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Appendix D

Potential to Occur Tables

Appendix D-1: Potential to Occur – Plants

Appendix D-2: Potential to Occur – Wildlife

Appendix D-1

Potential to Occur – Plants

Appendix D-1: Potential to Occur – Plants

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|----------------|---|---------------------|---------------|--|--|
| Plant | Nyctaginaceae | <i>Abronia maritima</i> | red sand verbena | 4.2, S3? | Per. herb; blooms Feb-Nov. Coastal dunes; under ~330 ft. elev. Central Coast, South Coast, Channel Islands; early extirpated in southern California. | Not likely to occur. Study Area lacks suitable coastal dune habitat. Per USDON (2020), observed on MCBBCP. |
| Plant | Nyctaginaceae | <i>Abronia villosa var. aurita</i> | desert sand verbena | 1B.1, S2 | Annual herb; May-Aug. Sandy habitats in coastal sage scrub, chaparral; ~196-5,150 ft. elev. South Coast, Peninsular Ranges, Sonoran Desert. | High. Study Area contains suitable coastal scrub and riparian scrub habitat and sandy soils. 5 CNDDDB records within 5 miles; several herbarium records; 6 iNaturalist records; nearest is ~300 ft north of Study Area. Per USDON (2020), observed on MCBBCP. |
| Plant | Lamiaceae | <i>Acanthomintha ilicifolia</i> | San Diego thornmint | 1B.1, S1 | Annual herb; blooms May-Sep. Clay openings in chaparral, coastal scrub, valley and foothill grassland, vernal pools; ~80-3,100 ft. elev. SW San Diego County, Baja CA. | Low. Study Area just north of known species' range; contains suitable coastal scrub and grassland habitat with clay soils. No CNDDDB or herbarium records within 5 miles; 2 iNaturalist records; nearest is ~4 miles northwest of Study Area. Per USDON (2020), species not observed on MCBBCP. |
| Plant | Fabaceae | <i>Acmispon prostratus</i> | Nuttall's acmispon | 1B.1, S1 | Spreading annual or perennial herb; blooms Mar-Jul. Coastal strand; under ~100 ft. elev.; San Diego Co and N Baja Calif | Not likely to occur. Study Area lacks suitable coastal strand habitat. Per USDON (2020), observed on MCBBCP. |
| Plant | Asteraceae | <i>Ambrosia pumila</i> | San Diego ambrosia | 1B.1, S1 | Per. herb; blooms Apr-Oct. Sandy loam or clay, often in disturbed areas; sometimes alkaline. In chaparral, coastal scrub, valley and foothill grassland, and vernal pools; 3-580 m elev. South Coast, Peninsular Ranges, San Jacinto Mountains, Baja CA. | Moderate. Study Area contains suitable coastal scrub and grassland habitats with sandy and clay loam soils. No CNDDDB records within 5 miles; 1 herbarium record; several iNaturalist records; nearest is ~1 mile northeast of Study Area; Per USDON (2020), species not observed on MCBBCP. |
| Plant | Chenopodiaceae | <i>Aphanisma blitoides</i> | Aphanisma | 1B.2, S2 | Annual herb; blooms Feb-Jun. Coastal bluff, dunes, and scrub, mainly beach dwelling native to Baja and southern California; ~9-1,000 ft. elev. | Low. Study Area contains suitable coastal scrub habitat but lacks preferred beach habitat. No CNDDDB, herbarium, or iNaturalist records within 5 miles. Per USDON (2020), observed on MCBBCP. |
| Plant | Orobanchaceae | <i>Aphyllon parishii ssp. brachylobum</i> | Parish's broomrape | 4.2, S3 | Annual/perennial herb (parasitic); blooms Apr-Oct. Sandy soils near ocean, generally growing on <i>Isocoma menziessii</i> ; coastal bluff scrub, coastal dunes, coastal scrub; 10-1,000 ft. elev. | Low. Study Area contains suitable coastal scrub habitat with sandy soils and host plant. No CNDDDB, herbarium, or iNaturalist records within 5 miles. Per USDON (2020), observed on MCBBCP. |

Appendix D-1: Potential to Occur – Plants

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|-------------------|----------------|------------------------------------|------------------------|------------------|--|--|
| Plant | Ericaceae | <i>Arctostaphylos rainbowensis</i> | Rainbow manzanita | 1B.1, S2 | Shrub; blooms Jan-Feb. Chaparral; ~740-2,100 ft. elev. Peninsular Ranges. | Not likely to occur. Study Area well below species' elevational range; lacks suitable chaparral habitat. Per USDON (2020), observed on MCBCP. |
| Plant | Asteraceae | <i>Artemisia palmeri</i> | San Diego sagewort | 4.2, S3? | Per. shrub; blooms Feb-Sep. Sandy, mesic sites; chaparral, coastal scrub, riparian forest, riparian scrub, and riparian woodland; ~50-3,000 ft. elev. South Coast and Peninsular Ranges in San Diego Co. | Moderate. Study Area contains suitable riparian scrub and woodland habitat with sandy soils. No CNDDDB or herbarium records within 5 miles; 2 iNaturalist records; nearest is 2020 iNaturalist record ~4 miles southwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Plant | Aspleniaceae | <i>Asplenium vespertinum</i> | western spleenwort | 4.2, S4 | Perennial bryophyte; blooms Feb-Jun. Rocky places, shrublands and woodlands; ~600-3300 ft. elev. Ventura Co. south to Baja Calif., and inland to Riverside and San Bernardino Cos. | Low. Study Area contains suitable coastal scrub habitat; however, Study Area is ~360 ft. below species' elevational range. No CNDDDB, herbarium, or iNaturalist records within 5 miles. Per USDON (2020), observed on MCBCP. |
| Plant | Chenopodiaceae | <i>Atriplex coulteri</i> | Coulter's saltbush | 1B.2, S1S2 | Per. herb; blooms Mar-Oct. Grows in saline and alkaline soils in coastal sage scrub, valley grasslands and dune communities; under ~1,500 ft. elev. South Coast, Channel Islands. | Not likely to occur. Study Area contains suitable coastal sage scrub and grassland habitat; lacks saline or alkaline soils. Per USDON (2020), observed on MCBCP. |
| Plant | Chenopodiaceae | <i>Atriplex pacifica</i> | south coast saltbush | 1B.2, S2 | Annual herb; blooms Mar-Oct. Coastal bluff scrub, dunes; under ~1,310 ft. elev. South Coast, Channel Islands. | Not likely to occur. Study Area lacks suitable coastal bluff scrub or dune habitat. Per USDON (2020), observed on MCBCP. |
| Plant | Asteraceae | <i>Baccharis vanessae</i> | Enciniatas baccharis | FT, SE, 1B.1, S1 | Shrub; blooms Aug-Nov. Maritime chaparral and woodland; ~200 -2400 ft. elev. Endemic to western San Diego Co. | Not likely to occur. Study Area lacks suitable maritime chaparral or woodland habitat. No CNDDDB, herbarium, or iNaturalist records within 5 miles. Per USDON (2018, 2020), not known or likely to occur in Study Area; observed on MCBCP. |
| Plant | Themidaceae | <i>Brodiaea filifolia</i> | thread-leaved brodiaea | FT, SE, 1B.1, S2 | Perennial bulbiferous herb; blooms Mar- Jun. Typically grows on gentle hillsides, valleys, and floodplains in association with valley needlegrass grassland, valley sacaton grassland, non-native grassland, alkali playa, vernal pools soils, and in the interstitial spaces within coastal sage scrub; | Low. Study Area contains coastal scrub and grassland habitat with clay loam soils and gentle hillsides. 16 CNDDDB records within 5 miles; several herbarium and iNaturalist records; nearest is 2019 iNaturalist record ~1 mile northeast of Study Area. Per USDON (2018, 2020), not known or likely to |

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| | | | | | usually clay, loamy sand, or alkaline silty-clay soils; under ~3,680 ft. elev. South Coast, San Bernardino Mountains, Peninsular Ranges. | occur in Study Area; observed on MCBCP. |
| Plant | Themidaceae | <i>Brodiaea orcuttii</i> | Orcutt's brodiaea | 1B.1, S2 | Perennial herb; blooms May-Jul. Grassland near streams and vernal pools with clay soils; wetland obligate species; ~100-5,550 ft. elev. South Coast, Peninsular Ranges. | Not likely to occur. Study Area lacks suitable stream and vernal pool habitat. Per USDON (2020), observed on MCBCP. |
| Plant | Montiaceae | <i>Calandrinia breweri</i> | Brewer's calandrinia | 4.2, S4 | Annual herb (post-fire); blooms Mar-Jun. Sandy or loamy soil in chaparral and coastal scrub; ~30-4000 ft. elev.; widespread distribution in coastal Calif. from Lake Co. south to San Diego Co. | Moderate. Study Area contains suitable coastal scrub habitat with sandy soils. No CNDDDB or herbarium records within 5 miles; few iNaturalist records; nearest is 2021 iNaturalist record ~1 mile northwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Plant | Liliaceae | <i>Calochortus catalinae</i> | Catalina mariposa lily | 4.2, S3S4 | Per. herb; blooms Feb-Jun. Chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland habitats; ~50-2,300 ft. elev. Central Coast, Outer South Coast Ranges, South Coast, Channel Islands, Western Transverse Ranges, San Gabriel Mountains, Peninsular Ranges. | Moderate. Study Area contains suitable coastal scrub and grassland habitat. No CNDDDB, herbarium, or iNaturalist records within 5 miles. Per USDON (2020), observed on MCBCP. |
| Plant | Onagraceae | <i>Camissoniopsis lewisii</i> | Lewis' evening-primrose | 3, S4 | Annual herb; blooms Mar-Jun. Shrublands, grasslands, woodlands, and coastal strand with clay or sandy soils; under ~1,000 ft. elev.; coastal S. Calif and N. Baja Calif. | High. Study Area contains suitable coastal scrub habitat with sandy and clay soils. No CNDDDB records within 5 miles; several herbarium and 2 iNaturalist records; nearest is 2017 herbarium record ~0.3 miles northwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Plant | Brassicaceae | <i>Caulanthus simulans</i> | Payson's wild cabbage | 4.2, S4 | Annual herb; blooms May-Aug. Chaparral, scrub, and pinyon-juniper woodland with granitic or sandy soils; ~295-7,220 ft. elev. South Coast, Peninsular Ranges, Sonoran Desert. | Low. Study Area contains suitable coastal scrub habitat with sandy soils; however, Study Area is slightly below species' elevational range. No CNDDDB, herbarium, or iNaturalist records within 5 miles. Per USDON (2020), observed on MCBCP. |

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| Plant | Asteraceae | <i>Centromadia parryi ssp. australis</i> | southern tarplant | 1B.1, S2 | Annual herb; blooms Jun-Oct. Edges of salt marshes or vernal pools within valley grassland and coastal scrub communities; under ~1,575 ft. elev. South Coast. | Not likely to occur. Study Area lacks suitable salt marsh or vernal pool habitat. Per USDON (2020), observed on MCBCP. |
| Plant | Asteraceae | <i>Centromadia pungens ssp. laevis</i> | smooth tarplant | 1B.1, S2 | Annual herb; blooms Apr-Sep. Occurs in areas with alkaline soils in open, poorly drained flats, depressions, waterway banks and beds, grasslands, and disturbed sites; under ~2,100 ft. elev. South Coast, Peninsular Ranges. | Not likely to occur. Study Area lacks suitable habitat with alkaline soils. Per USDON (2020), observed on MCBCP. |
| Plant | Asteraceae | <i>Chaenactis glabriuscula var. orcuttiana</i> | Orcutt's yellow pincushion | 1B.1, S1 | Annual herb; blooms Jan-Aug. Sandy places near coast, gen dunes or bluffs; under ~350 ft. elev.; rarely farther inland; Ventura Co to N Baja Calif, and Temecula Cyn; presumed extinct in Orange Co. | Not likely to occur. Study Area lacks suitable dune or bluff habitat. Per USDON (2020), species not observed on MCBCP. |
| Plant | Rosaceae | <i>Chamaebatia australis</i> | southern mountain misery | 4.2, S4 | Shrub (evergreen); blooms Jan-Aug. Chaparral (gabbroic or meta-volcanic); ~985-3,345 ft. elev. Peninsular Ranges. | Not likely to occur. Study Area below species' elevation range; lacks suitable chaparral habitat. Per USDON (2020), observed on MCBCP. |
| Plant | Polygonaceae | <i>Chorizanthe polygonoides</i> | Knotweed spineflower | 1B.2, S3 | Annual herb; blooms Apr-Jul. Often clay soils in chaparral, coastal scrub, meadows and seeps, valley and foothill grasslands, and vernal pools habitat; ~100-5,020 ft. elev. Peninsular Ranges. | Moderate. Study Area contains suitable coastal scrub and grassland habitat with clay soils. No CNDDDB, herbarium, or iNaturalist records within 5 miles. Per USDON (2020), observed on MCBCP. |
| Plant | Montiaceae | <i>Cistanthe maritima</i> | Seaside calandrinia | 4.2, S3 | Annual herb; blooms Feb-Aug. Coastal bluffs, shrublands, and grasslands; sandy soils; under ~1,000 ft. elev; near the coast, Santa Barbara Co to N Baja Calif | Moderate. Study Area contains suitable coastal scrub habitat. No CNDDDB, herbarium, or iNaturalist records within 5 miles. Per USDON (2020), observed on MCBCP. |
| Plant | Ericaceae | <i>Comarostaphylis diversifolia ssp. diversifolia</i> | summer holly | 1B.2 | Shrub; blooms Apr-Jun. Chaparral; under ~1,800 ft. elev.; Orange and W San Diego cos and NW Baja Calif. | Not likely to occur. Study Area lacks suitable chaparral habitat. Per USDON (2020), observed on MCBCP. |
| Plant | Convolvulaceae | <i>Convolvulus simulans</i> | small flowered morning glory | 4.2, S4 | Annual herb; blooms Mar-Jul. Clay, serpentinite seeps in chaparral (openings), coastal scrub, and valley and foothill grassland communities; ~100-2,430 ft. elev. Southern Sierra Nevada Foothills, San Francisco Bay Area, Outer South Coast Ranges, | Not likely to occur. Study Area lacks suitable seep habitat. Per USDON (2020), observed on MCBCP. |

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|------------|----------------|--|-------------------------|------------------|--|--|
| | | | | | South Coast, Channel Islands, Western Transverse Ranges, Peninsular Ranges. | |
| Plant | Asteraceae | <i>Deinandra paniculata</i> | San Diego tarweed | 4.2, S4 | Annual herb; blooms May-Nov. Vernal pools, grassland, open chaparral and woodland, disturbed areas, often in sandy soils; ~80-3,085 ft. elev. Outer South Coast Ranges, South Coast, Western Transverse Ranges, Peninsular Ranges. | Moderate. Study Area contains suitable disturbed and grassland habitat. No CNDDDB records within 5 miles; 1 herbarium and few iNaturalist records; nearest is 2018 herbarium record ~2 miles northeast of Study Area. Per USDON (2020), observed on MCBCP. |
| Plant | Convolvulaceae | <i>Dichondra occidentalis</i> | western ponysfoot | 4.2, S3S4 | Per. herb; blooms Jan-July. Chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland; ~165-1,640 ft. elev. Central Coast, South Coast, Channel Islands, Peninsular Ranges. | High. Study Area contains suitable coastal scrub habitat. No CNDDDB records within 5 miles; several herbarium records and iNaturalist records; nearest is 2011 herbarium record ~2.3 miles northwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Plant | Crassulaceae | <i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i> | Blochman's dudleya | 1B.1, S2 | Per. herb; blooms Apr-Jun. Open, rocky slopes, often in shallow serpentine or clay-dominated soil; ~15-1,475 ft. elev. Central Coast, South Coast, north Channel Islands. | Not likely to occur. Study Area lacks suitable rocky slope habitat. Per USDON (2020), observed on MCBCP. |
| Plant | Crassulaceae | <i>Dudleya multicaulis</i> | many stemmed dudleya | 1B.2, S2 | Per. herb; blooms May-Jun. Heavy soils, often clayey, coastal plain. Chaparral, coastal scrub, and valley and foothill grassland; ~50-2,590 ft. elev. South Coast. | High. Study Area contains suitable coastal scrub habitat with clay soils. 8 CNDDDB records within 5 miles; 2 iNaturalist records; several herbarium records present, however, need georeferencing confirmation; nearest is 2015 CNDDDB record ~0.6 miles east of Study Area. Per USDON (2020), observed on MCBCP. |
| Plant | Crassulaceae | <i>Dudleya viscida</i> | sticky dudleya | 1B.2, S2 | Per. herb; May-Jun. Rocky; coastal bluff scrub, chaparral, cismontane woodland, and coastal scrub; ~35-1,805 ft. elev. South Coast. | Not likely to occur. Study Area lacks suitable rocky habitat. Per USDON (2020), observed on MCBCP. |
| Plant | Apiaceae | <i>Eryngium aristulatum</i> var. <i>parishii</i> | San Diego button-celery | FE, SE, 1B.1, S1 | Annual/perennial herb; blooms Apr-Jun. Vernal pools and marshes in coastal scrub and valley and foothill grassland communities; ~65-2,035 ft. elev. Now only found on mesas near San Diego and Santa Rosa Plateau. | Not likely to occur. Study Area lacks suitable vernal pool or marsh habitat. Per USDON (2018, 2020), not known or likely to occur in Study Area; observed on MCBCP |

