APPENDIX A. SITE PHOTOGRAPHS, JANUARY 24–28, 2022



Photograph A-1. North-facing representative view of northern granitic mixed chaparral. Photograph taken 0.3 mile south of Jewel Valley Road.



Photograph A-2. West-facing representative view of chamise chaparral. Photograph taken north of SD&AE Railway and west of Jewel Valley Road.



Photograph A-3. North-facing representative view of montane buckwheat scrub habitat. Photograph taken within the southern half of the project site, south of Jewel Valley Road and north of SD&AE Railway.



Photograph A-4. East-facing representative view of redshank chaparral. Photograph taken south of Jewel Valley Road and north of SD&AE Railway.



Photograph A-5. Northwest-facing representative view of disturbed habitat, recently plowed, with scattered coast live oaks present. Photograph taken directly south of Jewel Valley Road.



Photograph A-6. East-facing representative view of coast live oak tree observed. Photograph taken south of the SD&AE Railway, southeast of the freshwater pond.



Photograph A-7. East-facing representative view of tamarisk scrub. Photograph taken in the far southeastern corner of the project site, south of the SD&AE Railway.



Photograph A-8. East-facing representative view of coast live oak woodland. Photograph taken immediately north of Jewel Valley Road.



Photograph A-9. North-facing representative view of big sagebrush scrub. Photograph taken in southwest section of project site, directly east of existing freshwater pond.



Photograph A-10. North-facing representative view of disturbed habitat. Photograph taken outside of project site, but within the survey area buffer on the northeast side of project, south of Jewel Valley Road.



Photograph A-11. Southwest-facing representative view of granitic northern mixed chaparral habitat. Photograph taken in southernmost section of the project, south of the SD&AE Railway.



Photograph A-12. Southeast-facing representative view of disturbed habitat surrounding the SD&AE Railway (in disrepair).



Photograph A-13. East-facing representative view of alkali marsh habitat. Photograph taken north of the SD&AE Railway and south of Jewel Valley Road.



Photograph A-14. North-facing representative view of freshwater seep. Photograph taken north of the SD&AE Railway and south of Jewel Valley Road.



Photograph A-15. East-facing representative view of bare ground habitat (located predominantly within access roads). Photograph taken 0.2 mile north of Jewel Valley Road and 0.4 mile south of Eady Lane.



Photograph A-16. North-facing representative view of field/pasture located 0.3 mile north of the freshwater pond.



Photograph A-17. Northwest-facing representative view of urban/developed area. Photograph taken directly south of Jewel Valley Road.



Photograph A-18. South-facing representative view of nonnative grassland. Photograph taken northeast of Empire Ranch, immediately north of Jewel Valley Road.

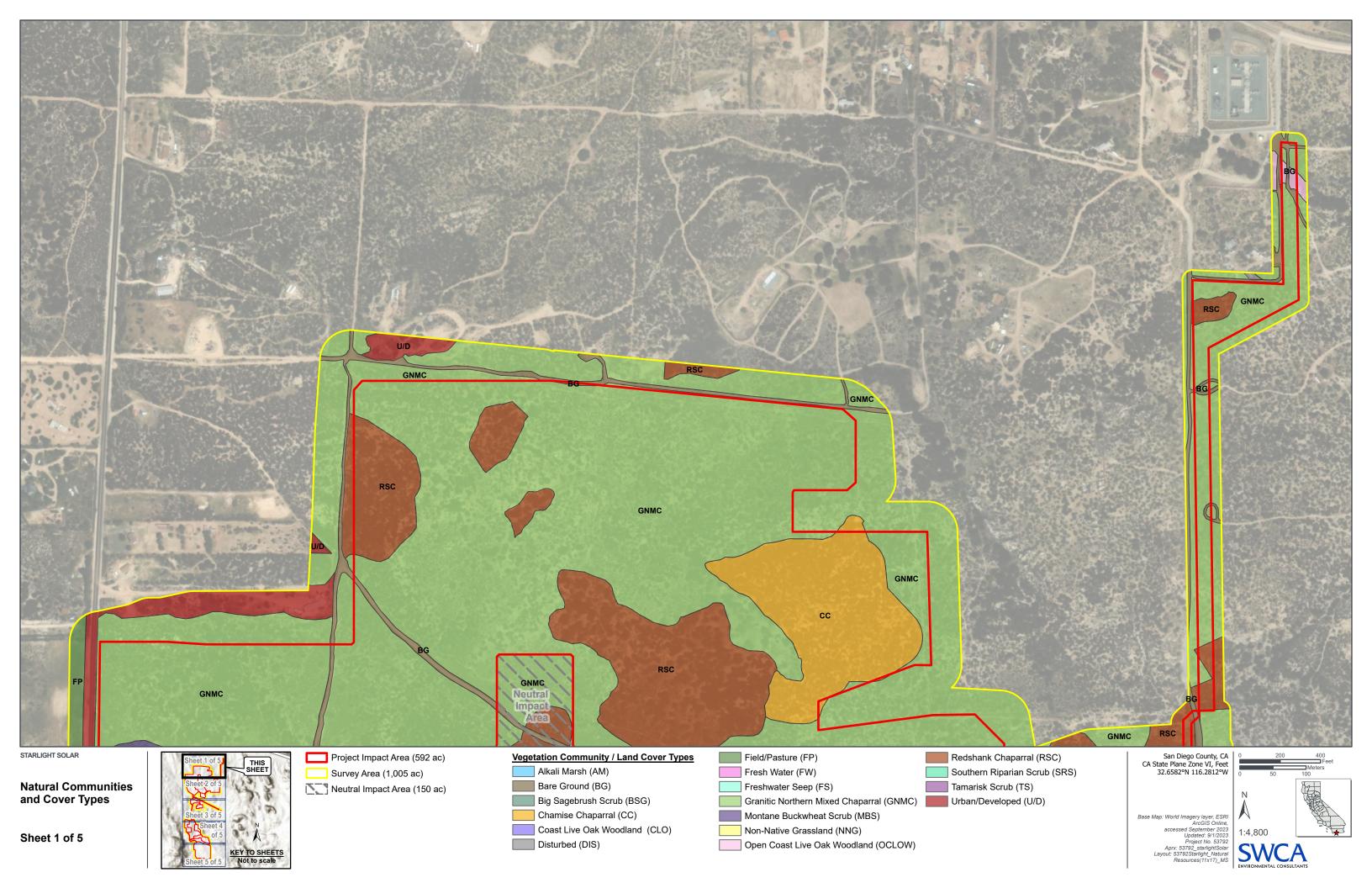


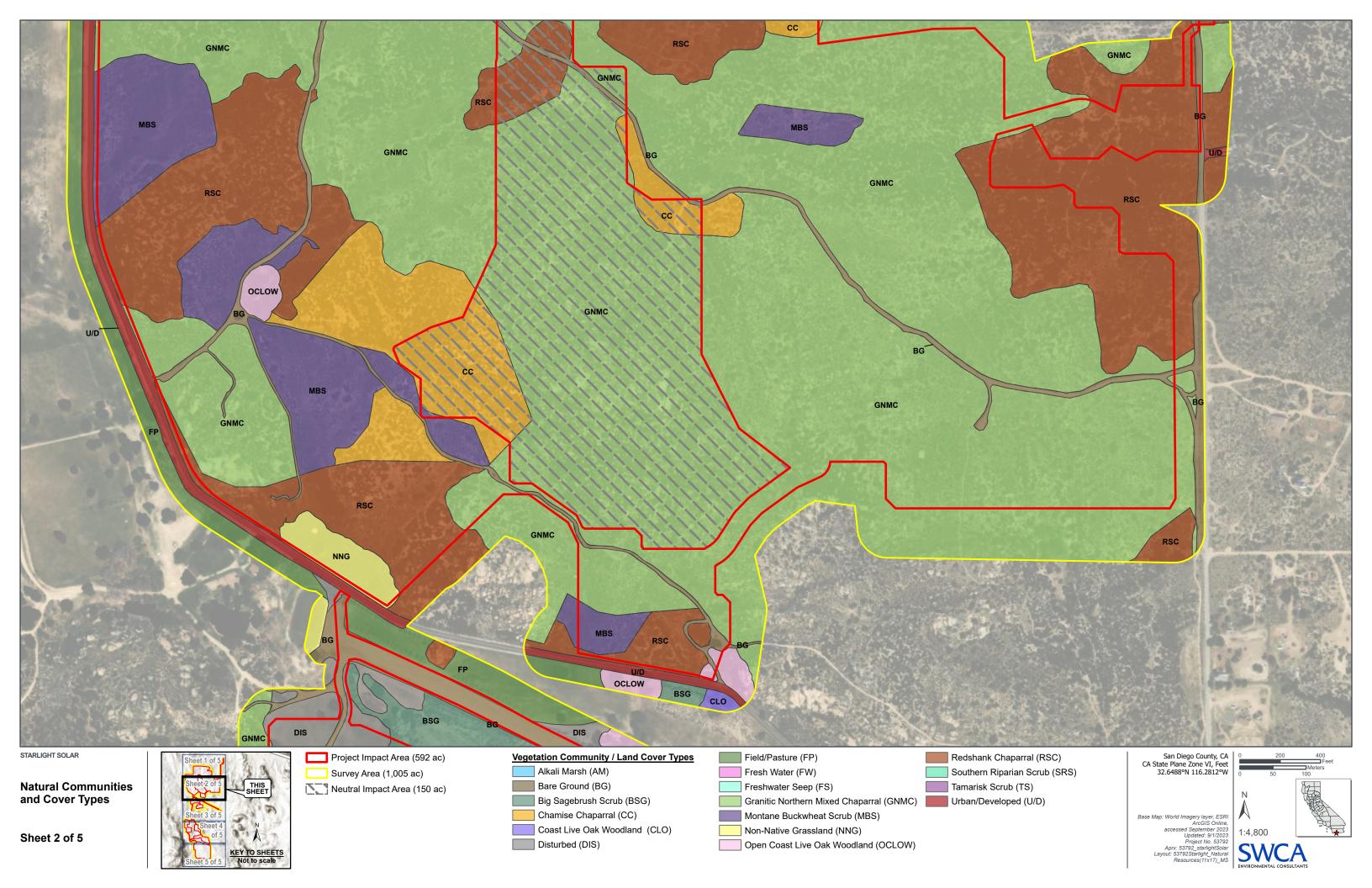
Photograph A-19. South-facing representative view of southern riparian scrub surrounding the freshwater pond. Photograph taken directly north of the freshwater pond, south of the SD&AE Railway.

