected to the California bulrush marsh (also shown in Photo 5; refer to red arrow) via an existing culvert located beneath the project access road.

Photo taken on February 3, 2016.

PHOTO 8:

View of the small drainage swale along the project access road that carries stormwater into the arroyo willow thicket during the rainy season.

Photo taken on February 3, 2016.

Attachment B.
Plant Species Observed

Plant Species Observed

Scientific Name	Common Name	Native	Species Status / Notes
Vascular Plants nomenclature follows " The Jepson Manual" and http://ucjeps.berkeley.edu/interchange.html			
ANGIOSPERMS (EUDICOTS)			
Anacardiaceae	**Sumac Family**		
Toxicodendron diversilobum	poison oak	Yes	
Apiaceae	**Carrot Family**		
Anthriscus caucalis	bur-chervil	No	
Conium maculatum	poison hemlock	No	
Daucus pusillus	rattle snake weed	Yes	
Foeniculum vulgare	sweet fennel	No	
Asteraceae	**Sunflower Family**		
Acroptilon repens	Russian knapweed	No	
Anthemis cotula	dog fennel	No	
Artemisia californica	California sagebrush	Yes	
Artemisia douglasiana	mugwort	Yes	
Baccharis pilularis	coyote brush	Yes	
Baccharis salicifolia ssp. salicifolia	mulefat	Yes	
Carduus pycnocephalus	Italian thistle	No	
Centaurea calcitrapa	purple start thistle	No	
Centaurea solstitialis	yellow star thistle	No	
Cirsium vulgare	bull thistle	No	
Cynara cardunculus	artichoke thistle	No	
Pseudognaphalium californica	California everlasting	Yes	
Heterotheca grandiflora	telegraph weed	Yes	
Hazardia squarrosa	saw toothed goldenbush	Yes	
Hedypnois cretica	creteweed	No	
Helminthotheca echioides	bristly ox-tongue	No	
Hypochaeris glabra	smooth cat's ear	No	
Hypochaeris radicata	rough cat's ear	No	
Lactuca serriola	prickly lettuce	Yes	
Logfia gallica	narrowleaf cottonrose	No	
Matricaria discoidea	pineapple weed	No	
Microseris douglasii	Douglas' microseris	Yes	
Pseudognaphalium californicum	ladies' tobacco	Yes	
Pseudognaphalium luteoalbum	cudweed aster	No	
Senecio vulgaris	Common groundsel	No	

Scientific Name	Common Name	Native	Species Status / Notes
Sonchus oleraceus	sow thistle	No	
Silybum marianum	milk thistle	No	
Taraxacum officinale	dandelion	No	
Tragopogon porrifolius	purple salsify	No	
Xanthium spinosum	spiny cocklebur	Yes	
Boraginaceae	**Borage Family**		
Amsinckia menziesii	Menzies' fiddleneck	Yes	
Plagiobothrys nothofulvus	popcorn flower	Yes	
Brassicaceae	**Mustard Family**		
Brassica nigra	black mustard	No	
Hirschfeldia incana	short-pod mustard	No	
Raphanus sativus	wild radish	No	
Cactaceae	***Cactus Family***		
Opuntia ficus-indica	prickly-pear	No	
Caryophyllaceae	***Carnation Family***		
Silene gallica	Common catchfly	No	
Spergularia rubra	sand spurry	No	
Convolvulaceae	***Morning-glory Family***		
Calystegia macrostegia ssp. *cyclostegia*	coast morning glory	Yes	
Calystegia subacaulis ssp. *episcopalis*	Cambria morning-glory	Yes	Rare Plant Rank 4.2
Convolvulus arvensis	bindweed	No	
Crassulaceae	***Stonecrop/Orpine Family***		
Crassula connate	pigmy weed	Yes	
Dudleya blochmaniae	Blochman's dudleya	Yes	Rare Plant Rank 1B.1
Cucurbitaceae	***Gourd Family***		
Marah fabaceus var. *fabaceus*	wild cucumber	Yes	
Dipsacaceae	***Teasel Family***		
Dipsacus fullonum	teasel	No	
Dipsacus sativus	teasel	No	
Fabaceae	***Pea Family***		
Acmispon strigosus	strigose lotus	Yes	
Lotus corniculatus	bird's foot trefoil	No	
Lupinus bicolor	bicolored lupine	Yes	
Lupinus nanus	sky lupine	Yes	
Lupinus succulentus	arroyo lupine	No	
Medicago polymorpha	bur clover	No	
Melilotus indica	sour clover	No	

Scientific Name	Common Name	Native	Species Status / Notes
Trifolium hirtum	rose clover	No	
Vicia americana	American vetch	Yes	
Vicia sativa ssp. *sativa*	garden vetch	No	
Vicia villosa ssp. *villosa*	hairy vetch	No	
Geraniaceae	***Geranium Family***		
Erodium botrys	filaree	No	
Erodium brachycarpum	foothill filaree	No	
Erodium cicutarium	red-stemmed filaree	No	
Geranium dissectum	geranium	No	
Lamiaceae	***Mint Family***		
Marrubium vulgare	horehound	No	
Malvaceae	***Mallow Family***		
Malva parviflora	cheeseweed	No	
Sidalcea malviflora	checkerbloom	Yes	
Myrsinaceae	***Myrsine Family***		
Lysimachia arvensis	scarlet pimpernel	No	
Oxalidaceae	***Oxalis Family***		
Oxalis pes-caprae	Bermuda buttercup	No	
Papaveraceae	***Poppy Family***		
Eschscholzia californica	California poppy	Yes	
Phrymaceae	***Lopseed Family***		
Mimulus aurantiacus	sticky monkeyflower	Yes	
Plantaginaceae	***Plantain Family***		
Plantago erecta	California plantain		
Plantago lanceolata	English plantain	No	
Plantago major	plantain	No	
Platanaceae	***Sycamore Family***		
Platanus racemosa	California sycamore	Yes	
Polygonaceae	***Buckwheat Family***		
Polygonum aviculare	prostrate knotweed	No	
Rumex acetosella	sheep sorrel	No	
Rumex crispus	curly dock	No	
Primulaceae	***Primrose Family***		
Anagallis arvensis	scarlet pimpernel	No	
Ranunculaceae	***Buttercup Family***		
Ranunculus californicus	California buttercup	Yes	

Scientific Name	Common Name	Native	Species Status / Notes
Rhamnaceae	***Buckthorn Family***		
Frangula californica	coffeeberry	Yes	
Rutaceae	**Rue Family**		
Citrus	Citrus	No	
Salicaceae	**Willow Family**		
Salix lasiolepis	arroyo willow	Yes	
Solanaceae	***Nightshade Family***		
Nicotiana glauca	tree tobacco	No	
Urticaceae	***Nettle Family***		
Urtica urens	dwarf nettle	No	
ANGIOSPERMS (MONOCOTS)			
Agavaceae	***Liliaceae Family***		
Chlorogalum pomeridianum	soap plant	Yes	
Cyperaceae	***Sedge Family***		
Eleocharis macrostachya	spike rush	Yes	
Cyperus eragrostis	tall-flat sedge	Yes	
Schoenoplectus acutus	common tule	Yes	
Schoenoplectus californicus	bulrush	Yes	
Scirpus microcarpus	mountain bog bulrush	Yes	
Juncaceae	***Rush Family***		
Juncus phaeocephalus	brown-head rush	Yes	
Iridaceae	***Iris Family***		
Sisyrinchium bellum	Western blue eyed grass	Yes	
Poaceae	***Grass Family***		
Avena barbata	slender wild oats	No	
Avena fatua	wild oats	No	
Bromus diandrus	ripgut brome	No	
Bromus hordeaceus	soft chess	No	
Bromus madritensis ssp. *madritensis*	foxtail chess	No	
Bromus madritensis ssp. *rubens*	red brome	No	
Festuca myuros	rattail fescue	No	
Festuca perennis	rye grass	No	
Hordeum marinum	barley	No	
Hordeum murinum	barley	No	
Lamarckia aurea	goldentop grass	No	
Pennisetum clandestinum	kikuyu grass	No	
Piptatherum miliaceum	smilo grass	No	