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| Plant | Apiaceae | <i>Eryngium pendletonense</i> | Pendleton button-celery | 1B.1, S1 | Per. Herb; blooms Apr-Jul. Clay, vernal mesic; coastal bluff scrub, valley and foothill grassland, and vernal pools; ~50-360 ft. elev. Endemic to South Coast in or near Camp Pendleton. | Not likely to occur. Study Area lacks vernal mesic habitat in coastal bluff scrub or valley and foothill grassland communities. Per USDON (2020), observed on MCBCP. |
| Plant | Brassicaceae | <i>Erysimum ammophilum</i> | coast wallflower | 1B.2, S2 | Perennial herb; blooms Feb-Jun. Sandy openings in maritime chaparral, coastal dunes, coastal scrub; under ~200 ft. elev. Monterey Bay area, disjunct to Channel Islands and SD Co. | High. Study Area contains suitable coastal scrub habitat with sandy soils. 2 CNDDDB records within 5 miles; no iNaturalist records; several herbarium records present, however, need georeferencing confirmation; nearest is 2014 CNDDDB record ~4.5 miles southwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Plant | Boraginaceae | <i>Harpagonella palmeri</i> | Palmer's grapplinghook | 4.2, S3 | Annual herb; blooms Mar-May. Clay soils; open grassy areas within shrubland; ~65-3,100 ft. elev. South Coast, south Channel Islands, Peninsular Ranges, Sonoran Desert. | High. Study Area contains suitable coastal scrub habitat with clay soils. No CNDDDB records within 5 miles; several herbarium and iNaturalist records; nearest is 2018 herbarium record ~1.6 miles southeast of Study Area. |
| Plant | Asteraceae | <i>Holocarpha virgata</i> ssp. <i>elongata</i> | graceful tarplant | 4.2, S3? | Annual herb; blooms May-Nov. Grasslands, shrublands, woodlands; ~200 – 3,600 ft. elev.; Santa Rosa Plateau, Temecula, possibly Hemet area, to SE Orange Co. and San Diego Co. | Moderate. Study Area contains suitable coastal scrub habitat. No CNDDDB, herbarium, or iNaturalist records within 5 miles. Per USDON (2020), observed on MCBCP. |
| Plant | Poaceae | <i>Hordeum intercedens</i> | vernal barley | 3.2, S3S4 | Annual grass; blooms Mar-Jun. Vernal pools, dry saline streambeds, alkaline flats in coastal dune, coastal scrub, and valley and foothill grassland communities; ~15-3,280 ft. elev. San Joaquin Valley, Outer South Coast Ranges, South Coast, Channel Islands, Peninsular Ranges. | Not likely to occur. Study Area lacks suitable vernal pool or saline streambeds. Per USDON (2020), observed on MCBCP. |
| Plant | Rosaceae | <i>Horkelia cuneata</i> var. <i>puberula</i> | mesa horkelia | 1B.1, S1 | Per. Herb; blooms Mar-Jul. Dry, sandy, coastal chaparral; ~230-2,660 ft. elev. Outer South Coast Ranges, South Coast, Peninsular Ranges. | Not likely to occur. Study Area lacks suitable coastal chaparral habitat. Per USDON (2020), observed on MCBCP. |
| Plant | Asteraceae | <i>Isocoma menziesii</i> var. <i>decumbens</i> | decumbent goldenbush | 1B.2, S2 | Shrub; blooms Apr-Nov. Sandy soils; often in disturbed sites in chaparral, disturbed coastal scrub and wetland-riparian; ~35-820 ft. elev. South | High. Study Area contains suitable coastal scrub and riparian scrub habitat with sandy soils. 2 CNDDDB records within 5 miles; no iNaturalist records; |

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| | | | | | Coast, south Channel Islands, Peninsular Ranges. | several herbarium records; nearest is 2020 herbarium record ~3.2 miles southeast of Study Area. Per USDON (2020), observed on MCBCP. |
| Plant | Asteraceae | <i>Iva hayesiana</i> | San Diego marsh elder | 2B.2, S2 | Per. Herb; blooms Apr-Oct. Alkaline flats, depressions, streambanks; under ~1,640 ft. elev. South Coast, Peninsular Ranges. | Not likely to occur. Study Area lacks suitable alkali flat, depression, or streambank habitat. Per USDON (2020), observed on MCBCP. |
| Plant | Juglandaceae | <i>Juglans californica</i> | southern California black walnut | 4.2, S4 | Shrub (deciduous); blooms Mar-Aug. Alluvial habitat; chaparral, cismontane woodland, coastal scrub, riparian woodland; ~160-3,000 ft. elev. Outer South Coast Ranges, South Coast, Western Transverse Ranges, San Gabriel Mountains, Peninsular Ranges. | Moderate. Study Area contains suitable riparian woodland habitat within the edge of historic floodplain for Santa Margarita River, northwest of Vandegrift Blvd and Project Site. No CNDDDB or herbarium records within 5 miles; 1 iNaturalist record from 2022 ~4.9 miles northeast of Study Area. Per USDON (2020), species not observed on MCBCP. |
| Plant | Juncaceae | <i>Juncus acutus ssp. leopoldii</i> | Southwestern spiny rush | 4.2, S4 | Per. Herb; blooms Mar-Jun. Meadows, seeps, marshes; ~10-2,955 ft. elev. Mainly coastal S Calif. | Not likely to occur. Study Area lacks suitable meadow, seep, or marsh habitat. Per USDON (2020), observed on MCBCP. |
| Plant | Asteraceae | <i>Lasthenia glabrata ssp. coulteri</i> | Coulter goldfields | 1B.1, S2 | Annual herb; blooms Apr-May. Salt-marsh, playas, vernal-pools, occasionally in non-wetlands; ~5-4,005 ft. elev. Primarily in Central Coast, South Coast Ranges, South Coast, Peninsular Ranges, Desert Mountains, Mojave Desert. | Not likely to occur. Study Area lacks suitable salt marsh, playa, or vernal pool habitat. Per USDON (2020), observed on MCBCP. |
| Plant | Brassicaceae | <i>Lepidium virginicum var. robinsonii</i> | Robinson's pepper grass | 4.3, S3 | Annual herb; blooms Jan-Jul. Dry soils in chaparral and coastal sage scrub; ~5-2,905 ft. elev. South Coast, Transverse Ranges, Peninsular Ranges. | High. Study Area contains suitable coastal scrub habitat. 2 CNDDDB records within 5 miles; no iNaturalist; few herbarium records; nearest is 1992 CNDDDB record ~2.6 miles north of Study Area. Per USDON (2020), observed on MCBCP. |
| Plant | Liliaceae | <i>Lilium humboldtii ssp. ocellatum</i> | ocelated lily | 4.2, S4? | Per. Herb; blooms May-Aug. Understory of trees and large shrubs in shady woodland canyons, openings in chaparral, woodland or pine forest; ~100-5,905 ft. elev. Central Coast, San Francisco Bay Area, South Coast | Not likely to occur. Study Area lacks suitable chaparral, woodland, or pine forest habitat. Per USDON (2020), observed on MCBCP. |

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| | | | | | Ranges, South Coast, Channel Islands, Transvers Ranges, Peninsular Ranges. | |
| Plant | Solanaceae | <i>Lycium californicum</i> | California desert thorn | 4.2, S4 | Per. Herb; blooms Dec-Aug. Coastal bluff scrub and coastal scrub; ~15-490 ft. elev. South Coast, Channel Islands. | Moderate. Study Area contains suitable coastal scrub habitat. No CNDDDB or iNaturalist records within 5 miles; 1 historic herbarium record from 1981, ~3.4 miles southwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Plant | Asteraceae | <i>Microseris douglasii</i> ssp. <i>platycarpa</i> | Douglas' silverpuffs | 4.2, S4 | Annual herb; blooms Mar-May. Clay soils, grassland, often near vernal pools or serpentine outcrops; ~50-3,510 ft. elev. South Coast, south Channel Islands, Peninsular Ranges. | Low. Study Area largely lacks suitable grassland habitat, does not contain vernal pools or serpentine outcrops. No CNDDDB or iNaturalist records within 5 miles; 1 herbarium record from 2014, ~1.3 miles southeast of Study Area. Per USDON (2020), observed on MCBCP. |
| Plant | Lamiaceae | <i>Monardella hypoleuca</i> ssp. <i>intermedia</i> | white leaf monardella | 1B.3, S2? | Per. Herb; blooms Apr-Sep. Often in steep, brushy areas in chaparral, cismontane woodlands, usually understory; ~1,310-4,100 ft. elev. Peninsular Ranges. | Not likely to occur. Study Area well below species' elevational range. Per USDON (2020), observed on MCBCP. |
| Plant | Ranunculaceae | <i>Myosurus minimus</i> ssp. <i>apus</i> | little mousetail | 3.1, S2 | Annual herb; blooms Mar-Jun. Alkaline vernal pools within valley and foothill grassland communities; ~65-2,100 ft. elev. Central Valley, Transverse Ranges, Peninsular Ranges, South Coast. | Not likely to occur. Study Area lacks suitable vernal pool habitat. Per USDON (2020), observed on MCBCP. |
| Plant | Namaceae | <i>Nama stenocarpa</i> | mud nama | 2B.2, S1S2 | Annual/perennial herb; blooms Jan-Jul. Intermittently wet areas of lake margins and riverbanks; ~15-1,640 ft. elev. San Joaquin Valley, South Coast, south Channel Islands, Peninsular Ranges, Sonoran Desert. | Not likely to occur. Study Area lacks suitable lake or riverine habitat. Per USDON (2020), species not observed on MCBCP. |
| Plant | Polemoniaceae | <i>Navarretia fossalis</i> | spreading navarretia | FT, 1B.1, S2 | Annual herb; blooms Apr-Jun. Freshwater marsh, vernal pools, chenopod scrub; ~100-2,150 ft. elev. SW CA to Baja CA | Not likely to occur. Study Area lacks suitable marsh, vernal pool, or chenopod scrub habitat. Per USDON (2018, 2020), not known or likely to occur in Study Area; observed on MCBCP., |
| Plant | Polygonaceae | <i>Nemacaulis denudata</i> var. <i>denudata</i> | coast woolly heads | 1B.2, S2 | Annual herb; blooms Apr-Sep. Coastal beach dunes; under ~330 ft. elev. Central Coast, South Coast. | Not likely to occur. Study Area lacks suitable coastal beach dune habitat. Per USDON (2020), observed on MCBCP. |

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| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|-----------------|---|---------------------------|------------------|---|--|
| Plant | Ruscaceae | <i>Nolina cismontana</i> | peninsular beargrass | 1B.2, S3 | Shrub (evergreen); blooms (Mar) May-Jul. Gabbroic or sandstone in dry chaparral of coastal mountains; ~460-4,185 ft. elev. South Coast, Western Transverse Ranges, Peninsular Ranges. | Not likely to occur. Study Area below species' elevation range; lacks suitable chaparral habitat. Per USDON (2020), observed on MCBCP. |
| Plant | Ophioglossaceae | <i>Ophioglossum californicum</i> | California adder's tongue | 4.2, S4 | Bryophyte; blooms Dec-Jun. Mesic sites in shrublands, grasslands, vernal pool margins; ~195-1,725 ft. elev.; much of western Calif. and N Baja Calif. | Low. Study Area contains riparian scrub habitat that could potentially support this species; lacks suitable vernal pool habitat. No CNDDDB or herbarium records within 5 miles; few iNaturalist records; nearest is 2023 iNaturalist record ~1 mile southeast of the Study Area. Per USDON (2020), observed on MCBCP. |
| Plant | Poaceae | <i>Orcuttia californica</i> | California Orcutt grass | FE, SE, 1B.1, S1 | Annual grass like herb; blooms April to August. ~32-2165 ft. elev.; Southern California in Ventura, Los Angeles, San Bernardino, Riverside, Orange and San Diego counties, and Central Valley. Found in vernal pools. | Not likely to occur. Found in vernal pools. No vernal pools known within Project area. No CNDDDB records within 5 miles. Within Camp Pendleton, known only from one vernal pool at the San Onofre Management Area. |
| Plant | Asteraceae | <i>Pentachaeta aurea ssp. aurea</i> | golden chaetopappa | 4.2, S3 | Annual herb; blooms Mar-Jul. Grassy areas, scrub, woodland, conifer forest; ~260-6,070 ft. elev.; South Coast, San Gabriel and San Bernardino Mountains, Peninsular Ranges. | Moderate. Study Area contains suitable coastal scrub habitat. No CNDDDB or iNaturalist records within 5 miles; 1 herbarium record from 2013 ~2.4 miles northwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Plant | Hydrophyllaceae | <i>Phacelia stellaris</i> | Brand's phacelia | 1B.1, S1 | Annual herb; blooms Mar-Jun. Coastal dunes and coastal scrub; ~5-1,310 ft. elev. South Coast in Orange, Riverside, and San Diego Counties. | Moderate. Study Area contains suitable coastal scrub habitat. No CNDDDB or herbarium records within 5 miles; 1 iNaturalist record from 2021 ~4.5 miles west of Study Area. Per MCBCP, observed on MCBCP. |
| Plant | Fabaceae | <i>Pickeringia montana var. tomentosa</i> | Montana chaparral pea | 4.3, S3S4 | Shrub (evergreen); blooms Mar-Aug. Clay, gabbroic, or granitic soils in chaparral and washes; under ~5,580 ft. elev. San Bernardino Mountains, Peninsular Ranges. | Not likely to occur. Study Area lacks suitable chaparral or wash habitat. Per USDON (2020), observed on MCBCP. |
| Plant | Orchidaceae | <i>Piperia cooperi</i> | Cooper's rein orchid | 4.2, S3S4 | Per. Herb; blooms Mar-Jun. Generally dry sites in scrub, chaparral, woodland, forest; ~50-5,200 ft. elev. South Coast, south Channel Islands, | Moderate. Study Area contains suitable coastal scrub habitat. No CNDDDB or iNaturalist records within 5 miles; 1 herbarium record from 1997 |