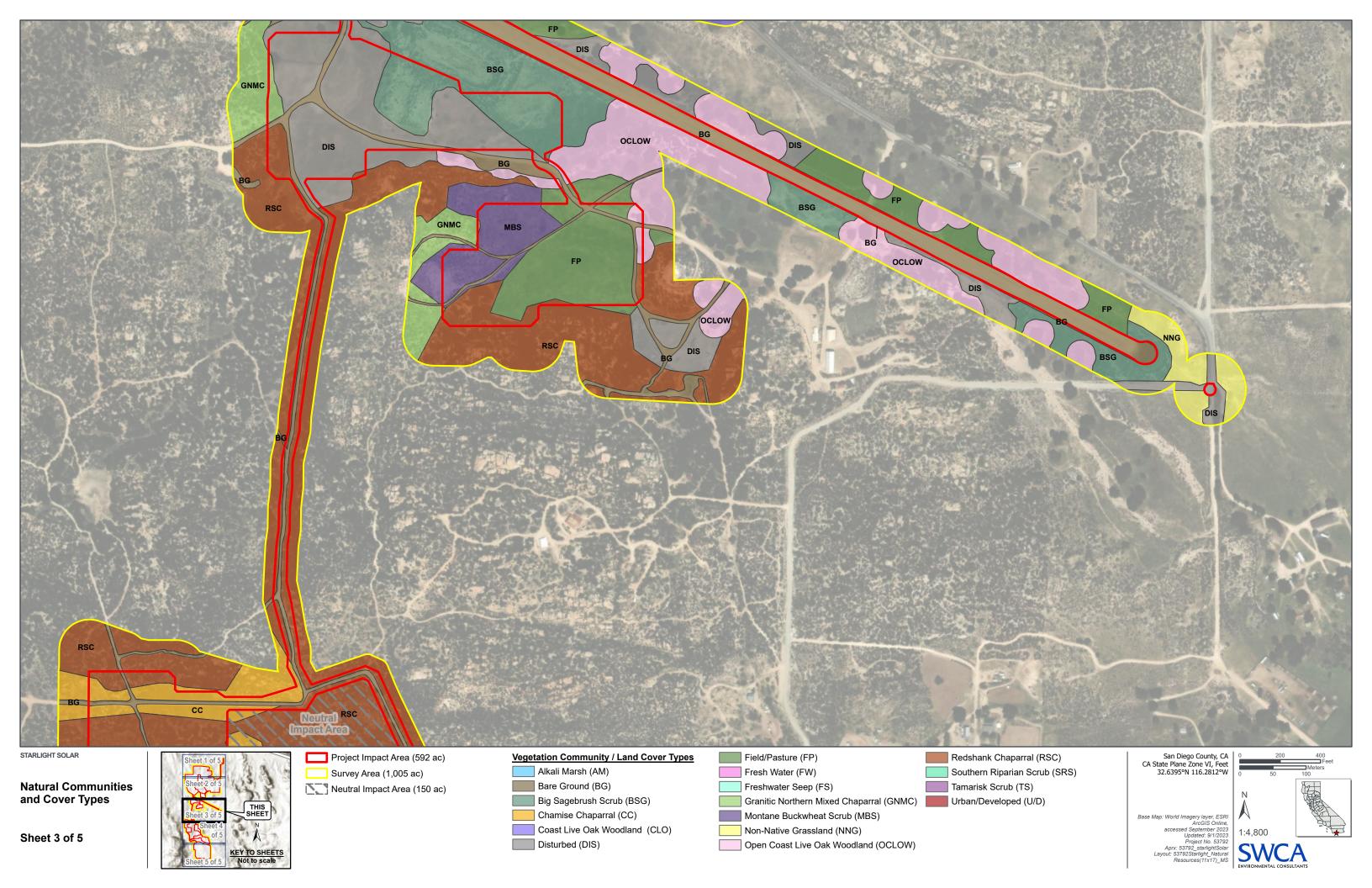


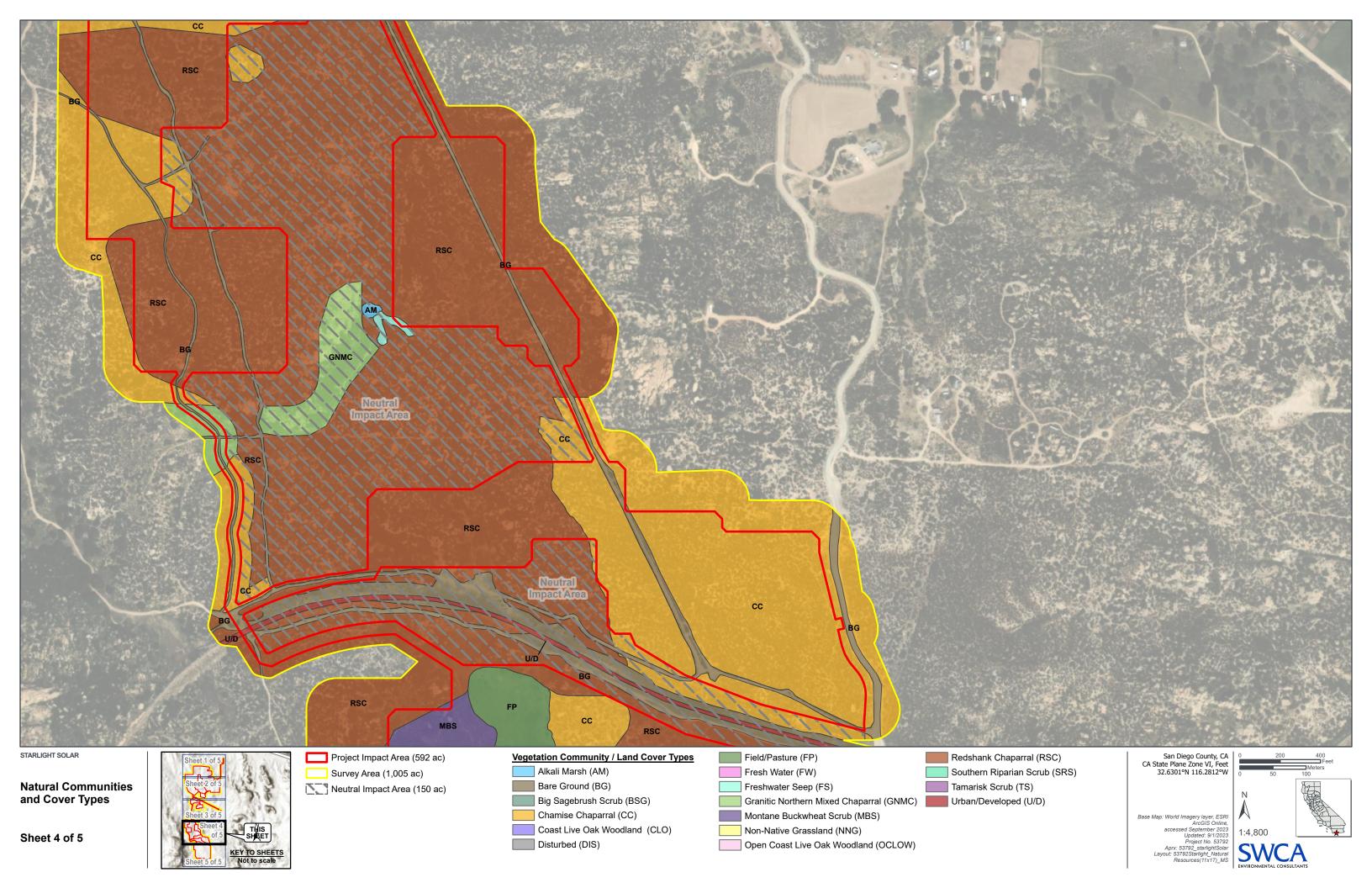
Photograph A-20. West-facing representative view of coast live oak woodland. Photograph taken in the southwestern corner of the project site, southeast of the freshwater pond and south of the SD&AE Railway.

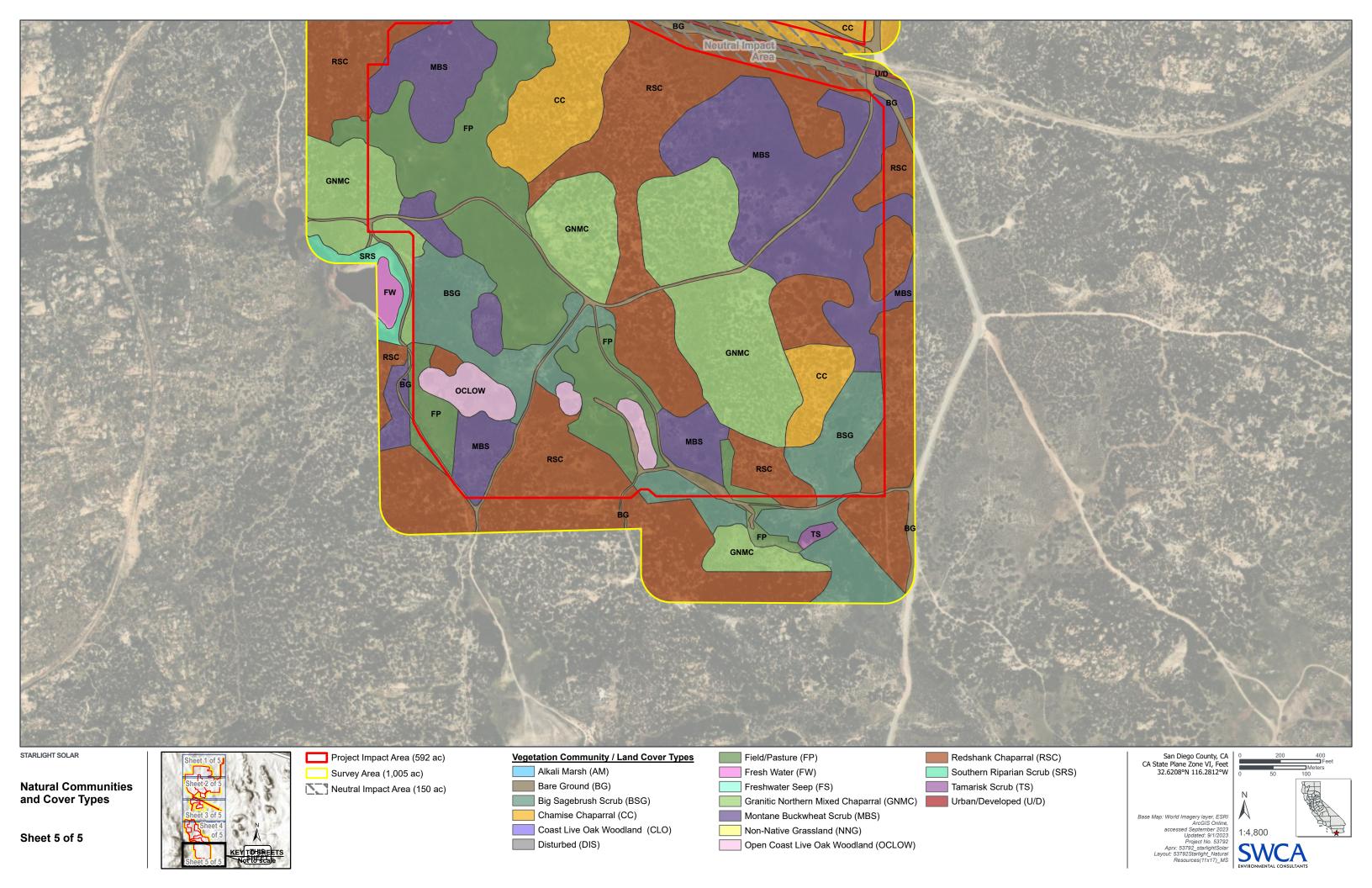
APPENDIX B. Biological Resources Map, Detailed Sheets











APPENDIX C. OBSERVED SPECIES LIST, FLORA

Table C-1. Observed Species List - Flora

| Scientific Name | Common Name | Family | Habit | Nonnative? | Special-status? |
|--|---------------------------------------|--------------|-----------------------------|------------|-----------------|
| Acmispon argophyllus var. argophyllus | Southern California sliver-leaf lotus | Fabaceae | Perennial herb | - | _ |
| Acmispon glaber var. brevialatus | short-wing deerweed | Fabaceae | Subshrub | _ | _ |
| Acmispon strigosus | strigose lotus | Fabaceae | Annual herb | _ | _ |
| Acourtia microcephala | sacapellote | Asteraceae | Perennial herb | _ | _ |
| Adenostoma fasciculatum | chamise | Rosaceae | Shrub, tree | _ | _ |
| Adenostoma sparsifolium | red shank | Rosaceae | Shrub, tree | _ | _ |
| Agave deserti var. deserti | desert agave | Agavaceae | Perennial herb | _ | _ |
| Ambrosia sp. | ragweed, bur-sage | Asteraceae | Annual herb, perennial herb | _ | _ |
| Amsinckia intermedia | common fiddleneck | Boraginaceae | Annual herb | _ | _ |
| Anisocoma acaulis | scale bud | Asteraceae | Annual herb | _ | _ |
| Apiastrum angustifolium | wild celery | Apiaceae | Annual herb | - | _ |
| Arctostaphylos pungens | Mexican manzanita | Ericaceae | Shrub, tree | - | _ |
| Artemisia californica | California sagebrush | Asteraceae | Shrub | - | - |
| Artemisia dracunculus | tarragon | Asteraceae | Perennial herb | - | _ |
| Artemisia tridentata ssp. tridentata | big sagebrush | Asteraceae | Shrub | - | _ |
| Astragalus douglasii var. perstrictus | Jacumba milk-vetch | Fabaceae | Perennial herb | - | Yes |
| Athysanus pusillus | dwarf athysanus | Brassicaceae | Annual herb | - | _ |
| Avena barbata | slender wild oat | Poaceae | Annual herb | Yes | _ |
| Baccharis salicifolia ssp. salicifolia | mule fat | Asteraceae | Shrub | - | _ |
| Boechera californica | California rockcress | Brassicaceae | Perennial herb | - | _ |
| Bowlesia incana | bowlesia | Apiaceae | Annual herb | _ | _ |
| Brassica tournefortii | Sahara mustard | Brassicaceae | Annual herb | Yes | _ |
| Bromus diandrus | ripgut grass | Poaceae | Annual herb | Yes | _ |
| Bromus hordeaceus | soft chess | Poaceae | Annual herb | Yes | - |
| Bromus rubens | red brome | Poaceae | Annual herb | Yes | - |
| Bromus tectorum | downy chess | Poaceae | Annual herb | Yes | - |
| Calandrinia menziesii | red maids | Montiaceae | Annual herb | _ | - |
| | | | | | |

| Scientific Name | Common Name | Family | Habit | Nonnative? | Special-status? |
|---|-------------------------------|----------------|-------------------|------------|-----------------|
| Calochortus sp. | mariposa lily | Liliaceae | Perennial herb | - | _ |
| Calyptridium monandrum | common pussypaws | Montiaceae | Annual herb | _ | _ |
| Camissonia strigulosa | contorted primrose | Onagraceae | Annual herb | _ | _ |
| Camissoniopsis hirtella | hairy sun cup | Onagraceae | Annual herb | - | _ |
| Castilleja exserta ssp. exserta | purple owl's clover | Orobanchaceae | Annual herb | - | _ |
| Castilleja foliolosa | wooly paintbrush | Orobanchaceae | Perennial herb | - | _ |
| Caulanthus heterophyllus | slender pod jewelflower | Brassicaceae | Annual herb | - | _ |
| Ceanothus leucodermis | chaparral whitethorn | Rhamnaceae | Shrub | - | _ |
| Ceanothus perplexans | cupped leaf ceanothus | Rhamnaceae | Shrub | - | _ |
| Cercocarpus betuloides var. betuloides | birch-leaf mountain-mahogany | Rosaceae | Shrub | _ | _ |
| Chaenactis glabriuscula var. glabriuscula | common yellow chaenactis | Asteraceae | Annual herb | _ | _ |
| Chenopodium californicum | California goosefoot | Chenopodiaceae | Perennial herb | - | _ |
| Chorizanthe fimbriata var. fimbriata | fringed spineflower | Polygonaceae | Annual herb | - | _ |
| Chorizanthe polygonoides var. longispina | long-spined spineflower | Polygonaceae | Annual herb | - | Yes |
| Chorizanthe rigida | devil's spineflower | Polygonaceae | Annual herb | _ | _ |
| Cirsium occidentale var. californicum | California thistle | Asteraceae | Perennial herb | _ | _ |
| Clarkia purpurea ssp. quadrivulnera | four-spot | Onagraceae | Annual herb | - | _ |
| Claytonia parviflora | narrow leaved miner's lettuce | Montiaceae | Annual herb | _ | _ |
| Clematis pauciflora | few-flowered clematis | Ranunculaceae | Shrub, vine | _ | _ |
| Collinsia heterophylla var. heterophylla | Chinese-houses | Plantaginaceae | Annual herb | _ | _ |
| Corethrogyne filaginifolia var. filaginifolia | common sand aster | Asteraceae | Perennial herb | _ | _ |
| Crassula connata | pygmy-weed | Crassulaceae | Annual herb | _ | _ |
| Cryptantha intermedia var. intermedia | common cryptantha | Boraginaceae | Annual herb | _ | _ |
| Cuscuta sp. | dodder | Convolvulaceae | Annual herb, vine | _ | _ |
| Cylindropuntia gander | Gander's cholla | Cactaceae | Perennial herb | _ | _ |
| Deinandra spp. | Tarplant | Asteraceae | Annual herb | _ | _ |
| Delphinium parishii ssp. subglobosum | Colorado Desert larkspur | Ranunculaceae | Perennial herb | _ | Yes |
| Dendromecon rigida | bush poppy | Papaveraceae | Shrub | - | _ |
| | | | | | |

| Scientific Name | Common Name | Family | Habit | Nonnative? | Special-status? |
|--|---------------------------------|---------------|-----------------------------|------------|-----------------|
| Descurainia pinnata | tansy mustard | Brassicaceae | Annual herb | _ | _ |
| Diplacus aridus | low bush monkeyflower | Phrymaceae | Shrub, subshrub | _ | Yes |
| Diplacus brevipes | wide-throat yellow monkeyflower | Phrymaceae | Annual | _ | _ |
| Dipterostemon capitatus | blue dicks | Themidaceae | Perennial herb | _ | _ |
| Dudleya abramsii ssp. abramsii | Abrams' dudleya | Crassulaceae | Perennial herb | _ | _ |
| Dudleya pulverulenta | chalk dudleya | Crassulaceae | Perennial herb | _ | _ |
| Eleocharis sp. | spikerush | Cyperaceae | Annual or perennial herb | _ | _ |
| Emmenanthe penduliflora | whispering bells | Boraginaceae | Annual herb | _ | _ |
| Ephedra californica | desert tea | Ephedraceae | Shrub | _ | _ |
| Epilobium canum | California fuchsia | Onagraceae | Perennial herb, subshrub | _ | _ |
| Eremocarya lepida | mountain red-root | Boraginaceae | Annual herb | _ | _ |
| Eremocarya micrantha var. micrantha | desert red-root | Boraginaceae | Annual herb | _ | _ |
| Eremocarya sp. | red-root | Boraginaceae | Annual herb | _ | _ |
| Eriastrum sapphirinum | sapphire woolystar | Polemoniaceae | Annual herb | _ | _ |
| Ericameria brachylepis | boundary goldenbush | Asteraceae | Shrub, subshrub | _ | _ |
| Ericameria cuneata | wedgeleaf goldenbush | Asteraceae | Shrub, subshrub | _ | _ |
| Ericameria linearifolia | interior goldenbush | Asteraceae | Shrub, subshrub | _ | _ |
| Erigeron canadensis | horseweed | Asteraceae | Annual herb | _ | _ |
| Eriodictyon trichocalyx var. lanatum | San Diego yerba santa | Boraginaceae | Shrub | _ | _ |
| Eriogonum elongatum var. elongatum | long-stem wild buckwheat | Polygonaceae | Perennial herb | _ | _ |
| Eriogonum fasciculatum | California buckwheat | Polygonaceae | Shrub | _ | _ |
| Eriogonum wrightii var. membranaceum | ringed-stem bastard-sage | Polygonaceae | Subshrub | _ | _ |
| Eriophyllum confertiflorum var. confertiflorum | long-stem golden-yarrow | Asteraceae | Shrub, subshrub | _ | _ |
| Eriophyllum wallacei | Wallace's wooly daisy | Asteraceae | Annual herb | _ | _ |
| Erodium cicutarium | redstem filaree | Geraniaceae | Annual herb | Yes | - |
| Eschscholzia californica | California poppy | Papaveraceae | Annual herb, perennial herb | _ | _ |
| Eulobus californicus | California primrose | Onagraceae | Annual herb | _ | - |
| Euphorbia sp. | spurge | Euphorbiaceae | Annual herb | Yes | _ |
| | | | | | |