Scientific Name	Common Name	Native	Species Status / Notes
Phalaris aquatica	Harding grass	No	
Polypogon monspeliensis	rabbitfoot grass	No	
Stipa pulchra	purple needlegrass	Yes	
Typhaceae	***Cattail Family***		
Typha domingensis	narrow-leaved cattail	Yes	
Typha latifolia	broad-leaved cattail	Yes	

Attachment C
Special-Status Species Tables

Table C-1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
red sand verbena *Abronia maritima*	Coastal dunes. Elevation 0–100 meters.	February–November	--/--/4.2	**Suitable Conditions Absent:** BSA does not contain coastal dune habitat required for this species.
Hoover's bent grass *Agrostis hooveri*	Sandy sites in chaparral, cismontane woodland, valley, and foothill grassland. Elevation 60–600 meters.	April–July	--/--/1B.2	**Suitable Conditions Absent:** BSA does not contain sandy soils.
Arroyo de la Cruz manzanita *Arctostaphylos cruzensis*	Broadleaf upland forest, coastal scrub, closed cone coniferous forest, chaparral, and grassland. On sandy soils. Elevation 60–310 meters.	December–March	--/--/1B.2	**Suitable Conditions Absent:** BSA does not contain sandy soils and no *Arctostaphylos* species were observed onsite during surveys.
Santa Lucia manzanita *Arctostaphylos luciana*	Chaparral with shale outcrops. Elevation 350–850 meters.	February–March	--/--/1B.2	**Suitable Conditions Absent:** BSA does not contain shale soils and no *Arctostaphylos* species were observed onsite during surveys. Species occurs at higher elevations than the BSA
Morro manzanita *Arctostaphylos morroensis*	Chaparral, cismontane woodland, coastal scrub, on stabilized coastal dunes. Elevation 5–205 meters.	December–March	FT/--/1B.1	**Suitable Conditions Absent:** BSA does not contain sandy soils and no *Arctostaphylos* species were observed during surveys.
Bishop manzanita *Arctostaphylos obispoensis*	Closed-cone coniferous forest, chaparral, and cismontane woodland. Elevation 150–980 meters.	February–June	--/--/4.3	**Suitable Conditions Absent:** No *Arctostaphylos* species were observed in the BSA during surveys.
Oso manzanita *Arctostaphylos osoensis*	Chaparral, cismontane woodland (dacite porphyry buttes). Elevation 300–500 meters.	February–March	--/--/1B.2	**Suitable Conditions Absent:** No *Arctostaphylos* species were observed onsite during surveys. Species occurs at higher elevations than the BSA
Pecho manzanita *Arctostaphylos pechoensis*	Closed coniferous forest, chaparral, and coastal scrub on siliceous shale. Elevation 125–850 meters.	November–March	--/--/1B.2	**Suitable Conditions Absent:** No *Arctostaphylos* species or siliceous shale soils were observed during surveys.

Table C-1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
Santa Margarita manzanita *Arctostaphylos pilosula*	Closed coniferous forest, chaparral, and cismontane woodland on shale soils. Elevation 170–1,100 meters.	December–March	--/--/1B.2	**Suitable Conditions Absent:** BSA does not contain shale soils and no *Arctostaphylos* species were observed during surveys.
sand mesa manzanita *Arctostaphylos rudis*	Maritime chaparral and coastal scrub with sandy soils. Elevation 25–322 meters.	November–February	--/--/1B.2	**Suitable Conditions Absent:** BSA does not contain sandy soils and no *Arctostaphylos* species were observed during surveys.
dacite manzanita *Arctostaphylos tomentosa* ssp. *daciticola*	Chaparral, cismontane woodland (dacite porphyry buttes). Elevation 100–300 meters.	March	--/--/1B.1	**Suitable Conditions Absent:** BSA does not contain chaparral or woodland habitat, and no *Arctostaphylos* species were observed onsite during surveys.
marsh sandwort *Arenaria paludicola*	Marshes and swamps. Grows through dense mats of *Typha*, *Juncus*, *Scirpus*, etc. in freshwater marsh. Elevation 10–170 meters.	May–August	FE/CE/1B.1	**Suitable Conditions Absent:** Suitable habitat was observed within the BSA (i.e., bulrush marsh); however, suitable habitat conditions were not observed within project boundaries.
Carlotta Hall's lace fern *Aspidotis carlotta-halliae*	Chaparral and cismontane woodland (generally serpentinite). Elevation 100–1,400 meters.	January–December	--/--/4.3	**Suitable Conditions Absent:** Suitable habitat was not observed within the BSA for this species.
Mile's milk vetch *Astragalus didymocarpus* var. *milesianus*	Coastal scrub on clay soils. Elevation 20–90 meters.	March–June	--/--/1B.2	**Suitable Conditions Absent:** Suitable habitat was observed within the BSA (i.e., sagebrush scrub); however, suitable habitat conditions were not observed within project boundaries.
ocean bluff milk-vetch *Astragalus nuttallii* var. *nuttallii*	Coastal bluff scrub and coastal dunes. Elevation 3–120 meters.	January–November	--/--/4.2	**Suitable Conditions Absent:** Suitable habitat was not observed within the BSA.

Table C-1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
Coulter's saltbush *Atriplex coulteri*	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland (alkaline or clay). Elevation 3–460 meters.	March–October	--/--/1B.2	**Suitable Conditions Present:** Grassland habitat and clay soils are present within project boundaries and the BSA.
false gray horsehair lichen *Bryoria pseudocapillaris*	Coastal dunes in San Luis Obispo County and North Coast coniferous forest (typically on conifers). Elevation 0–90 meters.	N/A	--/--/3.2	**Suitable Conditions Absent:** Suitable dune habitat was not observed within the BSA.
twisted horsehair lichen *Bryoria spiralifera*	North Coast coniferous forest (typically on conifers). Elevation 0–30 meters.	N/A	--/--/1B.1	**Suitable Conditions Absent:** Suitable habitat was not observed within the BSA.
Brewer's calandrinia *Calandrinia breweri*	Chaparral and coastal scrub (sandy or loamy, disturbed sites). Elevation 10–1,220 meters.	March–June	--/--/4.2	**Suitable Conditions Absent:** The appropriate soil conditions were not observed in the BSA for this species.
round-leaved filaree *California macrophylla*	Cismontane woodland and valley and foothill grassland (clay). Elevation 15–1,200 meters.	March–May	--/--/1B.1	**Suitable Conditions Present:** Grassland habitat and clay soils are present within project boundaries and the BSA.
Catalina mariposa lily *Calochortus catalinae*	Chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland. Elevation 15–700 meters.	February–June	--/--/4.2	**Suitable Conditions Present:** Grassland habitat is present within project boundaries and the BSA.
club-haired mariposa lily *Calochortus clavatus* var. *clavatus*	Chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland (typically serpentinite, clay, or rocky soils). Elevation 75–1,300 meters.	May–June	--/--/4.3	**Suitable Conditions Absent:** Grassland habitat and clay soils are present within project boundaries and the BSA.
La Panza mariposa-lily *Calochortus obispoensis*	Chaparral, coastal scrub, valley and foothill grassland. Often in serpentine grassland. Elevation 75–665 meters.	May–July	--/--/1B.2	**Suitable Conditions Present:** Grassland habitat is present within project boundaries and the BSA.