Appendix D-1: Potential to Occur – Plants

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|-----------------|---------------------------------------|-------------------------------|---------------|--|--|
| | | | | | San Gabriel Mountains, Peninsular Ranges. | ~3.3 miles northwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Plant | Asteraceae | <i>Pseudognaphalium leucocephalum</i> | white cudweed | 2B.2, S2 | Per. Herb; blooms Aug-Nov. Sandy, gravelly benches, dry stream bottoms, canyon bottoms within riparian woodland, cismontane woodland, coastal scrub, chaparral; under ~6,890 ft. elev. South Coast, San Bernardino Mountains, Peninsular Range | High. Study Area contains suitable riparian woodland and riparian scrub with sandy soils. 2 CNDDDB; few herbarium and iNaturalist records; nearest is 2013 CNDDDB record ~0.3 miles northwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Plant | Fagaceae | <i>Quercus dumosa</i> | Nuttall's scrub oak | 1B.1, S3 | Shrub (evergreen); blooms Feb-Aug. Sandy, clay, or loam soils in closed-cone coniferous forest, chaparral, and coastal scrub; ~50-1,310 ft. elev. South Coast, Peninsular Ranges. | High. Study Area contains suitable coastal scrub habitat with sandy and clay soils. 1 CNDDDB and herbarium record within 5 miles, likely same occurrence; no iNaturalist records; 2016 CNDDDB and herbarium record ~4.2 miles southwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Plant | Fagaceae | <i>Quercus engelmannii</i> | Engelmann oak | 4.2, S3 | Tree (deciduous); blooms Apr-May. Oak woodlands, chaparral, and coastal sage scrub, usually in canyons and foothills; ~165-4,265 ft. elev. South Coast, south Channel Islands, San Gabriel Mountains, Peninsular Ranges. | High. Study Area contains suitable coastal scrub habitat. No CNDDDB records within 5 miles; several herbarium and 2 iNaturalist records; nearest is historic 1940 herbarium record located just within the eastern side of Study Area. Per USDON (2020), observed on MCBCP. |
| Plant | Papaveraceae | <i>Romneya coulteri</i> | Coulter's matilija poppy | 4.2, S4 | Per. Herb; blooms Mar-Jul. Often in burn areas, dry washes and canyons in chaparral and coastal scrub; ~65-3,935 ft. elev. South Coast, Western Transverse Ranges, Peninsular Ranges. | Moderate. Study Area contains suitable coastal scrub habitat. No CNDDDB, herbarium, or iNaturalist records within 5 miles. Per USDON (2020), observed on MCBCP. |
| Plant | Polemoniaceae | <i>Saltugilia caruifolia</i> | Caraway leaved woodland gilia | 4.3, S4 | Annual herb; blooms May-Aug. Openings in chaparral or lower montane coniferous forest with sandy soils.; ~2,755-7,545 ft. elev. Peninsular Ranges. | Not likely to occur. Study Area well below species' elevational range; lacks suitable chaparral or coniferous forest habitat. Per USDON (2020), observed on MCBCP. |
| Plant | Selaginellaceae | <i>Selaginella cinerascens</i> | mesa spike-moss | 4.1, S3 | Lycophyte. Sunny spots or under shrubs, often in "red clay", in chaparral and coastal scrub communities; under ~2,100 ft. elev.; San Diego Co. and N Baja Calif. | Moderate. Study Area contains suitable coastal scrub habitat with clay soils. No CNDDDB or herbarium records within 5 miles; 2 iNaturalist records; nearest is 2018 iNaturalist record ~3.2 |

Appendix D-1: Potential to Occur – Plants

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|------------|-----------------|---|----------------------|----------|--|--|
| | | | | | | miles northwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Plant | Asteraceae | <i>Senecio aphanactis</i> | California groundsel | 2B.2, S2 | Annual herb; blooms Jan-Apr(May). Drying alkaline flats within chaparral, cismontane woodland, coastal scrub; ~50-2,625 ft. elev. Central Coast, San Francisco Bay Area, South Coast Ranges, South Coast, Channel Islands. | Not likely to occur. Study Area lacks suitable alkaline flats habitat. Per USDON (2020), observed on MCBCP. |
| Plant | Poaceae | <i>Sphenopholis interrupta ssp. californica</i> | prairie false oat | 1B.1, S1 | Annual grass; blooms Apr. Clay soils of coastal chaparral; ~50 ft. elev. Formerly thought to be an extinct species endemic to Baja California. Currently only known from single occurrence in Carlsbad, San Diego Co. | Not likely to occur. Study Area slightly above species' elevational range; lacks suitable coastal chaparral habitat. Per USDON (2020), species not observed on MCBCP. |
| Plant | Chenopodiaceae | <i>Suaeda taxifolia</i> | woolly seablite | 4.2, S4 | Shrub (evergreen); blooms Jan-Dec. Coastal bluffs, margins of coastal salt marshes; under ~165 ft. elev. | Not likely to occur. Study Area lacks suitable coastal bluff or salt marsh habitat. Per USDON (2020), observed on MCBCP. |
| Plant | Picrodendraceae | <i>Tetracoccus dioicus</i> | red shrubby spurge | 1B.2, S2 | Shrub (deciduous); blooms Apr-May. Dry slopes in chaparral and coastal scrub with generally gabbro or basalt soils; ~540-3,280 ft. elev.; Santa Ana and Agua Tibia Mtns (San Diego Co and margins of Riverside & Orange cos) to western desert margin. | Low. Study Area ~300 ft below species' elevational range and does not contain suitable gabbro or basalt soils, does contain suitable coastal scrub habitat. 1 historic CNDDDB record from 1966 ~2.4 miles southeast of Study Area; no herbarium or iNaturalist records within 5 miles. Per USDON (2020), species not observed on MCBCP. |
| Plant | Asteraceae | <i>Viguiera purisimae</i> | La purisima viguiera | 2B.3, S1 | Shrub; blooms Apr-Sep. Shrublands; coastal bluffs and hillsides; ~1,200-1,395 ft. elev.; widespread in central Baja Calif; only Calif. is a disjunct occurrence at Camp Pendleton. | Not likely to occur. Study Area well below specie's elevational range. Per USDON (2020), observed on MCBCP. |

Sources: CDFW 2023a; CNPS 2023; iNaturalist 2023; USDON 2020; USDON 2018 and 2023

1 - Conservation Status

Federal designations: (federal Endangered Species Act, U.S. Fish and Wildlife Service).

FE: Federally listed, endangered

FT: Federally listed, threatened

State (CA) designations: (California Endangered Species Act, California Department of Fish and Wildlife [CDFW])

SE: State listed, endangered.

State Rank:

- S1: Critically Imperiled – At very high risk of extirpation in the state due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors.
- S2: Imperiled – At high risk of extirpation in the state due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
- S3: Vulnerable – At moderate risk of extirpation in the state due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
- S4: Apparently Secure – At a fairly low risk of extirpation in the state due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors

Uncertainty about the status of an element is expressed in two major ways:

- 1. By expressing the ranks as a range of values: e.g., S2S3 indicates the rank is somewhere between S2 and S3.
- 2. By adding a “?” to the rank: e.g., S2?; this represents more certainty than S2S3, but less certainty than S2

California Native Plant Society Rare Plant Rank (CRPR) designations. Note: According to CNPS (<http://www.cnps.org/cnps/rareplants/ranking.php>), plants ranked as California Rare Plant Rank (CRPR) 1A, 1B, and 2 meet definitions as threatened or endangered and are eligible for state listing. That interpretation of the state Endangered Species Act is not in general use.

- 1A: Plants presumed extinct in California.
- 1B: Plants rare and endangered in California and throughout their range.
- 2: Plants rare, threatened, or endangered in California but more common elsewhere in their range.
- 3: Plants about which we need more information; a review list.
- 4: Plants of limited distribution; a watch list.

California Rare Plant Rank Threat designations:

- .1 Seriously endangered in California (more than 80% of occurrences threatened / high degree and immediacy of threat)
- .2 Fairly endangered in California (20–80% occurrences threatened)
- .3 Not very endangered in California (less than 20% of occurrences threatened or no current threats known)

2 - Definitions of occurrence probability: Estimated occurrence probabilities based on literature sources cited earlier and 2024 habitat analyses reported here.

Present: Taxon was observed within the Project Area during 2024 reconnaissance level surveys.

High: Both a documented recent record (within 20 years) exists of the taxon within the Project Area or in the Study Area (approximately 5 miles) and the environmental conditions (including soil type) associated with taxon are present.

Moderate: Both a documented recent record (within 20 years) exists of the taxon within the Project Area or in the Study Area (approximately 5 miles) and the environmental conditions associated with taxon presence are marginal or limited within the Project Area and the Project Area is located within the known current distribution of the taxon and the environmental conditions (including soil type) associated with taxon are present.

Low: A historical record (over 20 years) exists of the taxon within the Project Area or in the general region (approximately 10 miles) and the environmental conditions (including soil type) associated with taxon are present but marginal or limited.