| Scientific Name | Common Name | Family | Habit | Nonnative? | Special-status? |
|--|------------------------|----------------|-----------------------------|------------|-----------------|
| Festuca microstachys | small fescue | Poaceae | Annual herb | - | _ |
| Festuca myuros | rattail sixweeks grass | Poaceae | Annual herb | Yes | _ |
| Galium andrewsii ssp. andrewsii | phlox leaved bedstraw | Rubiaceae | Perennial herb | _ | _ |
| Garrya veatchii | southern silk tassel | Garryaceae | Shrub | - | _ |
| Geraea viscida | sticky geraea | Asteraceae | Annual herb, perennial herb | - | Yes |
| Gilia diegensis | coastal gilia | Polemoniaceae | Annual herb | - | _ |
| Gutierrezia sarothrae | matchweed | Asteraceae | Subshrub | - | _ |
| Hesperoyucca whipplei | chaparral yucca | Agavaceae | Shrub | - | _ |
| Hirschfeldia incana | short-pod mustard | Brassicaceae | Annual herb, perennial herb | Yes | _ |
| Hordeum murinum ssp. glaucum | smooth barley | Poaceae | Annual herb | Yes | _ |
| Juncus bufonius var. bufonius | toad rush | Juncaceae | Annual herb | - | _ |
| Juncus sp. | rush | Juncaceae | Annual herb, perennial herb | - | _ |
| Keckiella antirrhinoides | chaparral beard tongue | Plantaginaceae | Shrub | _ | _ |
| Keckiella ternata var. ternata | blue stemmed keckiella | Plantaginaceae | Shrub, subshrub | - | _ |
| Lasthenia gracilis | common goldfields | Asteraceae | Annual herb | - | _ |
| Lathyrus splendens | pride-of-California | Fabaceae | Perennial herb | - | Yes |
| Layia platyglossa | tidy-tips | Asteraceae | Annual herb | _ | _ |
| Lepidium lasiocarpum ssp. lasiocarpum | sand peppergrass | Brassicaceae | Annual herb | _ | _ |
| Lepidium nitidum | shining peppergrass | Brassicaceae | Annual herb | - | _ |
| Leptosiphon lemmonii | Lemmon's linanthus | Polemoniaceae | Annual herb | - | _ |
| Leptosyne californica | California coreopsis | Asteraceae | Annual herb | - | _ |
| Lessingia glandulifera var. glandulifera | sticky lessingia | Asteraceae | Annual herb | - | _ |
| Linanthus bellus | desert beauty | Polemoniaceae | Annual herb | - | Yes |
| Linanthus dianthiflorus | fringed linanthus | Polemoniaceae | Annual herb | _ | _ |
| Logfia filaginoides | California cottonrose | Asteraceae | Annual herb | - | _ |
| Lomatium sp. | lomatium | Apiaceae | Perennial herb | - | _ |
| Lonicera subspicata var. denudata | Johnston's honeysuckle | Caprifoliaceae | Shrub | - | _ |
| Lupinus bicolor | miniature lupine | Fabaceae | Annual herb | _ | |

| Scientific Name | Common Name | Family | Habit | Nonnative? | Special-status? |
|--|-------------------------------------|----------------|----------------|------------|-----------------|
| Lupinus concinnus | bajada lupine | Fabaceae | Annual herb | _ | _ |
| Lupinus sp. (cf. formosus) | lupine | Fabaceae | Perennial herb | _ | _ |
| Marah macrocarpa | wild-cucumber, chilicothe | Cucurbitaceae | Perennial herb | _ | _ |
| Matricaria discoidea | pineapple weed | Asteraceae | Annual herb | _ | _ |
| Medicago polymorpha | California burclover | Fabaceae | Annual herb | Yes | _ |
| Melica imperfecta | little California melica | Poaceae | Perennial herb | _ | _ |
| Melilotus indicus | sourclover | Fabaceae | Annual herb | Yes | _ |
| Mirabilis laevis | wishbone bush | Nyctaginaceae | Perennial herb | _ | _ |
| Myriopteris covillei | Coville's lip fern | Pteridaceae | Perennial herb | _ | _ |
| Nemophila menziesii var. integrifolia | small-flower baby blue eyes | Boraginaceae | Annual herb | _ | _ |
| Oenothera californica ssp. avita | pinnate California evening-primrose | Onagraceae | Perennial herb | _ | _ |
| Opuntia phaeacantha | brown-spined prickly-pear | Cactaceae | Shrub | _ | _ |
| Paeonia californica | California peony | Paeoniaceae | Perennial herb | _ | _ |
| Pectocarya linearis ssp. ferocula | narrow-toothed pectocarya | Boraginaceae | Annual herb | _ | _ |
| Pectocarya penicillata | northern pectocarya | Boraginaceae | Annual herb | _ | _ |
| Pellaea mucronata var. mucronata | bird's foot cliff-brake | Pteridaceae | Perennial herb | _ | _ |
| Penstemon centranthifolius | scarlet bugler | Plantaginaceae | Perennial herb | _ | _ |
| Penstemon clevelandii var. clevelandii | Cleveland's beardtongue | Plantaginaceae | Perennial herb | _ | _ |
| Phacelia distans | common phacelia | Boraginaceae | Annual herb | _ | _ |
| Phacelia minor | wild Canterbury bells | Boraginaceae | Annual herb | _ | _ |
| Phoradendron leucarpum | American mistletoe | Viscaceae | Perennial herb | _ | _ |
| Plagiobothrys arizonicus | Arizona popcornflower | Boraginaceae | Annual herb | _ | _ |
| Plagiobothrys collinus var. fulvescens | rough-stemmed popcornflower | Boraginaceae | Annual herb | _ | _ |
| Plantago erecta | California plantain | Plantaginaceae | Annual herb | _ | _ |
| Platystemon californicus | cream cups | Papaveraceae | Annual herb | _ | - |
| Polypogon monspeliensis | annual beard grass | Poaceae | Annual herb | Yes | - |
| Prunus ilicifolia ssp. Ilicifolia | holly-leaf cherry, islay | Rosaceae | Shrub, tree | - | - |
| Pseudognaphalium luteoalbum | Jersey cudweed | Asteraceae | Annual herb | Yes | - |
| | | | | | |

| Scientific Name | Common Name | Family | Habit | Nonnative? | Special-status? |
|---|----------------------------|-----------------|-----------------------------|------------|-----------------|
| Pterostegia drymarioides | fairy mist | Polygonaceae | Annual herb | _ | _ |
| Quercus agrifolia | coast live oak | Fagaceae | Tree | _ | _ |
| Quercus cornelius-mulleri | Muller's oak | Fagaceae | Shrub | _ | _ |
| Rafinesquia californica | California chicory | Asteraceae | Annual herb | _ | _ |
| Rhamnus ilicifolia | hollyleaf redberry | Rhamnaceae | Shrub | _ | _ |
| Rhus aromatica | skunk bush | Anacardiaceae | Shrub | _ | _ |
| Rhus integrifolia | lemonade berry | Anacardiaceae | Shrub | _ | _ |
| Rhus ovata | sugar bush | Anacardiaceae | Shrub | _ | _ |
| Ribes quercetorum | oakwoods gooseberry | Grossulariaceae | Shrub | _ | _ |
| Salix lasiolepis | arroyo willow | Salicaceae | Shrub, tree | _ | _ |
| Salvia columbariae | chia | Lamiaceae | Annual herb | _ | _ |
| Sambucus mexicana | blue elderberry | Acanthaceae | Shrub, tree | _ | _ |
| Schismus sp. | Mediterranean grass | Poaceae | Annual herb | - | _ |
| Schoenoplectus acutus var. occidentalis | common tule | Cyperaceae | Perennial herb | _ | _ |
| Senecio californicus | California ragwort | Asteraceae | Annual herb | _ | _ |
| Sisymbrium altissimum | tumble mustard | Brassicaceae | Annual herb, perennial herb | Yes | _ |
| Sisymbrium irio | London rocket | Brassicaceae | Annual herb, perennial herb | Yes | _ |
| Sisymbrium orientale | Indian hedge mustard | Brassicaceae | Annual herb, perennial herb | Yes | _ |
| Sisyrinchium bellum | western blue-eyed-grass | Iridaceae | Perennial herb | _ | _ |
| Sonchus asper ssp. asper | prickly sow thistle | Asteraceae | Annual herb | Yes | _ |
| Sphaeralcea ambigua var. ambigua | apricot mallow | Malvaceae | Subshrub | _ | _ |
| Stephanomeria sp. | wreath-plant, wire-lettuce | Asteraceae | Annual herb, perennial herb | _ | _ |
| Tauschia arguta | Southern tauschia | Apiaceae | Perennial herb | _ | _ |
| Tetradymia comosa | cotton thorn | Asteraceae | Shrub | _ | _ |
| Thysanocarpus curvipes | common fringe pod | Brassicaceae | Annual herb | _ | _ |
| Trichostema lanatum | wooly blue curls | Lamiaceae | Shrub | _ | _ |
| Trichostema parishii | mountain blue curls | Lamiaceae | Shrub | _ | _ |
| Tropidocarpum gracile | slender tropidocarpum | Brassicaceae | Annual herb | - | _ |
| | | | | | |

| Scientific Name | Common Name | Family | Habit | Nonnative? | Special-status? |
|---------------------|-------------------|----------------|-------------|------------|-----------------|
| Uropappus lindleyi | silver puffs | Asteraceae | Annual herb | - | _ |
| Veronica persica | Persian speedwell | Plantaginaceae | Annual herb | Yes | _ |
| Xanthium strumarium | cocklebur | Asteraceae | Annual herb | - | _ |
| Yucca schidigera | Mojave yucca | Agavaceae | Shrub, tree | _ | _ |

APPENDIX D. OBSERVED SPECIES LIST, FAUNA

Table D-1. Observed Species List - Fauna

| Scientific Name | Common Name |
|--------------------------------|------------------------------------|
| Birds | |
| Accipiter cooperi | Cooper's hawk |
| Accipiter striatus | sharp-shinned hawk |
| Anas americana | American wigeon |
| Anas platyrhynchos | mallard |
| Aphelocoma californica | California scrub-jay |
| Ardea alba | great egret |
| Artemisiospiza belli belli | Bell's sage sparrow |
| Baeolophus inornatus | oak titmouse |
| Bubo virginianus | great horned owl |
| Buteo jamaicensis | red-tailed hawk |
| Callipepla californica | California quail |
| Cathartes aura | turkey vulture |
| Corvus brachyrhynchos | American crow |
| Corvus corax | common raven |
| Dryobates scalaris | ladder-backed woodpecker |
| Egretta thula | snowy egret |
| Eremophila alpestris actia | California horned lark |
| Junco hyemalis | dark-eyed junco |
| Melozone crissalis | California towhee |
| Pipilo maculatus | spotted towhee |
| Sialia mexicana | western bluebird |
| Toxostoma redivivum | California thrasher |
| Vireo huttoni | Hutton's vireo |
| Zenaida macroura | mourning dove |
| Zonotrichia leucophrys | white-crowned sparrow |
| Mammals | |
| Lepus californicus bennettii | black-tailed jackrabbit |
| Lynx rufus | bobcat |
| Neotoma lepida intermedia | San Diego desert woodrat |
| Odocoileus hemionus | mule deer |
| Puma concolor | mountain lion |
| Sylvilagus audubonii | desert cottontail |
| Reptiles | |
| Anniela stebbinsi | Southern California legless lizard |
| Aspidoscelis tigris stejnegeri | coastal whiptail |
| Crotalus oreganus helleri | southern Pacific rattlesnake |
| Phrynosoma blainvillii | Blainville's horned lizard |
| | |

| Scientific Name | Common Name |
|---------------------------------|---------------------------------|
| Invertebrates | |
| Abaeis nicippe | sleepy orange |
| Adelpha californica | California sister |
| Anthocharis cethura | desert orangetip |
| Anthocharis lanceolata | Gray marble |
| Anthocharis sara | Sara orangetip |
| Apodemia virgulti | Behr's metalmark |
| Atlides halesus corcorani | western great purple hairstreak |
| Callophrys augustinus iroides | western elfin |
| Callophrys perplexa | perplexing hairstreak |
| Celastrina echo | echo azure |
| Colias eurytheme | orange sulphur |
| Colias harfordii | Harford's sulphur |
| Cupido amyntula | Western tailed blue |
| Erynnis brizo lacustra | Lacustra duskywing |
| Erynnis afranius | afranius duskywing |
| Erynnis funeralis | funereal duskywing |
| Erynnis propertius | propertius duskywing |
| Erynnis tristis | mournful duskywing |
| Euchloe hyantis | California marble |
| Euphilotes bernardino | San Bernardino Blue |
| Euphydryas chalcedona hennei | Henne's checkerspot |
| Glaucopsyche lygdamus australis | southern silvery blue |
| Glaucopsyche piasus umbrosa | smoky arrowhead blue |
| Hesperia juba | Juba skipper |
| Hylephila phyleus | fiery skipper |
| Junonia coenia grisea | gray buckeye |
| Leptotes marina | marine blue |
| Lycaena gorgon | Gorgon copper |
| Nathalis iole | dainty sulphur |
| Ochlodes agricola | rural skipper |
| Papilio eurymedon | pale swallowtail |
| Papilio polyxenes coloro | desert swallowtail |
| Papilio rutulus | western tiger swallowtail |
| Phoebis sennae marcellina | southwestern cloudless sulphur |
| Pholisora catullus | common sootywing |
| Plebejus acmon | Acmon blue |
| Plebejus icarioides evius | Evius blue |
| Plebejus lupini monticola | Clemence's blue |
| Pontia beckerii | Becker's white |
| | |

| Scientific Name | Common Name |
|------------------------------|------------------------------|
| Pontia protodice | checkered white |
| Pontia sisymbrii | spring white |
| Pyrgus albescens | white checkered skipper |
| Satyrium saepium chalcis | bronze hedgerow hairstreak |
| Satyrium saepium chlorophora | purplish hedgerow hairstreak |
| Strymon melinus pudica | common grey hairstreak |
| Vanessa annabella | West Coast lady |
| Vanessa atalanta rubria | American red admiral |
| Vanessa cardui | painted lady |