Table C-1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
San Luis Obispo mariposa lily *Calochortus simulans*	Chaparral, cismontane woodlands, lower montane coniferous forest, valley and foothill grassland; often in sandy, granitic, or serpentine soils. Elevation 395–1,100 meters.	April–May	--/--/1B.3	**Suitable Conditions Absent:** Grassland habitat is present; however, this species occurs at higher elevations than the BSA.
dwarf calycadenia *Calycadenia villosa*	Chaparral, cismontane woodland, meadows and seeps, and valley and foothill grassland (rocky). Elevation 240–1,350 meters.	May–October	--/--/1B.1	**Suitable Conditions Absent:** Grassland habitat is present; however, this species occurs at higher elevations on the project site.
Cambria morning-glory *Calystegia subacaulis* ssp. *episcopalis*	Grassland and rocky areas associated with chaparral and cismontane woodland. Elevation 60–500 meters.	April–May	--/--/4.2	**Suitable Conditions Present:** Grassland habitat is present within project boundaries and the BSA. Species was observed flowering during seasonal survey.
Hardham's evening-primrose *Camissoniopsis hardhamiae*	An annual herb that is typically found in sandy, decomposed carbonate soils. Especially in disturbed or burned areas among chaparral and cismontane woodland. Elevation 140–945 meters.	March–May	--/--/1B.2	**Suitable Conditions Absent:** The appropriate soil conditions were not observed in the BSA.
San Luis Obispo sedge *Carex obispoensis*	Closed cone coniferous forests, chaparral, coastal prairie, coastal scrub, and valley and foothill grassland. Usually adjacent to seeps, springs, stream sides or other water source with sand, clay, or serpentine. Elevation 5–790 meters.	April–June	--/--/1B.2	**Suitable Conditions Present:** Suitable habitat and clay soils are present within project boundaries and the BSA.
San Luis Obispo owls clover *Castilleja densiflora* ssp. *obispoensis*	Valley and foothill grassland. 1 Elevation 0–215 meters.	March–May	--/--/1B.2	**Suitable Conditions Present:** Grassland habitat is present within project boundaries and the BSA.
Lompoc ceanothus *Ceanothus cuneatus var. fascicularis*	Chaparral (sandy). Elevation 5–400 meters.	February–April	--/--/4.2	**Suitable Conditions Absent:** Suitable habitat and soils were not observed within the BSA.

Table C-1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
Monterey ceanothus *Ceanothus rigidus*	Closed-cone, coniferous forest, chaparral, and coastal scrub with sandy soil. Elevation 3–550 meters.	February–April	--/--/4.2	**Suitable Conditions Absent:** The appropriate soil conditions are not present within the BSA.
Congdon's tarplant *Centromadia parryi* ssp. *congdonii*	Depressional areas with clay soil and valley and foothill grassland. Elevation 1–230 meters.	May–November	--/--/1B.2	**Suitable Conditions Present:** Grassland habitat and clay soils are present within project boundaries and the BSA.
island mountain-mahogany *Cercocarpus betuloides* var. *blancheae*	Closed-cone coniferous forest and chaparral. Elevation 30–600 meters.	February–May	--/--/4.3	**Suitable Conditions Absent:** Suitable habitat was not observed within the BSA.
Coastal goosefoot *Chenopodium littoreum*	Coastal dunes. Elevation 10–30 meters.	April–August	--/--/1B.2	**Suitable Conditions Absent:** Suitable habitat was not observed within the BSA.
dwarf soaproot *Chlorogalum pomeridianum* var. *minus*	Chaparral habitats with serpentine soils. Elevation 305–1,000 meters.	May–August	--/--/1B.2	**Suitable Conditions Absent:** Suitable habitat was not observed. Species occur at higher elevations than the BSA.
salt marsh bird's beak *Chloropyron maritimum* ssp. *maritimum*	Coastal dunes, marshes, and swamps. Elevation 0–30 meters.	May–October	FE/CE/1B.2	**Suitable Conditions Absent:** Suitable habitat was not observed within the BSA. Species occurs at lower elevations than the BSA.
Brewer's spineflower *Chorizanthe breweri*	Chaparral, cismontane woodland, coastal scrub, closed-cone coniferous forest; rocky or gravelly serpentine sites; usually in barren areas. Elevation 45–800 meters.	May–August	--/--/1B.3	**Suitable Conditions Absent:** Coastal scrub (i.e. sagebrush scrub) habitat was observed within the BSA. However, coastal scrub was not observed within project boundaries and therefore not likely to be affected by construction activities.

Table C-1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
Douglas' spineflower *Chorizanthe douglasii*	Chaparral, cismontane woodland, coastal scrub, and lower montane coniferous forest. Elevation 55–1,600 meters.	April–July	--/--/--4.3	**Suitable Conditions Absent:** Coastal scrub (i.e. sagebrush scrub) habitat was observed within the BSA. However, coastal scrub was not observed within project boundaries and therefore not likely to be affected by construction activities.
peninsular spineflower *Chorizanthe leptotheca*	Chaparral, coastal scrub, and lower montane coniferous forest. Elevation 300–1,900 meters.	May–August	--/--/4.2	**Suitable Conditions Absent:** Coastal scrub (i.e. sagebrush scrub) habitat was observed within the BSA. However, coastal scrub was not observed within project boundaries and therefore not likely to be affected by construction activities. Species occurs at higher elevations.
Palmer's spineflower *Chorizanthe palmeri*	Chaparral, cismontane woodlands, valley and foothill grassland (serpentinite). Elevation 60–700 meters.	April–August	--/--/4.2	**Suitable Conditions Present:** Grassland habitat is present within project boundaries and the BSA.
straight-awned spineflower *Chorizanthe rectispina*	Chaparral, cismontane woodland, coastal scrub. Often on granite in chaparral. Elevation 355–1,035 meters.	April–July	--/--/1B.3	**Suitable Conditions Absent:** Coastal scrub (i.e. sagebrush scrub) habitat was observed within the BSA. However, coastal scrub was not observed within project boundaries and therefore not likely to be affected by construction activities. Species occurs at higher elevations.
potbellied spineflower *Chorizanthe ventricosa*	Cismontane woodland and foothill and valley grassland (serpentinite). Elevation 65–1,235 meters.	May–September	--/--/--4.3	**Suitable Conditions Present:** Grassland habitat is present within project boundaries and the BSA.
San Luis Obispo fountain thistle *Cirsium fontinale* var. *obispoense*	Chaparral, cismontane woodlands; serpentine seeps or bogs. Elevation 35–380 meters.	February–September	FE/SE/1B.2	**Suitable Conditions Absent:** Suitable habitat was not observed in the BSA.

Table C-1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
Cuesta Ridge thistle *Cirsium occidentale* var. *lucianum*	Chaparral (openings) on serpentinite, often on steep rocky slopes and disturbed roadsides. Elevation 500–750 meters.	April–June	--/--/1B.2	**Suitable Conditions Absent:** Suitable habitat was not observed in the BSA. Species occur at higher elevations than the BSA.
surf thistle *Cirsium rhothophilum*	Coastal dunes and coastal bluff scrub. Open areas in central dune scrub, usually in coastal dunes. Elevation 3–60 meters	April–June	--/CT/1B.2	**Suitable Conditions Absent:** Suitable habitat was not observed within the BSA.
La Graciosa thistle *Cirsium scariosum* var. *loncholepis*	Coastal dunes, coastal scrub, cismontane woodlands, marshes and swamps, and valley and foothill grassland. Elevation 4–220 meters.	May–August	FE/ST/1B.2	**Suitable Conditions Present:** Grassland habitat is present within project boundaries and the BSA.
popcorn lichen *Cladonia firma*	Coastal dunes and coastal scrub (soil, detritus and moss). No blooming period. Elevation 30-75 meters.	N/A	--/--/2B.1	**Suitable Conditions Absent:** Suitable habitat was not observed within the BSA.
slender clarkia *Clarkia exilis*	Cismontane woodland. Elevation 120–1,000 meters.	April–May	--/--/4.3	**Suitable Conditions Absent:** Suitable habitat was not observed within the BSA.
Pismo clarkia *Clarkia speciosa* ssp. *immaculata*	Sandy soils, openings in chaparral, cismontane woodland, valley and foothill grassland. On ancient sand dunes not far from the coast. Elevation 25–185 meters.	May–July	FE/SR/1B.1	**Suitable Conditions Absent:** Sandy soils were not observed within the BSA.
monkey-flower savory *Clinopodium mimuloides*	Chaparral and North Coast coniferous forest. Elevation 305-1800 meters.	June-October	--/--/4.2	**Suitable Conditions Absent:** Suitable habitat was not observed within the BSA. Species occurs at higher elevations.

