# APPENDIX C

# Biological Resources

| *Scientific Name (=Synonym)* | Common Name (=Synonym) | Status | General Habitat Descriptions in California | The BSA: Located Within Species' Distribution and/or Elevation Range (if known) | The BSA: Contains Suitable Foraging, Roosting, and/or Breeding Habitats | Potential For Occurrence in the BSA |
|---|---|---|---|---|---|---|
| **Listed Endangered, Threatened, and Candidate Wildlife: Wildlife with official status under the federal Endangered Species Act (ESA) and/or the California Endangered Species Act (CESA). A species may have other sensitive designations in addition to their federal or state listing.** | | | | | | |
| **Listed Invertebrates** | | | | | | |
| *Rhaphiomidas terminatus abdominalis* | Delhi sands flower-loving fly | FE | Habitats: sparsely vegetated area, providing sparse ground cover (10-20%)<br>Soils: unique, fine, sandy soils | Yes | No | **Low potential to occur**. The soils of the BSA, while Tujunga gravelly-loamy-sand, do contain a Delhi Sands component, however it only comprises 5%. In addition, there are recent (<15 years) observations of this species south of the project site within a 2-mile radius. |
| *Euphydryas editha quino (=Euphydryas editha wrighti)* | quino checkerspot butterfly | FE | Habitats: grasslands, remnant forbland, open coastal sage scrub, open chamise chaparral, open red shank chaparral, juniper woodland, and semi-desert scrub, open or sparsely vegetated rounded hilltops, ridgelines, rocky outcrops of chaparral and coastal sage scrub<br>Soils: loamy soils with moderate to high amounts of clay<br>Characteristics: adult butterflies will only deposit eggs on species they recognize as host plants | Yes | Yes | **No potential to occur.** The BSA does not contain adequate, larval host plants or food sources to support this butterfly. While the BSA does contain some open areas with sparsely vegetated shrubs, it does not contain any of the other preferred habitat types of this species. In addition, the soils of the BSA are gravelly-loam and do not contain a significant clay component. |
| *Bombus crotchii* | Crotch bumble bee | candidate endangered | Habitats: grasslands and shrublands. Hotter and drier environment than other bumblebee species. Prefers milkweeds, dusty maidens, lupines, medics, phacelias, sages, clarkias, poppies, and wild buckwheats: This species occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California. It has also been documented in southwest Nevada, near the California border. | Yes | Yes | **Moderate** potential to occur. Recent occurrences data (CNDDB) indicates that this species has been recently (<15 years) observed within 0.2 miles of the project. . The BSA does contain a few sparsely distributed shrubs, and the area appears to be one of the few open spaces available amongst many residential developments in the vicinity, so it is possible that this species would need to utilize areas like these more, due to the scarcity of open areas. Recent observation of this species have also occurred , within approximately 0.2 mile northeast of the BSA. |
| **Listed Fish** | | | | | | |
| *Oncorhynchus mykiss irideus* | steelhead – southern California DPS | FE[16], SSC[17] | Habitats: cool, clear, well-oxygenated streams<br>Characteristics: higher-elevation headwaters are primary spawning and rearing areas | Yes | No | **No potential to occur**. The BSA does not contain suitable aquatic habitats to support this fish. |
| **Listed Amphibians** | | | | | | |
| *Anaxyrus californicus (=Bufo californicus)* | arroyo toad | FE, SSC | Habitats: sandy riverbanks, streams, washes, and arroyos, breeds in and near streams<br>Characteristics: nearby sandy terraces, dampened in places by capillary action, and with some scattered vegetation providing surface sheltering and burrowing sites and foraging areas | Yes | No | **No potential to occur**. The BSA does not contain suitable foraging riparian, oak, or scrub habitats and it lacks suitable aquatic breeding sites to support this toad. Due to lack of available water on site; amphibians are not expected. |
| *Rana muscosa* | southern mountain yellow-legged frog | FE, SE, CDFW:WL, USFS:S | Habitats: sunny riverbanks, meadow streams, isolated pools, lake borders, and rocky stream courses in the mountains of Southern California<br>Characteristics: prefer open stream and lake margins that gently slope | Yes | No | **No potential to occur**. The BSA does not contain suitable aquatic breeding habitats within Ponderosa pine, montane hardwood-conifer, and montane riparian habitats to support this frog. This frog requires a permanent water source, which is not present in the BSA. |
| **Listed Reptiles** | | | | | | |
| *Charina umbratica* | southern rubber boa | ST | Habitats: moist oak-conifer and mixed-conifer coniferous forests and woodland habitats, large grassy fields or other open areas<br>Characteristics: require loose, moist soil for burrowing, rock outcrops serve as hibernacula | Yes | No | **No potential to occur** The BSA does not contain suitable vegetation or aquatic habitats to support this snake. |
| **Listed Birds** | | | | | | |
| *Gymnogyps californianus* | California condor | FE, SE, fully protected, CDF:S | Habitats: semi-arid, pine or chaparral covered rugged mountain ranges, higher elevations, foraging habitat lies in foothills predominately covered by grasslands or oak-savannah habitats<br>Characteristics: habitat requirements may be adequate food supplies, open-enough habitat that food can be readily found and accessed | No | No | **No potential to occur,** The BSA does not contain suitable adequate food supplies, enough open-habitat that food can be readily found and accessed, and reliable air movements allowing extended soaring flight. In addition, suitable breeding habitats are absent from the BSA. Any occurrence would most likely be restricted to fly-overs. Furthermore, the BSA is not within the general range of this species. |
| *Buteo swainsoni* | Swainson's hawk | ST, BCC, Season of Concern: nesting | Habitats: large, open areas with abundant prey in association with suitable nest trees, native grasslands or lightly grazed pastures and croplands, open deserts, sparse shrub lands<br>Characteristics: nest in juniper trees of juniper-sage flats not near riparian zones | Yes | Yes | **Low potential to occur**. The BSA does not contain suitable breeding tree habitats, but does contain some low-quality grasslands. This species is highly mobile and can cover a large range, so occurrence in the BSA would likely be limited to passage. |
| *Laterallus jamaicensis coturniculus* | California black rail | ST, fully protected,, BCC | Habitats: high coastal marshes to freshwater marshes along the lower Colorado River, pickleweed, bulrushes, and matted salt grass (Distichlis spicata) and other marsh vegetation<br>Characteristics: they use areas of shallow water with relatively stable water levels and flat shoreline | Yes | No | **No potential to occur.** The BSA does not contain suitable breeding coastal salt marsh or freshwater marsh habitats and aquatic mudflat foraging habitats to support this species. |
| *Empidonax traillii extimus* | southwestern willow flycatcher | FE, SE, Season of Concern: nesting | Habitats: dense riparian tree and shrub communities associated with rivers, swamps, and other wetlands, including lakes, surface water, saturated soil, or herbaceous wetland plants present during the early summer months; woody riparian vegetation is present | Yes | No | **No potential to occur.** The BSA does not contain suitable breeding and foraging dense riparian and aquatic habitats to support this species. The SWFL arrives in spring usually in early May and in the fall, the adults depart mainly during the last half of August. Juveniles remain later in September, but all have departed by 1 October. |
| *Vireo bellii pusillus* | least Bell's vireo | FE, SE, Season of Concern: nesting | Habitats: dry, intermittent streams, on the desert slopes mesquite (Prosopis sp.) and sandbar willow in canyon locations, willow-dominated riverine riparian habitats with well-developed overstories, understories, and low densities of aquatic and herbaceous cover | Yes | No | **No potential to occur**. The BSA does not contain suitable breeding and foraging riparian and aquatic habitats to support this species. From their wintering ground in southern Baja California, Mexico, LBVs migrate between mid-March and early April to southern California, where they remain until July or August. |
| *Polioptila californica californica* | coastal California gnatcatcher | FT, SSC | Habitats: small, non-migratory, permanent resident of coastal sage scrub | Yes | No | **Low potential to occur**. The BSA does not contain suitable breeding and foraging coastal sage scrub habitats to support this species. |
| *Agelaius tricolor* | tricolored blackbird | ST, SSC , BCC, Season of Concern: nesting colony | Habitats: fresh water, preferably in emergent wetland with tall, dense cattails (Typha sp.) or tules, natural grassland, woodland, or agricultural cropland<br>Characteristics: species is not migratory, but is nomadic and highly colonial | Yes | No | **No potential to occur.** The BSA does not contain suitable aquatic habitats to support this fish. |
| **Listed Mammals** | | | | | | |
| *Dipodomys merriami parvus* | San Bernardino kangaroo rat | FE, SSC | Habitats: Riversidean alluvial fan sage scrub, river and stream terraces, flood plains, and along washes with nearby sage scrub<br>Soil: sandy loam soils, alluvial fans | Yes | No | **Low potential to occur**. The The soils of the BSA contain loam.. The BSA also lies within a 100-year flood plain (FEMA). These facotrs, along with recent occurrences (<15 years) data indicates this species was observed within a 2-mile radius of the project site (CNDDB). |
| *Dipodomys stephensi* | Stephens' kangaroo rat | FE, ST | Habitats: open annual and perennial grasslands or sparse shrublands such as coastal sage scrub<br>Soil: well drained, gravelly or sandy and sandy loam soils | Yes | Yes | **Low potential to occur**. The project site contains friable soils that could provide some low-quality habitat for this species. However, the site is primarily surrounded by residential developments and associated paved areas with the exception of the distur |
| **Sensitive Wildlife: These animals have no official status under the ESA and/or the CESA; however they are designated as sensitive or locally important by federal agencies, state agencies, and/or local conservation agencies and organizations** | | | | | | |
| **Sensitive Invertebrates** | | | | | | |
| *Cicindela tranquebarica viridissima* | greenest tiger beetle | CDFW: Special Animals List | Habitats: woodlands adjacent to the Santa Ana River basin | Yes | Yes | **No potential to occur.** There is available suitable woodland habitat adjacent to the Santa Ana River basin located approximately 5 miles northwest of the project, in the San Bernardino National Forest. The BSA and the immediately surrounding areas does not contain suitable woodland habitat, as these areas are primarily grassland, residential + commercial development, paved surfaces, and some sparsely distributed shrubs |
| *Danaus plexippus* pop. 1 | monarch butterfly | FC: California overwintering population | Habitats: wind-protected tree groves (eucalyptus [Eucalyptus sp.], Monterey pine [Pinus radiata], cypress), with nectar and water sources nearby | Yes | No | **Low potential to occu**r. This species could utilize ornamental flowering plants and shrubs that are present in the areas of residential developments, including for landscaping purposes. This species is mobile, but is unlikely to establish in the BSA and occurrence would likely be restricted to passage. |
| **Sensitive Fish** | | | | | | |
| *Gila orcuttii* | arroyo chub | SSC, | Habitats: slow-moving or backwater sections of warm to cool (10-24 C) streams with mud or sand substrates | Yes | No | **No potential to occur.** The BSA does not contain suitable aquatic habitats to support this fish. |