APPENDIX E. POTENTIAL SENSITIVE SPECIES TABLE, FLORA

Table E-1. Potential Sensitive Species - Flora

| Common Name Species Name | Status (Federal/State/County) | Habitat Preferences/Requirements | Blooming Period | Potential for Occurrence |
|---|----------------------------------|--|--------------------|--|
| Jacumba milk-vetch Astragalus douglasii var. perstrictus | 1B.2, SDCSS-List A | A member of the pea or bean family (Fabaceae). This perennial herb occurs in chaparral, cismontane woodland, pinyon and juniper woodland, riparian scrub, valley and foothill grassland, and rocky communities. Elevational range: 2,953 to 4,495 feet amsl. | Apr–Jun | Present. 1,351 individuals were observed in on-site granitic northern mixed chaparral, redshank chaparral, chamise chaparral, urban/developed, and field/pasture. |
| Fremont barberry Berberis fremontii | 2B.3, SDCSS-List C | A member of the barberry (Berberidaceae) family, this perennial evergreen shrub occurs in chaparral, pinyon-juniper woodland, and Joshua tree woodland. Elevational range: 2,756 to 6,070 feet amsl. | Mar–May | Absent. This species is only documented in San Bernardino County per CNDDB. Jepson eFlora has 3 records in San Diego, but none more recent than 1950. Overlaps morphologically with Berberis higginsiae. Would have been detectable during focused rare plant surveys and was not observed. |
| Higgin's barberry Berberis higginsiae | 2B.3 | A member of the barberry (Berberidaceae) family, this perennial evergreen shrub occurs in chaparral, pinyon-juniper woodland, and rocky slopes. Elevational range: 2,300 to 6,200 feet amsl. | Mar–Apr | Absent. This shrub would have been detectable during spring rare plant surveys and was not observed. Of the 7 CNDDB records for this species, the most recent is from a 1994 report; other occurrences are from 1980s or earlier. Would have been detectable during focused rare plant surveys and was not observed. |
| Payson's jewelflower Caulanthus simulans | 4.2, SDCSS-List D | A member of the mustard (Brassicaceae) family, this annual herb occurs in chaparral and coastal scrub on sandy and granitic substrates. Elevational range: 295 to 7,218 feet amsl. | Mar–Jun | Present. 6 individuals were observed in on-site redshank chaparral. |
| Long-spined spineflower Chorizanthe polygonoides var. longispina | 1B.2, SDCSS-List A | A member of the knotweed (Polygonaceae) family, this annual herb occurs in meadows within Coastal Sage Scrub, Chaparral, and Valley Grassland. Elevational range: 100 to 4,920 feet amsl. | Apr–Jun | Present. 595 individuals were observed within on-site chamise chaparral. |

| Common Name Species Name | Status (Federal/State/County) | Habitat Preferences/Requirements | Blooming Period | Potential for Occurrence |
|--|----------------------------------|--|--------------------|---|
| Peninsular spineflower Chorizanthe leptotheca | 4.2, SDCSS-List D | A member of the knotweed (Polygonaceae) family, this annual herb occurs on granitic soils and alluvial fans within chaparral, coastal scrub, and lower montane coniferous forest. Elevational range: 985 to 6,235 feet amsl. | May–Aug | Absent. This species is documented in the vicinity of the project site (Jepson eFlora) and suitable habitat occurs on-site, but there are no recent occurrences documented nearby and the project site is east of nearly all documented occurrences. Would have been detectable during focused rare plant surveys and was not observed. |
| Delicate clarkia Clarkia delicata | 1B.2, SDCSS-List A | A member of the evening-primrose (Onagraceae) family, this annual herb occurs in cismontane woodland and chaparral, often on gabbro soils. Elevational range: 310 to 5,900 feet amsl. | Apr–May | Absent. The project site is southeast of the known geographic range for this species. The nearest occurrence is a 1903 record "between Campo and Potrero" (Jepson eFlora). Would have been detectable during focused rare plant surveys and was not observed. |
| San Diego sand aster Corethrogyne filaginifolia var. incana | 1B.1, SDCSS-List A | A member of the sunflower (Asteraceae) family, this perennial herb occurs in coastal sage scrub habitats. Elevational range: 230 to 10,800 feet amsl. | Jun-Sep | Absent. The nearest documented occurrence is approximately 20 miles to the west of the project site in Potrero, from 1895 (CNDDB). Would have been detectable during focused rare plant surveys and was not observed. |
| Tecate tarplant Deinandra floribunda (Hemizonia f.) | 1B.2, SDCSS-List A | A member of the sunflower (Asteraceae) family, this annual herb occurs in chaparral and coastal scrub habitats. Elevational range: 230 to 4,003 feet amsl. | Aug–Nov | Present. 1,171 individuals were observed within on-site redshank chaparral, granitic northern mixed chaparral, montane buckwheat scrub, big sagebrush scrub, field/pasture, and southern riparian scrub. |
| Desert larkspur Delphinium parishii ssp. subglobosum | 4.3, SDCSS-List D | A member of the buttercup family (Ranunculaceae), this perennial herb occurs in chaparral, cismontane woodland, pinyon and juniper woodland, and Sonoran Desert scrub habitats. Elevational range: 1,969 to 5,906 feet amsl. | Mar–Apr | Present. 301 individuals were observed within on-site granitic northern mixed chaparral. |
| Mt. Laguna aster Dieteria asteroides var. lagunensis | 2B.1, SDCSS-List B | A member of the sunflower (Asteraceae) family, this perennial herb occurs in openings of cismontane woodland and lower montane coniferous forest. Elevational range: 2,600 to 7,900 feet amsl. | Jul–Oct | Absent. CNDDB has a record 3.9 miles east of the project site. Only marginally suitable habitat occurs within the project site, and this species would have been observable during rare plant surveys. |

| Common Name Species Name | Status (Federal/State/County) | Habitat Preferences/Requirements | Blooming Period | Potential for Occurrence |
|--|----------------------------------|---|--------------------|---|
| Desert (low bush) monkeyflower Diplacus aridus [Mimulus aurantiacus var. aridus] | 4.3, SDCSS-List D | A member of the lopseed (Phrymaceae) family, this shrub occurs in non-wetlands and occasionally in wetlands in rocky chaparral and Sonoran Desert scrub. Elevational range: 2,461 to 3,937 feet amsl. | Mar–Jun | Present. 8 individuals were observed onsite growing on granitic outcrops within redshank chaparral. |
| Borrego bedstraw Galium angustifolium ssp. borregoense | 1B.3, SDCSS-List A | A member of the bedstraw family (Rubiaceae), this perennial herb occurs in creosote bush scrub among boulders and granitic northern slopes. Elevational range: 1,150 to 4,100 feet amsl. | Apr–Jun | Absent. CNDDB has a record 3.9 miles northeast of project site and some suitable habitat for this species occurs on-site, but this species would have been detectable during spring rare plant surveys and was not observed. |
| San Jacinto Mountains bedstraw <i>Galium angustifolium</i> ssp. <i>jacinticum</i> | 1B.3, SDCSS-List A | A member of the bedstraw family (Rubiaceae), this perennial herb occurs in yellow pine forest in open, mixed forest. Elevational range: 4,430 to 6,890 feet amsl. | May–Jul | Absent. CNDDB has a record 3.8 miles northeast of project site, but no suitable habitat occurs on-site. Would have been detectable during focused rare plant surveys and was not observed. |
| Sticky geraea Geraea viscida | 2B.2, SDCSS-List B | A member of the sunflower (Asteraceae) family, this perennial herb occurs in chaparral habitats. Elevational range: 1,470 to 5,580 feet amsl. | May–Jul | Present. 2,536 individuals were observed on-site in granitic northern mixed chaparral, redshank chaparral, chamise chaparral, and montane buckwheat scrub. |
| Tecate cypress Hesperocyparis forbesii | 1B.1, SDCSS-List A | A member of the cypress (Cupressaceae) family, this evergreen tree occurs in closed-cone conifer forests, chaparral, and riparian forest habitats. Elevational range: 836 to 4,921 feet amsl. | n/a | Absent. Species would have been detectable during focused surveys and was not observed. |
| San Diego sunflower Hulsea californica | 1B.3, SDCSS-List A | A member of the sunflower (Asteraceae) family, this perennial herb occurs in open sites in yellow pine forest. Elevational range: 3,300 to 6,560 feet amsl. | May-Aug | Absent. This species was not observed within the project site and would have been observable during the survey period. |
| Slender-leaved ipomopsis Ipomopsis tenuifolia | 2B.3, SDCSS-List B | A member of the phlox (Polemoniaceae) family, this perennial herb occurs in gravelly to rocky slopes and canyons in creosote bush scrub, chaparral, and pinyon-juniper woodland. Elevational range: 330 to 3,940 feet amsl. | Apr–Jun | Absent. This species was not observed within the project site and would have been observable during the survey period. CNDDB has records 4 miles east of the project site. Habitat suitable to support this species exists within the project site, and this species was observed during Eco Substation rare plant surveys in 2021. |

| Common Name Species Name | Status (Federal/State/County) | Habitat Preferences/Requirements | Blooming Period | Potential for Occurrence |
|---|----------------------------------|--|--------------------|--|
| Decumbent goldenbush Isocoma menziesii var. decumbens | 1B.2, SDCSS-List A | A member of the sunflower (Asteraceae) family, this perennial herb occurs in chaparral habitats. Elevational range: 1,450 to 5,580 feet amsl. | Jul–Nov | Absent. One CNDDB occurrence is documented on-site, but it is mapped as a "best guess around Boulevard" from a 1916 collection. This species would have been detectable during surveys and was not observed. |
| Pride-of-California Lathyrus splendens | 4.3, SDCSS-List D | A member of the pea (Fabaceae) family, this perennial herb occurs in wetlands and non-wetlands, disturbed habitat, coastal sage scrub, and wetland-riparian. Elevational range: 656 to 5,003 feet amsl. | Apr–Jun | Present. 31 individuals were observed onsite in redshank chaparral and chamise chaparral. |
| Desert beauty Linanthus bellus | 2B.1, SDCSS-List B | A member of the phlox (Polemoniaceae) family, this annual herb occurs in sandy soils within chaparral habitats. Elevational range: 1,000 to 5,493 feet amsl. | Mar–May | Present. 2,105 individuals were observed on-site in redshank chaparral, granitic northern mixed chaparral, and chamise chaparral. |
| Mountain springs bush lupine Lupinus albifrons var. medius | 1B.3, SDCSS-List A | A member of the pea (Fabaceae) family, this shrub occurs on washes, dry slopes in sandy soils, and sagebrush scrubland. Elevational range: 1,200 to 4,650 feet amsl. | Mar–Apr | Absent. This species was observed during rare plant surveys for Eco Substation in 2021. CNDDB has a record 3.9 miles east of project site. Some habitat suitable to support this species exists within the project site. However, this species was not observed on-site during spring rare plant surveys and would have been detectable. |
| Golden-rayed pentachaeta Pentachaeta aurea ssp. aurea | 4.2, SDCSS-List D | A member of the sunflower (Asteraceae) family, this annual herb occurs in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland, and riparian woodland. Elevational range: 260 to 6,070 feet amsl. | Mar–Jul | Absent. The project site is southeast of all documented occurrences. Would have been detectable during focused rare plant surveys and was not observed. |
| Arizona pholistoma Pholistoma auritum var. arizonicum | 2B.3 | A member of the borage (Boraginaceae) family, this annual herb occurs in creosote bush scrub. Elevational range: 1,000 to 2,300 feet amsl. | Mar–Apr | Absent. This species was not observed within the project site and likely would have been observable during spring rare plant surveys. CNDDB has a record 3.6 miles east of project site. Suitable habitat to support this species exists near the project site, but not within it. |
| Engelmann oak Quercus engelmannii | 4.2, SDCSS-List D | A member of the oak (Fagaceae) family, this perennial deciduous tree occurs in chaparral, cismontane woodland, riparian woodland, valley grassland, and foothill grassland. Elevational range: 164 to 4,265 feet amsl. | Apr–May | Absent. This species would have been detectable during focused oak surveys and was not observed. |

| Common Name Species Name | Status (Federal/State/County) | Habitat Preferences/Requirements | Blooming Period | Potential for Occurrence |
|--|----------------------------------|---|--------------------|---|
| Sing-leaved skunkbush Rhus aromatica var. simplicifolia | 2B.3, SDCSS-List B | A member of the sumac (Anacardiaceae) family, this shrub occurs usually in non-wetlands, occasionally in wetlands in chaparral and pinyon-juniper woodland. Elevational range: below 7,200 feet amsl. | Mar–Apr | Absent. Known only in California from the Pinyon and Vallecito Mountains. Would have been detectable during focused rare plant surveys and was not observed. |
| Caraway-leaved woodland-gilia Saltugilia caruifolia (Gilia c.) | 4.3, SDCSS-List D | A member of the phlox (Polemoniaceae) family, this annual herb occurs in disturbed areas near roads and on fuel breaks, in sandy washes, on old burns, and in rocky outcrops within chaparral and lower montane coniferous forest. Elevational range: 2,750 to 7,550 feet amsl. | May–Aug | Absent. Would have been detectable during focused rare plant surveys and was not observed. |
| Desert spike-moss Selaginella eremophila | 2B.2, SDCSS-List B | A member of the fern (Selaginellaceae) family, this annual herb occurs in creosote bush scrub. Elevational range: 735 to 5,150 feet amsl. | n/a | Absent. Some suitable habitat to support this species exists within the project site. CNDDB has a record 2.2 miles northeast of project site, but project is south and west of all documented occurrences. Would have been detectable during focused rare plant surveys and was not observed. |
| Chaparral ragwort Senecio aphanactis | 2B.2, SDCSS-List B | A member of the sunflower (Asteraceae) family, this annual herb occurs in northern coastal scrub, coastal sage scrub, and foothill woodland. Elevational range: 30 to 1,800 feet amsl. | Feb-May | Absent. Suitable habitat to support this species exists within the project site and CNDDB has a record 3.9 miles east of project site, but this record is undated and the exact location is unknown. The next closest occurrence is in Otay Mesa, approximately 40 miles west. Would have been detectable during focused rare plant surveys and was not observed. |
| Southern jewelflower Streptanthus campestris | 1B.3, SDCSS-List A | A member of the mustard (Brassicaceae) family, this perennial herb occurs in open, rocky conifer forest, chaparral, woodland, yellow pine forest, chaparral, and pinyon-juniper woodland. Elevational range: 2,950 and 7,550 feet amsl. | May–Jun | Absent. This species was not observed during rare plant surveys conducting during this species' blooming period. |

| Common Name Species Name | Status (Federal/State/County) | Habitat Preferences/Requirements | Blooming Period | Potential for Occurrence |
|---|----------------------------------|---|--------------------|--|
| San Bernardino aster Symphyotrichum defoliatum | 1B.2 | A member of the sunflower (Asteraceae) family, this perennial rhizomatous herb occurs in freshwater wetlands, coastal sage scrub, and southern oak woodland. Elevational range: 7 to 6,693 feet amsl. | Jul–Nov | Absent. Three occurrences (CNDDB, Jepson eFlora) are documented on or near the project site but the most recent of these is a collection from 1938. More recent occurrences in San Diego are primarily in the Laguna Mountains. This species would have been detectable during rare plant surveys. |
| Parry's tetracoccus Tetracoccus dioicus | 1B.2, SDCSS-List A | A member of the bitter-tree (Picrodendraceae) family, this shrub occurs in stony, decomposed gabbro soil on dry slopes of coastal sage scrub, chaparral. Elevational range: 440 to 2,300 feet amsl. | Apr–May | Absent. Suitable soils do not occur onsite, and this shrub would have been detectable during rare plant surveys and was not observed. |

Note: Nine-quadrangle search area included Live Oak Springs (project site), Tierra Del Sol (project site), Mount Laguna, Cameron Corners, Campo, Sombrero Peak, Sweeney Pass, Jacumba, Jacumba OE S. CRPR: California Rare Plant Rank

- 1B: Rare, threatened, or endangered in California and elsewhere.
- 2B: Rare, threatened, or endangered in California, but more common elsewhere.
- 3: Plants about which more information is needed.
- 4: Plants of limited distribution.