Table C-1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
paniculate tarplant *Deinandra paniculata*	Occurs in coastal scrub, valley and foothill grassland, and vernal pools (sandy, vernally mesic). Elevation 25-940 meters.	April-November	--/--/4.2	**Suitable Conditions Absent:** Grassland habitat is present within project boundaries and the BSA; however, the appropriate soils were not observed for this species.
dune larkspur *Delphinium parryi ssp. blochmaniae*	Maritime chaparral and coastal dunes with sandy or rocky soils. Elevation 0–200 meters.	April–May	--/--/1B.2	**Suitable Conditions Absent:** Suitable habitat and soils were not observed in the BSA
Eastwood's larkspur *Delphinium parryi* ssp. *eastwoodiae*	Chaparral and valley and foothill grassland (serpentinite, coastal). Elevation 75–500 meters.	February–March	--/--/1B.2	**Suitable Conditions Present:** Grassland habitat is present within project boundaries and the BSA.
umbrella larkspur *Delphinium umbraculorum*	Perennial herb. Occurs in cismontane woodland. Elevation 400–1,600 meters.	April–June	--/--/1B.3	**Suitable Conditions Absent:** Suitable habitat was not observed in the BSA. Species occurs at higher elevations than the BSA.
beach spectaclepod *Dithyrea maritima*	Coastal dunes, seashores, and sandy places with coastal scrub. Elevation 3–50 meters.	March–May	--/ST/1B.1	**Suitable Conditions Absent:** The appropriate soil conditions were not observed within the BSA for this species.
Betty's dudleya *Dudleya abramsii* ssp. *bettinae*	Coastal scrub, valley and foothill grassland, chaparral; rocky barren serpentine exposures. Elevation 20–180 meters.	May–July	--/--/1B.2	**Suitable Conditions Present:** Grassland habitat is present within project boundaries and the BSA.
mouse-gray dudleya *Dudleya abramsii* ssp. *murina*	Serpentine outcrops in chaparral, cismontane woodland. Elevation 90–300 meters.	May–June	--/--/1B.3	**Suitable Conditions Absent:** Suitable habitat was not observed in the BSA.
Blochman's dudleya *Dudleya blochmaniae* ssp. *blochmaniae*	Coastal scrub, chaparral, and valley and foothill grassland habitats on rocky outcrops in clay or serpentine soils. Elevation 5–450 meters.	April–June	--/--/1B.1	**Suitable Conditions Present:** Grassland habitat and clay soils are present within project boundaries and the BSA. Species observed during seasonal survey.

Table C-1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
small spikerush *Eleocharis parvula*	Marshes and swamps. Elevation 1–3,020 meters.	April–September	--/--/4.3	**Suitable Conditions Absent:** Suitable marsh habitat was observed within the BSA (i.e., bulrush marsh). However, suitable habitat conditions were not observed within project boundaries; therefore, this species is not likely to be affected by construction activities.
Yellow-flowered eriastrum *Eriastrum luteum*	Annual herb occurs in broadleafed upland forest, chaparral, and cismontane woodland on sandy or gravelly soils. Elevation 290–1,000 meters.	May–June	--/--/1B.2	**Suitable Conditions Absent:** The appropriate soil conditions were not observed. Species occurs at higher elevations than the BSA.
Blochman's leafy daisy *Erigeron blochmaniae*	Perennial rhizomatous herb. Occurs in coastal dunes and coastal scrub on sandy soils. Elevation 3–45 meters.	July–August	--/--/1B.2	**Suitable Conditions Absent:** The appropriate soil conditions were not observed. Species occurs at lower elevations than the BSA.
elegant wild buckwheat *Eriogonum elegans*	Cismontane woodland and valley and foothill grassland (sandy/gravelly soils, washes, and roadsides). Elevation 200–1,525 meters.	May–November	--/--/4.3	**Suitable Conditions Absent:** The appropriate soil conditions were not observed. Species occurs at higher elevations than the BSA.
Indian Knob mountainbalm *Eriodictyon altissimum*	Maritime chaparral, cismontane woodland, coastal scrub, on sandstone. Elevation 80–270 meters.	March–June	FE/SE/1B.1	**Suitable Conditions Absent:** The appropriate soil conditions were not observed. Species occurs at higher elevations than the BSA.
Hoover's button-celery *Eryngium aristulatum* var. *hooveri*	Vernal pools in alkaline depressions near the coast. Elevation 5–45 meters.	July	--/--/1B.1	**Suitable Conditions Absent:** Vernal pool habitat was not observed. Species occurs at lower elevations than the BSA.

Table C-1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
San Joaquin spearscale *Extriplex joaquiniana*	Playas, chenopod scrub, valley and foothill grassland (alkaline), and meadows and seeps. Elevation 1–835 meters.	April–October	--/--/1B.2	**Suitable Conditions Absent:** Though grassland habitat is present within the BSA, the appropriate soil conditions were not observed for this species
stinkbells *Fritillaria agrestis*	Chaparral, cismontane woodland, pinyon and juniper woodland, and valley and foothill grassland. Elevation 10–1,555 meters.	March–June	--/--/4.2	**Suitable Conditions Present:** Grassland habitat is present within project boundaries and the BSA.
Ojai fritillary *Fritillaria ojaiensis*	Bulbiferous herb occurs in broadleaf upland forest, chaparral, and lower montane coniferous forest on rocky soils. Elevation 300–998 meters.	March–May	--/--/1B.2	**Suitable Conditions Absent:** The appropriate soil conditions were not observed. Species occurs at higher elevations than the BSA.
San Benito fritillary *Fritillaria viridea*	Chaparral on serpentine slopes. Elevation 200–1,525 meters.	March–May	--/--/1B.2	**Suitable Conditions Absent:** Suitable habitat was not observed. Species occur at higher elevations than the BSA.
San Francisco gumplant *Grindelia hirsutula* var. *maritima*	Coastal bluff scrub, coastal scrub, and valley and foothill grassland (sandy). Elevation 15–400 meters.	June–September	--/--/1B.2	**Suitable Conditions Absent:** Grassland habitat is present within the BSA and project boundaries; however, the appropriate soil conditions were not observed.
mesa horkelia *Horkelia cuneata* ssp. *puberula*	Chaparral, cismontane woodlands, and coastal scrub; in sandy or gravelly sites. Elevation 70–810 meters.	February–September	--/--/1B.1	**Suitable Conditions Absent:** Some coastal scrub habitat is present within the BSA; however, the appropriate soils were not observed.
Kellogg's horkelia *Horkelia cuneata ssp. sericea*	Closed-cone coniferous forest, maritime chaparral, and coastal scrub with sandy or gravelly openings. Elevation 10–200 meters.	April–September	--/--/1B.1	**Suitable Conditions Absent:** Some coastal scrub habitat is present; however, the appropriate soils were not observed.