Appendix D-2

Potential to Occur – Wildlife

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|----------------|------------------------------|----------------------------|------------------|--|---|
| Amphibian | Bufonidae | <i>Anaxyrus californicus</i> | arroyo toad | FE, SSC, S2 | Perennial and intermittent streams and rivers with shallow, sandy, or gravelly pools adjacent to sand or fine gravel terraces. May overwinter in adjacent riparian and upland habitats. Known to travel up to ~3,740 ft from breeding sites to overwinter and aestivate. Found in plains, mountains, and desert slopes of the southern Coast Ranges from northern San Luis Obispo County south to Baja California, below ~7,874 ft elev. | High. Suitable overwintering/aestivation habitat with sandy soils with riparian scrub and woodland habitat present in Project Site adjacent to east side of Haybarn Rd at Vandegrift Blvd, and in Study Area northwest of Vandegrift Blvd. Per USDON (2018, 2020), known to occur on MCBCP; breeding habitat along Santa Margarita River (upstream of Stuart Mesa Bridge) and adjacent sandy terraces, including riparian woodland/scrub northwest of Vandegrift Blvd and Project Site. 9 CNDDDB and 3 iNaturalist records within 5 miles; nearest is 2000 CNDDDB record ~0.25-mile northwest of Study Area. |
| Amphibian | Ranidae | <i>Rana draytonii</i> | California red-legged frog | FT, SSC, S2S3 | Often near aquatic habitat (ponds and streams) and riparian areas. Require a breeding pond or slow-flowing stream reach or deep pool within a stream with vegetation or other material for egg masses to attach. Adults can venture into upland areas within 200ft-300ft to forage or shelter. Upland habitat shelter may be beneath boulders or rocks, organic debris, or manmade features. Adults can disperse up to 2 miles to find additional habitat. Occurs along the Coast Ranges from Mendocino County south and in portions of the Sierra Nevada and Cascades ranges, usually below ~3,940 ft elev. | Not likely to occur. Per USDOV (2020), historically occurred on MCBCP but considered extirpated from most of San Diego County by USFWS (2022) with isolated populations located east of Escondido. |
| Amphibian | Scaphiopodidae | <i>Spea hammondi</i> | western spadefoot toad | F-PRO, SSC, S3S4 | Found primarily in grasslands, occasionally in valley-foothill hardwoods or orchard/vineyard habitats. Spend most of year in underground burrows they construct themselves. Breeding and egg laying occur almost exclusively in shallow, temporary pools. Eggs attached to plants or rocks. Recently metamorphosized juveniles seek refuge in drying mud cracks or | Low. Study Area largely lacks suitable grassland and valley-foothill hardwood habitats. 12 CNDDDB records within 5 miles; nearest is 2017 CNDDDB record ~1 mile north of Study Area. Per USDON (2020), observed on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|---------------------------|--------------------|---------------|---|--|
| | | | | | under surface objects. Occurs in central valley and mid-southern coast below ~4,000 ft. elev. | |
| Amphibian | Salamandridae | <i>Taricha torosa</i> | coast Range newt | SSC, S4 | Lives in terrestrial habitats, primarily cismontane woodlands, coastal scrub, and mixed chaparral; also known from annual grassland and mixed conifer types. Will migrate 1 km (~0.62 miles) to breed in ponds and slow-moving streams. Adults seek cover most of the year under surface objects such as rocks and logs, or in mammal burrows, rock fissures, inside of bases of standing trees, or human-made structures such as wells. Occurs along the coast ranges of California, from Mendocino Co. south to Los Angeles Co.; southern Sierra Nevada from Tulare Co. to Kern Co.; disjunct population in Cuyamaca Mountains in San Diego Co.; below ~6,000 ft. elev. | Low. Study Area is ~2 miles south of known species' range yet contains suitable coastal scrub upland habitat. No suitable pond breeding habitat present within 1 mile of Study Area, Santa Margarita River may provide suitable breeding habitat. No CNDDDB records within 5 miles; 1 2013 iNaturalist record north of Study Area in proximity to human-made pond. Per USDON (2020), observed on MCBCP. |
| Bird | Accipitridae | <i>Accipiter cooperii</i> | Cooper's hawk | WL, S4 | Most common in forests and woodland habitats but can be found nesting and hunting in suburban parks and neighborhoods; will nest in dense patches of large pines, oaks, or Douglas-firs. Breeding resident throughout most of the wooded portion of the state, under 9,000 ft. elev. | Low (nesting, foraging). Study Area largely lacks suitable forest/woodland habitat except for riparian woodland on northwest side of Vandegrift Blvd and Project Site. No CNDDDB records within 5 miles; numerous eBird and iNaturalist records; nearest is 2018 eBird record ~0.3 mile west of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Accipitridae | <i>Accipiter striatus</i> | sharp-shinned hawk | WL, S4 | Nests in dense, even-aged single-layered forest canopy; usually in dense, pole, and small-tree stands of conifers, which are cool, moist, shaded, little ground-cover, near water. Forages in forest openings or edges. Elevation range ~2,000-10,000 ft. Breeding resident in North Coast Ranges, Klamath, Cascade, Warner, and Sierra Nevada Mountains; Mount Pinos, San Jacinto, San Bernardino, and White Mountains. | Not likely to occur. Study Area is well below species' elevational range; lacks suitable forest/woodland habitat. Per USDON (2020), observed on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|-------------------------------------|--|------------------|--|--|
| Bird | Podicipedidae | <i>Aechmophorus clarkii</i> | Clark's grebe | BCC | Waterbird of western North America, occurs on large freshwater lakes and marshes during the breeding season and saltwater and brackish habitats along the coast during winter. | Not likely to occur. Study Area lacks suitable lake or marsh habitats. Per USDON (2020), known to occur on MCBCP where habitat present. |
| Bird | Podicipedidae | <i>Aechmophorus occidentalis</i> | western grebe | BCC | Waterbird of western North America, occurs on large freshwater lakes and marshes during the breeding season and saltwater and brackish habitats along the coast during winter. | Not likely to occur. Study Area lacks suitable lake or marsh habitats. Per USDON (2020), known to occur on MCBCP where habitat present. |
| Bird | Icteridae | <i>Agelaius tricolor</i> | tricolored blackbird | ST, SSC, BCC, S2 | Colonial breeder that forms the largest breeding colonies of any North American land bird. Year-round resident, found in emergent wetland vegetation as well as trees and shrubs. Breeds near fresh water, preferably wetlands with tall cattails or tules, but also in thickets of willow, blackberry, wild rose, and tall herbs. Many colonies have been reported in Himalayan blackberry, silages and grain fields near dairies. Colonies in cereal crops and silages are often destroyed by harvesting and plowing of agricultural lands. Occurs in central valley and from mid coast south to Mexican border. | Low (nesting, foraging). Study Area, primarily northwest of Vandegrift Blvd and Project Site, contains riparian scrub and woodland habitat that could potentially support nesting and foraging; lacks preferred nesting habitat of tules or cattails. 2 historic CNDDDB records within 5 miles; no iNaturalist records, several eBird records; nearest is 2012 eBird record ~1 mile northeast of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Passerellidae | <i>Aimophila ruficeps canescens</i> | southern California rufous-crowned sparrow | WL, S4 | Resident of dry foothill slopes and ridges with low-growing scattered shrubs and interspersed grassy patches or bare ground. Typically coastal sage scrub or sparsely vegetated chaparral. Occurs on coastal slopes of Transverse and Peninsular Ranges from northwest Los Angeles Co. south to northwest Baja California. | High (nesting, foraging). Study Area contains suitable coastal scrub, non-native grassland, and disturbed open habitat. 2 CNDDDB records within 5 miles; no iNaturalist records, numerous eBird records; 2019 eBird record documented within the Project Site along Haybarn Rd. Per USDON (2020), observed on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|-------------------------------|----------------------------------|---------------|---|---|
| Bird | Passerellidae | <i>Ammodramus savannarum</i> | grasshopper sparrow | SSC, S3 | Dense grasslands on rolling hills, lowland plains, in valleys, and on hillsides on lower mountain slopes. Favors native grasslands with a mix of grasses, forbs, and scattered shrubs. Loosely colonial when nesting. Occurs west of Cascade-Sierra Nevada crest from Mendocino and Trinity Counties south to San Diego Co. | Moderate (nesting, foraging). Study Area largely lacks preferred grassland habitat but does contain coastal scrub and open disturbed areas. 52 CNDDDB records within 5 miles; no iNaturalist records, numerous eBird records; nearest is 2013 eBird record ~0.3 miles southwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Anatidae | <i>Anser albifrons elgasi</i> | tule greater white-fronted goose | SSC, S3 | Winter migrant / visitor in California from Klamath Basin south to Central Valley. | Not likely to occur. Study Area is outside of winter range of species. Per USDON (2020), observed on MCBCP. |
| Bird | Accipitridae | <i>Aquila chrysaetos</i> | golden eagle | FP, S3 | Open and semi open country featuring native vegetation across most of the Northern Hemisphere. They avoid developed areas and uninterrupted stretches of forest. Found primarily in mountains up to 12,000 feet, canyonlands, rimrock terrain, and riverside cliffs and bluffs. Nest on cliffs and steep escarpments in grassland, chaparral, shrubland, forest, and other vegetated areas. | Low (nesting, foraging). Study Area south of Project Site contains undeveloped steep slopes containing coastal scrub habitat that could support nesting; unlikely to nest at these locations due to proximity to developed areas and human presence within Study Area. No CNDDDB records within 5 miles; some eBird and iNaturalist records; nearest is 2011 eBird record ~1.25 miles southeast of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Ardeidae | <i>Ardea alba</i> | great egret | S4 | Lives in freshwater, brackish, and marine wetlands. During the breeding season they live in colonies in trees or shrubs with other waterbirds. It hunts in belly-deep or shallower water in marine, brackish, and freshwater wetlands, and sometimes in uplands. Ranging across the southeastern states and in scattered spots throughout the rest of the U.S. and southern Canada. | Low (nesting, foraging). Riparian woodland/scrub habitat on northwest side of Vandegrift Blvd in Study Area could support nesting; although there are a few trees within the Project Site east of Haybarn Rd, they are unlikely to support nesting as they are isolated and proximity to developed areas and human presence within Study Area. Study Area lacks preferred open wetland foraging habitat; scrub, grassland, and disturbed habitats within Study Area could potentially support foraging. No CNDDDB records within 5 miles; numerous eBird and iNaturalist records; nearest record is 2014 eBird record ~0.3 miles southwest of Study Area. Per USDON (2020), observed on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|--|---------------------|---------------|--|---|
| Bird | Ardeidae | <i>Ardea herodias</i> | great blue heron | S4 | Commonly found in shallow estuaries and fresh or saline emergent wetlands. Can also occur along riverine and rocky marine shores, in croplands, pastures, and in mountains above foothills. During the breeding season they live in colonies in secluded groves of tall trees near water. Primarily forage freshwater or saltwater habitats, also forage in uplands such as grasslands and agricultural fields. Ranging throughout most of California. | Low (nesting, foraging). Riparian woodland/scrub habitat on northwest side of Vandegrift Blvd in Study Area could support nesting; although there are a few trees within the Project Site east of Haybarn Rd, they are unlikely to support nesting as they are isolated and proximity to developed areas and human presence within Study Area. Study Area lacks preferred open wetland foraging habitat; scrub, grassland, and disturbed habitats within Study Area could potentially support foraging. No CNDDDB records within 5 miles; numerous eBird and iNaturalist records; nearest record is 2014 eBird record ~0.3 miles southwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Passerellidae | <i>Artemisiospiza belli belli</i> (= <i>Amphispiza belli belli</i>) | Bell's sage sparrow | WL, S3 | Found in shrubby habitats including coastal sage scrub and chaparral, primarily dominated by chamise. Occurs east of Cascade and Sierra Nevada, in foothills bounding Central Valley, and in Transverse, Peninsular, and coastal ranges from Trinity Co. south to Mexican border. | Moderate (nesting, foraging). Study Area contains suitable coastal scrub habitat. No CNDDDB, iNaturalist, or eBird records within 5 miles. Per USDON (2020), observed on MCBCP. |
| Bird | Strigidae | <i>Asio flammeus</i> | short-eared owl | SSC, BCC, S2 | Usually occurs in open areas with few trees, such as grasslands, prairies, dunes, meadows, agricultural fields, emergent wetlands; requires dense grassy/herbaceous vegetation for cover. In California, breeding ranges in coastal areas in Del Norte and Humboldt Counties, San Francisco Bay Delta, Modoc Plateau, and east side of Sierra Nevada; winter migrant in Central Valley, western Sierra Nevada foothills, and along coastline. | Not likely to occur (nesting). Study Area is outside of species' breeding range. Low (foraging). Study Area largely lacks suitable grassland or disturbed habitats containing dense grassy/herbaceous vegetation. No CNDDDB or iNaturalist records within 5 miles; 1 eBird record from 2020 ~3.3 miles northwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Strigidae | <i>Asio otus</i> | long-eared owl | SSC, BCC, S3? | Typically riparian but will also nest in other types of woodland or thickets that are either open or adjacent to meadows or grasslands for hunting. | Moderate (nesting, foraging). Study Area contains suitable riparian woodland habitat northwest of Vandegrift Blvd and Project Site. No |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|------------|-----------|---------------------------|---------------|--------------|--|--|
| | | | | | Key habitat components are some dense cover for nesting and roosting, suitable nest platforms, and open foraging areas. Resident throughout California except the Central Valley and deserts where is an uncommon winter visitor. | CNDDDB or iNaturalist records within 5 miles; recorded on eBird Camp Pendleton IBA list, locations hidden due to species' sensitivity. Per USDON (2020), observed on MCBCP. |
| Bird | Strigidae | <i>Athene cunicularia</i> | burrowing owl | SSC, BCC, S2 | Yearlong resident of open, dry grassland and desert habitats, and in grass, forb and open shrub stages of pinyon-juniper and ponderosa pine habitats. Uses rodent or other burrow for roosting and nesting. May dig own burrow in soft soil. Will use pipes, culverts or other manmade structures when burrows are scarce. In agricultural environments nest along roadsides and water conveyance structures surrounded by crops. Can persist in highly developed parcels. | Low (nesting, foraging). Study Area at largely lacks suitable open grassland habitat. No CNDDDB or iNaturalist records within 5 miles; 1 eBird record from 2019 ~4.5 miles south of Study Area. Per USDON (2020), historically bred on MCBCP, now only known as occasional winter resident. |
| Bird | Anatidae | <i>Aythya americana</i> | redhead | SSC, S3 | Common locally in large rafts on lakes, bays, and lagoons. Nests in large marshes and prairie potholes. Breeds in Central Valley, coastal Southern CA, eastern Kern Co., and Salton Sea. Winters in eastern Sierra Nevada, Central Valley, central CA foothills, coastal lowlands, along coast from Monterey Co. south to Ventura Co., and Colorado River. | Not likely to occur. Study Area lacks suitable lake, bay, lagoon, marsh, and prairie pothole habitat. Per USDON (2020), observed on MCBCP. |
| Bird | Anatidae | <i>Aythya valisineria</i> | canvasback | S2 | Common locally in large rafts on lakes, bays, and lagoons. Nests in small marshy ponds. Breed in Modoc Plateau and Great Plains of North America north to Alaska. Winters in CA from Oregon border south to Mexico along the coast and Central Valley. | Not likely to occur. Study Area lacks suitable lake, bay, lagoon, and marsh habitat. Per USDON (2020), observed on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|--------------------------------------|-------------------------|---------------|---|--|
| Bird | Paridae | <i>Baeolophus inornatus</i> | oak titmouse | BCC | Common resident in a variety of habitats but is primarily associated with oaks. Occurs in montane hardwood-conifer, montane hardwood, blue, valley, and coastal oak woodlands, and montane and valley foothill riparian habitats in cismontane California, from the Mexican border to Humboldt Co. Range encircles San Joaquin Valley, extending east from the coast through Kern Co. onto the western slope of the Sierra Nevada north to Shasta Co. | Moderate (nesting, foraging). Study Area contains suitable riparian woodland habitat northwest of Vandegrift Blvd and the Project Site. No CNDDDB or iNaturalist records within 5 miles; several eBird records; nearest is 2013 eBird record ~0.3 miles southwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Ardeidae | <i>Botaurus lentiginosus</i> | American bittern | S3S4 | Uncommon and local in marshes. In winter they move to areas where water bodies don't freeze, especially near the coast, where they may occasionally use brackish marshes. Year-round resident of Coast Ranges from Santa Cruz Co. north into Washington; winter migrant through most of California; breeds on Modoc Plateau. | Not likely to occur (nesting; foraging). Study Area outside species' breeding range; lacks suitable foraging habitat. Per USDON (2020), observed on MCBCP. |
| Bird | Anatidae | <i>Branta bernicla</i> | brant | SSC, S2 | Winter migrant / visitor in California along coast, primarily Humboldt Bay, Bodega Bay, Tomales Bay, Drakes Estero, Morro Bay, San Diego Bay, Mission Bay, San Diego River flood-control channel. Requires well-protected, shallow marine waters with intertidal eel-grass beds, primarily within bays and estuaries. | Not likely to occur. Study Area is outside of species range; lacks suitable marine habitat. Per USDON (2020), observed on MCBCP. |
| Bird | Anatidae | <i>Branta hutchinsii leucopareia</i> | Aleutian cackling goose | FD, WL, S3 | Winter resident. Forage in freshwater marshes, saltmarshes, mudflats, meadows, and agricultural fields. Rest, bathe, and roost on lakes and reservoirs. Occur in far NW Del Norte Co., Central Valley, and San Francisco Bay Area. | Not likely to occur. Study Area lacks suitable marsh, mudflat, meadow, and agricultural field habitat. Per USDON (2020), observed on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|---|---------------------|---------------|--|---|