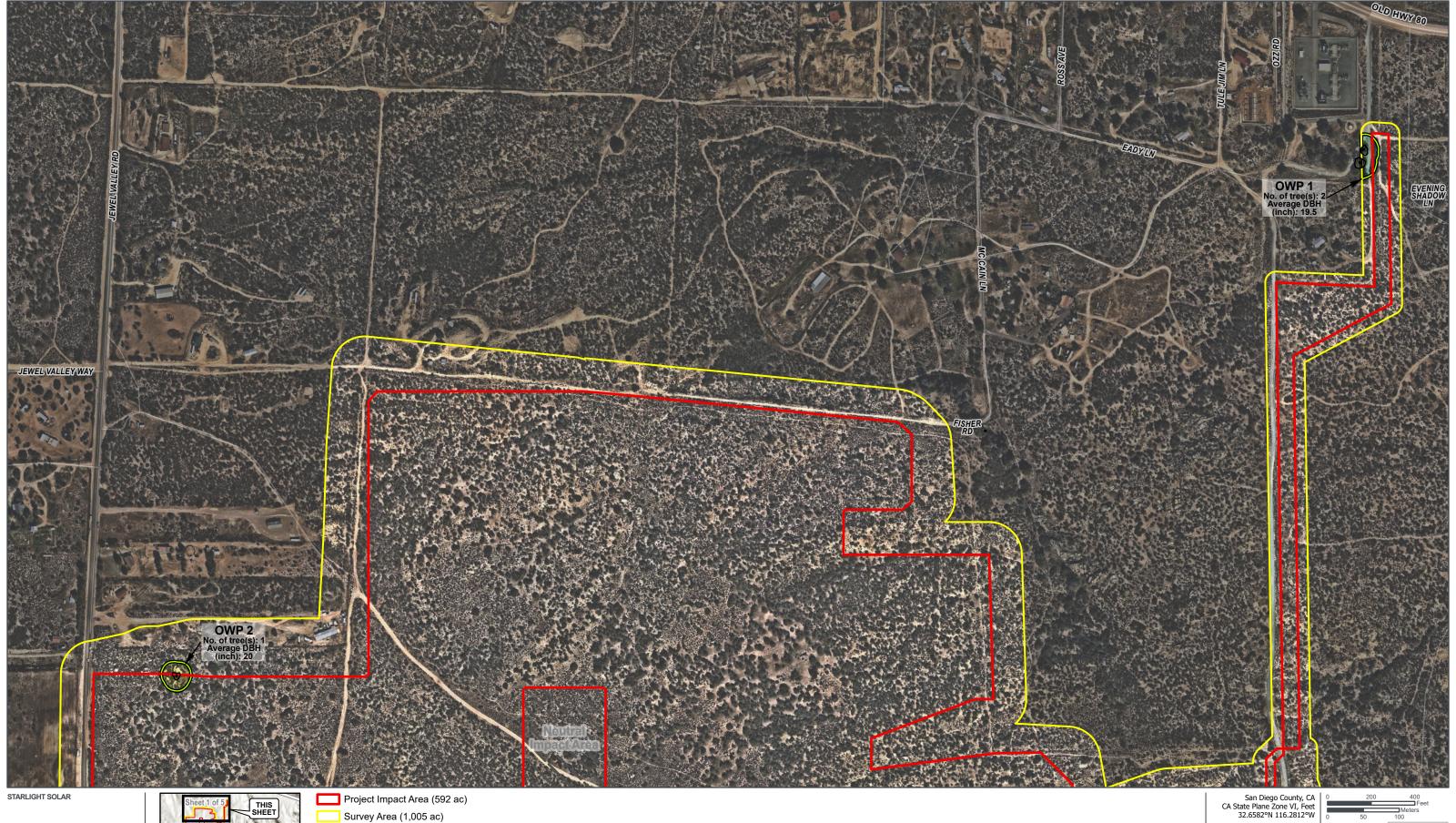
Threat Rank

- 0.1: Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- 0.2: Moderately threatened in California (20%-80% occurrences threatened / moderate degree and immediacy of threat)
- 0.3: Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

San Diego County Special Status (SDCSS):

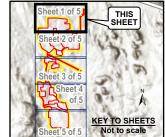
- List A: County List A species are plants that are rare, threatened, or endangered in California and elsewhere.
- List B: County List B are rare, threatened, or endangered in California but more common elsewhere.
- List C: County List C species are plants that may be rare, but more information is needed to determine their true rarity status.
- List D: County List D species are of limited distribution and are uncommon, but not presently rare or endangered.

APPENDIX F. OAK WOODLAND CANOPY, DETAILED SHEETS



OAK CANOPY WOODLAND

Sheet 1 of 5



Neutral Impact Area (150 ac)

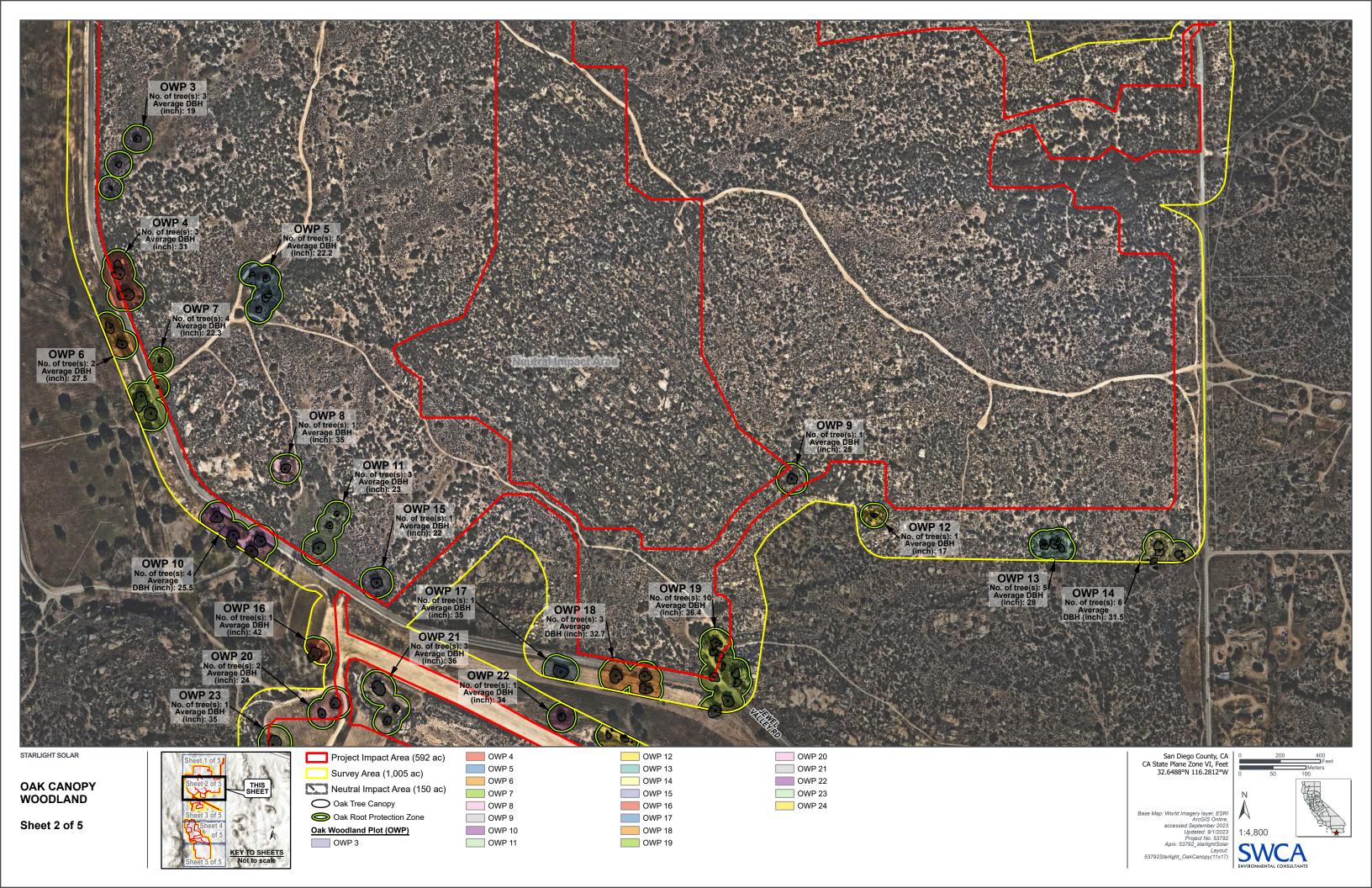
Oak Tree Canopy

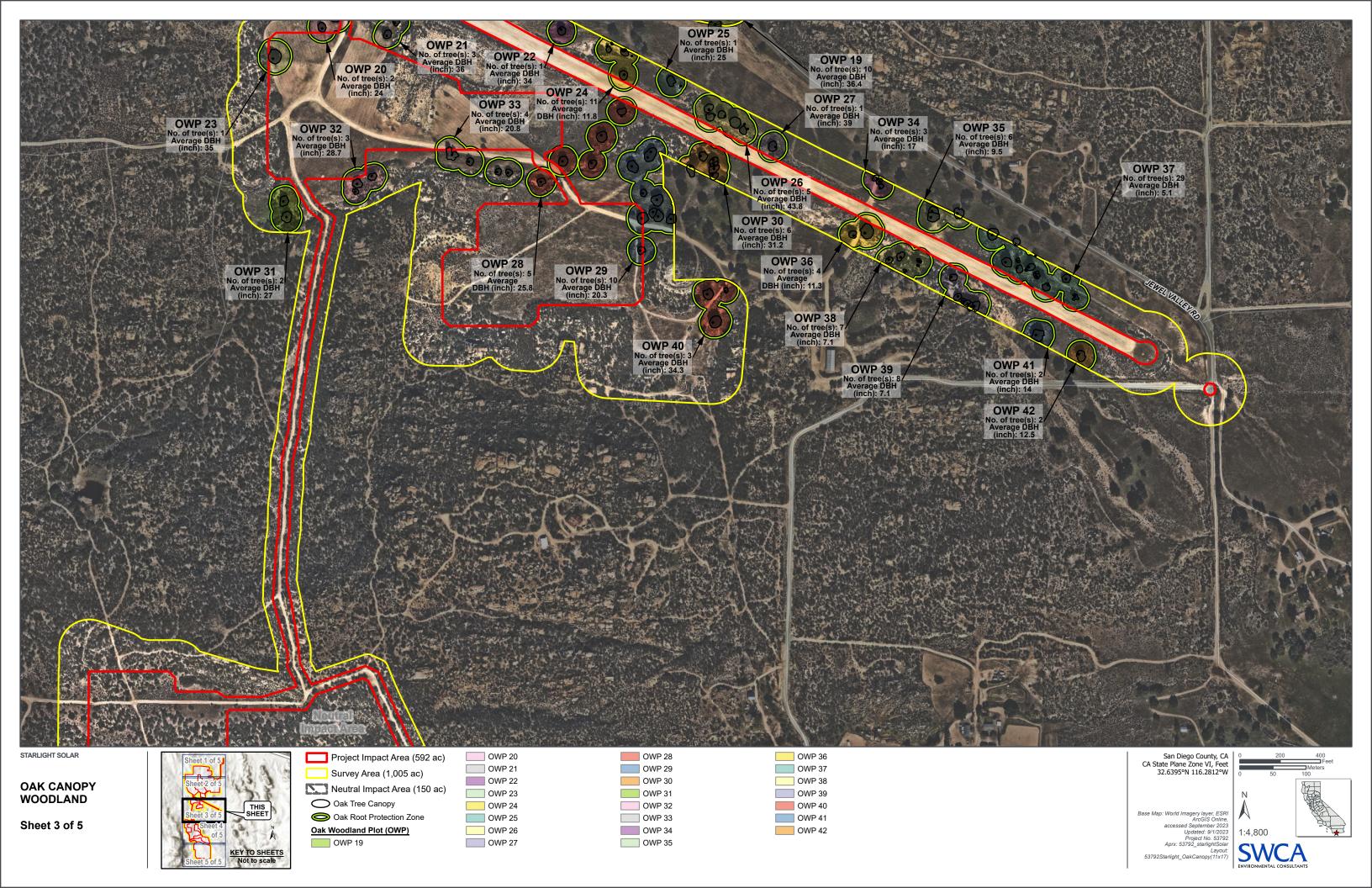
Oak Root Protection Zone

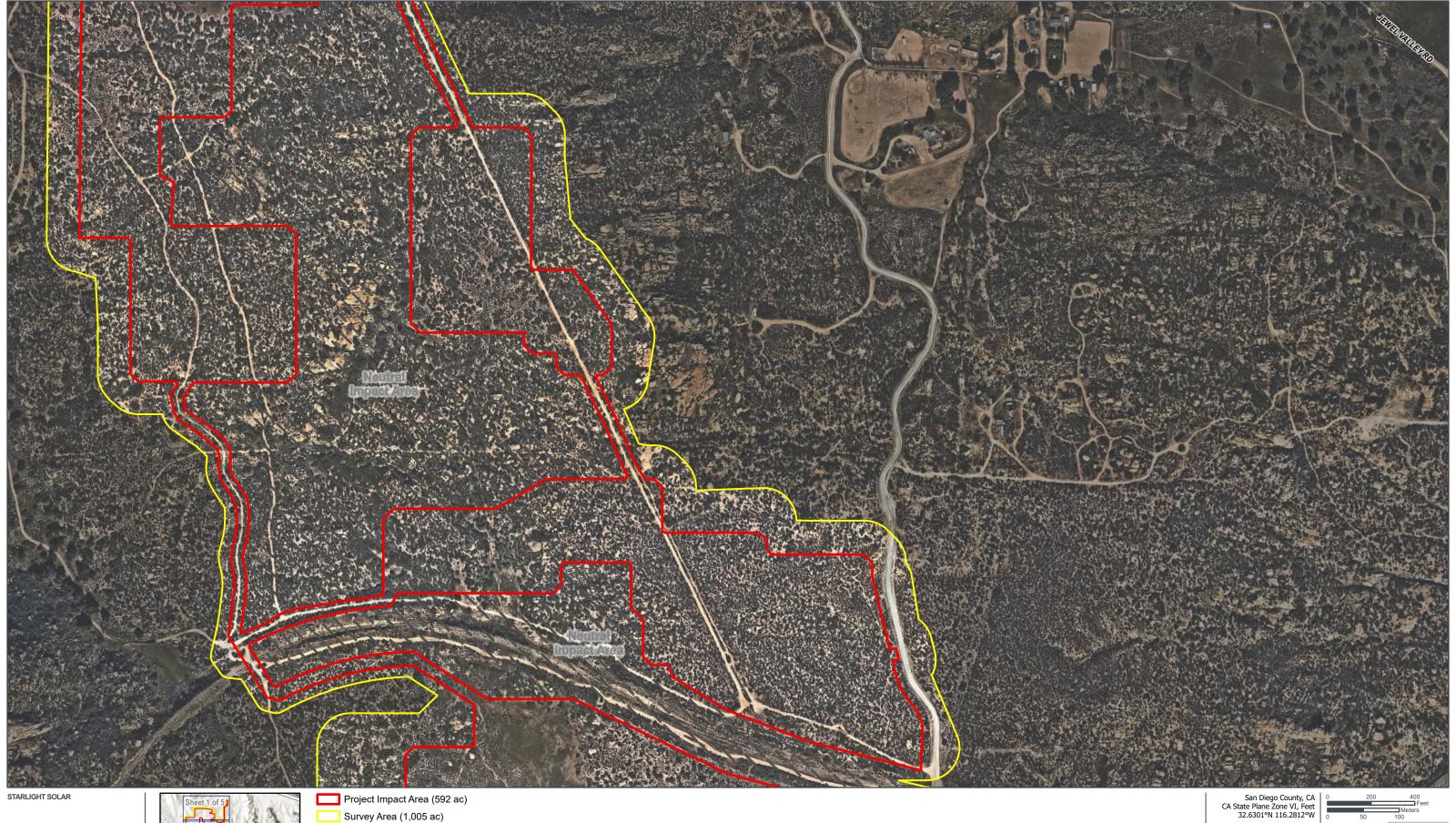
Oak Woodland Plot (OWP)

OWP 1

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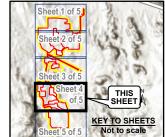