Table C-1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	Saline marshes and swamps, playas, and vernal pools. Elevation 1–122 meters.	February–June	--/--/1B.2	**Suitable Conditions Absent:** Suitable saline marsh habitat was not observed within the BSA.
pale-yellow layia *Layia heterotricha*	Cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grassland. Usually associated with alkaline or clay soils. Elevation 300–1,705 meters.	March–June	--/--/1B.1	**Suitable Conditions Absent:** Though grassland habitat and clay soils are present, this species occurs at higher elevations than the BSA
Jones's layia *Layia jonesii*	Chaparral and valley and foothill grassland on clay or serpentine outcrops. Elevation 5–400 meters.	March–May	--/--/1B.2	**Suitable Conditions Present:** Grassland habitat and clay soils are present within project boundaries and the BSA.
small-leaved lomatium *Lomatium parvifolium*	Closed-cone coniferous forest, chaparral, coastal scrub, riparian woodland; often associated with serpentinite. Elevation 20–700 meters.	January–June	--/--/4.2	**Suitable Conditions Absent:** Riparian habitat (i.e., arroyo willow thicket) is present within the BSA. However, no riparian habitat is present within project boundaries; therefore, this species is not likely to be affected by construction activities.
San Luis Obispo County lupine *Lupinus ludovicianus*	Chaparral, cismontane woodland. Open areas in sandy soils of the Santa Margarita formation. Elevation 50–525 meters.	April–July	--/--/1B.2	**Suitable Conditions Absent:** Suitable habitat and the appropriate soils were not observed within the BSA.
slender bush-mallow *Malacothamnus gracilis*	Chaparral. Elevation 190–575 meters.	May–October	--/--/1B.1	**Suitable Conditions Absent:** Suitable habitat was not observed. Species occurs at higher elevations than the BSA.
Jones' bush mallow *Malacothamnus jonesii*	Chaparral and cismontane woodland. Elevation 250–830 meters.	May–July	--/--/4.3	**Suitable Conditions Absent:** Suitable habitat was not observed on the project site. Species occurs at higher elevations than the BSA.

Table C-1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
Carmel Valley bush-mallow *Malacothamnus palmeri var. involucratus*	Chaparral, cismontane woodland and coastal scrub. Elevation 30–1,100 meters.	May–August (October)	--/--/1B.2	**Suitable Conditions Absent:** Coastal scrub (i.e. sagebrush scrub) habitat was observed within the BSA. However, coastal scrub was not observed within project boundaries; therefore, this species is not likely to be affected by construction activities.
Santa Lucia bush-mallow *Malacothamnus palmeri var. palmeri*	Chaparral. Elevation 60–360 meters.	May–July	--/--/1B.2	**Suitable Conditions Absent:** Suitable habitat was not observed within the BSA for this species.
Palmer's monardella *Monardella palmeri*	Chaparral and cismontane woodland habitats on serpentine soil. Elevation 200–800 meters.	June–August	--/--/1B.2	**Suitable Conditions Absent:** Suitable habitat was not observed on the project site. Species occurs at higher elevations than the project site
southern curly-leaved monardella *Monardella sinuata* ssp. *sinuata*	Chaparral, coastal dunes, coastal scrub (openings), and cismontane woodland. Elevation 0–300 meters.	April–September	--/--/1B.2	**Suitable Conditions Absent:** Coastal scrub (i.e. sagebrush scrub) habitat was observed within the BSA. However, coastal scrub was not observed within project boundaries; therefore, this species is not likely to be affected by construction activities.
San Luis Obispo monardella *Monardella undulata* ssp. *undulata*	Coastal dunes and coastal scrub. Elevation 10–200 meters.	May–September	--/--/1B.2	**Suitable Conditions Absent:** Coastal scrub (i.e. sagebrush scrub) habitat was observed within the BSA. However, coastal scrub was not observed within project boundaries; therefore, this species is not likely to be affected by construction activities.

Table C-1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
woodland woolly threads *Monolopia gracilens*	Occurs on serpentine in broadleaved upland forest, chaparral (openings), cismontane woodland, North Coast coniferous forest (openings), and valley and foothill grassland. Elevation 100–1,200 meters.	February–July	--/--/1B.2	**Suitable Conditions Present:** Grassland habitat is present within project boundaries and the BSA.
California spineflower *Mucronea californica*	Occurs in chaparral, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland (sandy). Elevation 0-1,400 meters.	March-August	--/--/4.2	**Suitable Conditions Absent:** Though grassland habitat is present, the appropriate soil conditions were not observed for this species.
shining navarretia *Navarretia nigelliformis* ssp. *radians*	Cismontane woodland, valley and foothill grassland, vernal pools. 7 Elevation 6–1,000 meters.	April–July	-- / -- / 1B.2	**Suitable Conditions Present:** Grassland habitat is present within project boundaries and the BSA.
coast woolly-heads *Nemacaulis denudata* var. *denudata*	Coastal dunes. Elevation 0–100 meters.	April–September	--/--/1B.2	**Suitable Conditions Absent:** Suitable habitat was not observed within the BSA for this species.
large-flowered nemacladus *Nemacladus secundiflorus* var. *secundiflorus*	Chaparral, valley and foothill grassland (gravelly openings). Elevation 200-2000 meters	April-June	--/--/4.3	**Suitable Conditions Absent:** Though grassland habitat is present, this species occurs at higher elevations than the BSA.
adobe yampah *Perideridia pringlei*	Chaparral, cismontane woodland, coastal scrub, and pinyon and juniper woodland (serpentinite and clay). Elevation 300–1,800 meters.	April–July	--/--/4.3	**Suitable Conditions Absent:** Coastal scrub (i.e. sagebrush scrub) habitat was observed within the BSA. However, this species occurs at higher elevations than the BSA.
Michael's orchid *Piperia michaelii*	Perennial herb occurs in coastal bluff scrub, closed-cone coniferous forest, chaparral, cismontane woodland, and lower montane coniferous forest. Elevation 3–915 meters.	April–August	--/--/4.2	**Suitable Conditions Absent:** Suitable habitat was not observed within the BSA.

Table C-1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
chaparral popcornflower *Plagiobothrys torreyi* var. *perplexans*	Chaparral, lower montane coniferous forest, meadows and seeps, and upper montane coniferous forest (burn areas). Elevation 1070–2,745 meters.	April–September	--/--/4.3	**Suitable Conditions Absent:** Suitable habitat was not observed. Species occurs at higher elevations than the BSA.
hooked popcorn flower *Plagiobothrys uncinatus*	Chaparral on sandy soils, cismontane woodland, valley and foothill grassland; sandstone outcrops and canyon sides. Elevation 300–730 meters.	April–May	--/--/1B.2	**Suitable Conditions Absent:** The appropriate soil conditions were not observed. Species occurs at higher elevations than the BSA.
Diablo Canyon blue grass *Poa diaboli*	Coastal dune scrub on shale soils. Elevation 120–400 meters.	March–April	--/--/1B.2	**Suitable Conditions Absent:** Suitable dune scrub habitat and shale soils were not observed within the BSA
Hoffman's sanicula *Sanicula hoffmannii*	Occurs on serpentinite and often clay in chaparral, cismontane woodland, coastal scrub, broadleafed upland forest, coastal bluff scrub, and lower montane coniferous forest. Elevation 30–300 meters.	March–May	--/--/4.3	**Suitable Conditions Absent:** Coastal scrub (i.e. sagebrush scrub) habitat and clay soils were observed within the BSA. However, coastal scrub was not observed within project boundaries; therefore, this species is not likely to be affected by construction activities.
adobe sanicle *Sanicula maritima*	Moist seeps within coastal prairie, chaparral, meadows, and valley and foothill grassland habitats in clay or serpentine soils. Elevation 30–240 meters	February–May	--/SR/1B.1	**Suitable Conditions Present:** Grassland habitat and clay soils are present.
chaparral ragwort *Senecio aphanactis*	Chaparral, cismontane woodland, and coastal scrub habitats on alkaline soil. Elevation 15–1,800 meters.	January–April	--/--/2.2	**Suitable Conditions Absent:** The appropriate soil conditions were not observed. Species not observed during surveys conducted in the appropriate blooming period.
San Gabriel ragwort *Senecio astephanus*	Chaparral, cismontane woodlands; coastal scrub/alkaline. Elevation 15–800 meters.	January–April	-- / -- / 4.3	**Suitable Conditions Absent:** The appropriate soil conditions were not observed.