| Bird | Accipitridae | <i>Buteo regalis</i> | ferruginous hawk | WL, S3S4 | Winter resident and migrant at lower elevations and open grasslands in Modoc Plateau, Central Valley, Coast Ranges. Open grasslands, grazing lands, sagebrush flats, desert scrub, and fringes of pinyon and juniper habitats. | Not likely to occur (nesting). Study Area outside of species' breeding range. Moderate (foraging). Coastal scrub habitat present adjacent to Project Site could support foraging. Study Area largely lacks preferred grassland, sagebrush flats, desert scrub, pinyon-juniper habitats. No CNDDDB records within 5 miles; several eBird records; nearest is 2021 eBird record ~1 mile northwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Accipitridae | <i>Buteo swainsoni</i> | Swainson's hawk | ST | Typical habitat is open desert, grassland, or cropland containing scattered large trees or small groves. Nests peripheral to riparian systems or in lone trees in agricultural fields or pastures and roadside trees when available and adjacent to suitable foraging habitat. Has become increasing depending on agriculture for foraging. Breeding range throughout central valley and NE part of CA. Mostly migratory, some yearlong residents in Central Valley. | Not likely to occur (nesting). Study Area outside of species' breeding range. Low (foraging). Study Area is located on migration route, may forage in Study Area during migration; largely lacks suitable grassland habitat for foraging. 3 CNDDDB records within 5 miles; Study Area within historic 1933 CNDDDB record; numerous eBird records during spring/fall migration. Per USDON (2020), observed on MCBCP. |
| Bird | Trochilidae | <i>Calypte costae</i> | Costa's hummingbird | BCC, S4 | Inhabits Mojave Desert scrub, chaparral, sage scrub, deciduous forest, desert scrub and streams with cottonwoods, brittlebush, four wing saltbush, and other species from near sea level to 4,000 ft. elev. Breeds in SW North America from central California, southern Nevada, and southwestern Utah. Winters Baja California and coastal Mexico. | High (nesting, foraging). Study Area contains suitable coastal scrub, riparian scrub and woodland habitats. No CNDDDB records within 5 miles; 2 iNaturalist and numerous eBird records; 2019 eBird record documented within Project Site along Haybarn Rd. Per USDON (2020), observed on MCBCP. |
| Bird | Troglodytidae | <i>Campylorhynchus brunneicapillus sandiegensis</i> | coastal cactus wren | SSC, BCC, S2 | Coastal sage scrub, requires tall Opuntia cactus for nesting and roosting. Limited to extreme northwest Baja California north through the coastal lowlands of San Diego Co. into southern Orange Co. | High (nesting, foraging). Study Area contains suitable coastal scrub habitat. 121 CNDDDB records within 5 miles; 1 iNaturalist and numerous eBird records; nearest is 2013 eBird record ~0.3 miles |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|------------|-------------------|------------------------------|-------------------|---------|---|---|
| | | | | | | southwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Cardinalidae | <i>Cardinalis cardinalis</i> | northern cardinal | WL, S1 | Dense, brushy river bottom thickets, well-vegetated dry washes and dense desert scrub. Resident along the Colorado River. | Moderate (nesting, foraging). Riparian woodland/scrub habitat in Study Area northwest of Vandegrift Blvd and Project Site could support nesting and foraging. Study Area outside species' natural range; per USDON (2020), observed on MCBCP as exotic species. No CNDDDB records within 5 miles; 1 iNaturalist record and few eBird records within 5 miles; nearest record is 2020 iNaturalist record ~2 miles south of Study Area. |
| Bird | Alcidae | <i>Cerorhinca monocerata</i> | rhinoceros auklet | WL, S3 | Seabird, spends most of its life at sea. Occurs along the Pacific Coast of North America. Nests on islands in the North Pacific. | Not likely to occur. Study Area is outside of species range; lacks suitable marine habitat. Per USDON (2020), observed on MCBCP. |
| Bird | Apodidae | <i>Chaetura vauxi</i> | Vaux's swift | SSC, S3 | Cavities in large, hollow trees and snags in redwood and Douglas-fir habitats; less frequently in chimneys and other artificial structures. Strong association with old-growth forest. Breeds from southeastern Alaska south to North Coast, Klamath, Cascade, and northern Sierra Nevada ranges, east to northern Idaho and western Montana. Winters in southern Mexico and Central America. | Not likely to occur (nesting). Study Area outside species' breeding range. Low (foraging). May forage over Study Area while migrating. No CNDDDB records within 5 miles; several eBird records; nearest is 2014 eBird record ~0.3 miles southwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Paradoxornithidae | <i>Chamaea fasciata</i> | wrentit | BCC | Common resident of California chaparral habitat. Frequents shrub understory of coniferous habitats from the coast to lower regions of mountains throughout cismontane California. Absent east of the Cascade-Sierra Nevada crest in Great Basin and southeastern deserts, except extends east in small numbers into southwestern Modoc Co. and into eastern Plumas Co. Absent from Channel Islands. Has been found post-breeding up to 2500 m (8200 ft) | Present. (foraging). Moderate (nesting) Study Area contains shrubby habitat within coastal scrub and riparian scrub communities. No CNDDDB records within 5 miles; several iNaturalist and numerous eBird records; 2019 eBird record documented within Project Site along Haybarn Rd. Per USDON (2020), observed on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|-----------------------------------|----------------------|---------------|--|---|
| | | | | | in San Jacinto Mts., Riverside Co, and up to 2100 m (7000 ft) in Yosemite area. | |
| Bird | Charadriidae | <i>Charadrius montanus</i> | mountain plover | SSC, BCC, S2 | Winter resident, found on short, open grasslands, open sagebrush, plowed fields and foothill valleys in Central Valley and fragmented locations in SoCal. Roosts in depressions such as ungulate footprints and plow furrows. Does not nest in CA. | Not likely to occur (nesting, foraging). Study Area outside species' breeding and winter range; lacks suitable foraging habitat. Per USDON (2020), observed on MCBCP. |
| Bird | Charadriidae | <i>Charadrius nivosus nivosus</i> | western snowy plover | FT | Found on sandy marine and estuarine shores during fall/winter. Uses same habitat for breeding, but majority of nesting appears to be on salt pond levees. Most extensive distribution on coasts, but found inland, sporadically and locally, during breeding season. | Not likely to occur (nesting, foraging). Study Area lacks suitable sandy marine/estuarine shore habitat. Per USDON (2018, 2020), known to breed in Santa Margarita River estuary on MCBCP. |
| Bird | Laridae | <i>Chlidonias niger</i> | black tern | SSC, BCC, S2 | Uncommon and local species. Nests on marshy ponds; migrants can be seen over any water from marshes to open ocean and often roost with other terns on sandbars. Forages on insects over wet meadows and fresh emergent wetlands. Summer visitor or breeder in Central Valley and northeastern California. | Not likely to occur (nesting, foraging). Study Area outside species' breeding range; lacks suitable open wetland habitat for foraging. Per USDON (2020), observed on MCBCP. |
| Bird | Accipitridae | <i>Circus hudsonius</i> | northern harrier | SSC, BCC, S3 | Prefer open country, grasslands, steppes, wetlands, meadows, agriculture fields; roost and nest on ground in shrubby vegetation often at edge of marshes. Permanent resident of coastal areas and northeastern plateau. Breeds in Central Valley and Sierra Nevada; widespread winter migrant in suitable habitat. | Low (nesting). Study Area contains suitable riparian scrub habitat, including in Project Site east of Haybarn Rd at Vandegrift Blvd, that could support nesting; unlikely to nest at these locations due to proximity to developed areas and human presence within Study Area. High (foraging). Suitable coastal scrub and grassland foraging habitat present adjacent to Project Site. 24 CNDDDB records within 5 miles; few iNaturalist and numerous eBird records; nearest is 2013 eBird record ~0.3 miles southwest of Study Area. Per USDON (2020), observed on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|---|------------------------------|---------------|---|--|
| Bird | Troglodytidae | <i>Cistothorus palustris clarkae</i> | Clark's marsh wren | SSC, S2 | Restricted to freshwater and brackish marshes dominated by bulrushes (<i>Scirpus</i> spp.) or cattails (<i>Typha</i> spp.). Narrow distribution along the coast of southern California from the Los Angeles basin south to the Mexican border. | Not likely to occur (nesting, foraging). Study Area lacks suitable freshwater and brackish marsh habitat. Per USDON (2020), observed on MCBCP. |
| Bird | Cuculidae | <i>Coccyzus americanus occidentalis</i> | western yellow-billed cuckoo | FT, SE, S1 | Found in densely foliated deciduous trees and shrubs, usually along riparian corridors or marshes, or in adjacent orchards. Nests in same dense, humid, riparian cover. Fragmented breeding populations found across interior of CA. (on MCB Camp Pendleton only rarely found along the Santa Margarita River) | Not likely to occur (nesting). Study Area is outside species' breeding range. Low (foraging). Riparian woodland in Study Area northwest of Vandegrift Blvd and Project Site could potentially support foraging. Per USDON (2018, 2020), low potential to occur as a rare/transient summer visitor along the Santa Margarita River corridor; detected four times since 1980 along Santa Margarita River corridor. |
| Bird | Tyrannidae | <i>Contopus cooperi</i> | olive-sided flycatcher | SSC, BCC, S3 | Montane coniferous forest with trees over water or open terrain including mixed conifer, montane-hardwood-conifer, Douglas-fir, red fir, and lodgepole pine. Forages on insects in openings or along edges, using tall, prominent trees and snags as perches. Uncommon to common, summer resident throughout California under 9,000 ft. elev. Exclusion of the deserts, Central Valley, other lowland valleys and basins. | Not likely to occur (nesting, foraging). Study Area lacks suitable coniferous forest habitat. Per USDON (2020), observed on MCBCP. |
| Bird | Apodidae | <i>Cypseloides niger</i> | black swift | SSC, BCC, S3 | Summer resident. Nests on cliffs, often behind or beside permanent or semipermanent waterfalls. Forage on insects, typically high above the ground over forests and open areas. Breeds widely but locally throughout western North America. In California, breeds along the central coast, and Cascade, Sierra Nevada, Transverse ranges. | Not likely to occur (nesting). Study Area is outside species' breeding range. Low (foraging). May forage over Study Area while migrating. No records within 5 miles of Study Area; nearest is 1999 eBird ~7.5 miles northeast of Study Area. Per USDON (2020), observed on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|-----------------------------------|--------------------------------|---------------|---|---|
| Bird | Ardeidae | <i>Egretta thula</i> | snowy egret | S4 | Yearlong resident along the California coast from San Francisco Bay to Mexican border, and Central Valley. Can be found in northern California as a migrant along the north coast and summer resident in the northern interior. Nests in colonies in thick vegetation in isolated places. Forages mostly on aquatic animals in freshwater or saltwater wetland habitat. | Low (nesting, foraging). Riparian woodland/scrub habitat on northwest side of Vandegrift Blvd in Study Area could support nesting; although there are a few trees within the Project Site east of Haybarn Rd, they are unlikely to support nesting as they are isolated and proximity to developed areas and human presence within Study Area. Study Area lacks preferred open wetland foraging habitat; scrub, grassland, and disturbed habitats within Study Area could potentially support foraging. No CNDDDB records within 5 miles; numerous eBird and iNaturalist records; nearest record is 2012 eBird record ~0.3 miles southwest of Study Area. Per USDON (2020), known to occur on MCBCP where habitat present. |
| Bird | Accipitridae | <i>Elanus leucurus</i> | white-tailed kite | FP, BCC, S3S4 | Typically nests at lower elevations in riparian trees, including oaks, willows, and cottonwoods; forages over open country. Throughout much of California in coastal and valley lowlands, rarely away from agricultural areas. | Low (nesting). Study Area contains few suitable nesting trees located within Project Site east of Haybarn Rd. High (foraging). Study Area contains suitable open foraging habitat. 14 CNDDDB records; numerous eBird records; nearest is 2013 eBird record ~0.3 miles southwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Tyrannidae | <i>Empidonax traillii extimus</i> | southwestern willow flycatcher | FE, SE, S3 | Dense riparian willow thickets adjacent to wet meadows, ponds, or backwaters from 2,000–8,000 ft. elevation. Formerly abundant in suitable habitat throughout California; currently known from fewer than 100 sites in Central and Northern California. | Moderate (nesting, foraging). Study Area contains suitable riparian scrub habitat. 10 CNDDDB records within 5 miles; no iNaturalist or eBird records; nearest is 2003 CNDDDB record ~1.4 miles north of Study Area. Per USDON (2018, 2020), known to breed along Santa Margarita River, Lake O'Neill, San Mateo Creek, and Sierra Training Area ponds; potential to occur as a migratory transient but not known to breed in the Study Area. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|-----------------------------------|---------------------------|---------------|--|--|
| Bird | Alaudidae | <i>Eremophila alpestris actia</i> | California horned lark | WL, S4 | Habitats where trees and shrubs are absent; short-grass prairie, “bald” hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats. Nest on ground in natural or excavated depression lined with woven basket of grass/other fine vegetation. Coastal regions, chiefly from Sonoma County to San Diego County; also most of San Joaquin Valley and east to foothills. | Low (nesting, foraging). Study Area largely lacks suitable grassland or other habitats lacking trees/shrubs. No CNDDDB records within 5 miles; two iNaturalist and several eBird records; nearest is 2012 eBird record ~0.3 miles southwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Falconidae | <i>Falco columbarius</i> | merlin | WL, S3S4 | Uncommon winter migrant. Frequents coastlines, open grasslands, savannahs, open woodlands, lakes, wetlands, edges, early successional stages. Seldom found in heavily wooded areas or open deserts. Commonly feeds on shorebirds along shorelines in winter. Occurs most of the western half of the state below 3,900 ft. elev.; rare winter migrant in the Mojave Desert; few records from Channel Islands. | Not likely to occur (nesting). Study Area is outside species' breeding range. Moderate (foraging). Study Area lacks preferred winter foraging habitat (shorelines) but contains coastal and riparian scrub, disturbed, non-native grassland, and riparian woodland that could support foraging. No CNDDDB records within 5 miles; several iNaturalist and eBird records; nearest is 2014 eBird record ~0.7 miles west of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Falconidae | <i>Falco mexicanus</i> | prairie falcon | WL, S4 | Nests along cliff faces or rocky outcrops, forages over open spaces such as grasslands, savannahs, rangelands, some agricultural fields, and desert scrub. Occurs throughout arid western U.S. and Mexico. | Not likely to occur (nesting). Study Area lacks suitable cliff or rocky outcrop nesting habitat. Low (foraging). Study Area largely lacks suitable grassland habitat for foraging. No CNDDDB or iNaturalist records within 5 miles; few eBird records; nearest is 2011 eBird record ~2.4 miles southwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Falconidae | <i>Falco peregrinus anatum</i> | American peregrine falcon | FD, SD, S3S4 | Nests and roosts on protected ledges of high cliffs, buildings, and bridges, usually adjacent to lakes, rivers, or marshes that support abundant avian prey. Forages in a large variety of open habitats including tundra, marshes, seacoasts, savannahs, | Not likely to occur (nesting). Study Area outside species' breeding range; lacks suitable cliff or rocky outcrop nesting habitat. Low (foraging). Study Area largely lacks preferred open foraging habitat. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|------------|-------------|-----------------------------------|-------------------------------|----------------|---|---|
| | | | | | grasslands, meadows, open woodlands, and agricultural areas. Breeds along the coast north of Santa Barbara, in Sierra Nevada and other mountains in California; winters in Central Valley and along coast south of Santa Barbara. | No CNDDDB or iNaturalist records within 5 miles; few eBird records; nearest is 2016 eBird record ~2.2 miles southeast of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Alcidae | <i>Fratercula cirrhata</i> | tufted puffin | SSC, BCC, S1S2 | Seabird, , spends most of its life at sea. Occurs from subtropical Pacific to Arctic Ocean. Nests on steep rocky islands. | Not likely to occur. Study Area is outside of species range; lacks suitable marine habitat. Per USDON (2020), observed on MCBCP. |
| Bird | Gaviidae | <i>Gavia immer</i> | common loon | SSC, S1 | Classic bird of north woods lakes with crystal-clear water quality. They winter along coastal areas and are rarely found more than a few miles offshore. | Not likely to occur. Study Area lacks suitable lake habitat. Per USDON (2020), observed on MCBCP. |
| Bird | Laridae | <i>Gelochelidon nilotica</i> | gull-billed tern | SSC, BCC, S1 | Uncommon and found only at the Salton Sea, in grassy marshes with patches of open mud. | Not likely to occur (nesting, foraging). Study Area outside species' breeding range; lacks suitable marsh habitat for foraging. Per USDON (2020), observed on MCBCP. |
| Bird | Parulidae | <i>Geothlypis trichas sinuosa</i> | saltmarsh common yellowthroat | SSC, BCC, S3 | Occurs in woody swamp, brackish marsh, and freshwater marsh habitats in the ecotone between moist and upland areas. Nest in herbaceous vegetation, well-concealed near the ground. Endemic to the greater San Francisco Bay region. | Not likely to occur (nesting, foraging). Study Area outside species' breeding range; lacks suitable habitat |
| Bird | Cathartidae | <i>Gymnogyps californianus</i> | California condor | FE, SE, FP | Nests in caves, crevices, behind rock slabs, or on large ledges on high sand stone cliffs; requires vast expanses of open savannah, grasslands, and foothill chaparral with cliffs, large trees and snags for roosting and nesting. Occurs in semi-arid rugged mountain ranges surrounding southern San Joaquin Valley, including Coast Ranges from Santa Clara Co. south to Los Angeles Co., Transverse Ranges, Tehachapi Mountains, and southern Sierra Nevada. | Not likely to occur (nesting, foraging). Study Area outside of species' range. Per USDON (2020), historically occurred on MCBCP, now extirpated. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|---|----------------------|---------------|--|--|
| Bird | Accipitridae | <i>Haliaeetus leucocephalus</i> | bald eagle | FD, SE, FP | Habitat includes rivers and lakes with adjacent woodlands. Large bodies of water are always associated with breeding populations. Nests on large trees in the vicinity of large lakes, reservoirs, and rivers. Wintering birds are most often found near large concentrations of waterfowl or fish. | Not likely to occur (nesting, foraging). Study Area lacks suitable nest trees and fish-bearing water bodies. Per USDON (2020), observed on MCBCP. |