OAK CANOPY WOODLAND

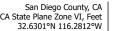
Sheet 4 of 5

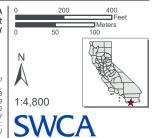


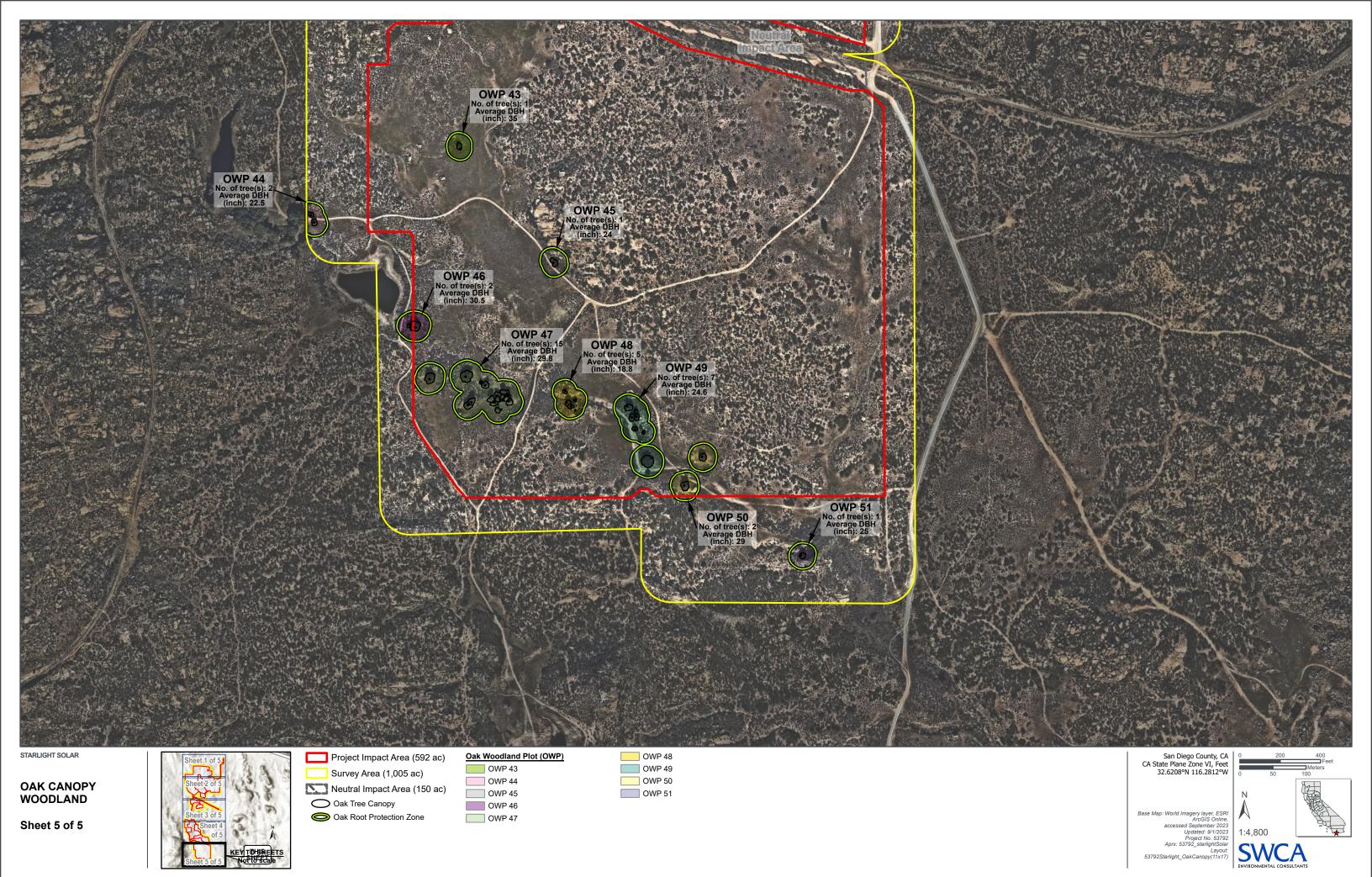
Neutral Impact Area (150 ac)

Oak Tree Canopy

Oak Root Protection Zone







APPENDIX G. POTENTIAL SENSITIVE SPECIES TABLE, FAUNA

Table G-1. Potential Sensitive Species – Fauna

| Common Name Species Name | Status (Federal/State/County) | Habitat Preferences/Requirements | Potential for Occurrence |
|---|-------------------------------------|---|--|
| Birds | | | |
| Cooper's hawk Accipiter cooperi | CDFW WL, SDC-Group I | Found throughout California in wooded areas inhabiting live oak, riparian, deciduous, or other forest habitats near water. Nesting and foraging usually occurs near open water or riparian vegetation. Nests are built in dense stands with moderate crown depths, usually in second-growth conifer or deciduous riparian areas. Cooper's hawks use patchy woodlands and edges with snags for perching while they are hunting for prey such as small birds, small mammals, reptiles, and amphibians within broken woodland and habitat edges. | Present. Three individuals were detected on-site in granitic northern mixed chaparral and coast live oak woodland. |
| Sharp-shinned hawk Accipiter striatus | SDC-Group I | During migration, they prefer open habitats or high in the sky, migrating along ridgelines and breeding in deep forests. During the nonbreeding season they hunt small birds and mammals along forest edges and sometimes at backyard bird feeders. | Present. One individual was detected on-site in redshank chaparral. |
| Tricolored blackbird Agelaius tricolor | USFWS BCC, CDFW SSC, SDC-Group I | Forages and roosts in large flocks and breeds in large colonies. These birds prefer to breed in freshwater marshes with dense growths of emergent vegetation dominated by cattails (<i>Typha</i> spp.) or bulrushes (<i>Schoenoplectus</i> spp.) but have also established colonies in willows (<i>Salix</i> spp.), blackberries (<i>Rubus</i> spp.), thistles (<i>Cirsium</i> and <i>Centaurea</i> spp.), and nettles (<i>Urtica</i> sp.). More recently, the breeding habitat has included diverse upland and agricultural areas. | Unlikely. There is no suitable nesting habitat within the survey area. There is suitable foraging habitat in the southern section of the project site. This species was documented in eBird records less than 5 miles from the project site in 2021. CNDDB has a record 1.6 miles from the project site. |
| Southern California rufous-crowned sparrow Aimophila ruficeps canescens | CDFW WL, SDC-Group I | A resident of the southwest region of the United States, this sparrow is considered a resident throughout its range. Occupying moderate to steep hillsides that are rocky, grassy, or covered by coastal sage scrub or chaparral. It is a secretive species, seeking cover in shrubs, rocks, grass, and forb patches. The species often occurs near the edges of denser scrub and chaparral associations, but usually does not occur within these associations. Avoids flat valley floors and floodplains, impenetrable chaparral, woodland, and developed areas. | High Potential. There is suitable nesting and foraging habitat for this species all throughout the project site. This species was documented in eBird records less than 5 miles from the project site in 2019. The nearest CNDDB record is 28 miles northwest, but this species is documented in the project's San Diego Bird Atlas (Atlas) grids. |

| Common Name Species Name | Status (Federal/State/County) | Habitat Preferences/Requirements | Potential for Occurrence |
|---|--|--|--|
| Bell's sage sparrow Amphispiza belli belli | USFWS BCC, CDFW WL, SDC-Group I | Uncommon to fairly common in dry chaparral and coastal sage scrub along the coastal lowlands, inland valleys, and lower foothills of the mountains within its range. | Present. Two individuals were detected on-site in granitic northern mixed chaparral. |
| Golden eagle Aquila chrysaetos | USFWS BCC, CDFW WL, FP, SDC-Group I | Foraging habitat for this species is very broad and in California includes open habitats with scrub, grasslands, desert communities, and agricultural areas. This species nests on cliffs within canyons and escarpments and in large trees (generally occurring in open habitats) and is primarily restricted to rugged, mountainous country. Most nests are located on cliffs or trees near forest edges or in small stands near open fields. Nest locations tend to be more closely associated with topographic heterogeneity than with a particular vegetation type. Nest building can occur almost any time during the year, but breeding typically begins in January with nest building and egg laying occurring in February to March. | High Potential. Suitable foraging and nesting habitat, especially in the southern end of the project site. This species was documented in eBird records less than 5 miles from the project site in 2019. Documented in the Atlas grids (T-26 and U-26) covering the project site in winter only. |
| Long-eared owl Asio otus | CDFW SSC, SDC-Group 1 | Forage in a combination of grassland and other open country. They nest and roost in dense tall shrubs or trees. Pine stands and windbreaks or shelterbelts are favored winter roost habitat. | High Potential. Suitable nesting and foraging potential within middle and southern sections of the project site. This species was documented in eBird records less than 5 miles from project site in 2020. CNDDB has a record 1.4 miles from project site. |
| Burrowing owl Athene cunicularia | USFWS BCC, CDFW SSC, SDC-Group 1 | Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel. | Low Potential. Suitable habitat occurs on-site, but the nearest documented occurrence is approximately 7 miles east of the project site. Last documented in 2010, with the next nearest occurrences approximately 36 miles west of the project site in Otay Mesa and northeast near Anza Borrego Desert State Park (CDFW 2024a). |
| Red-shouldered hawk Buteo lineatus | SDC-Group I | In California, it is a yearlong resident along the coast, in the Central Valley woodlands west of the southern deserts, and occasionally in the western Sierra Nevada foothills. It nests in dense riparian areas below 5,000 feet amsl, and hunts in and along the edges of swamps, marshes, and wet meadows. | High Potential. Suitable foraging and nesting habitat within the entire project site. This species is documented in eBird records less than 1 mile from project site in 2021. |
| Ferruginous hawk Buteo regalis | SDC-Group I | Found in the open spaces of the West, in grasslands, prairie, sagebrush steppe, scrubland, and pinyon-juniper woodland edges. | Moderate Potential. Wintering potential only within the middle and south end of project site. This species was documented in eBird records less than 5 miles from project site in 2015. However, no occurrences are documented in the project's Atlas grids. |

| Common Name Species Name | Status (Federal/State/County) | Habitat Preferences/Requirements | Potential for Occurrence |
|--|-------------------------------------|--|---|
| Swainson's hawk Buteo swainsoni | ST, SDC-Group I | Found primarily in grassland habitats, sparse shrubland and small, open woodlands. They nest within riparian forests near grassland or agricultural lands (such as fallow fields and alfalfa fields), narrow bands of trees, and isolated trees. They typically avoid mountainous terrain or steep canyons. | Moderate Potential. Suitable foraging and nesting habitat adjacent to the coast live oak woodlands scattered within the project site. This species was documented in eBird records less than 3 miles from project site in 2017, but the most recent CNDDB occurrence in San Diego is 1933 and is not documented in the project's Atlas grids. |
| Coastal cactus wren Campylorhynchus brunneicapillus sandiegensis | CDFW SSC, USFWS BCC, SDC-Group I | Cactus wrens live in scrubby areas in the Chihuahuan, Sonoran, and Mojave Deserts as well as in coastal sage scrub in California and thorn-scrub areas in Tamaulipas, Mexico. They inhabit areas with cholla (<i>Cylindropuntia</i> spp.), saguaro (<i>Carnegiea gigantea</i>), and prickly-pear cacti (<i>Opuntia</i> spp.), catclaw acacia (<i>Senegalia greggii</i>), mesquite (<i>Prosopis</i> spp.), whitethorn (<i>Ceanothus cordulatus</i>), desert willow (<i>Chilopsis linearis</i>), yucca (<i>Yucca</i> spp.), palo verde (<i>Parkinsonia</i> spp.), other desert shrubs, and small patches of prickly-pear and cholla cacti mixed with short sagebrush and buckwheat. | Low Potential. There is no suitable habitat on-site for this coastal subspecies, the nearest CNDDB occurrence is approximately 40 miles west of the site in Otay Mesa. |
| Turkey vulture Cathartes aura | SDC-Group I | In California, it is common during the breeding season and is a year-long resident west of the Sierra Nevada Mountains, especially in coastal areas. They use a variety of habitats while foraging on both wild and domestic carrion. They prefer open stages of most habitats. Nest locations tend to be difficult to find and are usually located in a crevice among granite boulders. | Present. This species was observed during surveys in February 2022. |
| Northern harrier Circus cyaneus | CDFW SSC, SDC-Group I | Found in open habitats, including deserts, coastal sand dunes, pasturelands, croplands, dry plains, grasslands, estuaries, flood plains, and marshes. Nesting areas are associated with marshes, pastures, grasslands, prairies, croplands, desert shrub steppe, and riparian woodland. | High Potential. Suitable foraging and nesting habitat within the middle and south end of project site. This species was documented in eBird records less than 1 mile from project site in 2020 and is documented within the project's Atlas grids. |
| Olive-sided flycatcher Contopus cooperi | SDC-Group II | Breeds mostly in northern and montane coniferous forest from sea level to timberline and the edge of the tundra. They are most numerous in mid- and higher-elevation forest in mountains (3,000–7,000 feet amsl) and around burned or boggy areas with numerous openings and dead trees. Migrants and wintering birds also favor gaps in coniferous forest. | Low Potential. No breeding potential within project site. This species was documented in eBird record less than 3 miles from project site in 2016. |

| Common Name Species Name | Status (Federal/State/County) | Habitat Preferences/Requirements | Potential for Occurrence |
|--|------------------------------------|---|---|
| White-tailed kite Elanus leucurus | SDC-Group I | Found in savannas, open woodlands, marshes, desert grasslands, partially cleared lands, and cultivated fields. They tend to avoid heavily grazed areas. | High Potential. Suitable foraging and nesting habitat within the middle portion of the project site. This species was documented in eBird records less than 5 miles from project site in 2021. |
| Southwestern willow flycatcher Empidonax traillii extimus | FE, SE, SDC-Group I | Riparian woodlands in Southern California. In San Diego, largely restricted to two colonies and a few scattered pairs along the upper San Luis Rey River and Santa Margarita River. | Low Potential. Suitable habitat does not occur onsite, and the site is south of this species' documented geographic range. |
| California horned lark Eremophila alpestris actia | CDFW WL, SDC-Group II | Occurs in grasslands along the coast and deserts near sea level to alpine dwarf-shrub habitat above the tree line. This species prefers open habitats, grassland, rangeland, shortgrass prairie, montane meadows, coastal plains, and fallow potential grain fields. It nests on the ground in a hollow scrape. | Present. One individual was observed on-site in an opening within big sagebrush scrub. |
| Prairie falcon Falco mexicanus | USFWS BCC, CDFW WL, SDC-Group I | A permanent resident found throughout most of California. It prefers chaparral, desert grasslands, and creosote bush habitats for foraging, and nests on cliffs or bluffs near these open habitats. | High Potential. Suitable nesting and foraging habitat all throughout the project site. This species was documented in eBird records less than 5 miles from project site in 2021, and CNDDB has records less than 0.5 miles of project site. |
| American peregrine falcon Falco peregrinus anatum | SDC-Group I | Forage and nest from skyscrapers, water towers, rocky cliffs, power pylons, and other tall structures. | Low Potential. Suitable nesting and foraging potential within the northern and southern parts of the project site. This species was documented in eBird records less than 5 miles from project site in 2020. However, the project is east of all documented occurrences of this species in the Atlas. |
| Yellow-breasted chat Icteria virens | SDC-Group I | Found in thickets and other dense, regrowing areas such as bramble bushes, clear-cuts, power line corridors, and shrubs along streams. | Low Potential. Low suitability for nesting or foraging. There are no extremely dense thickets within the project site that they commonly associate with. This species was documented in eBird records less than 5 miles from project site in 2021. |
| Gray-headed junco Junco hyemalis caniceps | SDC-Group II | Breed in coniferous or mixed-coniferous forests across Canada, the western U.S., and in the Appalachians. During winter they are found in open woodlands, fields, parks, roadsides, and backyards. | Low Potential . Wintering potential only. There is no suitable habitat present for nesting within the project site. This species was documented in eBird records less than 5 miles from project site in 2020. |