Table C-1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
black-flowered figwort *Scrophularia atrata*	Closed-cone coniferous forest, chaparral, coastal dunes, coastal scrub, riparian scrub. Around swales and in sand dunes. Sand, diatomaceous shale and soils derived from other parent material. Elevation 10–250 meters.	March–May	--/--/1B.2	**Suitable Conditions Absent:** The appropriate soil conditions were not observed.
rayless (chaparral) ragwort *Senecio aphanactis*	Chaparral, cismontane woodlands; coastal scrub/alkaline. Elevation 15–800 meters.	January–April	--/--/2.2	**Suitable Conditions Absent:** The appropriate soil conditions were not observed for this species.
Cuesta pass checkerbloom *Sidalcea hickmanii ssp. anomala*	Closed-cone coniferous forest with rocky serpentine slopes. Elevation 600–800 meters.	May–June	--/SE/1B.2	**Suitable Conditions Absent:** Suitable habitat was not observed. This species occurs at higher elevations than the BSA.
Guirado's goldenrod *Solidago guiradonis*	Cismontane woodland and valley and foothill grassland (serpentine seeps). Elevation 600–1,730 meters.	September–October	--/--/4.3	**Suitable Conditions Absent:** This species occurs at higher elevations than the BSA.
most beautiful jewel-flower *Streptanthus albidus* ssp. *peramoenus*	Chaparral, cismontane woodlands, valley and foothill grasslands on serpentine soil. Elevation 110–1,000 meters.	April–June	--/--/1B.2	**Suitable Conditions Present:** Grassland habitat is present within the BSA and project boundaries.
California seablite *Suaeda californica*	Marshes and swamps with coastal salt influences. Elevation 0–15 meters.	July–October	FE/--/1B.1	**Suitable Conditions Absent:** Suitable marsh habitat with coastal salt influences was not observed within the BSA
splitting yarn lichen *Sulcaria isidiifera*	Chaparral and cismontane woodland. Elevation 20–30 meters.	N/A	--/--/1B.1	**Suitable Conditions Absent:** Suitable habitat was not observed within the BSA
saline clover *Trifolium hydrophilum*	Marshes and swamps, valley and foothill grassland, vernal pools; alkaline sites. 0–300 meters.	April–June	--/--/1B.2	**Suitable Conditions Absent:** The BSA does not contain alkaline soils.

Table C-1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
caper fruited tropidocarpum *Tropidocarpum capparideum*	Valley and foothill grassland habitats on alkaline hills 1–455 meters.	March–April	--/--/1B.1	**Suitable Conditions Absent:** The BSA does not contain alkaline soils.
Natural Communities of Concern				
central dune scrub	A back dune plant community characterized by low growing, drought tolerant shrubs that develop considerable cover. Diagnostic species include *Ericameria ericoides* and *Lupinus chamissonis*.			**Absent:** BSA does not support central dune scrub.
central foredunes	A foredune plant community characterized by scattered low growing perennial plants including *Abronia* sp. *Ambrosia* sp. and *Cackile* sp. Usually occurring in areas exposed to tidal action.			**Absent:** BSA does not support central foredunes.
central maritime chaparral	A variable scrub community of moderate to high cover dominated by various *Arctostaphylos* sp. Found on well drained sandy soils in areas subject to summer fog.			**Absent:** BSA does not support central maritime chaparral.
coastal and valley freshwater marsh	A wetland community that is found in areas of permanently or prolonged freshwater saturation without significant current or flow. Vegetation is dominated by perennial emergent monocots including cattails and rushes.			**Absent:** The BSA supports coastal and valley freshwater marsh (i.e., California bulrush marsh). However, this habitat was not observed within project boundaries and therefore not likely to be affected by project activities.
Coastal brackish marsh	Brackish water habitat that consists of perennial, emergent, herbaceous plants that grow up two meters tall. Habitat typically occurs in the interior edges of bays, estuaries and coastal lagoons. Characteristic species include Carex spp., saltgrass, pickleweed, Scirpus spp., and broadleafed cattail.			**Absent:** BSA does not support northern coastal brackish marsh
northern coastal salt marsh	A highly productive herbaceous community dominated by salt-tolerant plant species up to 1 meter tall. Scattered in the north coast and Klamath Ranges through the Sierra Nevada to Oregon.			**Absent:** BSA does not support northern coastal salt marsh
northern interior cypress forest	An open serotinous forest that is often found on dry, rocky soils. Often associated with serpentine soils. Vegetation consists of dense to sparse stands of *Cupressus* species.			**Absent:** BSA does not support northern interior cypress forest.

Table C-1. Special-Status Plant Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Flower Season	Legal Status Federal/ State/CNPS	Rationale for Expecting Presence or Absence
serpentine bunchgrass	An open grassland community that is dominated by perennial bunch grasses. Typically, total cover is low but native species' dominate the composition. Associated species include *Nassela cernua*, *N*. *lepida*, *N*. *pulchra*, and *Melica californica*. Always occurring on serpentine substrates.			**Absent:** Though there are likely areas on University land that support this natural community, a grassland community dominated by perennial bunch grasses was not observed within the BSA.
valley needlegrass grassland	Habitat consists of mid-height (up to 2 feet) grasslands dominated by perennial, tussock-forming needlegrass (*Stipa* spp.). Native and introduced annual species occur between the perennial bunchgrasses, often actually exceeding bunchgrasses in total cover.			**Absent:** Though there are likely areas on University land that support this natural community, a grassland community dominated by *Stipa* spp. was not observed within the BSA.

General references: CDFG 2008, Hickman (ed.) 1993, Munz 1974, CNDDB 2009

Status Codes
--= No status

Federal:
FE = Federal Endangered
FT=Federal Threatened

State:
SE=State Endangered
ST= State Threatened
SR= State Rare

California Native Plant Society (CNPS):
List 1B = rare, threatened, or endangered in California and elsewhere.
List 2 = rare, threatened, or endangered in California, but more common elsewhere.
List 3 = plants that about which more information is needed.
List 4 = a watch list plants of limited distribution.