| Bird | Hydrobatidae | <i>Hydrobates homochroa</i> (= <i>Oceanodroma homochroa</i>) | ashy storm-petrel | SSC, S2 | Seabird, rarely seen from land. Occurs in the eastern North Pacific off the coast of California and Baja California, from Cape Mendocino south to northern Baja California. Nests on rocky islands. | Not likely to occur. Study Area is outside of species range; lacks suitable marine habitat. Per USDON (2020), observed on MCBCP. |
| Bird | Hydrobatidae | <i>Hydrobates melania</i> (= <i>Oceanodroma melania</i>) | black storm-petrel | SSC, S1 | Seabird, rarely seen from land. Occurs in the Pacific ocean from Cape Mendocino south to Peru. Nests on rocky islands. | Not likely to occur. Study Area is outside of species range; lacks suitable marine habitat. Per USDON (2020), observed on MCBCP. |
| Bird | Laridae | <i>Hydroprogne caspia</i> | Caspian tern | S4 | Breeds in wide variety of habitats along water, such as salt marshes, barrier islands, dredge spoil islands, freshwater lake islands, and river islands. During migration and winter found along coastlines, large rivers, and lakes. Roosts on islands and isolated spits. | Not likely to occur (nesting, foraging). Study Area lacks suitable marsh, shoreline, or island habitats. Per USDON (2020), observed on MCBCP. |
| Bird | Parulidae | <i>Icteria virens</i> | yellow-breasted chat | SSC, S4 | Occupy early successional riparian habitats with a well-developed shrub layer and an open canopy. Vegetation structure, however, more than age appears to be the important factor in nest-site selection. Nesting habitat is usually restricted to the narrow border of streams, creeks, sloughs, and rivers and seldom forms extensive tracts. Occurs up to ~4,800 ft. elev. in coastal California and in foothills of Sierra Nevada. | High (nesting, foraging). Study Area contains suitable riparian scrub and woodland habitats, primarily northwest of Vandegrift Blvd and Project Site. 16 CNDDDB records within 5 miles; several iNaturalist and numerous eBird records; nearest is 2019 eBird record ~800 feet south of Study Area. Per USDON, observed on MCBCP. |
| Bird | Icteridae | <i>Icterus bullockii</i> | Bullock's oriole | BCC | Found in open woodland habitat in the western North America, especially riparian woodlands with cottonwoods, sycamores, and willows, and can also | Not likely to occur (nesting). Study Area is outside species' breeding range. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|----------------------------|--------------------|---------------|--|--|
| | | | | | be found in urban parks. Nest in isolated trees or trees along the woodland edge, preferably near water. Breeding range includes most of California. Overwinters in Mexico and along the coast of southern California from central Santa Barbara Co. south to San Diego Co. | High (foraging). Study Area northwest of Vandegrift Blvd and Project Site contains suitable riparian woodland. No CNDDDB records within 5 miles; 1 iNaturalist and numerous eBird records; nearest is 2018 eBird record ~0.3 miles west of Study Area. Species not documented by USDON (2020) as occurring on MCBCP. |
| Bird | Ardeidae | <i>Ixobrychus exilis</i> | least bittern | SSC, S2 | Uncommon and local in marshes. Require freshwater or brackish marshes with tall emergent vegetation. Breeds in isolated regions within Central Valley, Eastern Sierra Nevada, and coast of Santa Barbara Co. Year-round resident in Southern California from Ventura Co. south into northern Mexico, Imperial Valley, and Colorado River Valley. | Not likely to occur (nesting; foraging). Study Area lacks suitable marsh habitat for nesting and foraging. Per USDON (2020), known to occur on MCBCP where habitat present. |
| Bird | Laniidae | <i>Lanius ludovicianus</i> | loggerhead shrike | SSC, S4 | Occurs in broken woodland, savannah, pinyon-juniper woodland, Joshua tree woodland, riparian woodland, desert oases, scrub, and washes; prefers open areas for foraging. Nesting widespread in North America. | High (nesting, foraging). Study Area contains suitable coastal scrub, and riparian scrub and woodland habitat. 1 CNDDDB record within 5 miles; few iNaturalist and numerous eBird records; nearest is 2012 eBird record ~0.3 miles southwest of Study Area. Per USDON (2020), known to occur on MCBCP where habitat present. Per USDON (2020), observed on MCBCP. |
| Bird | Laridae | <i>Larus californicus</i> | California gull | WL, BCC, S4 | Breeds on islands in lakes or rivers. Forages along lakes, bogs, farm fields, lawns, pastures, sagebrush, garbage dumps, feedlots, parking lots, ocean beaches, and open ocean. | Not likely to occur (nesting). Study Area lacks suitable island nesting habitat. High (foraging). Study Area contains suitable developed and disturbed habitat where anthropogenic sources of food could be available. No CNDDDB records within 5 miles; few iNaturalist and numerous eBird records; nearest is 2013 eBird record ~0.3 miles southwest of Study Area. Per USDON (2020), observed on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|-------------------|---|--------------------------|---------------|--|---|
| Bird | Parulidae | <i>Leiothlypis luciae</i> | Lucy's warbler | SSC, S3 | Occurs thickets of mesquite, riparian scrub and tamarisk along lower Colorado River Valley and the Sonoran and Mojave deserts. Breeds along the Colorado River. Rare fall transient along the coast, mainly in San Diego Co. | Not likely to occur (nesting). Study Area outside species' breeding range. Low (foraging). Study Area contains suitable riparian scrub habitat. No CNDDDB records within 5 miles; iNaturalist and few eBird records; nearest is 1992 eBird record ~1 mile northeast of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Laridae | <i>Leucophaeus atricilla</i> | laughing gull | WL, S1 | Primarily coastal gulls and are only rarely found far inland. Found along beaches, in saltmarshes, in mangroves, or on agricultural fields or landfills near the coast. They nest in saltmarshes, on islands including artificial ones created from dredge spoils, and on sandy beaches. | Not likely to occur (nesting, foraging). Study Area lacks suitable beach habitat. Per USDON (2020), observed on MCBCP. |
| Bird | Picidae | <i>Melanerpes lewis</i> | Lewis' woodpecker | BCC, S4 | Open oak savannahs, broken deciduous, and coniferous habitats. Winter resident occurring along eastern slopes of the Coast Ranges south to San Luis Obispo Co, Central Valley, Modoc Plateau, and the Transverse and other ranges in southern California. Breeds along eastern slopes of the Coast Ranges, and in the Sierra Nevada, Warner Mts., Klamath Mts., and Cascade Range. | Not likely to occur (nesting, foraging). Study Area outside species' breeding range; lacks suitable oak savannah, broken deciduous, or coniferous habitats. Per USDON (2020), observed on MCBCP. |
| Bird | Ciconiidae | <i>Mycteria americana</i> | wood stork | SSC, S1 | Uncommon and very local in muddy ponds where declining water levels concentrate fish. Nests and roosts in colonies in trees. In California, winter range restricted to southern end of Salton Sea. | Not likely to occur (nesting, foraging). Study Area outside species' range. Per USDON (2020), observed on MCBCP as vagrant twice in the 1980's. |
| Bird | Phalacrocoracidae | <i>Nannopterum auritum</i> (= <i>Phalacrocorax auritus</i>) | double-crested cormorant | WL, S4 | Colonial waterbirds that seek aquatic bodies big enough to support their mostly fish diet, such as rivers and lakes. However, they may roost and form breeding colonies on smaller lagoons or ponds, and then fly up to 40 miles to a feeding area. In addition to fishing waters, cormorants need | Not likely to occur (nesting, foraging). Study Area lacks suitable open water habitat. Per USDON (2020), observed on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|------------------------------|---------------------------|---------------|--|---|
| | | | | | perching areas for the considerable amount of time they spend resting each day. | |
| Bird | Scolopacidae | <i>Numenius americanus</i> | long-billed curlew | WL, S2 | Generally, nest in short grasses including grass prairies or agricultural fields and move to denser grasslands after young have fledged. In winter, prefers large coastal estuaries, upland herbaceous areas, and croplands; also use shortgrass prairies and alkali lakes. Winter at the coast and in Mexico; breeds in northeastern California. | Not likely to occur (nesting; foraging). Study Area outside species' breeding range; lacks suitable estuary, cropland, prairie, and alkali lake habitat. Per USDON (2020), observed on MCBCP. |
| Bird | Ardeidae | <i>Nycticorax nycticorax</i> | black-crowned night heron | S4 | Feeds along the margins of lacustrine, large riverine, and fresh and saline emergent habitats and, rarely, on kelp beds in marine subtidal habitats. Nests and roosts in dense-foliaged trees and dense emergent wetlands. Year-round resident in Central Valley and along the coast; breeds on Modoc Plateau and Eastern Sierra Nevada; winters in the desert region. | Low (nesting, foraging). Riparian woodland/scrub habitat on northwest side of Vandegrift Blvd in Study Area could support nesting; although there are a few trees within the Project Site east of Haybarn Rd, they are unlikely to support nesting as they are isolated and proximity to developed areas and human presence within Study Area. Study Area lacks preferred open wetland foraging habitat; riparian scrub habitat present in Project Site east of Haybarn Rd at Vandegrift Blvd and in Study Area northwest of Vandegrift Blvd could potentially support foraging. No CNDDDB records within 5 miles; numerous eBird and iNaturalist records; nearest record is 2014 eBird record ~1 mile southwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Pandionidae | <i>Pandion haliaetus</i> | osprey | WL, S4 | Any expanse of shallow, fish-filled water, including rivers, lakes, reservoirs, lagoons, swamps, and marshes. Frequenting deep water only where fish school near the surface. Nest sites are in open surroundings for easy approach, usually on snags, dead-top trees, or crotches between large branches and trunks; sometimes on cliffs or human- | Not likely to occur (nesting, foraging). Study Area lacks suitable nest trees with open surroundings; lacks suitable fish-bearing aquatic habitat. Per USDON (2020), observed on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|--|-------------------------------|----------------|---|---|
| | | | | | built platforms. Nest in a wide variety of locations, from Alaska to New England, Montana to Mexico, Carolina to California; their habitat includes an adequate supply of accessible fish within a maximum of about 12 miles of the nest. | |
| Bird | Passerellidae | <i>Passerculus sandwichensis beldingi</i> | Belding's savannah sparrow | SE, BCC, S3 | Year-round resident of coastal salt marshes containing dense pickleweed (<i>Salicornia pacifica</i>) in southern California. Occurs from Goleta Slough in Santa Barbara south to Mexican border. | Not likely to occur (nesting, foraging). Study Area lacks suitable coastal salt marsh habitat. Per USDON (2020), observed on MCBCP. |
| Bird | Passerellidae | <i>Passerculus sandwichensis rostratus</i> | large-billed savannah sparrow | SSC, BCC, S2 | Uncommon and very local to southern California. Nearly limited to open, low salt marsh vegetation, including grasses (<i>Spartina</i> spp., <i>Distichlis</i> spp.), pickleweed (<i>Salicornia</i> spp.), and iodine bush (<i>Allenrolfea</i> spp.) of the Colorado River delta. Winters in coastal southern California and Salton Sea. | Not likely to occur (nesting; foraging). Study Area outside species' breeding range; lacks suitable salt marsh habitat. Per USDON (2020), observed on MCBCP. |
| Bird | Pelecaniidae | <i>Pelecanus erythrochynchos</i> | American white pelican | SSC, BCC, S1S2 | Large freshwater and saltwater lakes, usually on small islands or remote dikes. Nest-sites are flat or gently sloping, lacking shrubs or other obstructions, free of human disturbance, and usually with loose earth suitable for nest-mounds. Occurs in Klamath Basin, especially Clear Lake National Wildlife Refuge, as well as Honey Lake, Central Valley, Salton Sea, salt ponds of San Francisco Bay, coastal slopes of Sonoma Co., Central Valley, and Lake Tahoe. Migrant over most of California | Not likely to occur (nesting, foraging). Study Area lacks suitable open water habitat. Per USDON (2020), observed on MCBCP. |
| Bird | Pelecaniidae | <i>Pelecanus occidentalis californicus</i> | California brown pelican | FD, SD, S3S4 | Estuarine, marine subtidal, and marine pelagic waters | Not likely to occur (nesting, foraging). Study Area lacks suitable open water habitat. Per USDON (2020), observed on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|-------------------|--|--------------------------------|---------------|---|--|
| Bird | Picidae | <i>Picoides nuttallii</i> | Nuttall's woodpecker | BCC | Resident. A relatively common species in much of its range. Occurs in woodlands, primarily those dominated by oaks. Where oaks are scarce, will use woodlands near streams. | High (nesting, foraging). Study Area contains suitable riparian woodland habitat northwest of Vandegrift Blvd and Project Site. No CNDDDB records within 5 miles; numerous iNaturalist and eBird records; 2019 eBird record documented in Project Site along Haybarn Rd. Per USDON (2020), observed on MCBCP. |
| Bird | Cardinalidae | <i>Piranga rubra</i> | summer tanager | SSC, S1 | Requires mature cottonwood-willow riparian woodland for nesting and foraging; prefers older, dense stands along streams. Breeds across southern U.S. and northern Mexico; in California, breeds along lower Colorado River; very locally at scattered locations in southern California deserts; and two locations in northern San Diego Co. | Not likely to occur (nesting, foraging). Study Area outside of species' range; lacks suitable cottonwood-willow riparian woodland. Per USDON (2020), observed on MCBCP. |
| Bird | Threskiornithidae | <i>Plegadis chihi</i> | white-faced ibis | WL, S3S4 | Freshwater marsh, shallow lacustrine waters, muddy ground of wet meadows, and irrigated or flooded pastures and croplands. Nests in dense freshwater marsh. | Not likely to occur (nesting, foraging). Study Area lacks suitable marsh, lacustrine, wet meadow, and irrigated/flooded pastures and cropland. Per USDON (2020), observed on MCBCP. |
| Bird | Poliptilidae | <i>Poliptila californica californica</i> | coastal California gnatcatcher | FT, SSC, S2 | Coastal sage scrub in low-lying foothills and valleys. Endemic to cismontane southern California and northwestern Baja California under ~2,000 ft. elev. | High (nesting, foraging). Study Area contains suitable coastal scrub habitat, both within and immediately adjacent to the Project Site. 55 CNDDDB records within 5 miles; no iNaturalist records; numerous eBird records; 2019 eBird record documented within Project Site along Haybarn Rd. Per USDON (2018, 2020), known to occur in coastal scrub habitat on MCBCP, including within and adjacent to the Project Site. |
| Bird | Passerellidae | <i>Pooecetes gramineus affinis</i> | Oregon vesper sparrow | SSC, S3 | Obligate grassland passerine. Winters in Central Valley of California and in southern California west of the deserts. | Low (nesting, foraging). Study Area largely lacks suitable grassland habitat. No CNDDDB or iNaturalist records within 5 miles; few eBird records; nearest is 2012 eBird record ~1 mile northeast of |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|--|------------------------------|----------------|--|--|
| | | | | | | Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Hirundinidae | <i>Progne subis</i> | purple martin | SSC, S3 | Summer resident, breeds in low-elevation foothill and montane hardwood, valley foothill and montane hardwood-conifer, riparian, and coniferous habitats. Nests in cavities, of trees and also anthropogenic structures (e.g. utility poles, bridges). Nest sites typically in located in tall, isolated trees or snags. Abundant flying insect prey also important. Rare and local breeder on the coast and interior mountain ranges in Southern California. | Not likely to occur (nesting, foraging). Study Area outside species' range; lacks suitable montane-hardwood, montane hardwood-conifer, or coniferous forest habitats. Per USDON (2020), observed on MCBCP. |
| Bird | Strigidae | <i>Psiloscops flammeolus</i> (= <i>Otus flammeolus</i>) | flamulated owl | BCC, S2S4 | Need montane forests with some understory brush for breeding. In California the breeding range is closely associated with the presence of ponderosa pine and Jeffery pine. | Not likely to occur (nesting, foraging). Study Area outside species' range; lacks suitable coniferous forests. Per USDON (2020), observed on MCBCP. |
| Bird | Alcidae | <i>Ptychoramphus aleuticus</i> | Cassin's auklet | SSC, BCC, S3 | Seabird, spends most of its life at sea. Occurs from subtropical Pacific to Arctic Ocean. Nests on oceanic islands | Not likely to occur. Study Area is outside of species range; lacks suitable marine habitat. Per USDON (2020), observed on MCBCP. |
| Bird | Tyrannidae | <i>Pyrocephalus rubinus</i> | vermillion flycatcher | SSC, S2S3 | Inhabits desert riparian adjacent to irrigated fields, irrigation ditches, pastures, and other open, mesic areas in Mojave and Colorado deserts. Coastal race found in arid parts of westward-draining slopes of southern California. Especially reliant on stream corridors within scrub ecosystems containing willows, sycamores, cottonwoods, mesquites, and other bottomland trees. | High (nesting, foraging). Study Area contains suitable riparian scrub and woodland habitat, primarily northwest of Vandegrift Blvd and Project Site. No CNDDDB records within 5 miles; several iNaturalist and eBird records; nearest is 2019 eBird record ~0.3 miles west of Study Area. Per USDO (2020), observed on MCBCP. |
| Bird | Rallidae | <i>Rallus obsoletus levipes</i> | light-footed Ridgeway's rail | FE, SE, FP, S1 | Requires dense growth of either pickleweed or cordgrass for nesting. Wetlands, salt marsh and swamps. Resident in southern California and northern Baja. | Not likely to occur (nesting, foraging). Study Area lacks suitable salt marsh, wetland, or swamp habitat. Per USDON (2020), known to breed at the Santa Margarita River estuary on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|---|--------------------|---------------|---|---|
| Bird | Hirundinidae | <i>Riparia riparia</i> | bank swallow | ST, S3 | Neotropical migrant. Uses riparian, lacustrine and coastal areas with vertical banks, bluffs, and cliffs with fine-textured or sandy soils, into which it digs nesting holes. Forages over riparian, brushland, grassland, wetland, water and agricultural habitats. Uses open habitats with other swallow species during migration. Breeding range restricted to Sacramento and Feather Rivers, central coast from Monterey to San Mateo Counties, and northeastern California | Not likely to occur (nesting). Study Area outside species' breeding range. Low (foraging). May forage over Study Area while migrating. No CNDDDB records within 5 miles; one iNaturalist and few eBird records; nearest is 2020 eBird record ~1 mile north of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Laridae | <i>Rynchops niger</i> | black skimmer | SSC, BCC, S2 | Found in open sandy beaches, on gravel or shell bars with sparse vegetation, or on mats of sea wrack (tide-stranded debris) in saltmarsh. Skimmers are occasionally seen at inland lakes such as the Salton Sea. | Not likely to occur (nesting, foraging). Study Area lacks suitable marsh or beach habitat. Per USDON (2020), observed on MCBCP. |