| *Scientific Name (=Synonym)* | Common Name (=Synonym) | Status | General Habitat Descriptions in California | The BSA: | | Potential For Occurrence in the BSA |
|---|---|---|---|---|---|---|
| | | | | Located Within Species' Distribution and/or Elevation Range (if known) | Contains Suitable Foraging, Roosting, and/or Breeding Habitats | |
| *Rhinichthys osculus ssp. 3* | Santa Ana speckled dace | SSC | Habitats: shallow cobble and gravel riffles<br>Characteristics: overhanging riparian plants, mainly alders (Alnus sp.) and sedges, provide cover for fish | Yes | No | **No potential to occur.** The BSA does not contain suitable aquatic habitats to support this fish. |
| **Sensitive Amphibians** | | | | | | |
| *Spea hammondii* | western spadefoot | SSC | Habitats: coastal sage scrub, open chaparral, pine-oak woodlands and grassland habitats, grasslands with vernal pools or mixed grassland/coastal sage scrub areas<br>Characteristics: upland habitats adjacent to potential breeding sites in burrows approximating 1 meter in depth | Yes | No | **No potential to occur**. The project site does contain grasslands, however it does not contain vernal pools or adequate water sources to support this species. |
| *Batrachoseps gabrieli* | San Gabriel slender salamander | ND | Habitats: conifer and montane hardwood species, including spruce (Picea sp.), pine, white fir (Abies concolor), incense cedar (Calocedrus decurrens), canyon live oak (Quercus chrysolepis), California black oak (Quercus kelloggii), and California bay (Umbellularia californica) and shaded areas near a stream | Yes | No | **No potential to occur.** Based on range and observations data (BIOS, CNDDB), this species appears to prefer elevations higher than that of the BSA. Furthermore, the BSA does not contain conifer and montane hardwood trees. |
| **Sensitive Reptiles** | | | | | | |
| *Anniella stebbinsi* | southern California legless lizard | SSC | Habitat: occurs in many habitats with sandy soil. Habitats: coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fans. Population occurs in Piute and Tehachapi mountains at elevation of 400-900 m in oak woodland and mixed conifer forest. | Yes | No | **No potential to occur.** The soils of the project site are alluvium-derived, however they are primarily gravelly, coarse-textured soils. In addition, the BSA lacks suitable habitats for this species such as mixed conifer and oak woodland. |
| *Phrynosoma blainvilli (=Phrynosoma coronatum) (=Phrynosoma coronatum blainvillei)* | Blainville's horned lizard (=coast horned lizard) (=San Diego horned lizard) | SSC, | Habitats: wide variety of vegetation types including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland and coniferous forest, habitats are loose, fine soils with a high sand fraction; an abundance of native ants or other insects; and open areas with limited overstory for basking and low | Yes | No | **No potential to occur.** The BSA does not contain suitable foraging and basking scrub. Grasslands occurring on project site are disturbed and surrounded by urbanized areas, limiting the likelihood for this species to occur. The project site also does not contain soils with a high sand fraction. |
| *Aspidoscelis hyperythra (=Cnemidophorus hyperythrus beldingi)* | orange-throated whiptail | WL | Habitats: semi-arid brushy areas typically with loose soil and rocks, including washes, stream sides, rocky hillsides, and coastal chaparral<br>Characteristics: friable soil appears to be a necessary requirement for excavating burrows and hiding eggs | Yes | No | **No potential to occur**. The BSA does not contain adequate brushy areas to support this species. The BSA also lacks stream sides and easy access to water sources for this species. |
| *Aspidoscelis tigris stejnegeri (=Cnemidophorus tigris multiscutatus)* | San Diegan whiptail (=coastal whiptail) | SSC | Habitats: variety of ecosystems, primarily hot and dry open areas with sparse foliage such as deserts, chaparral and semiarid, found in open, often rocky areas with little vegetation or sunny microhabitats within shrub or grassland<br>Characteristics: ground may be firm soil, sandy, or rocky | Yes | No | **Low potential to occur.** The grasslands occuring on project site are disturbed and sparse/patchy. There are few shrubs on the project site, and the BSA contains virtually no suitable habitat as the majority of the BSA is comprised of residential developments/urbanized areas including paved roadways, infrastructure, etc. These features limit the habitat suitability for this species. |
| *Arizona elegans occidentalis* | California glossy snake | SSC | Habitats: all ecological zones, from the coast to the mountain foothills, light shrubby to barren desert, sagebrush flats, grassland, chaparral-covered slopes, and woodlands<br>Characteristics: refugia takes the form of mammal burrows, rock outcrops, and to a lesser extent | Yes | No | **Low potential to occur.** The project site contains some disturbed grasslands and low-quality available habitat. The BSA contains very minimal suitable vegetation communities that would support this species. It is unlikely this species would occur in the BSA, due to the urbanized nature of the BSA and consequent disturbances. The BSA also lacks suitable habitat types such as barren desert, sagebrush flats, and chaparral-covered slopes and woodlands. |
| **Sensitive Birds** | | | | | | |
| *Elanus leucurus* | white-tailed kite | fully protected, Season of Concern: nesting | Habitats: undisturbed, open grasslands, meadows, emergent wetlands, farmlands, crops, pastures, and other cultivated habitats<br>Characteristics: adjacent to their nesting woodland must be open foraging grasslands | Yes | Yes | **Low potential to occur**. The BSA contains some open areas, however they are limited and have experienced compaction and other disturbances. The BSA lacks emergent wetlands, crops/farmlands, and undisturbed meadows. The disturbed grasslands in the BSA cover a small area, relative to the areas in the BSA covered by developments/urbanized. |
| *Accipiter cooperii* | Cooper's hawk | WL, Season of Concern: nesting | Habitats: broken woodland and habitat edges<br>Characteristics: tolerant of human activities near the nest and is seen more often nesting in urban/residential areas | Yes | Yes | **Low potential to occur.** This species is well-adapted to a variety of settings including urbanized areas. There are only minimal availabe foraging areas available in the BSA and its vicinity, however Cooper's hawk could utilize rooftops, utility poles and posts, and other structures to perch. |
| *Athene cunicularia* | burrowing owl | SSC, BCC, Season of Concern: burrowing sites and some wintering sites | Habitats: open, dry, flat ground or low rolling hills with sparse vegetation and available burrows<br>Characteristics: dig their own burrows in the soft banks of irrigation canals and ditches | Yes | Yes | **Low potential to occur**. The project site contains friable soils that could provide some low-quality habitat for this species. Several burrows were also observed on-site and in the BSA. The project site also contains some concrete/debris piles that provide coverage for this species.. The project vicinity is primarily residential developments, causing the project site to be one of the few available suitable areas for this owl in the vicinity. |
| *Falco columbarius* | merlin | WL, Season of Concern: nesting | Habitats: Alaska and Canada, Merlins winter in California from September to May , annual grasslands to open ponderosa pine and montane hardwood-conifer habitats, and coastlines, savannahs, woodlands, lakes, and wetlands<br>Characteristics: dense tree stands may be used for cover and are frequently close to bodies of water | Yes | No | **Low potential to occur.** Merlin may utilize the open areas such as the project site, as there are few other immediately-surrounding open grasslands. The BSA does not contain suitable nesting habitat, and only minimal foragin habitat for this species. |
| *Eremophila alpestris actia* | California horned lark | WL, | Habitats: grasslands along the coast and deserts near sea level to alpine dwarf-shrub habitat above treeline<br>Characteristics: birds forage on the ground in either bare areas | Yes | Yes | **Low potential to occur**. The BSA does contain some suitable open grassland habitats to support breeding or foraging, however this habitat quality is limited due to adjacent developments. There is not expansive open areas available. Therefore, this species only has a low potential to occur. . |
| *Artemisiospiza belli belli (=Amphispiza belli belli)* | Bell's sage sparrow | WL, BCC | Habitats: dry chaparral and coastal sage scrub along the coastal lowlands, inland valleys, and in the lower foothills of local mountains<br>Characteristics: found in big sagebrush at higher elevations in southern mountains | Yes | No | **No potential to occur.** The BSA does not contain suitable coastal sage scrub or chaparral to support this species. |
| **Sensitive Mammals** | | | | | | |
| *Chaetodipus fallax fallax* | northwestern San Diego pocket mouse | SSC | Habitats: open, sandy areas of both the Upper and Lower Sonoran life-zones of southwestern California and northern Baja California<br>Characteristics: grassland and open sage scrub vegetation with sandy-loam to loam soils | Yes | Yes | **Moderate** potential to occur. The soils of the BSA do contain loam, which could potentially provide suitable habitat for this species. Furthermore, there are recent (<15 years) observations of this species within a 2-mile radius of the project site, however not on the project site itself (CNDDB). |
| *Chaetodipus fallax pallidus* | pallid San Diego pocket mouse | SSC | Habitats: sandy herbaceous areas, usually in association with rocks or coarse gravel in southwestern California<br>Characteristics: mainly in arid coastal and desert border areas | Yes | Yes | **Low potential to occur.** Although disturbed, the project area contains gravelly, friable soils that may provide some low-quality but suitable habitat for this species. |
| *Perognathus longimembris brevinasus* | Los Angeles pocket mouse | SSC | Habitats: open ground of fine, sandy soils and may utilize these soil types for burrowing, lower elevation grassland and coastal sage scrub<br>Characteristics: prefers sparsely vegetated habitats | Yes | Yes | **Low potential to occur**. The BSA contains friable soils, however the soils contain gravelly components. This species prefers habitats with soils that are generally fine. The BSA contains relatively low vegetative cover, which could create a suitable habitat for this species, although it is still unlikely this species woud establish on-site due to the nature of the soils. |
| *Neotoma lepida intermedia* | San Diego desert woodrat | SSC | Habitats: variety of shrub and desert habitats primarily associated with rock outcroppings, boulders, cacti, or areas of dense undergrowth<br>Characteristics: cactus patches are also a favorite den site | Yes | No | **No potential to occur.** The BSA does not contain areas with suitable outcrops, boulders, and native cacti; there are also no areas with dense undergrowth on the project site, and the vegetation in the BSA is primarily ornamental. |
| *Lepus californicus bennettii* | San Diego black-tailed jackrabbit | SSC | Habitats: open areas or semi-open country, typically in grasslands, agricultural fields or sparse coastal scrub, in arid regions supporting shortgrass<br>Characteristics: not found in high mountain forests | Yes | Yes | **Moderate potential to occur**. There are recent (<15 years) observations of this species within a 2-mile radius of the project site (CNDDB). This species is highly mobile, and could utilize the open grasslands available on the project site and in the BSA. |
| *Eumops perotis californicus* | western mastiff bat | SSC, WBWG:H | Habitats: low-lying desert areas of southern California, desert riparian, desert wash, desert scrub, desert succulent shrub, alkali desert scrub, palm oasis, conifer and deciduous woodlands, coastal scrub, annual and perennial grassslands, chaparral, urban. Roosts in crevices in cliff faces, high buildings, trees, and tunnels<br>Characteristics: bats often are found in large groups | Yes | Yes | **Low potential to occur.** This species is well-adapted to a variety of areas including developed, urban, and disturbed areas such as those in the BSA. The project site also contains disturbed grasslands that could provide low-quality but suitable habitat for this bat. |
| *Lasiurus xanthinus* | western yellow bat | SSC, WBWG:H | Habitats: valley foothill riparian, desert riparian, desert wash, and palm oasis habitats<br>Characteristics: occurs year-round in California | Yes | Yes | **Low potential to occur**. There are recent (<15 years) observations of this species within a 2-mile radius of the project site (CNDDB). |
| *Taxidea taxus* | American badger | SSC | Habitats: alpine meadows to elevations as low as Death Valley<br>Characteristics: requirements - sufficient food, friable soils, and relatively open, uncultivated ground | Yes | Yes | **No potential to occur.** The BSA does contain some open areas such as the project site and the open area north of the site, however these areas are surrounded by residential developments and paved structures. These developments as well as human activity would likely deter this species from occurring in the BSA. |