Threat Code:
.1 = Seriously endangered I California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 = Fairly endangered in California (20-80% occurrences threatened)
.3 = Not very endangered I California (<20% of occurrences threatened or no current threats known)

Table C-2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/State/CDFG	Rationale for Expecting Presence or Absence
Brachiopods			
Vernal pool fairy shrimp *Branchinecta lynchi*	Occur in vernal pool habitats including depressions in sandstone, to small swale, earth slump, or basalt-flow depressions with a grassy or, occasionally, muddy bottom in grassland.	FT/--/--	**Suitable Conditions Absent**: BSA does not support vernal pools.
California linderiella *Linderiella occidentalis*	Seasonal ponds in grasslands, sandstone depressions and alluvial flats with hardpan beneath.	--/--/SA	**Suitable Conditions Absent:** Suitable habitat necessary to support this species was not observed in the BSA.
Fish			
Tidewater goby *Eucyclogobius newberryi*	Occurs in brackish shallow lagoons and lower stream reaches where water is fairly still, but not stagnant.	FE/--/SSC	**Suitable Conditions Absent**: The BSA not provide suitable aquatic habitat (i.e., brackish lagoons) for this species.
Central California coast steelhead DPS *Oncorhynchus mykiss irideus*	Clear, cool water with abundant in-stream cover, well-vegetated stream margins, relatively stable water flow, and a 1:1 pool-to-riffle ratio.	FT, PCH/--/SSC	**Suitable Conditions Absent**: The BSA not provide suitable aquatic habitat (i.e., stable water flow) for this species.
Invertebrates			
obscure bumble bee *Bombus caliginosus*	Coastal areas from Santa Barbara county to north to Washington state. Food plant genera include Baccharis, Cirsium, Lupinus, Lotus, Grindelia, and Phacelia.	--/--/SA	**Suitable Conditions Absent:** sky lupine and coyote brush were observed during surveys; however, very few individuals were observed within the BSA to support this species.
Crotch bumble bee *Bombus crotchii*	Coastal California east to the Sierra-Cascade crest and south into Mexico. Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	--/--/SA	**Suitable Conditions Absent:** California poppies were observed within the BSA; however, very few individuals were observed within the BSA to support this species.
western bumble bee *Bombus occidentalis*	Once common & widespread, species has declined precipitously from central CA to southern B.C., perhaps from disease.	--/--/SA	**Suitable Conditions Absent:** BSA is within Central California; however, this species was not observed during surveys.

Table C-2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/State/CDFG	Rationale for Expecting Presence or Absence
sandy beach tiger beetle *Cicindela hirticollis gravida*	Areas adjacent to non-brackish water along the California coast to Mexico; inhabits sand in upper zone; larvae found in moist sand.	--/--/SA	**Suitable Conditions Absent:** Coastal habitat and soils necessary to support this species was not observed within the BSA
globose dune beetle *Coelus globosus*	Coastal sand dune habitat.	--/--/SA	**Suitable Conditions Absent:** Coastal habitat and soils necessary to support this species were not observed within the BSA
Monarch butterfly *Danaus plexippus*	Occurs along the coast from northern Mendocino to Baja California, Mexico. Winter roosts in wind protected tree groves (eucalyptus, Monterey pine and cypress), with nectar and water sources nearby.	--/--/SA	**Suitable Conditions Absent:** Suitable roosting habitat was not observed within the BSA. Species not observed during surveys.
Morro Bay blue butterfly *Pebejus icarioides moroensis*	Inhabits stabilized dunes and adjacent areas of coastal San Luis Obispo and Santa Barbara Counties; (Lupinus chamissonis) is larval food plant.	--/--/SA	**Suitable Conditions Absent:** Coastal sand dune habitat necessary to support this species was not observed within the BSA.
Atascadero June beetle *Polyphylla nubila*	Known only from sand dunes in San Luis Obispo County	--/--/SA	**Suitable Conditions Absent:** Coastal sand dune habitat necessary to support this species was not observed within the BSA.
Gastropods			
Morro shoulderband snail *Helminthoglypta walkeriana*	Restricted to the coastal strand in Los Osos and the immediate vicinity of Morro Bay; inhabits the duff beneath Salvia, Carpobrotus and Ericameria.	FE/--/--	**Suitable Conditions Absent:** The BSA does not contain suitable habitat and is outside the know range for this species.
San Luis Obispo pyrg *Pyrgulopsis taylori*	Freshwater habitats in San Luis Obispo County.	--/--/SA	**Suitable Conditions Absent:** Freshwater habitat necessary to support this species was not observed within the BSA.
mimic tyronia *Tryonia imitator*	Aquatic habitats including brackish marsh, estuary, lagoon, marsh and swamp, salt marsh, and wetland.	--/--/SA	**Suitable Conditions Absent:** Aquatic habitat necessary to support this species was not observed within the BSA.

Table C-2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/State/CDFG	Rationale for Expecting Presence or Absence
Amphibians			
foothill yellow-legged frog *Rana boylii*	Frequently occurs in rocky streams and rivers with open sunny banks. Occasionally found in pools, vegetated backwaters and deep shaded spring fed pools. Sea level to 6,700 feet.	--/--/SSC	**Suitable Conditions Present:** Suitable aquatic habitat was observed within the BSA. There is a documented occurrence of this species approximately 5 miles southeast of the BSA. Species not observed during surveys.
California red-legged frog *Rana draytonii*	Aquatic habitats with little or no flow and surface water depths to at least 2.3 feet. Presence of fairly sturdy underwater supports such as cattails.	FT/--/SSC	**Suitable Conditions Present:** Suitable aquatic habitat was observed within the BSA. There is a documented occurrence of this species near Shepard Reservoir approximately 1.3 miles southeast of the BSA. Species not observed during surveys.
western spadefoot *Spea hammondii*	Inhabits vernal pools in primarily grassland, but also in valley and foothill hardwood woodlands.	FC/--/SSC	**Suitable Conditions Absent:** Though grassland habitat is present on site, no vernal pools were observed. Species not observed during surveys
Coast range newt *Taricha torosa torosa*	Breed in ponds, reservoirs, and slow-moving streams. Frequents terrestrial habitats such as oak woodlands.	--/--/SSC	**Suitable Conditions Present:** Suitable breeding habitat was observed for this species within the BSA. There is a historical occurrence of this species in Brizzolara Creek approximately 2.5 miles east of the BSA. Species not observed during surveys.
Reptiles			
black legless lizard *Anniella pulchra nigra*	Sandy or loose loamy soils with high moisture content under sparse vegetation.	--/--/SSC	**Suitable Conditions Absent:** BSA does not contain the appropriate soil conditions for this species.

Table C-2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/State/CDFG	Rationale for Expecting Presence or Absence
silvery legless lizard *Anniella pulchra pulchra*	Sandy or loose loamy soils with high moisture content under sparse vegetation.	--/--/SSC	**Suitable Conditions Absent:** BSA does not contain the appropriate soil conditions for this species.
western pond turtle *Emys marmorata*	Quiet waters of ponds, lakes, streams, and marshes. Typically in the deepest parts with an abundance of basking sites.	--/--/SSC	**Suitable Conditions Present:** Suitable aquatic habitat was observed within the BSA. Species not observed during surveys.
Coast horned lizard *Phrynosoma coronatum* (*blainvillii* population)	Frequents a wide variety of habitats, commonly occurring in lowlands along sandy washes, coastal sage scrub and chaparral in arid and semi-arid climate conditions. Species prefers friable, rocky or shallow sandy soils.	--/--/SSC	**Suitable Conditions Absent:** BSA does not contain sandy soils. Species not observed during surveys.
Birds			
Cooper's hawk *Accipiter cooperii*	Deciduous riparian woodland habitat throughout California. Cooper's Hawks nest in deciduous, mixed-deciduous, and evergreen forests, as well as in suburban and urban environments. Cooper's Hawks tend to nest in more open areas that have older and larger trees.	MBTA/--/WL	**Suitable Conditions Present:** This species may use the BSA for nesting (i.e., arroyo willow thicket, sycamores) and foraging. This species was observed foraging during surveys.
tricolored blackbird *Agelaius tricolor*	(Nesting colony); requires open water, protected nesting substrate such as cattails or tall rushes, and foraging area with insect prey.	MBTA/SE/SSC	**Suitable Conditions Present**: Suitable nesting and foraging habitat is present in the marsh areas within the BSA.
grasshopper sparrow *Ammodramus savannarum*	(Nesting) dense grasslands on rolling hills, lowland plains, in valleys, and on hillsides on lower mountain slopes; favors native grasslands with a mix of grasses, forbs, and scattered shrubs loosely colonial when nesting.	MBTA/--/SSC	**Suitable Conditions Present:** Suitable foraging and nesting habitat is present within the BSA. Species not observed during surveys.