| Common Name Species Name | Status (Federal/State/County) | Habitat Preferences/Requirements | Potential for Occurrence |
|---|-------------------------------------|--|---|
| Loggerhead shrike Lanius ludovicianus | USFWS BCC, CDFW SSC, SDC-Group I | Found in lowlands and foothills throughout California, and it remains in the southern portion of the state year-round. Preferred habitats for the loggerhead shrike are open areas that include scattered shrubs, trees, posts, fences, utility lines, or other structures that provide hunting perches with views of open ground, as well as nearby spiny vegetation or humanmade structures (such as the top of chain-link fences or barbed wire) that provide means to skewer prey items. The species occurs most frequently in riparian areas along the woodland edge, grasslands with sufficient perch and butcher sites, scrublands, and open-canopied woodlands, although they can be quite common in agricultural and grazing areas; and they can sometimes be found in mowed roadsides, cemeteries, and golf courses, although they occur rarely in heavily urbanized areas. Loggerhead shrikes build nests in stable shrubs or trees requiring dense foliage for well-concealed nests. | High Potential. There is suitable nesting and foraging habitat within the project site. This species was documented in eBird records less than 5 miles from project site in 2021. |
| California gull Larus californicus | | Inhabits littoral waters, sandy beaches, waters and shorelines of bays, tidal mudflats, marshes, and lakes; colonial nester on islets in large interior lakes, either fresh or strongly alkaline. Concentrated along the coast in San Diego. | Low Potential. Site does not support suitable aquatic habitat for this species, and the project site is southeast of most documented occurrences. |
| Lewis' woodpecker Melanerpes lewis | SDC-Group I | Frequently breed in open ponderosa pine forests and burned forests with a high density of standing dead trees (snags). They also breed in woodlands near streams, oak woodlands, orchards, and pinyon-juniper woodlands. During the nonbreeding season, they move about in nomadic fashion stopping off in cottonwoods near streams, orchards, and oak woodlands with plentiful resources. | High Potential. Suitable foraging habitat around coast live oak woodlands in project site. This species was documented in eBird record less than 1 mile from project site in 2018. |
| Mountain quail Oreortyx pictus eremophilus | SDC-Group II | Found in brushy habitats along streams and rivers. In coastal and shrub steppe regions. They frequent thickets that include plants such as willow, manzanita, chamise (Adenostoma spp.), blue elderberry (Sambucus nigra subsp. canadensis), California lilac (Ceanothus spp.), big sagebrush (Artemisia tridentata), bitterbrush (Purshia tridentata), and buckthorn species (Rhamnaceae family) such as deer brush (Ceanothus integerrimus). | High Potential. Suitable foraging and nesting habitat all throughout the project site. This species was documented in eBird records less than 2 miles from project site in 2020. |

| Common Name Species Name | Status (Federal/State/County) | Habitat Preferences/Requirements | Potential for Occurrence |
|--|----------------------------------|---|---|
| Summer tanager Piranga rubra | SDC-Group II | They breed near gaps and edges of open forests, particularly of deciduous trees or mixed pine-oak woodlands. In the Southwest, look for them along streams among willows (<i>Salix</i> spp.), cottonwoods (<i>Populus</i> spp.), mesquite, or tamarisk (<i>Tamarix</i> spp.). | Low Potential. Low suitability for nesting. However, there is foraging potential during migration for this species. This species was documented in eBird records less than 5 miles from project site in 2021. |
| Purple martin Progne subis | SDC-Group I | Inhabits woodlands, low elevation coniferous forest of Douglas-fir, ponderosa pine, and Monterey pine. Typically nests in old woodpecker cavities; also nests in human-made structures. Nest often located in tall, isolated tree/snag. | Low Potential. project site does not support suitable habitat and is south of known geographic range—in the vicinity of the San Jacinto Mountains. |
| Vermilion flycatcher Pyrocephalus rubinus | SDC-Group I | Found in any open country in the Southwest, including arid scrublands, farmlands, deserts, parks, and canyon mouths. They are especially reliant on stream corridors within the scrub ecosystem, in areas where willow, sycamore, cottonwood, mesquite, and other bottomland trees grow. South of the United States they occur in similar open, shrubby country in tropical lowlands and to as high as 10,000 feet amsl. | Unlikely. There is no suitable riparian vegetation within the project site that this species commonly associates with. This species was documented in eBird records less than 5 miles from project site in 2021. |
| Yellow warbler Setophaga petechia | SDC-Group II | The yellow warbler usually nests in wet, deciduous thickets, especially those dominated by willows, and in disturbed and early successional habitats. In Southern California, it nests in lowland and foothill riparian woodlands dominated by cottonwoods, alders (<i>Alnus</i> spp.), or willows and other small trees and shrubs typical of low, open-canopy riparian woodland. | Moderate Potential. Suitable foraging around pond in southeast end. However, unlikely habitat for nesting in project site. This species was documented in eBird records less than 3 miles from project site in 2021. |
| Western bluebird Sialia mexicana | SDC-Group II | They are common resident birds in San Diego County, where they prefer montane coniferous and oak woodlands. | Present . This species was observed during surveys in February 2022. |
| Barn owl <i>Tyto alba</i> | SDC-Group II | It is widespread along the coastal region of San Diego County where it nests in riparian and oak woodland, palm trees, buildings, human-made structures, and nest boxes. | Moderate Potential. Suitable foraging within open areas in the project site, but unlikely suitable for nesting. This species was documented in eBird records less than 5 miles from project site in 2021. |
| Least Bell's vireo Vireo belli pusillus | FE, SE, SDC-Group I | Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms below 2000 feet amsl. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite. In San Diego, population is concentrated in the coastal lowland and riparian woodland supporting this species typically has both a dense canopy, suitable for foraging, and a dense understory, suitable for nesting. | Low Potential. There is no suitably dense riparian habitat for this species on-site and it is not documented in the vicinity of the project by CNDDB or Atlas data. |

| Common Name Species Name | Status (Federal/State/County) | Habitat Preferences/Requirements | Potential for Occurrence |
|--|----------------------------------|--|---|
| Reptiles/Amphibians | | | |
| Arroyo toad Anaxyrus californicus | FE, CDFW SSC, SDC-Group I | Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc. Rivers with sandy banks, willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range. | Low Potential. Suitable habitat does not occur onsite and the project site is east of this species' geographic range, approximately 15 miles southeast of the nearest documented arroyo toad occurrence (CNDDB). |
| Southern California legless lizard Anniella stebbinsi | CDFW SSC, SDC-Group II | Occurs in moist warm loose soil with plant cover. Moisture is essential. Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks. Leaf litter under trees and bushes in sunny areas and dunes stabilized with bush lupine and mock heather often indicate suitable habitat. Often can be found under surface objects such as rocks, boards, driftwood, and logs. Can also be found by gently raking leaf litter under bushes and trees. Sometimes found in suburban gardens in Southern California. | Present. Two individuals were observed on-site in granitic northern mixed chaparral. |
| California glossy snake Arizona elegans occidentalis | CDFW SSC | Inhabits arid scrub, rocky washes, grasslands, chaparral. Appears to prefer microhabitats of open areas and areas with soil loose enough for easy burrowing. | High Potential. There is suitable habitat within the northern and southern sections of the project site. This species was documented in CNDDB records 1.6 miles from project site and is also documented nearby in iNaturalist records. |
| Orange-throated whiptail Aspidoscelis hyperythra | CDFW WL, SDC-Group II | This species is located on the coastal slope of the Peninsular Ranges and extends from near sea level to 3,412 feet amsl (northeast of Aguanga, Riverside County). It commonly occurs in coastal sage scrub, chaparral, grassland, juniper, and oak woodland. | Moderate Potential. There is potential for this species to occur within the chaparral, coast live oak woodlands, and nonnative grasslands found within the project site. However, the project site is toward the eastern edge of its presumed range, which extends beyond the easternmost documented occurrence in Campo (CNDDB, SDNHM, iNaturalist). |
| Coastal whiptail Aspidoscelis tigris stejnegeri | CDFW SSC, SDC-Group II | Found in a variety of habitats, primarily in areas where plants are sparse and there are open areas for running. The species ranges from deserts to montane pine forests where it prefers warmer and drier areas. The species is also found in woodland and streamside growth, and it avoids dense grassland and thick shrub growth. | Present. 6 individuals were observed on-site in bare ground adjacent to granitic northern mixed chaparral and redshank chaparral, and open coast live oak woodland. |

| Common Name Species Name | Status (Federal/State/County) | Habitat Preferences/Requirements | Potential for Occurrence |
|---|----------------------------------|--|---|
| Rosy boa Charina trivirgata | SDC-Group II | Inhabits rocky shrubland and desert habitats, and is attracted to oases and streams, but does not require permanent water. In the desert it occurs on scrub flats with good cover. The species is known in a variety of desert and semi-desert habitats, that it may occur in oak woodlands intergrading with scrub or chaparral habitats but is absent from grasslands. | High Potential. There is suitable habitat within the northern and southern sections of the project site. Suitable habitat historically recorded in surveys (2015) associated with adjacent projects and recent nearby occurrences are documented in iNaturalist. |
| San Diego banded gecko Coleonyx variegatus abbottii | CDFW SSC, SDC-Group I | Prefers rocky terrain within coastal sage scrub and chaparral habitats, selecting areas where exposed rock formations provide suitable cover and microclimate conditions. | Low Potential. There is potential for this species to occur within the chaparral however suitable microhabitat conditions are limited within the project area. There are no recent nearby occurrences documented in iNaturalist. Based on records from a USGS camera surveillance study, the nearest documented occurrence of this species is approximately 9 miles east of the project site (Ewing 2023). |
| Red-diamond rattlesnake Crotalus ruber | CDFW SSC, SDC-Group II | Found in a variety of habitats from the coast to the deserts, from San Bernardino County into Baja California, Mexico (below 5,000 feet amsl). It commonly occurs in rocky areas within coastal sage scrub, chaparral, juniper woodlands, and desert habitats, but can also be found in areas devoid of rocks. | High Potential. There is suitable habitat within the northern and southern sections of the project site. This species was documented in CNDDB records 1.6 miles from project site. |
| San Diego ringneck snake Diadophis punctatus similis | SDC-Group II | Found in moist habitats, including woodlands, hardwood and conifer forest, grassland, sage scrub, chaparral, croplands/hedgerows, and gardens. In arid regions, they occur in forests, woodlands, sage scrub, chaparral, and riparian corridors. | High Potential. There is potential for this species to occur around the alkali marsh and freshwater pond only where moist habitats occur. Suitable habitat historically recorded in surveys (2015) associated with adjacent projects and there is a nearby recent occurrence documented in iNaturalist. |
| Cope's leopard lizard Gambelia copeii | CDFW SSC | Typically inhabits coastal sage scrub, chaparral, and oak woodland communities, with a preference for flat terrain and open spaces that facilitate movement. Avoids densely vegetated areas, favoring habitats with minimal cover to support its need for unobstructed running and foraging. | Low Potential. Potentially suitable habitat is present within the chaparral and coast live oak woodlands; however, microhabitat conditions are limited within the project area and this species is considered rare within its range in San Diego county. Based on records from a USGS camera surveillance study, the nearest documented occurrence of this species is approximately 1 mile east of the project site (Ewing 2023). |

| Common Name Species Name | Status (Federal/State/County) | Habitat Preferences/Requirements | Potential for Occurrence |
|---|----------------------------------|--|---|
| Baja California coachwhip Masticophis fuliginosus | CDFW SSC | Primarily found in open habitats such as grasslands, shrublands, and coastal sand dunes, where minimal canopy cover and open terrain support species activity and dispersal. | Moderate Potential. Potentially suitable habitat is present within the shrubland habitats within the project area, particularly in areas characterized by open patches that provide favorable conditions for species activity. Based on records from a USGS camera surveillance study, the nearest documented occurrences of this species are approximately 1 miles east of the project site and approximately 3.5 miles south east of the project site (Ewing 2023). |
| Coast horned lizard Phrynosoma blainvillii | CDFW SSC, SDC-Group II | It is often associated with coastal sage scrub, especially areas of level to gently sloping ground with well-drained loose or sandy soil, but it can also be found in annual grasslands, chaparral, oak woodland, riparian woodland, and coniferous forest between 30 feet and 7,030 feet amsl. This reptile typically avoids dense vegetation, preferring 20% to 40% bare ground in its habitat. Up to 90% of the diet of their consists of native harvester ants. | Present . Nine individuals were observed on-site in granitic northern mixed chaparral, montane buckwheat scrub, chamise chaparral, field/pasture, and redshank chaparral. |
| Coronado skink Plestiodon skiltonianus interparietalis | CDFW SSC, SDC-Group II | The range of the Coronado skink is from inland Southern California, south through the north Pacific coast region of northern Baja California, from sea level to approximately 8,300 feet amsl. This reptile typically prefers grassland, woodlands, pine forests, and chaparral, especially in open sunny areas near the edges of creeks, rivers, and clearings. It prefers rocky areas near streams with abundant vegetation, but it is also found in areas away from water. | Moderate Potential. There is potential for this species to occur within the chaparral, coast live oak woodlands, and rock outcroppings within the entire project site. Suitable habitat historically recorded in surveys (2015) associated with adjacent projects but there are no documented occurrences near the project. |
| Coast patch-nosed snake Salvadora hexalepis virgultea | CDFW SSC, SDC-Group II | Found at elevations from near sea level to approximately 6,988 feet amsl. A broad generalist in its habitat requirements, and it seems to make use of whatever cover is available and thrives in most environments. Requires at least a low shrub structure of minimum density because they are not found in habitats lacking this structural component. They take refuge and perhaps overwinter in burrows or woodrat nests, so the presence of one or more burrow- or refuge-creating mammals may be necessary for this snake to be present. | Moderate Potential. There is suitable habitat within the northern and southern sections of the project site in northern granitic northern mixed chaparral. Suitable habitat historically recorded in surveys (2015) associated with adjacent projects. However, Boulevard is near the eastern edge of this species' range with only three historical records from the 1940s and 1950s documented in the Reptile Atlas. |

| Common Name Species Name | Status (Federal/State/County) | Habitat Preferences/Requirements | Potential for Occurrence |
|--|----------------------------------|--|---|
| Southern sagebrush lizard Sceloporus graciosus vandenburgianus | SDC-Group II | Habitats include sagebrush and other types of shrublands (e.g., manzanita and ceanothus brushland), also pinyon-juniper woodland and openly wooded areas of ponderosa pine or Douglas-fir; occupied areas have with open ground and some low bushes. This is a ground dweller that regularly perches on rocks, logs, or snags; it uses rodent burrows, shrubs, logs, etc., for cover. Primarily a montane species in San Diego. | Low-Moderate Potential. The project site is southeast of all documented occurrences in California, but the project site is within the southernmost part of this species' range in the Reptile Atlas. |
| Western spadefoot toad Spea hammondii | FTP, CDFW SSC, SDC-Group II | Although the species primarily occurs in lowlands, it also occupies foothill and mountain habitats. Within its range, the western spadefoot toad occurs from sea level to 4,000 feet amsl, but mostly at elevations below 3,000 feet amsl. The western spadefoot toad is almost completely terrestrial, entering water only to breed. The species estivates in upland habitats near suitable breeding sites in burrows approximately 1 meter (3 feet) in depth. The species prefers open areas with sandy or gravelly soils in a variety of habitats, including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, river floodplains, alluvial fans, playas, and alkali flats. However, the species is most common in grasslands with vernal pools or mixed grassland/coastal sage scrub areas. Vernal pools are essential for breeding and egg laying. | Present. There is potential for this species to occur in the vicinity of the freshwater pond located in the southwest edge of the survey area, which could potentially serve as marginal breeding habitat. This species was documented in CNDDB records within the project site, but vernal pools do not occur on-site. Additionally, data from the U.S. Fish and Wildlife Service (USFWS) and the U.S. Geological Survey (USGS) indicate that a historic breeding pool supporting this species has been recorded in the southern portion of the project area, with additional observations documented in proximity to the project. |
| Two-striped gartersnake <i>Thamnophis</i> hammondii | CDFW SSC, SDC-Group I | Found in a variety of perennial and intermittent freshwater streams within oak woodlands, shrublands, and sparse coniferous forests from sea level to 7,874 feet amsl. The species tends to avoid open expanses because of increased risk of predation. | Absent. There are no woodland riparian corridors with freshwater present anywhere within the survey area. |
| Mammals | | | |
| Pallid bat Antrozous pallidus | CDFW SSC, SDC-Group II | Typically found in deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites. | High Potential. Tree-roosting species that may roost in the woodlands on-site and forage in the project site. Suitable habitat historically recorded in surveys (2015) associated with adjacent projects. |