| Scientific Name (=Synonym) | Common Name (=Synonym) | Status | General Habitat Description in California | Plant Elevation Range (feet amsl) | BSA Contains Potential Suitable Habitats | BSA is Located Within the Plant Species' Known: | | Potential For Occurrence in the BSA |
|---|---|---|---|---|---|---|---|---|
| | | | | | | Elevation Range | General Distribution | |
| **Listed Endangered, Threatened, Candidate and State Rare Plants: Plants with official status under the federal Endangered Species Act (ESA), the California Endangered Species Act (CESA), and/or the Native Plant Protection Act (NPPA). A species may have other sensitive designations in addition to their federal or state listing.** | | | | | | | | |
| *Ambrosia pumila* | San Diego ambrosia (=dwarf burr ambrosia) | FE, CRPR: 1B.1 | Lifeform: perennial rhizomatous herb<br>Habitats: creek beds, seasonally dry drainages, and floodplains, open habitats such as chaparral and coastal sage scrub in coarse substrates<br>Soils: alkaline soils, sparse grasslands or marginal wetland habitats<br>Wetlands, Drainages, or Seeps: Yes<br>Bloom Period: April to October | 66 – 1,361 | Yes | Yes | Yes | **No potential to occur.**The BSA contains coarse substrates, however the lack of open habitats and creekbeds limits the likelihood that this species would occur in the BSA. |
| *Berberis nevinii (=Mahonia nevinii)* | Nevin's barberry | FE, SE, CRPR: 1B.1 | Lifeform: perennial evergreen shrub<br>Habitats: two habitat types- alluvial scrub community, chaparral community<br>Soils: alluvial scrub community it grows on sandy and gravelly substrates along the margins of dry washes, chaparral community, it grows on steep, north-facing slopes with coarse soils and rocky slopes<br>Bloom Period: February to June | 130 – 7,480 | Yes | Yes | Yes | **No potential to occur**. The BSA does not contian the preferred habitat types of this species. Furthermore, there are no recent (<15 years) recorded observations of this species within a 5-mile radius of the BSA. |
| *Phacelia stellaris* | Brand's star phacelia (=Brand's phacelia) | FC, CRPR: 1B.1, | Lifeform: annual herb<br>Habitats: open areas in coastal dunes and coastal scrub<br>Soils: sandy openings, sandy benches, dunes, sandy washes, or flood plains of rivers<br>Bloom Period: March to June | 3 – 1,312 | No | Yes | Yes | **No potential to occur**. The BSA does not occur in a floodplain. There are very few recorded observations of this species withn a 10-mile radius of the project site. |
| *Nasturtium gambelii (=Rorippa gambelii)* | Gambel's water cress | FE, ST, CRPR: 1B.1 | Lifeform: perennial rhizomatous herb<br>Habitats: freshwater and brackish marshes or swamps and grows on the margins of lakes and slowly flowing streams, drought, plants can be found growing on mud<br>Wetlands, Drainages, or Seeps: Yes<br>Bloom Period: April to October | 16 – 1,082 | No | Yes | Yes | **No potential to occur.** The BSA does not contain suitable water sources to support this species. |
| *Astragalus brauntonii* | Braunton's milk-vetch | FE, CRPR: 1B.1 | Lifeform: perennial herb<br>Habitats: valley grasslands, coastal sage scrub, and closed-pine cone coniferous forests<br>Soils: ecently-burned or disturbed chaparral areas particularly on limestone-derived calcareous soils<br>Bloom Period: January to August | 13 – 2,100 | No | Yes | Yes | **No potential to occur.** The BSA does not contain soils derived from limestone. |
| *Chloropyron maritimum ssp. maritimum (=Cordylanthus maritimus ssp. maritimus)* | salt marsh bird's-beak | FE, SE, CRPR: 1B.2 | Lifeform: annual herb<br>Habitats: portions of salt marshes subject to periodic inundation from high tides, non-tidal areas or in areas of perched water tables<br>Wetlands, Drainages, or Seeps: Yes<br>Bloom Period: May to Novemeber | 0 - 98 | No | No | No | **No potential to occur**. The BSA does not contain the proper habitat types to support this species. |
| *Eriastrum densifolium ssp. sanctorum* | Santa Ana River woollystar | FE, SE, CRPR: 1B.1 | Lifeform: perennial herb<br>Habitats: open washes and early-successional alluvial fan scrub, fluvial deposits where flooding and scouring occur at a frequency that allows the persistence of open shrublands<br>Soils: gravelly soils, sandy soils, rock mounds and boulder fields<br>Wetlands, Drainages, or Seeps: Yes<br>Bloom Period: April to September | 298 – 2,001 | Yes | Yes | Yes | **No potential to occur**. The topography of the project vicinity does not suggest that the BSA experiences flooding. There are no persistent shrublands present in the BSA. |
| *Dodecahema leptoceras* | slender-horned spineflower | FE, SE, CRPR: 1B.1 | Lifeform: annual herb<br>Habitats: flood plains and in washes<br>Soils: sandy soil of alluvium in flood plains and in washes<br>Wetlands, Drainages, or Seeps: Yes<br>Bloom Period: April to June | 656 – 2,493 | Yes | Yes | Yes | **Low potential to occur**. This species appears to inhabit washes that are in the vicinity of the project site. The BSA is not in a floodplain or wash, however observation data suggests this species may still have a low potential to occur. |
| *Brodiaea filifolia* | thread-leaved brodiaea (=threadleaf clusterlily) | FT, SE, CRPR: 1B.1 | Lifeform: perennial bulbiferous herb<br>Habitats: gentle hillsides, valleys, and floodplains in semi-alkaline mudflats, vernal pools, mesic southern needlegrass grasslands, mixed native-nonnative grasslands and alkali grasslands plant communities<br>Soils: clay to fine sand<br>Bloom Period: March to June | 82 – 3,674 | No | Yes | Yes | **No potential to occur.** The BSA does not contain mudflats, floodplains, or clay/fine sand soils. |
| **Sensitive Plants: These plants have no official status under the ESA, the CESA, and/or the NPPA; however they are designated as sensitive or locally important by federal agencies, state agencies, and/or local conservation agencies and organizations.** | | | | | | | | |
| *Ambrosia monogyra* | singlewhorl burrobrush | CRPR: 2B.2 | Lifeform: perennial shrub<br>Habitats: chaparral and Sonoran desert scrub<br>Soils: sandy soils, desert washes and ravines<br>Bloom Period: August to November | 33 – 1,640 | No | Yes | Yes | **No potential to occur**. There are very few recorded observations of this species in southwestern SB County. The BSA does not contain Sonoran desert scrub or chaparral. |
| *Helianthus nuttallii ssp. parishii* | Los Angeles sunflower | CRPR: 1A | Lifeform: perennial rhizomatous herb<br>Habitats: coastal salt and freshwater marshes and swamps<br>Wetlands, Drainages, or Seeps: Yes<br>Bloom Period: August to October | 33 – 5,000 | No | Yes | Yes | **No potential to occur**. The most recent recorded observation of this species (Calflora) is 2018 in the SB National Forest, east of Mt. St. Antonio.There are no recent (<15 years) recorded observations of this species within a 5 mile radius of the site. |
| *Pseudognaphalium leucocephalum (=Gnaphalium leucocephalum)* | white rabbit-tobacco | CRPR: 2B.2 | Lifeform: perennial herb<br>Habitats: chaparral, cismontane woodlands, coastal scrub and riparian woodlands; sandy or gravelly benches, dry stream bottoms, canyon bottoms<br>Soils: sandy and gravelly sites<br>Bloom Period: (July) August to November (December) | 0 – 6,888 | Yes | Yes | Yes | **No potential to occur**. Many of the observations of this species in San Bernardino County are >85 years old, and the BSA does not contain dry stream bottoms. It is unlikely this species would occur, however the BSA does contain sandy-gravelly sites and this species has been recorded in southwestern SB County |
| *Senecio aphanactis* | chaparral ragwort (=rayless ragwort) | CRPR: 2B.2 | Lifeform: annual herb<br>Habitats: rocky limestone slopes and washes in pinyon and juniper woodlands (carbonate)<br>Bloom Period: January to April (May) | 49 – 2,624 | No | Yes | Yes | **No potential to occur**. The BSA does not contain rocky limestone slopes or washes in pinyon + juniper woodlands. |