| Bird | Trochilidae | <i>Selasphorus rufus</i> | rufous hummingbird | BCC, S1S2 | Common migrant and uncommon summer resident. Nests within high coniferous or deciduous trees and occasionally ferns or vines. Breeds and forages in open or shrubby areas, forest openings, urban parks, thickets, swaps, or meadows up to 6,000 ft. Breeds in northwestern California, Oregon, and Washington; winters in southern Mexico. | Not likely to occur (nesting). Study Area outside of species' breeding range. Moderate (foraging). Study Area contains suitable coastal and riparian scrub habitats. No CNDDDB records within 5 miles; 2 iNaturalist and several eBird records; nearest is 2018 iNaturalist record ~0.4 miles southwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Parulidae | <i>Setophaga petachia</i> (= <i>Dendroica petachia</i>) | yellow warbler | SSC, S3 | Primarily in willows, riparian thickets, and riparian trees such as cottonwood, sycamore, ash, and alder, especially near water, but also xeric montane shrub fields and shrubby understory of mixed-conifer forest. Breeds along Pacific coast from Alaska and Canada south to northern Baja California. | High (nesting, foraging). Study Area contains suitable riparian scrub and woodland habitats, primarily northwest of Vandegrift Blvd and Project Site. 44 CNDDDB records within 5 miles; several iNaturalist and numerous eBird records; 2019 eBird record documented within the Project Site along Haybarn Rd. Per USDON (2020), observed on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|------------------------------|------------------------|---------------|---|--|
| Bird | Picidae | <i>Sphyrapicus ruber</i> | red-breasted sapsucker | S4 | Preferred nesting habitats include montane riparian, aspen, montane hardwood-conifer, mixed conifer, and red fir, especially near meadows, clearings, lakes, and slow-moving streams. Nests and roosts in tree cavity. Forages on insects in trunks of mostly hardwoods, sometimes conifers. Yearlong or summer (breeding) resident from Oregon border south in Coast Ranges and along coast to Marin Co. | Moderate (nesting, foraging). Study Area contains suitable riparian woodland habitat northwest of Vandegrift Blvd and Project Site. No CNDDB or iNaturalist records within 5 miles; few eBird records; nearest is 2019 eBird record ~0.3 miles west of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Fringillidae | <i>Spinus lawrencei</i> | Lawrence's goldfinch | BCC, S4 | Nests in open oak or other arid woodland and chaparral near water; nearby herbaceous habitats used for foraging; closely associated with oaks. Breeds along the foothills surrounding the Central Valley, inner sides of Transverse and Peninsular Ranges; year-round resident of coastal ranges south of San Francisco to Santa Barbara Co. and coastal sides of Transverse and Peninsular Ranges. | Moderate (nesting, foraging). Study Area contains riparian scrub and woodland habitat, including the Project Site east of Haybarn Rd at Vandegrift Blvd and Study Area northwest of Vandegrift Blvd, that could support nesting and foraging. No CNDDB records within 5 miles; few iNaturalist and numerous eBird records; nearest is 2017 eBird record ~0.3 miles west of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Passerellidae | <i>Spizella astrogularis</i> | black-chinned sparrow | BCC | Uncommon and local in chaparral and similar arid hillsides with brushy vegetation. May use a variety of shrubs including chamise, sagebrush, ceanothus, buckwheat for nesting. Occurs in foothills bounding Central Valley, few locations east of Sierra Nevada, Transverse and Peninsular Ranges, along coast of San Diego Co. | Moderate (nesting, foraging). Study Area contains suitable coastal scrub habitat. No CNDDB or iNaturalist records within 5 miles; 1 eBird record, 2014 ~0.3 miles southwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Bird | Passerellidae | <i>Spizella breweri</i> | Brewer's sparrow | S4 | Inhabits brushland, primarily sagebrush flats. Breeds in the western United States, including coastal Southern California, and Canada and winters in the southwestern United States and western Mexico. | Moderate (nesting, foraging). Study Area contains suitable coastal scrub habitat. No CNDDB or iNaturalist records within 5 miles; 1 eBird record, 1998 ~1 miles northeast of Study Area. Per USDON (2020), observed on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|--|------------------------|----------------|--|--|
| Bird | Laridae | <i>Sternula antillarum browni</i> (= <i>Sterna antillarum browni</i>) | California least tern | FE, SE, FP, S2 | Nests along the coast from San Francisco Bay to northern Baja California. Colonial breeder, nests are shallow scrapes on open sandy beaches, or other relatively flat areas with little or no vegetation. | Not likely to occur (nesting, foraging). Study Area lacks suitable marsh or beach habitat. Per USDON (2020), observed on MCBCP. |
| Bird | Strigidae | <i>Strix occidentalis occidentalis</i> | California spotted owl | SSC, BCC, S2 | Subspecies of spotted owl that occurs throughout the Sierra Nevada mtn range in CA and NV, in southern and coastal CA in the Coastal, Transverse, and Peninsular mtn ranges; and in Sierra San Pedro Martir in Baja California Norte, Mexico. Inhabit older forests that contain structural characteristics necessary for nesting, roosting, and foraging. In the Sierra Nevada range, a majority occur within mid-elevation ponderosa pine, mixed conifer, white fir, and mixed-evergreen forest types, with fewer owls occurring in the lower elevation oak woodlands of the western foothills. On the central coast and southern CA, found in riparian /hardwood forests and woodlands, live oak/big cone fir forests, and redwood/CA laurel forests. Nests are typically found in areas of high canopy cover, a high number of large trees, and downed trees. Mostly found on lands managed by the USFS and NPS. | Low (nesting, foraging). Study Area contains riparian woodland northwest of Vandegrift Blvd and Project Site that could potentially support this species. No CNDDDB/BIOS or iNaturalist records within 5 miles; locations not specified in eBird due to sensitivity, not on Camp Pendleton IBA eBird list. Per USDON (2020), observed on MCBCP. |
| Bird | Laridae | <i>Thalasseus elegans</i> | elegant tern | WL, BCC, S3 | Only 3 known breeding colonies: San Diego Bay, Los Angeles Harbor and Bolsa Chica Ecological Reserve. Nests on open, sandy, undisturbed beaches and on salt-evaporating pond dikes (San Diego) in association with Caspian tern. Forages in shallow ocean waters, protected bays and lagoons. | Not likely to occur (nesting, foraging). Study Area lacks suitable beach or marine habitat. Per USDON (2020), observed on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|---------------------------------------|----------------------------|---------------|---|--|
| Bird | Troglodytidae | <i>Thryomanes bewickii leucophrys</i> | San Clemente Bewick's wren | SSC, SX | Occurred on San Clemente Island. Now extinct, last seen in 1941. | Not likely to occur. Study Area is outside of species' range and species is considered extinct. |
| Bird | Mimidae | <i>Toxostoma redivivum</i> | California thrasher | BCC | Occurs primarily in moderate to dense chaparral habitat and also open woodlands of the chaparral transitions zones in northern parts of the range, sagebrush habitats in the southern parts of the range. Avoids dense tree canopy. Requires abundant leaf litter. Nests in large shrubs or scrubby trees. Endemic to coastal and foothill areas of California and northwest Baja California under ~6,560 ft. elev. | High (nesting, foraging). Study Area contains suitable patches of dense shrubby vegetation within coastal scrub and riparian scrub communities. No CNDDDB records within 5 miles; several iNaturalist and numerous eBird records; 2019 eBird record documented within Project Site along Haybarn Rd. Per USDON (2020), observed on MCBCP. |
| Bird | Scolopacidae | <i>Tringa semipalmata</i> | willet | BCC | Shorebird, occurs along beaches, mudflats, and rocky shores. Winters along the ocean coastlines of North America, Central America, and northern South America; along the Pacific Coast, primarily of California, in addition to San Joaquin Valley and the Salton Sea. | Not likely to occur. Study Area lacks suitable beaches, mudflats, or rocky shores. Species not documented by USDON (2020) as occurring on MCBCP. |
| Bird | Vireonidae | <i>Vireo bellii pusillus</i> | least Bell's vireo | FE, SE, S3 | Found close to ground in thickets of willow and other low shrubs, usually near water, but also inhabits thickets along dry, intermittent streams. Nests in same habitat, no higher than 10ft. Fragmented breeding populations in SoCal. | Present during Surveys April 2024 (foraging). High (nesting). Study Area contains suitable riparian scrub and woodland habitat, primarily northwest of Vandegrift Blvd and Project Site. 69 CNDDDB records within 5 miles; several iNaturalist and numerous eBird records; 2019 eBird record documented within Project Site along Haybarn Rd. Per USDON (2018, 2020), detected within Project Site along Haybarn Rd in 2019, with numerous detections 2013-2017 northwest of Vandegrift Blvd; known to breed in riparian habitat in and adjacent to the Study Area. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|----------------|---|----------------------------------|----------------|---|---|
| Bird | Vireonidae | <i>Vireo huttoni unitti</i> | Catalina Hutton's vireo | SSC, S2 | Chaparral and oak woodland habitat. Endemic to Catalina Island. | Not likely to occur. Study Area is outside species' range. Per USDON (2020), known to occur on MCBCP where habitat present. |
| Bird | Vireonidae | <i>Vireo vicinior</i> | gray vireo | SSC, S2 | Uncommon, local, summer resident in arid pinyon-juniper, juniper, and chamise-redshank chaparral habitats from ~2,000-6,500 ft. elev. Historically bred in northern and western foothills of San Gabriel Mountains and many localities in San Bernardino, Riverside, and San Diego Counties. Field work needed to document extent of decline. | Not likely to occur (nesting, foraging). Study Area is outside species' elevational range; lacks suitable pinyon-juniper, juniper, and chamise-redshank chaparral habitats. Per USDON (2020), observed on MCBCP. |
| Bird | Icteridae | <i>Xanthocephalus xanthocephalus</i> | yellow-headed blackbird | SSC, S3 | Neotropical migrant. Prefer to breed in freshwater wetlands with dense, emergent vegetation (i.e., cattails). Forages in emergent wetland and moist, open areas, especially cropland and muddy shores of lacustrine habitat. Breeds east of Cascade Range and Sierra Nevada, in Imperial and Colorado River valleys, Central Valley, coast ranges west of Central Valley. | Not likely to occur (nesting, foraging). Study Area outside species' breeding range; lacks suitable open wetland or moist habitats to support foraging. Per USDON (2020), observed on MCBCP. |
| Fish | Gobiidae | <i>Eucyclogobius newberryi</i> | southern tidewater goby | FE, S3 | Brackish coastal waters, from Agua Hedionda Lagoon to the Smith River mouth. Shallow lagoons and lower stream reaches with slow (not stagnant) water and high oxygen levels. | Not likely to occur. Study Area lacks suitable brackish coastal waters. Per USDON (2018, 2020), not known or likely to occur in Study Area due to lack of habitat; observed on MCBCP. |
| Fish | Gasterosteidae | <i>Gasterosteus aculeatus williamsoni</i> | unarmored threespine stickleback | FE, SE, FP, S1 | Species prefers quiet waters, such as pools with abundant aquatic vegetation, backwaters, and stream channel margins where water velocity is low. | Not likely to occur. Study Area lacks suitable quiet waters. Per USDON (2020), historically occurred on MCBCP, now extirpated. |
| Fish | Cyprinidae | <i>Gila orcuttii</i> | arroyo chub | SSC, S2 | Species found in slow moving or backwater sections of warm to cool streams with mud or sand substrates. Feeds heavily on aquatic vegetation and associated invertebrates. Native to streams from Malibu Creek to San Luis Rey River basin. Introduced into streams in Santa Clara, Ventura, | Not likely to occur. Study Area lacks suitable stream habitat. Per USDON (2020), observed on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------------|-------------------|------------------------------------|---|--|---|---|
| | | | | | Santa Ynez, Mojave, and San Diego River basins. | |
| Fish | Salmonidae | <i>Oncorhynchus kisutch</i> | coho salmon | N/A; only populations listed are southern Oregon / northern California ESU and central California coast ESU; ranges don't overlap Project area | N/A | N/A |
| Fish | Salmonidae | <i>Oncorhynchus mykiss irideus</i> | steelhead trout - Southern California DPS/pop. 10 | FE | Depending on life stage, can be found in freshwater rivers, streams, estuaries, and marine environments. Adults prefer freshwater systems with cool temperatures (up to approximately 52 °F [11°C]), at least 7 inches deep, with moderate to low water velocity. During spawning, adults prefer freshwater streams or lakes with low velocity. Juveniles move into deeper and more vigorous waters as they grow. Endemic to Santa Ana and San Gabriel Riv. watersheds, historically in Big Tujunga Cyn. Santa Ana Riv. populations in lower San Bernardino Mtn foothills and washes. | Not likely to occur. Study Area lacks suitable river, stream, estuary, or marine habitats. Per USDON (2018, 2020), not known or likely to occur in Study Area due to lack of habitat; observed on MCBCP within Santa Margarita River and San Mateo Creek; spawning not documented on MCBCP, portions of Santa Margarita River and San Mateo Creek on MCBCP serve only as a migration corridor to spawning habitat outside MCBCP. |
| Invertebrate: Crustacea | Branchinectidae | <i>Branchinecta sandiegonensis</i> | San Diego fairy shrimp | FE, S1 | Vernal pools and ponded basins. Endemic to San Diego and Orange County mesas. Chaparral, coastal scrub, and wetland. | Not likely to occur. Study Area lacks suitable vernal pool or ponded basin habitat. Per USDON (2020), not known or likely to occur in Study Area due to lack of habitat; observed on MCBCP. |
| Invertebrate: Crustacea | Streptocephalidae | <i>Streptocephalus woottoni</i> | Riverside fairy shrimp | FE, S2 | Vernal pools and ponded basins. Inhabit seasonally astatic pools filled by winter/spring rains. Hatch in warm water later in the season. Coastal | Not likely to occur. Study Area lacks suitable vernal pool or ponded basin habitat. Per USDON (2020), not known or likely to occur in Study Area due to lack of habitat; observed on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|--------------------------|-------------|---|---------------------|----------|--|---|
| | | | | | scrub, valley & foothill grassland, Vernal pool, and wetland. | |
| Invertebrate: Gastropoda | Haliotidae | <i>Haliotis sorenseni</i> | white abalone | FE, S2 | Plant-eating marine snail. Occurs in coastal waters of southern California and Mexico. | Not likely to occur. Study Area is outside of species' range; lacks suitable marine habitat. Per USDON (2020), known to occur on MCBCP where habitat present. |
| Invertebrate: Insecta | Apidae | <i>Bombus crotchii</i> | Crotch's bumble bee | SC, S1S2 | Occurs in open grassland and scrub habitats. This species is a ground nesting species. Food plant genera include <i>Antirrhinum</i> , <i>Phacelia</i> , <i>Clarkia</i> , <i>Dendromecon</i> , <i>Eschscholzia</i> , and <i>Eriogonum</i> . Occurs in coastal California east to the Sierra-Cascade crest and south into Mexico. | High. Study Area is within current species' range and contains suitable coastal scrub and grassland habitats. No CNDDDB or Bumble Bee Watch records within 5 miles; 6 iNaturalist records; nearest is ~2 miles northwest of Study Area. Species not documented on MCBCP (USDON, 2020). |
| Invertebrate: Insecta | Apidae | <i>Bombus occidentalis occidentalis</i> | western bumble bee | SC, S1 | Generalist forager in a wide range of flower-rich habitats; essential pollinators of native plants and crops. Nests underground rodent burrows in open west-southwest slopes bordered by trees. Previously widespread throughout North America; currently largely restricted to high-elevation sites in Sierra Nevada with a couple of observations on Northern California coast. Relative abundance has declined 84% since late 1990s. Documented in Trinity County historically. | Not likely to occur. Study Area is outside species' historic and current range. Per USDON (2020), observed on MCBCP. |
| Invertebrate: Insecta | Nymphalidae | <i>Danaus plexippus plexippus</i> | monarch butterfly | FC, S2 | Overwinter in groves of trees (eucalyptus Monterey pine, Monterey cypress) scattered from Mendocino County south to Baja California, generally within 1 mile of the coast; start to migrate inland in the spring feeding on flower nectar, mating and laying eggs on a variety of milkweed plants, the sole source of food for caterpillars. | Not likely to occur (over-wintering). Study Area is ~7 miles inland from coast and contains only three eucalyptus trees. Nearest documented over-wintering site is ~5.5 miles southwest of Study Area on MCBCP. Moderate (breeding, migration). Study Area contains coastal scrub and non-native grassland habitats that could support milkweed species (<i>Asclepias</i>) required for reproduction, and other flowering species used for nectaring. No CNDDDB records within 5 miles; 58 iNaturalist records; nearest is 2023 |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|--------------------------|------------------|--------------------------------|-----------------------------|---------------|---|---|
| | | | | | | iNaturalist record ~0.4 miles southwest of Study Area. Per USDON (2020), observed on MCBCP. |
| Invertebrate: Insecta | Nymphalidae | <i>Euphydryas editha quino</i> | Quino checkerspot butterfly | FE, S1S2 | Grasslands, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodland, and semi-desert scrub, sometimes found in lower edge of chaparral, desert canyons, and canyon washes; prefer <i>Plantago erecta</i> as larval host plant. Need open spaces between scrublands. Occurs in southwestern Riverside Co., north-central and southern San Diego Co., northern Mexico. | Not likely to occur. Study Area outside current known species' range. Per USDON (2020), extensive surveys on MCBCP conducted, none detected although preferred habitat and host plants observed on MCBCP. |