Table C-2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/State/CDFG	Rationale for Expecting Presence or Absence
burrowing owl *Athene cunicularia*	Open, dry grasslands, deserts and scrublands. Subterranean nester, dependent upon burrowing mammals.	MBTA/--/SSC	**Suitable Conditions Present:** Grassland habitat and ground squirrel burrows are present within the BSA for this species. Species not observed during surveys; however, has been documented on Camp San Luis land near the BSA
golden eagle *Aquila chrysaetos*	Usually occurring in mountainous areas with varying vegetative cover; removed from people. May forage in grasslands and other open habitats. Nests on cliff edges and rarely in tall trees	MBTA/--/FP	**Suitable Conditions Absent:** Grasslands within the BSA may provide foraging opportunities for golden eagles; however, suitable nesting habitat is not present on the site. Species not observed during the surveys.
ferruginous hawk *Buteo regalis*	(Wintering) open grasslands, sagebrush flats, desert scrub, low foothills, and fringes of pinyon-juniper habitats; eats lagomorphs, ground squirrels, and mice.	MBTA/--/WL	**Suitable Conditions Absent:** Grasslands within the BSA may provide foraging opportunities for ferruginous hawks. Any occurrence during project activities would be a “flyby” and would not adversely impact the individual. Species not observed during the surveys.
western snowy plover *Charadrius alexandrinus nivosus*	Occurs on sandy beaches, salt pond levees, and shores of large alkali lakes. Needs sandy, gravelly or friable soils for nesting.	MBTA, FT/--/SSC	**Suitable Conditions Absent:** BSA does not contain suitable habitat for this species and the site is not located on coast. Species not observed during surveys.
western yellow-billed cuckoo *Coccyzus americanus*	Forests to open riparian woodlands with thick under story.	FC, MBTA/SE/--	**Suitable Conditions Present:** Foraging and nesting habitat is present within the BSA. Species not observed during surveys.
white-tailed kite *Elanus leucurus*	Open grasslands, meadows, or marshlands for foraging close to isolated trees for nesting and perching.	MBTA/--/FP	**Suitable Conditions Present:** Grasslands within the BSA provide suitable foraging opportunities and isolated trees (i.e., sycamores) within the BSA provide potential nesting habitat. Species observed during the surveys.

Table C-2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/State/CDFG	Rationale for Expecting Presence or Absence
California horned lark *Eremophila alpestris actia*	Occurs in short grass prairies, coastal plains, fallow grain fields and alkali flats. Found in coastal regions from Sonoma to San Diego county, and west to the San Joaquin Valley. .	MBTA/--/WL	**Suitable Conditions Present:** Suitable foraging and nesting habitat is present on the within the BSA. Species not observed during surveys.
merlin *Falco columbarius*	(Wintering) Nests in trees associated with open forests adjacent with open areas. Preys on small birds.	MBTA/--/WL	**Suitable Conditions Absent:** BSA does not contain suitable habitat for this species. Species not observed during surveys.
Prairie falcon *Falco mexicanus*	Occurs in dry, open terrain that is level or hilly and breeds on cliffs.	MBTA/--/WL	**Suitable Conditions Absent:** BSA does not contain suitable nesting habitat for this species. Species not observed during surveys.
loggerhead shrike *Lanius ludovicianus*	Broadleaved upland forest, desert was, Joshua tree woodland, Mojavean desert scrub, Pinon and Juniper woodlands, riparian woodland, and Sonoran desert scrub.	MBTA/--/SSC	**Suitable Conditions Present:** Suitable foraging and nesting habitat is present within the BSA. Species not observed during surveys.
California black rail *Laterallus jaimacensis coturniculus*	California black rail are shore birds known to frequent tidal salt marshes. These birds utilize densely vegetated mud flats and the high tide line in salt water marsh systems.	MBTA, FT/--/FP	**Suitable Conditions Absent:** BSA does not contain suitable habitat for this species. Species not observed during surveys.
purple martin *Progne subis*	Occupies valley foothill and montane hardwood forests, conifer forests, and riparian habitats. May nest in old woodpecker cavities or in human-made structures such as bridges and culverts. Feeds on insects.	MBTA/--/SSC	**Suitable Conditions Present:** Suitable foraging and nesting habitat (i.e., culverts) is present within the BSA. Species not observed during surveys.
California clapper rail *Rallus longirostris obsoletus*	Occurs within salt and brackish marshes dominated by pickleweed and Pacific cordgrass. Currently, this species is restricted to marsh areas within the vicinity of San Francisco Bay. The last Califronia clapper rail to be sighted in Morro Bay was documented in 1939.	MBTA, FE/SE/FP	**Suitable Conditions Absent:** BSA does not contain brackish water or the appropriate vegetation required for this species. Species not observed during surveys.

Table C-2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/State/CDFG	Rationale for Expecting Presence or Absence
Mammals			
Pallid bat *Antrozous pallidus*	Prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging. Day roosts are in caves, crevices, mines, and occasionally in hollow trees and buildings. Night roosts may be in more open sites, such as porches and buildings.	--/--/SSC	**Suitable Conditions Absent:** Though this species may use sycamore trees within the BSA for roosting, no trees were physically located within project boundaries that could provide potential roosting opportunities for this species.
Townsends big-eared bat *Corynorhinus townsendii*	Occurs in a wide variety of habitats; most common in mesic (wet) sites. May use trees for day and night roosts; however, requires caves, mines, rock faces, bridges or buildings for maternity roosts. Maternity roosts are in relatively warm sites.	--/--/SSC	**Suitable Conditions Absent:** Though this species may use sycamore trees within the BSA for roosting, no trees were physically located within project boundaries that could provide potential roosting opportunities for this species.
Western mastiff bat *Eumops perotis californicus*	Found in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc.; roosts in crevices in cliff faces, high buildings, trees, and tunnels.	--/--/SSC	**Suitable Conditions Absent:** Though this species may use sycamore trees within the BSA for roosting, no trees were physically located within project boundaries that could provide potential roosting opportunities for this species.
San Diego desert woodrat *Neotoma lepida intermedia*	Forest habitats of moderate canopy and moderate to dense understory; also in chaparral habitats. Requires rock outcrops and rocky cliff slopes Nests constructed of grass, feathers, etc. Population may be limited by availability of nest materials.	--/--/SSC	**Suitable Conditions Absent:** Suitable habitat was not observed within the BSA for this species. Species not observed during surveys.
big free-tailed bat *Nyctinomops macrotis*	Rare vagrant in California, probable resident in Texas, New Mexico, and southern Arizona. Probably does not breed in California. Prefers rugged, rocky canyons but will roost on buildings or in caves and trees.	--/--/SSC	**Suitable Conditions Absent:** Though this species may use sycamore trees within the BSA for roosting, no trees were physically located within project boundaries that could provide potential roosting opportunities for this species.

Table C-2. Special-Status Wildlife Species Investigated for Potential Occurrence

Species Name	Habitat and Distribution	Legal Status Federal/State/CDFG	Rationale for Expecting Presence or Absence
American badger *Taxidea taxus*	Occurs in open stages of shrub, forest, and herbaceous habitats; needs uncultivated ground with friable soils.	--/--/SSC	**Suitable Conditions Absent:** No burrows capable of supporting this species were observed within the BSA. Species not observed during surveys.

General references: Unless otherwise noted all habitat and distribution data provided by California Natural Diversity Database

Status Codes
--= No status

Federal:
FE = Federal Endangered
FT= Federal Threatened
FC= Federal Candidate
CH= Federal Critical Habitat
PCH= Proposed Federal Critical Habitat
MBTA= Protected by Federal Migratory Bird Treaty Act

State:
SE= State Endangered
ST= State Threatened

California Department of Fish and Game:
SSC= California Special Concern Species
FP= Fully Protected Species
SA= Not formally listed but included in CDFG “Special Animal” List (CNDDB and CDFW 2015).

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