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| *Symphyotrichum defoliatum (=Aster bernardinus)* | San Bernardino aster | CRPR: 1B.2 | Lifeform: perennial rhizomatous herb<br>Habitats: cismontane woodlands, coastal scrub, lower montane coniferous forests, meadows and seeps, marshes and swamps, and vernally mesic valley and foothill grasslands<br>Soils: moist fine alluvial soils<br>Wetlands, Drainages, or Seeps: Yes<br>Bloom Period: July to November | 7 – 6,691 | No | Yes | Yes | **No potential to occur.** The soils of the BSA, although alluvial, are well-drained and are not fine-textured. In addition, the BSA does not contain cismontane woodlands, coastal scrub, lower montane woodlands, marshes or swamps. The observations of this species in southwestern SB County are >50 years old (CNDDB, CNPS, Jepson eFlora) |
| *Symphyotrichum greatae (=Aster greatae)* | Greata's aster | CRPR: 1B.3 | Lifeform: perennial rhizomatous herb<br>Habitats: mesic canyons of broad leafed upland forests, chaparral, cismontane woodlands, lower montane coniferous forests, and riparian woodlands<br>Bloom Period: June to October | 984 – 6,593 | No | Yes | Yes | **No potential to occur.** The BSA does not contain suitable habitat types to support this species such as uplad forests, cismontane woodlands, or riparian woodlands. |
| *Lepidium virginicum var. robinsonii* | Robinson's pepper-grass | CRPR: 4.3 | Lifeform: annual herb<br>Habitats: chaparral and coastal sage scrub often around rock outcrops<br>Soils: dry soils<br>Bloom Period: January to July | 3 – 2,903 | Yes | Yes | Yes | **Low potential to occur**. Although this species tends to prefer elevations slightly higher than that of the BSA, according to the locations of recent observations data, there are some recent observations of this species within a 5-mile radius of the project at the same elevation ranges as the site. |
| *Streptanthus bernardinus* | Laguna Mountains jewel-flower | CRPR: 4.3 | Lifeform: perennial herb<br>Habitats: lower montane coniferous forests and chaparral<br>Soils: granitic gravels and sand<br>Wetlands, Drainages, or Seeps: Yes<br>Bloom Period: May to August | 2,198 – 8,200 | No | No | Yes | **No potential to occur**. This species grows at elevations slightly higher than that of the BSA. Nearest observations of this species are concentrated approximately 11-18 miles north of the project site, in the SB National Forest, as it prefers lower montane coniferous forest and chaparral. |
| *Opuntia basilaris var. brachyclada* | short-joint beavertail | CRPR: 1B.2 | Lifeform: perennial stem succulent<br>Habitats: chaparral, Joshua tree woodlands, Mojavean desert scrub, riparian woodlands, and pinyon and juniper woodlands<br>Soils: sandy soils or coarse granitic, loam, sandy to rocky<br>Bloom Period: April to August | 1,395 – 5,904 | Yes | Yes | Yes | **Low potential to occur.** The soils present in the BSA are suitable to support this species, as they are granite-derived gravelly-loamy-sand. However, many of the habitat types in which this species occurs are not present in the BSA, including Joshua tree and riparian woodlands. |
| *Cuscuta obtusiflora var. glandulosa* | Peruvian dodder | CRPR: 2B.2 | Lifeform: annual parasitic vine<br>Habitats: freshwater marshes and swamps<br>Bloom Period: July to October | 49 - 918 | No | Yes | Yes | **No potential to occur.** The BSA does not contain suitable aquatic habitat to support this species. |
| *Astragalus hornii var. hornii* | Horn's milk-vetch | CRPR 1B.1 | Lifeform: annual herb<br>Habitat: meadows and seeps, playas; also lake margins and alkaline areas.<br>Bloom period: May - Octtober | 195 - 2790 | No | Yes | Yes | **No potential to occur.** The BSA does not contain the habitat types in which this species can grow, such as playas, lake margins, and seeps. |
| *Monardella australis ssp. jokersti* | Jokerst's monardella | CRPR: 1B.1 | Lifeform: perennial rhizomatous herb<br>Habitats: chaparral and lower montane coniferous forests on steep scree or talus slopes between breccia, secondary alluvial benches along drainages and washes<br>Bloom Period: July to September | 4,428 – 5,740 | No | No | Yes | **No potential to occur.** The BSA does not contain steep slope or suitable habitat to support this species. |
| *Malacothamnus parishii* | Parish's bush-mallow | CRPR: 1A | Lifeform: perennial deciduous shrub<br>Habitats: chaparral and coastal scrub habitats<br>Bloom Period: June to July | 1,000 – 1,492 | No | Yes | Yes | **No potential to occur.** The BSA does not contain suitable coastal scrub or chaparral habitats to support this species. |
| *Sidalcea neomexicana* | salt spring checkerbloom (=mountain sidalcea) | CRPR: 2B.2 | Lifeform: perennial herb<br>Habitats: alkaline, mesic sites in chaparral, coastal scrub, lower montane coniferous forests, Mojavean desert scrub, alkali playas, and brackish marshes<br>Bloom Period: March to June | 49 – 5,018 | No | Yes | Yes | **No potential to occur.** The project site and BSA do not support suitable habitat (e.g., shaparral, scrub, forest) required by this species. |
| *Heuchera parishii (=Heuchera alpestris)* | Parish's alumroot (=Mill Creek alumroot) | CRPR: 1B.3 | Lifeform: perennial rhizomatous herb<br>Habitats: rocky areas within alpine boulder and rock fields, lower coniferous forests, upper coniferous forests, and subalpine coniferous forests<br>Bloom Period: June to August | 4,920 – 12,464 | No | No | Yes | **No potential to occur**. The BSA does not contain suitable habitat types to support this species. |
| *Lycium parishii* | Parish's desert-thorn | CRPR: 2B.3 | Lifeform: perennial shrub<br>Habitats: coastal scrub and Sonoran desert scrub<br>Bloom Period: March to April | 443 – 3,280 | No | Yes | Yes | **No potential to occur**. The BSA does not contain suitable habitats such as Sonoran desert scrub. |
| *Sagittaria sanfordii* | Sanford's arrowhead | CRPR: 1B.2 | Lifeform: perennial rhizomatous herb (emergent)<br>Habitats: marshes and swamps, ditches, sloughs, ponds or slow-moving streams<br>Soils: silty or muddy substrates<br>Bloom Period: May to November | 0 – 2,132 | No | Yes | Yes | **No potential to occur.** The BSA does not contain silty, muddy substrates. The soils in the BSA are too coarse to support this species. |
| *Carex comosa* | bristly sedge | CRPR: 2B.1 | Lifeform: perennial grasslike herb (rhizomatous)<br>Habitats: wet places, including meadows and many types of wetlands. Tolerates deeper water than most common species and is good for retention basin<br>Soils:<br>Wetlands, Drainages, or Seeps: Yes<br>Bloom Period: May to September | 1,410 - 2,035 | No | Yes | Yes | **No potential to occur.** The BSA does not contain suitable habitat (e.g., marshes and swamps) required to support this species. |
| *Schoenus nigricans* | black bog-rush | CRPR: 2B.2 | Lifeform: perennial herb<br>Habitats: marshes and swamps (often alkaline)<br>Bloom Period: August to September | 492 – 6,560 | No | Yes | Yes | **No potential to occur.** The BSA does not contain suitable aquatic habitat to support this species. |
| *Calochortus palmeri var. palmeri* | Palmer's mariposa lily | CRPR: 1B.2 | Lifeform: perennial bulbiferous herb<br>Habitats: openings and vernally moist, wet places within meadows and seeps, chaparral, and lower montane coniferous forests<br>Wetlands, Drainages, or Seeps: Yes<br>Bloom Period: April to July | 2,329 – 7,839 | No | No | Yes | **No potential to occur.** The BSA does not contain moist soils or suitable habitat types to support this species. |
| *Calochortus plummerae* | Plummer's mariposa lily | CRPR: 4.2 | Lifeform: perennial bulbiferous herb<br>Habitats: chaparral, cismontane woodlands, coastal scrub, valley and foothill grasslands, and lower montane coniferous forests<br>Soils: dry, rocky slopes and soils<br>Bloom Period: May to July | 328 – 5,576 | Yes | Yes | Yes | **Low potential to occur**. The project site contains non-native grasslands. |
| *Calochortus weedii var. intermedius* | intermediate mariposa lily (=Weeds mariposa lily) | CRPR: 1B.2, | Lifeform: perennial bulbiferous herb<br>Habitats: dry, rocky open slopes and rock outcrops in coastal scrub and chaparral<br>Bloom Period: May to July | 344 – 2,804 | No | Yes | Yes | **No potential to occur.** The BSA does not contain suitable habitat (e.g., dry, rocky, open slopes and rock outcrops) required to support this species. |
| *Lilium parryi (=Lilium parryi var. kessleri)* | lemon lily | CRPR: 1B.2 | Lifeform: perennial bulbiferous herb<br>Habitats: lower montane coniferous forests, meadows and seeps, riparian forests, and upper montane coniferous forests<br>Wetlands, Drainages, or Seeps: Yes<br>Bloom Period: July to August | 4,002 – 9,004 | No | No | Yes | **No potential to occur.** The BSA does not contain suitable aquatic habitat to support this species. |