| Common Name Species Name | Status (Federal/State/County) | Habitat Preferences/Requirements | Potential for Occurrence |
|--|----------------------------------|---|---|
| Ringtail Bassariscus astutus | FP, SDC-Group II | Typically occur at elevations ranging from sea level to 4,590 feet amsl but may occur at elevations ranging from 6,560 to 9,514 feet amsl. Their primary habitat is oak, pinyon pine, and juniper woodlands, but they also occur in conifer forests, chaparral, desert, and dry tropical habitats if rocky outcroppings, canyons, boulder piles, or talus slopes are present. They are dependent on open water and usually do not occur more than 0.6 mile from a permanent water source. | High Potential. There is potential for this species to occur on the southern edges of the survey area where there are water sources in the form of a freshwater pond and alkali marsh. Suitable habitat historically recorded in surveys (2015) associated with adjacent projects. |
| Dulzura pocket mouse Chaetodipus californicus femoralis | CDFW SSC, SDC-Group II | Associated with open habitat in coastal sage scrub, chaparral, oak woodland, and mixed conifer habitats up to 3,000 feet amsl. | High Potential. This species has potential to occur within the chaparral and oak woodlands within the project site. This species was documented in CNDDB records 2.9 miles from project site. |
| Northwestern San Diego pocket mouse Chaetodipus fallax fallax and Pallid San Diego pocket mouse Chaetodipus fallax pallidus | CDFW SSC, SDC-Group II | Both subspecies prefer sandy, herbaceous areas, usually in association with rocks or coarse gravel. C. f. fallax occurs within coastal scrub, chaparral, grasslands, sagebrush, etc. in western San Diego County while C. f. pallidus occurs in desert border areas in eastern San Diego County in desert wash, desert scrub, desert succulent scrub, pinyon-juniper, etc. | High Potential. These species have potential to occur in a variety of habitats in the project site, including coastal sagebrush scrub, chaparral, and nonnative grassland where there are sandy soils. The project site is also generally located in the boundary zone between the ranges of C. f. fallax and C. f. pallidus. Small mammals are expected to be underrepresented in CNDDB data and are thus conservatively designated as having high potential to occur on-site despite the nearest occurrence of C. f. fallax being 37 miles to the northwest and the nearest occurrence of C. f. pallidus being over 9 miles east of the project site. |
| Mexican long-tongued bat Choeronycteris mexicana | CDFW SSC, SDC-Group II | Typically roost in caves, mines, and buildings. They require cactus blooms for feeding. The habitat range encompasses oak woodland, and semidesert grasslands, desert canyons, and ponderosa pine habitat. | Moderate Potential. This species has potential to forage in the project site but is not likely to roost. Suitable habitat historically recorded in surveys (2015) associated with adjacent projects. |
| Townsend's big-eared bat Corynorhinus townsendii | CDFW SSC, SCT, SDC-Group II | Typical roosting habitat is located in mines, caves, old buildings, and tree hollows. They require moths and beetles for feeding, with moths being their primary food source. | Moderate Potential. This species has potential to forage in the project site but is not likely to roost. Suitable habitat historically recorded in surveys (2015) associated with adjacent projects. |
| Spotted bat Euderma maculatum | CDFW SSC, SDC-Group II | This species requires cliffs for roosting and forages in forest openings within riparian areas, mountain meadows located within woodlands. It also resides and forages adjacent to rivers and within canyons. Additionally, these bats use agricultural fields for foraging. Open water is required for drinking and is also utilized for foraging. | Moderate Potential. This species has potential to forage in the project site but is not likely to roost. Suitable habitat historically recorded in surveys (2015) associated with adjacent projects. |

| Common Name Species Name | Status (Federal/State/County) | Habitat Preferences/Requirements | Potential for Occurrence |
|---|----------------------------------|---|---|
| Greater western mastiff bat Eumops perotis californicus | CDFW SSC, SDC-Group II | This species requires tall ledges and cliffs for roosting. The cliffs must be 20 feet tall, at minimum. They feed on moths primarily, as well as other insects. They can forage in chaparral, desert, forest, shrubland, as well as developed suburban habitat. | High Potential. Tree-roosting species that may roost in the woodlands on-site and forage in the project site. Suitable habitat historically recorded in surveys (2015) associated with adjacent projects. |
| Western red bat Lasiurus blossevillii | SDC-Group II | This species is typically found in riparian woodland habitats containing tamarisk, mesquite, cottonwood, and marsh habitat. They prefer cottonwoods for roosting. They can roost low to the ground in small trees and up to 40 feet off the ground. They can roost in smaller vegetation as well. They are occasionally observed roosting in cavernous areas. They feed on a variety of invertebrates found within their preferred habitat. | High Potential. Tree-roosting species that may roost in the woodlands on-site and forage in the project site. Suitable habitat historically recorded in surveys (2015) associated with adjacent projects. |
| San Diego black-tailed jackrabbit Lepus californicus bennettii | CDFW SSC, SDC-Group II | Jackrabbits typically are not found in high grass or dense brush where it is difficult for them to move quickly, and the openness of open scrub habitat likely is preferred over dense chaparral. Jackrabbits are common in grasslands that are overgrazed by cattle, and they are well adapted to using low-intensity agricultural habitats. | Present. 12 individuals were observed on-site in granitic northern mixed chaparral, bare ground adjacent to montane buckwheat scrub and chamise chaparral, and montane buckwheat scrub. |
| California leaf-nosed bat Macrotus californicus | CDFW SSC, SDC-Group II | Riparian scrub, Sonoran Desert scrub. Desert riparian, desert wash, desert scrub, desert succulent scrub, alkali scrub, and palm oasis habitats. Needs rocky, rugged terrain with mines or caves for roosting. | Moderate Potential. Species has potential to forage in the project site but is not likely to roost. Suitable habitat historically recorded in surveys (2015) associated with adjacent projects. |
| Small-footed myotis Myotis ciliolabrum | SDC-Group II | Wide range of habitats mostly arid wooded and brushy uplands near water. Prefers open stands in forests and woodlands. Typically requires cliff faces, significant deviations in rock faces, old buildings, overpasses, caves, and mines for roosting. | High Potential. The site supports at least suitable foraging habitat and may support roosting. Suitable habitat historically recorded in surveys (2015) associated with adjacent projects. |
| Long-eared myotis Myotis evotis | SDC-Group II | Found in all brush, woodland, and forest habitats from sea level to about 9,000 feet. Prefers coniferous woodlands and forests. Nursery colonies in buildings, crevices, spaces under bark, and snags. Caves used primarily as night roosts. | High Potential . Tree-roosting species that may roost in the woodlands on-site and forage in the project site. Suitable habitat historically recorded in surveys (2015) associated with adjacent projects. |
| Fringed myotis Myotis thysanodes | SDC-Group II | Typically found in large groups and roost together in cavernous spaces, within mines, and old buildings. They may also be found underneath overpasses or bridges and within rock crevices. They traditionally feed on invertebrates, especially beetles and moths. They require open habitat such as open water or forest clearings for foraging. | Moderate Potential. Species has potential to forage in the project site but is not likely to roost. Suitable habitat historically recorded in surveys (2015) associated with adjacent projects. |

| Common Name Species Name | Status (Federal/State/County) | Habitat Preferences/Requirements | Potential for Occurrence |
|---|----------------------------------|---|---|
| Long-legged myotis Myotis volans | SDC-Group II | Most common in woodland and forest habitats above 4,000 feet. Trees are important day roosts; caves and mines are night roosts. Nursery colonies are usually under bark or in hollow trees, but occasionally in crevices or buildings. | Low Potential. The project site supports only marginally suitable habitat for this species. |
| Yuma myotis Myotis yumanensis | SDC-Group II | Typically resides near open water habitats and requires water for feeding. Roosting normally occurs in old tree branches or any crevices. Human-made structures may also be used for roosting. Their foraging habits coincide with bodies of water and streams. | Moderate Potential. Species has potential to forage in the project site but is not likely to roost. Suitable habitat historically recorded in surveys (2015) associated with adjacent projects. |
| San Diego desert woodrat Neotoma lepida intermedia | CDFW SSC, SDC-Group II | Desert woodrats are found in a variety of shrub and desert habitats and are primarily associated with rock outcroppings, boulders, cacti, or areas of dense undergrowth. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes. | Present . There are rock outcroppings with evidence of woodrats all throughout the project site. This species was documented in CNDDB records 2.5 miles from project site. |
| Big free-tailed bat Nyctinomops macrotis | CDFW SSC, SDC-Group II | Occurs in low-lying arid areas in Southern California. Requires tall cliffs or rocky outcrops for roosting locations. Primarily feeds on big moths. | Moderate Potential. Species has potential to forage in the project site but is not likely to roost. Suitable habitat historically recorded in surveys (2015) associated with adjacent projects. |
| Mule deer Odocoileus hemionus | SDC-Group II | Occurs throughout most of California, except in deserts and intensively farmed areas without cover. Throughout its range, mule deer uses coniferous and deciduous forests, riparian habitats, desert shrubs, coastal scrub, chaparral, and grasslands with shrubs. It is often associated with successional vegetation, especially near agricultural lands. | Present . No individuals were directly observed but deer scat was common throughout on-site chaparral. |
| Southern grasshopper mouse Onychomys torridus ramona | CDFW SSC | Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover. Nest in small burrows dug into the ground. Often these burrows have been deserted by other rodents or were taken by the grasshopper mouse through force. | High Potential. There is potential for this species to exist through the northern and southern sections of the project site. This species was documented in CNDDB records 2.9 miles from project site. |
| Peninsular bighorn sheep Distinct Population Segment (DPS) Ovis canadensis nelsoni pop. 2 | FE, ST, FP, SDC-Group I | Desert bighorn sheep inhabit rocky slopes and cliffs, canyons, washes, and alluvial fans. Like other bighorn sheep, they prefer rugged and open habitat, and use their climbing abilities, vigilance, and excellent vision to detect and escape from predators. They are generalist herbivores and eat a wide variety of desert plants, including cacti. | Moderate Potential. There is potential for this species especially in the southern section of the project site. This species was documented in CNDDB records 3.8 miles from project site. However, the site is west of the known range of this species, and they would need to cross multiple roads to access the site, including I-8 if approaching from the north or Old Highway 80 if approaching from the east. |

| Common Name Species Name | Status (Federal/State/County) | Habitat Preferences/Requirements | Potential for Occurrence |
|---|---|---|--|
| Jacumba pocket mouse Perognathus longimembris internationalis | CDFW SSC, SDC-Group II | Range restricted to the deserts of extreme Southern California and northern Mexico. Its range extends from Jacumba, California, approximately 62 miles south of the U.S.—Mexican border. This species is associated with desert willow wash (desert riparian habitat), sparse sagebrush, with sandy, alluvial substrate as well as washes with mesquite and acacia scrub. This species is often associated with sandy to gravely substrate for burrowing. Food plants consist of grasses, Acacia greggii, Prosopis glandulosa, and Opuntia spp. | Low Potential. This species has low potential to occur within the small areas of sagebrush in combination with sandy soils within the project site. There is no desert riparian habitat recorded on-site and this species is rarely found on rocky sites. This species has not been historically documented within the nine-quad CNDDB search from project site. |
| Mountain lion Puma concolor | SDC-Group II, Specially Protected Mammal under California Fish and Game Code Section 4800. | They are most abundant in habitats that support their primary prey—mule deer—and their seasonal movements tend to follow migrating deer herds. Mountain lions prefer habitats that provide cover, such as thickets in brush and timber in woodland vegetation. They also use caves and other natural cavities for cover and breeding. They require extensive areas of riparian vegetation and brushy stages of various habitats, interspersed with of irregular terrain, rocky outcrops, and tree-brush edges. | Present. Fresh paw prints and scats are observed around alkali marsh and the southern half of survey area. Suitable habitat historically recorded in surveys (2015) associated with adjacent projects. |
| American badger Taxidea taxus | CDFW SSC, SDC-Group II | Badgers are generally associated with dry, open, treeless regions, prairies and grasslands, low-intensity agriculture (e.g., pasture, dryland crops), drier open shrublands and forest, parklands, and cold desert areas. | Moderate Potential. Potential to occur in the southern section of project site. Suitable habitat historically recorded in surveys (2015) associated with adjacent projects. |
| Invertebrates | | | |
| Crotch's bumblebee Bombus crotchii | SC | Crotch's bumble bee inhabits scrub and open grassland habitats abundant in pollen and nectar sources. They nest underground in abandoned rodent burrows. While the specific overwintering habitat for gynes (new queens produced at the end of a colony cycle) is unknown, it is suspected to be similar to other bumble bees, likely occurring in leaf litter under trees or along sloping ground. | Moderate Potential. Potentially suitable habitat may occur within the project site, however a habitat assessment or focused surveys for this species have not been conducted for the project site. |

| Common Name Species Name | Status (Federal/State/County) | Habitat Preferences/Requirements | Potential for Occurrence |
|--|----------------------------------|---|---|
| Monarch butterfly Danaus plexippus | FC, SDC-Group II | Monarchs are found in a variety of habitats including conifer forests, grasslands, old fields, dune habitat, scrublands, chaparral, orchards, woodlands, and herbaceous and shrub wetlands. Milkweeds (Asclepias spp.) are host plants. | Low Potential (Over-wintering). Limited habitat suitability for Monarch butterflies due to absence of overwintering roost sites within the project site. No milkweed (Asclepias sp.) or other essential host plants observed. Site lacks sheltered groves of trees typically used for winter aggregation. |
| | | | Moderate Potenial (Foraging). Suitable foraging habitats present through the entire project site. Suitable habitat historically recorded in surveys (2015) associated with adjacent projects. |
| Quino checkerspot butterfly Euphydryas editha quino | FE, SDC-Group I | This species is found on sparsely vegetated hilltops, ridgelines, and occasionally on rocky outcrops in open chaparral and coastal sage scrub habitat (typically less than 3,000 feet amsl). This species requires host plants within these vegetation communities for feeding and reproduction. The primary larval host plant is California plantain (<i>Plantago erecta</i>); however, several other species have been documented as important larval host plants, including desert plantain, sometimes called woolly plantain (<i>P. patagonica</i>); rigid bird's beak (<i>Cordylanthus rigidus</i>); Coulter's snapdragon (<i>Antirrhinum coulterianum</i>); owl's clover (<i>Castilleja exserta</i>); and Chinese houses (<i>Collinsia concolor</i>). | |

Note: Nine-quad search area included Live Oak Springs (project site), Tierra Del Sol (project site), Mount Laguna, Cameron Corners, Campo, Sombrero Peak, Sweeney Pass, Jacumba, Jacumba OE S.

Federal Listings: FE = Federally Endangered; FT = Federally Threatened; FC = Federal Candidate Species; FP = Fully Protected; FPT: Federally Proposed Threatened

State Listings: SE: State Endangered; ST: State Threatened; SCT: State Candidate for listing as Threatened

Other Listings: CDFW WL = Watch List; CDFW SSC = Special Species of Concern; USFWS BCC = Bird of Conservation Concern

San Diego County Special Status (SDCSS):

SDC Group I: Group I Animals include those that have a very high level of sensitivity, either because they are listed as threatened or endangered or because they have very specific natural history requirements that must be met.

SDC-Group II: County Group II Animals include those species that are becoming less common but are not yet so rare that extirpation or extinction is imminent without immediate action. These species tend to be prolific in their suitable habitat types.