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| *Muhlenbergia utilis* | aparejo grass | CRPR: 2B.2 | Lifeform: perennial grasslike herb<br>Habitats: North and Central America, where it can be found throughout the Southwestern United States and California, through Mexico, as far south as Costa Rica. It grows in wet habitats, including riverbanks and meadows.<br>Soils: wet soils along streams, ponds, and depressions in grasslands and alkaline or gypsiferous plains, sometimes in alkaline soils<br>Bloom Period: October - March | 0 - 4,395 | No | Yes | Yes | **No potential to occur**. The BSA lacks suitable soils to support this species. |
| *Muhlenbergia californica* | California muhly | CRPR: 4.3 | Lifeform: perennial rhizomatous herb<br>Habitats: chaparral, coastal scrub, lower montane coniferous forests, and meadows, usually near mesic seeps or along streambanks<br>Bloom Period: June to September | 328 – 6,560 | No | Yes | Yes | **No potential to occur.** The BSA does not contain suitable habitats to support this species. |
| *Sphenopholis obtusata* | prairie wedge grass | CRPR: 2B.2 | Lifeform: perennial herb<br>Habitats: Mojavean desert scrub<br>Soils: gravelly clay ridges and ledges, or talus slopes, limestone, volcanic<br>Wetlands, Drainages, or Seeps: Yes<br>Bloom Period: April to July | 984 – 6,560 | No | Yes | Yes | **No potential to occur.** The soils of the BSA are not of the preferred types for this species; they do not contain significant clay. |

**Legend and Notes**

***Federal Endangered Species Act (ESA) Listing Codes:*** the ESA is administered by the USFWS and NMFS. The USFWS has primary responsibility for terrestrial and freshwater organisms, while the responsibilities of NMFS are mainly marine wildlife such as whales and anadromous fish such as salmon. For the purposes of the ESA, Congress defined species to include subspecies, varieties, and, for vertebrates, distinct population segments. The official federal listing of Endangered and Threatened plants is published in 50 CFR § 17.12.

- **FE** = federally listed as endangered: any species of plant or animal that is in danger of extinction throughout all or a significant portion of their range.
- **FT** = federally listed as threatened: any species of plant or animal that is considered likely to become endangered throughout all or a significant portion of its range within the foreseeable future.
- **FC** = federal candidate for listing: candidate species are plants and animals for which the USFWS has sufficient information on their biological status and threats to propose them for listing as endangered or threatened under the ESA, but for which development of a proposed listing regulation is precluded by higher priority listing actions to address species in greater need. A proposed regulation has not yet been published in the Federal Register for these species.
- **FPE** = federally proposed for listing as endangered: a candidate species that has been proposed by USFWS for listing as endangered and the proposed rule, but not a final rule, to list has been published in the Federal Register.
- **FPT** = federally proposed for listing as threatened: a candidate species that has been proposed by USFWS for listing as threatened and the proposed rule, but not a final rule, to list has been published in the Federal Register.
- **FPD** = federally proposed for delisting: a species that has been proposed by USFWS for delisting (or down listing from endangered to threatened) and the proposed rule to delist has been published in the Federal Register.

***California Endangered Species Act (CESA) and California Native Plant Protection Act (NPPA) Listing Codes:*** *tth* e CESA and NPPA are administered by CDFW. The official listing of Plants of California Declared to Be Endangered, Threatened or Rare is contained in the California Code of Regulations, Title 14, § 670.2. Species, subspecies and varieties of California native plants are declared to be endangered, threatened as defined by § 2062 and § 2067 of the Fish and Game Code or rare as defined by § 1901 of the Fish and Game Code.

- **SE = state-listed as endangered:** "endangered species" means a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease (Fish and Game Code § 2062).
- **ST = state-listed as threatened:** "threatened species" means a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts (Fish and Game Code § 2067).
- **SCE = state candidate for listing as endangered**: a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed published in the California Regulatory Notice Register as being under review by CDFW for addition to the list of endangered species, or a species for which the Fish and Game Commission has published a notice of proposed regulation to add the species to the list (Fish and Game Code § 2068).
- **SCT = state candidate for listing as threatened**: a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed published in the California Regulatory Notice Register as being under review by CDFW for addition to the list of threatened species, or a species for which the Fish and Game Commission has published a notice of proposed regulation to add the species to the list (Fish and Game Code § 2068).
- **SCD = state candidate for delisting:** a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed published in the California Regulatory Notice Register as being under review by CDFW for removal from either the list of endangered species or the list of threatened species, or a species for which the Fish and Game Commission has published a notice of proposed regulation to remove the species to either list.
- **SR = state rare**: A species, subspecies, or variety of native plant is rare when, although not presently threatened with extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens (Fish and Game Code § 1901).

***United States Forest Service (USFS) Designations:***

- **S**SS = U.S. Forest Service sensitive (XX National Forest): the USFS Manual defines sensitive species as those plant and animal species identified by a Regional Forester, that are not listed or proposed for listing under the ESA, for which population viability is a concern, as evidenced by: (a) significant current or predicted downward trends in population numbers or density; or (b) significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution (FSM 2670.5). Regional Foresters shall identify sensitive species occurring within the region.
- **M**IS = management indicator species: the National Forest Management Act directs the Forest Service to select and track species that are of special interest or indicative of management trends. These species are called management indicator species (MIS). These MIS are selected on the basis of being likely candidates to provide information on the effects of management activities.

***United States Bureau of Land Management (BLM) Designations:***

- BLMS = U.S. Bureau of Land Management sensitive: those plant species that are not federally endangered, threatened, or proposed, but are designated by the BLM State Director for special management consideration. In California this includes: all plants on BLM lands that are federal candidates for listing; all plants that are listed as endangered, threatened, or rare by the state of California; all plants that have a California Rare Plant Rank of 1B (CRPR 1B); and any other plants the state Director has determined to warrant sensitive status.

***California Rare Plant Ranks*** (Formerly known as CNPS Lists): the CNPS is a statewide, nonprofit organization that maintains, with CDFW, an Inventory of Rare and Endangered Plants of California. In the spring of 2011, CNPS and CDFW officially changed the name "CNPS List" or "CNPS Ranks" to "California Rare Plant Rank" (or CPRP). This was done to reduce confusion over the fact that CNPS and CDFW jointly manage the Rare Plant Status Review Groups and the rank assignments are the product of a collaborative effort and not solely a CNPS assignment.

- **CRPR: 1A** = California Rare Plant Rank 1A - plants presumed extirpated in California and either rare or extinct elsewhere: the plants with a CRPA of 1A are presumed extirpated because they have not been seen or collected in the wild in California for many years. This rank includes plants that are both presumed extinct as well as those plants which are presumed extirpated in California. All of the plants constituting CRPR 1A meet the definitions of § 2062 and § 2067 (CESA) of the Fish and Game Code, and are eligible for state listing. Should these taxa be rediscovered, it is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.
- **CRPR 1B** = California Rare Plant Rank 1B - plants rare, threatened, or endangered in California and elsewhere: plants with a CRPR of 1B are rare throughout their range with the majority of them endemic to California. Most of the plants that are ranked 1B have declined significantly over the last century. All of the plants constituting CRPR 1B meet the definitions of § 2062 and § 2067 (CESA) of the 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.
- **CRPR 2A** = California Rare Plant Rank 2A - plants presumed extirpated in California, but more common elsewhere: the plant taxa of CRPR 2A are presumed extirpated because they have not been observed or documented in California for many years. This list includes only those plant taxa that are presumed extirpated in California, but more common elsewhere in their range. All of the plants on List 2A meet the definitions of § 2062 and § 2067 (CESA) of the Fish and Game Code, and are eligible for state listing. Should these taxa be rediscovered, it is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.
- **CRPR 2B** = California Rare Plant Rank 2B - plants rare, threatened, or endangered in California, but more common elsewhere: except for being common beyond the boundaries of California, plants with a CRPR of 2B would have been ranked 1B. From the federal perspective, plants common in other states or countries are not eligible for consideration under the provisions of the ESA. All of the plants constituting CRPR 2B meet the definitions of § 2062 and § 2067 (CESA) of the 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.
- **CRPR 3** = California Rare Plant Rank 3 - plants about which more information is needed - a review list: the plants that comprise CRPR 3 are united by one common theme – CNPS and CDFW lack the necessary information to assign them to one of the other ranks or to reject them. Nearly all of the plants constituting CRPR 3 are taxonomically problematic. Some of the plants constituting CRPR 3 meet the definitions of § 2062 and § 2067 (CESA) of the Fish and Game Code, and are eligible for state listing. CNPS strongly recommends that CRPR 3 plants be evaluated for consideration during preparation of environmental documents relating to CEQA.
- **CRPR 4** = California Rare Plant Rank 4 - plants of limited distribution - a watch list: the plants in this category are of limited distribution or infrequent throughout a broader area in California. While CNPS and CDFW cannot call these plants "rare" from a statewide perspective, they are uncommon enough that their status should be monitored regularly. Should the degree of endangerment or rarity of a CRPR 4 plant change, CNPS and CDFW will transfer it to a more appropriate rank. Some of the plants constituting CRPR 4 meet the definitions of § 2062 and § 2067 (CESA) of the Fish and Game Code, and few, if any, are eligible for state listing. Nevertheless, many of them are significant locally, and CNPS strongly recommends that CRPR 4 plants be evaluated for consideration during preparation of environmental documents relating to CEQA.
- **Considered But Rejected** = plants that have been considered for inclusion into the CNPS Inventory, but were not included for various reasons.

***California Native Plant Society (CNPS) Threat Ranks:*** The CNPS Threat Rank is an extension added onto the California Rare Plant Rank (CRPR) (as a decimal code) and designates the level of threats by a 1 to 3 ranking with 1 being the most threatened and 3 being the least threatened. A Threat Rank is present for all CRPR 1B's, 2B's, 4's, and the majority of CRPR 3's. CRPR 4 plants are seldom assigned a Threat Rank of .1, as they generally have large enough populations to not have significant threats to their continued existence in California; however, certain conditions exist to make the plant a species of concern and hence be assigned a CRPR. In addition, all CRPR 1A and 2A (presumed extirpated in California), and some CRPR 3 (need more information) plants, which lack threat information, do not have a Threat Rank extension.

- **.1** = seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- **.2** = moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
- **.3** = not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

***Western Riverside County Multiple Species Habitat Conservation Plan (WRCMSHCP):***
The WRCMSHCP provides regulatory coverage for a total of 146 individual species. Under the WRCMSHCP, regulatory coverage means that future incidental take of these species would be permitted for new development and that no additional mitigation under the CESA or ESA would be required over the mitigation provided for by the plan. The following species are identified as "Covered Species" by the WRCMSHCP and the Implementing Agreement. The WRCMSHCP permits would provide take authorization for Covered Species.
- WRCMSHCP: Covered: no further surveys are required.
- **WRCMSHCP: Covered (a)**: surveys may be required for these species as part of wetlands mapping (Section 6.1.2 of WRCMSHCP).
- **WRCMSHCP: Covered (b)**: surveys may be required for these species within Narrow Endemic Plant Species survey area (Section 6.1.3 of WRCMSHCP).
- **WRCMSHCP: Covered (d)**: surveys may be required for these species within Criteria Area as (Section 6.3.2 of WRCMSHCP).
- **WRCMSHCP: Covered (e)**: these Covered Species will be considered to be Covered Species Adequately Conserved when conservation requirements identified in species-specific conservation objectives have been met. Species specific conservation objectives for these species are presented in Section 9.0 of the WRCMSHCP. Please refer to Table 9-3 of the WRCMSHCP for specific conservation objectives that must be met for the 16 species prior to including them on the list of Covered Species Adequately Conserved.
- **WRCMSHCP: Covered (f)**: these Covered Species will be considered to be Covered Species Adequately Conserved when a memorandum of Understanding is executed with the Forest Service that addresses management for these species on Forest Service Land. Please refer to Table 9-3 of the WRCMSHCP.

***Coachella Valley Multiple Species Habitat Conservation Plan and Natural Community Conservation Plan (CVMSHCP):***
*The CVMSHCP provides regulatory coverage for a total of 27 individual species. Under the CVMSHCP, regulatory coverage means that future incidental take of these species would be permitted for new development and that no additional mitigation under the CESA or ESA would be required over the mitigation provided for by the plan.*
- ***CVMSHCP: Covered:*** *species is identified as a "Covered Species" by the CVMSHCP and the Implementing Agreement. The CVMSHCP permits would provide take authorization for Covered Species.*

***Natural Community Conservation Plan/Habitat Conservation Plan for the Central/Coastal Subregion of Orange County:***
The Central/Coastal Orange County NCCP/HCP provides regulatory coverage for a total of 39 individual species. Under the plan, regulatory coverage means that future incidental take of these species would be permitted for new development and that no additional mitigation under the CESA or ESA would be required over the mitigation provided for by the plan.
- **OC NCCP/HCP**: Identified Species = those species, including all life stages thereof, identified in Chapter 4.5.1 of the plan which the plan addresses as if they were listed as endangered species under the ESA and CESA, and whose conservation and management is provided for in the plan. Species covered by provisions of the Central/Coastal Orange County NCCP/HCP and the Implementation Agreement.
- **OC NCCP/HCP**: Conditionally Covered Species = species conditionally covered by provisions of the Central/Coastal Orange County NCCP/HCP and the Implementation Agreement.

***Northern and Eastern Colorado Desert Coordinated Management Plan (NECO):***
- ***NECO: Covered =*** *plant species covered under NECO.*

***Final Environmental Impact Report and Statement (Final EIR/S) for the West Mojave Plan (WEMO Plan):***
- **WEMO: Covered** = plant species covered under the WEMO Plan.

***Other:***
- **ND** = no designation
- **Annual**: grows from seed and reproduce within a single year.
- **Perennial:** lives more than one year.
- **Deciduous:** plants shed their leaves for part of the year.
- **Evergreen:** plants retain their leaves for an entire year.
- **Mesic habitat:** a habitat with a moderate or well-balanced supply of moisture.
- **Hemiparasitic:** plants that are connected to host plants and derive energy, water, and minerals from them, but also maintain their own functional root systems or photosynthetic surfaces.
- **Parasitic:** plants that are connected to host plants and rely solely on them for energy, water, and nutritional requirements.
- **Carnivorous**: plants that trap insects and other small animals and derive nourishment from them.
- **Herbs**: plants that are herbaceous and lack above-ground woody tissue.
  - **Bulbiferous herb:** plants that have fleshy underground storage organs typically derived from scale leaves (this category includes cormiferous and other similar plants in which storage organs have other origins).
  - **Rhizomatous herb:** plants that have underground stems (rhizomes), typically bearing shoots which develop into new plants.
  - **Stoloniferous herb:** plants that have above-ground runners (stolons) which typically root and produce new plants.
- **Shrubs:** smaller woody perennials that retain most of their above-ground woody tissue and are typically many-stemmed.
  - **Leaf succulents**: succulents with thick, fleshy leaves.
  - **Stem succulents**: succulents with thick, fleshy stems and reduced or absent leaves.
- **Trees:** larger woody perennials that retain all of their above-ground wood tissue and are typically single-stemmed.
- **Vines:** twining woody perennials requiring external support for growth.
- **Mosses:** small green plants (one of three groups of bryophytes) with structures that resemble miniature leaves and stems. The leaves generally have a midrib called a costa. The sporophyte (the spore-bearing structure) is persistent for weeks.
- **Liverworts:** small green plants (one of three groups of bryophytes). There are both leafy and thalloid types - leafy liverworts lack a midrib on the leaves, while thalloid liverworts have no leaves. The sporophyte is short-lived

***Notes:***

The project site is relatively flat, with elevations ranging from approximately 1488 to 1514 feet above mean sea level (amsl

Yes = the BSA is located within the plant species' known distribution, elevation range, and/or the BSA contains suitable habitats and/or soils to support the plant species. The plant species has a potential to occur within the BSA. Further evaluation is needed.
No = the BSA is located outside the plant species' known distribution, elevation range, and/or the BSA lacks suitable habitats and/or soils to support the plant species. It is highly unlikely for the plant species to have a potential to occur within the BSA. No further evaluation is needed.
Present = observed within the BSA during surveys.
A CNPS elevation range is provided for each taxon in feet. The stated range is for the California portion of a plant's range only (if the taxon also occurs outside the state). These CNPS elevation range data are accumulated from literature, herbarium specimens, and field survey information.

***Resources***

- *The Jepson Desert Manual (Baldwin et al., 2002);*
- *The Jepson Manual: Vascular Plants of California, second edition (Baldwin et al., 2012);*
- *BLM Special Status Plants under the jurisdiction of the California State Office as of October 30, 2013 (BLM, 2013);*
- *The Final Environmental Impact Report and Statement (Final EIR/S) for the West Mojave Plan (BLM, 2005);*
- *Final Environmental Impact Statement. Proposed Northern and Eastern Colorado Desert Coordinated Management Plan (NECO) (BLM and CDFG, 2002);*
- *(Calflora website );*
- *The Status of Rare, Threatened, and Endangered Plants and Animals of California, 2000–2004 (CDFG, 2005);*
- *CNDDB ;*
- *Special Vascular Plants, Bryophytes, and Lichens List (CDFW, 2016);*
- *State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW, 2016);*
- *(CNPS website );*
- *(eFloras.org website );*
- *(NatureServe Explorer website );*
- *Rare Plants of San Diego County (Reiser, 2001);*
- *USDA Forest Service, Pacific Southwest Region, Sensitive Plant Species List by Forest (USFS, 2013).*
- *UltraSystems in-house records.*