| Mammal | Vespertilionidae | <i>Antrozous pallidus</i> | pallid bat | SSC, S3 | From low-elevation rocky, arid deserts, canyon lands, and shrub-steppe grasslands to higher-elevation conifer forests. Most abundant in xeric ecosystems. Day/night roosts in caves, mines, tree hollows, oak boles, exfoliating bark, and crevices in rocky outcrops and cliffs, as well as bridges, barns, porches, bat boxes, and human-occupied as well as vacant buildings. Occurs throughout California except for high Sierra Nevada from Shasta to Kern counties, and the northwestern corner of California from Del Norte and western Siskiyou counties. to northern Mendocino Co. | Moderate (roosting). Study Area contains human-made structures/buildings, some occupied and some unoccupied, that could support roosting if suitable crevice habitat is present; trees present in riparian woodland northwest of Vandegrift Blvd and Project Site, and eucalyptus trees within Project Site, could support roosting if cavities/hollows present. High (foraging). Study Area contains suitable arid coastal scrub foraging habitat. 2 CNDDDB records within 5 miles; no iNaturalist records; nearest is 1997 CNDDDB record ~1.4 miles north of Study Area. Per USDON (2020), high potential to exist on MCBCP, but no official observation found on record. |
| Mammal | Balaenoptiidae | <i>Balaenoptera musculus</i> | blue whale | FE | Largest marine mammal. Occurs in all the world's oceans except the Arctic Ocean. | Not likely to occur. Study Area is outside of species' range; lacks suitable marine habitat. Per USDON (2020), known to occur on MCBCP where habitat present. |
| Mammal | Balaenoptiidae | <i>Balaenoptera physalus</i> | fin whale | FE | Second largest marine mammal. Occurs throughout the world's oceans. | Not likely to occur. Study Area is outside of species' range; lacks suitable marine habitat. Per USDON (2020), |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|---|-------------------------------------|---------------|---|---|
| | | | | | | known to occur on MCBCP where habitat present. |
| Mammal | Procyonidae | <i>Bassariscus astutus</i> | ringtail | FP | Rocky outcrops, canyons, or talus slopes located in deserts, chaparral; woodlands of oak, pinyon pine, and juniper; montane conifer forests; and especially riparian for the abundant prey. From sea level up to 9,500 ft. (2,900 m) but most common below 4,600 ft. Den in rock recesses, logs, tree hollows, and human-made enclosures. Occurs throughout California at low to middle elevations. | High. Study Area contains suitable riparian woodland habitat northwest of Vandegrift Blvd and Project Site. Species not mapped in CNDDDB; no iNaturalist records within 5 miles. Per USDO (2020), observed on MCBCP. |
| Mammal | Hetermyidae | <i>Chaetodipus californicus femoralis</i> | Dulzura pocket mouse | S3S4 | Coastal scrub, chaparral, and grassland in San Diego County. Attracted to grass-chaparral edges. Occurs in Sierra Nevada, Coast, Transverse, and Peninsular Ranges. | High. Study Area contains suitable coastal scrub and grassland habitat. 2 CNDDDB records within 5 miles; no iNaturalist records; historic 1931 occurrence polygon overlaps Study Area, occurrence assumed to be extant. Per USDON (2020), observed on MCBCP. |
| Mammal | Hetermyidae | <i>Chaetodipus fallax fallax</i> | northwestern San Diego pocket mouse | S3S4 | Coastal sage scrub, chaparral, grasslands. Sandy, herbaceous areas usually in association with rocks or coarse gravel. Occurs in central and northern Baja California Peninsula and southwestern California; widespread in valleys of western Riverside Co. and southwestern San Bernardino Co. extending northwest to Claremont area of Los Angeles Co.; southwestern San Diego Co, Elfin Forest, and Cleveland National Forest. | High. Study Area contains suitable coastal scrub and grassland habitat. 1 CNDDDB record from 1998 ~3.3 miles northeast of Study Area; no iNaturalist records. Per USDON (2020), observed on MCBCP. |
| Mammal | Hetermyidae | <i>Chaetodipus fallax pallidus</i> | pallid San Diego pocket mouse | S3S4 | Occurs in desert scrub, desert succulent scrub, pinyon and juniper woodland; prefers sandy, herbaceous areas, association with rocks or coarse gravel. Occurs in arid coastal and desert border areas in San Diego Co., in Riverside Co. southwest of Palm Springs, in San Bernardino Co. from Cactus Flat in San Bernardino | Not likely to occur. Study Area lacks suitable desert scrub, desert succulent scrub, or pinyon-juniper woodlands. Per USDON (2020), observed on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|------------------|--------------------------------|--------------------------|---------------|--|---|
| | | | | | Mountains to Oro Grande and east to Twenty-nine Palms; under ~4,500 ft. elev. | |
| Mammal | Phyllostomidae | <i>Choeronycteris mexicana</i> | Mexican long-tongued bat | SSC, S1 | Desert shrublands, deep mountain canyons with dense riparian vegetation, tropical deciduous forests and, typically in southwestern U.S., in montane oak-conifer woodlands and semi-desert grasslands. California records largely located in urban habitat in San Diego (city). Roosts in twilight areas near entrances of caves, mines, rock crevices, and abandoned buildings. Forages primarily on nectar and pollen of night-blooming flowers such as Agave and columnar cacti; sometimes eat cacti fruit and accompanying insects. | Not likely to occur. Study Area lacks suitable desert shrubland, deep mountain canyon, tropical deciduous, montane oak-conifer woodland, semi-desert grassland habitats; lacks suitable cave, mine, rock crevices, and abandoned building roost habitats and Agave and columnar cacti, or urban-associated (humming-bird feeders) food sources. Per USDON (2020), high potential to exist on MCBCP, but no official observation found on record. |
| Mammal | Vespertilionidae | <i>Corynorhinus townsendii</i> | Townsend's big-eared bat | SSC, S2 | Habitat associations include conifer forests, deserts, grasslands, riparian, coastal habitats, active agriculture; most commonly found in mesic sites from sea level to 10,800 ft. Roosts on walls and ceilings of caves and mines, also buildings, bridges, rock crevices, and hollow trees; roosting sites are limiting to success and presence. Extremely sensitive to human disturbance. Forages in edge habitats along streams, adjacent to and within a variety of wooded habitats. | Low (roosting). Study Area contains human-made structures/buildings, some unoccupied, that could support roosting if ingress to their interiors are present; trees present in riparian woodland northwest of Vandegrift Blvd and Project Site, and eucalyptus trees within Project Site, could support roosting if large hollows are present. High (foraging). Study Area contains riparian woodland northwest of Vandegrift Blvd and Project Site suitable for foraging. No CNDDDB or iNaturalist records within 5 miles. Per USDON (2020), high potential to exist on MCBCP, but no official observation found on record. |
| Mammal | Heteromyidae | <i>Dipodomys stephensi</i> | Stephens' kangaroo rat | FT, ST, S3 | Primarily annual and perennial grasslands; also, sparse coastal scrub. Occurs in San Jacinto Valley and adjacent areas of western Riverside Co., southwestern San Bernardino, and northwestern San Diego Co.'s. | Not likely to occur. Study Area contains suitable coastal scrub and grassland habitats. Per USDON (2018, 2020), not known or likely to occur in the Study Area; Study Area is outside of documented and/or monitored populations on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|------------------|--|-----------------------------------|---------------|--|---|
| Mammal | Eschrichtiidae | <i>Eschrichtius robustus</i> | gray whale | FE | Marine mammal. Occurs in the Pacific Ocean. | Not likely to occur. Study Area is outside of species' range; lacks suitable marine habitat. Per USDON (2020), known to occur on MCBCP where habitat present. |
| Mammal | Vespertilionidae | <i>Euderma maculatum</i> | spotted bat | SSC, S3 | Habitat associations include arid deserts, grasslands, and mixed conifer forests. Feeds over water and along washes, almost entirely on moths. Roosts in cracks, crevices, and caves, usually high in fractured rock cliffs. Occurs throughout western North America. | Not likely to occur (roosting, foraging). Study Area lacks suitable arid desert, grassland, and mixed conifer forest habitats; lacks suitable rocky roost habitat of cracks, crevices, and caves. |
| Mammal | Molossidae | <i>Eumops perotis californicus</i> | western mastiff bat | SSC, S3S4 | Obligate cliff dweller in habitats ranging from desert to sub-alpine meadows, including desert-scrub, pinyon-juniper, ponderosa pine, mixed conifer forest, canyon bottoms, riparian areas, fields, and open pasture. From sea level to 9,000 ft. Rare. Occurs in southwestern U.S. to central Mexico. | Not likely to occur (roosting). Study Area lacks suitable cliff roosting habitat. High (foraging). Study Area contains riparian woodland and riparian scrub habitats, primarily on the northwest side of Vandegrift Blvd and the Project Site, suitable for foraging habitat. 4 CNDDDB records within 5 miles, all along the Santa Margarita River corridor or Lake O'Neill north of the Study Area; no iNaturalist records; nearest is 1997 CNDDDB record ~1.1 miles northeast of Study Area. Per USDON (2020), high potential to exist on MCBCP, but no official observation found on record. |
| Mammal | Vespertilionidae | <i>Lasiurus frantzii</i> (= <i>Lasiurus blossevillii</i>) | western red bat | SSC, S3 | Typically solitary, prefers riparian. Roosts primarily in shrub and tree foliage, especially cottonwood-willow, mostly in edge habitats adjacent to streams or open fields but also orchards, sometimes urban areas. May occasionally use caves. Considered present throughout California. | High (roosting, foraging). Study Area contains suitable riparian woodland and riparian scrub habitat, primarily northwest of Vandegrift Blvd and Project Site. No CNDDDB or iNaturalist records within 5 miles. Per USDON (2020), high potential to exist on MCBCP, but no official observation found on record. |
| Mammal | Leporidae | <i>Lepus californicus bennettii</i> | San Diego black-tailed jackrabbit | S3S4 | Coastal sage scrub habitats in southern California. Intermediate canopy stages of shrub habitats and open shrub/herbaceous and tree/herbaceous edges. Occurs on the | Moderate. Study Area contains suitable coastal scrub habitat. No CNDDDB or iNaturalist records within 5 miles. Per USDON (2020), observed on MCBCP. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|------------------|----------------------------------|---------------------------|---------------|---|--|
| | | | | | coastal side of southern California mountains. | |
| Mammal | Phyllostomidae | <i>Macrotus californicus</i> | California leaf-nosed bat | SSC, S3 | Lower Sonoran life zone in the deserts of California, southern Nevada, Arizona, and south to Baja California and Sonora, Mexico. Desert shrublands and arid lowlands; roosts in caves and mines, forages over open shrublands. | Not likely to occur. Study Area is well outside species' geographic range; lacks desert shrubland and arid lowland habitats, caves and mines. |
| Mammal | Balaenoptiidae | <i>Megaptera novaeangliae</i> | humpback whale | FE | Marine mammal. Occurs throughout the world's oceans. | Not likely to occur. Study Area is outside of species' range; lacks suitable marine habitat. Per USDON (2020), known to occur on MCBCP where habitat present. |
| Mammal | Vespertilionidae | <i>Myotis yumanensis</i> | Yuma myotis | S4 | Associated with permanent water, typically rivers and streams, but also scour pools in bedrock. Found in riparian, forests, and arid scrublands and deserts. Roosts in bridges, buildings, cliff crevices, caves, mines, and trees. Found throughout Northern California. | High (roosting, foraging). Study Area contains human-made structures/ buildings, some occupied and some unoccupied, that could support roosting if suitable crevice habitat is present; trees present in riparian woodland northwest of Vandegrift Blvd and Project Site, and eucalyptus trees within Project Site, could support roosting if cavities/hollows present. Study Area contains riparian woodland and riparian habitat, primarily northwest of Vandegrift Blvd and Project Site, that could support foraging. 8 CNDDDB records within 5 miles; 2 iNaturalist records; nearest is 1995 CNDDDB record ~1 mile north of Study Area. Per USDON (2020), high potential to exist on MCBCP, but no official observation found on record. |
| Mammal | Cricetidae | <i>Neotoma lepida intermedia</i> | San Diego desert woodrat | SSC, S3S4 | Coastal scrub with a moderate to dense canopies preferred. Particularly abundant in rock outcrops, rocky cliffs, and slopes. So. California from San Diego to San Luis Obispo Cos. | High. Study Area contains suitable coastal scrub habitat. Per USDON (2020), observed on MCBCP. |
| Mammal | Molossidae | <i>Nyctinomops femorosaccus</i> | pocketed free-tailed bat | SSC, S3 | Deserts and arid lowlands, SW US, Baja Calif., mainland Mexico; Roost mainly in crevices of high cliffs; | Not likely to occur (roosting). Study Area lacks suitable cliff roosting habitat. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|---|----------------------------|----------------------------------|--|--|
| | | | | | forage over water and open shrubland. | High (foraging). Study Area contains coastal scrub, riparian woodland, and riparian scrub habitats that could support foraging. 1 CNDDDB record from 1996 ~3.3 miles north of Study Area; no iNaturalist records. Per USDON (2020), high potential to exist on MCBCP, but no official observation found on record. |
| Mammal | Molossidae | <i>Nyctinomops macrotis</i> | big free-tailed bat | SSC, S3 | Primarily inhabits rugged, rocky habitats in arid landscapes, including desert shrub, woodlands, and evergreen forests. Roosts in crevices of rocky cliffs. Scattered localities in southwestern U.S., including southern California, south into Mexico and South America. | Not likely to occur. Study Area is outside species' geographic range; lacks rugged, rocky habitat in desert shrub, woodlands, or evergreen forest. Per USDON (2020), high potential to exist on MCBCP, but no official observation found on record. |
| Mammal | Cricetidae | <i>Onychomys torridus ramona</i> | southern grasshopper mouse | SSC, S3 | Arid desert habitats of Mojave Desert and southern Central Valley, alkali desert scrub and desert scrub, with some densities in succulent scrub, wash, and riparian areas. Also occurs in coastal scrub, mixed chaparral, sagebrush, low sage, and bitterbrush. | Moderate. Study Area contains suitable coastal scrub habitat. No CNDDDB or iNaturalist records within 5 miles. Per USDON (2020), observed on MCBCP. |
| Mammal | Heteromyidae | <i>Perognathus longimembris pacificus</i> | Pacific pocket mouse | FE, SSC, S2 | Coastal mesas, in coastal scrub or sparse grassland with fine alluvial sandy soils. Occurs in at one location in Orange Co. and three locations on MCBCP. | Not likely to occur. Study Area contains coastal scrub habitat. Per USDON (2018, 2020), not known or likely to occur in the Study Area; Study Area is outside of documented and/or monitored populations on MCBCP. |
| Mammal | Physeteridae | <i>Physeter macrocephalus</i> | sperm whale | FE | Marine mammal. Occurs in the world's deep oceans from the equator to the Arctic and Antarctic ice packs. | Not likely to occur. Study Area is outside of species' range; lacks suitable marine habitat. Per USDON (2020), known to occur on MCBCP where habitat present. |
| Mammal | Felidae | <i>Puma concolor</i> | mountain lion | Southern CA/Central Coast ESU SC | Utilize many habitats within their range to hunt including riparian, scrub, chaparral, grassland, and woodland habitats; will travel through open or human-disturbed habitat, they prefer expansive, intact, heterogeneous habitat Range | High. Known to occur within Camp Pendleton and surrounding areas; several occurrences including along Santa Margarita River. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|---------------|--|------------------------------------|-----------------|---|---|
| | | | | | southern California along the central coast of California. | |
| Mammal | Mustelidae | <i>Taxidea taxus</i> | American badger | SSC, S3 | Most abundant in drier open stages of most shrub, forest, and herbaceous habitats with friable soils; require sufficient food source, friable soils, and open, uncultivated ground; prey on burrowing rodents. Widespread throughout California and North America. | Moderate. Study Area contains suitable coastal scrub and grassland habitat. No CNDDDB or iNaturalist records within 5 miles. Per USDON (2020), observed on MCBCP. |
| Reptile | Emyidae | <i>Actinemys pallida</i> (= <i>Emys marmorata pallida</i>) | southwestern pond turtle | FT-PRO, SSC, S3 | Permanent or nearly permanent bodies of water in various habitat types with basking sites such as partially submerged logs, vegetation mats, or open mud banks. Requires upland habitat up to 0.5 kilometer (0.3 miles or 1,640 feet) from water for egg laying. In California where habitat is present, below 6,000 ft. elevation. | High. Study Area lacks suitable aquatic habitat but contains suitable upland habitat for aestivation and/or egg laying, primarily in the riparian scrub and woodland habitat northwest of Vandegrift Blvd and Project Site. Suitable upland habitat in the Study Area is within species' typical migration distance. 5 CNDDDB records within 5 miles; 1 iNaturalist record; nearest is a CNDDDB record with unspecified date located adjacent to the west side of Study Area. Per USDON (2020), species is known to breed along the Upper and Lower Santa Margarita River. |
| Reptile | Anniellidae | <i>Anniella stebbinsi</i> | southern California legless lizard | SSC, S3 | Sandy or loose loamy soils under sparse vegetation; soils typically have high moisture content. Generally, south of the Transverse Range, south to NW Baja Calif. | High. Study Area contains suitable coastal scrub and grassland habitat with some areas of sandy soils. 1 CNDDDB record from 2015 ~4.9 miles south of Study Area; no iNaturalist records. Per USDON (2020), observed on MCBCP. |
| Reptile | Colubridae | <i>Arizona elegans occidentalis</i> | California glossy snake | SSC, S2 | Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular Ranges, south to Baja California. Generalists reported from a range of scrub and grassland habitat, often with loose or sandy soils. | Moderate. Study Area contains suitable coastal scrub and grassland habitat. No CNDDDB or iNaturalist records within 5 miles. Per USDON (2020), observed on MCBCP. |
| Reptile | Teiidae | <i>Aspidoscelis hyperythra</i> | orange-throated whiptail | WL, S2S3 | Occurs in deserts and semi-arid areas with sparse vegetation in firm soil, sandy, or rocky soils. Occurs from | High. Study Area contains suitable coastal scrub habitat. 10 CNDDDB records within 5 miles; numerous |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|----------------|---------------------------------------|-------------------------|---------------|--|---|
| | | | | | Santa Ana River in Orange Co. and near Colton in San Bernardino Co., west of the Peninsular Ranges, south almost to the cape region of Baja California Peninsula. | iNaturalist records; nearest is 2020 iNaturalist record ~0.5 mile north of Study Area. Per USDON (2020), observed on MCBCP. |
| Reptile | Teiidae | <i>Aspidoscelis tigris stejnegeri</i> | coastal whiptail | SSC, S3 | Wide variety of habitats including valley-foothill hardwood, hardwood-conifer, riparian; mixed conifer, pine-juniper, chamise-redshank chaparral, mixed chaparral, desert scrub, desert wash, alkali scrub, and annual grasslands; most common in lowlands along sandy washes with scattered low bushes. Occurs in coastal southern California, primarily west of Peninsular Ranges and south of Transvers Ranges. | Low. Study Area largely lacks suitable grassland and valley-foothill hardwood habitats. 7 CNDDDB records within 5 miles; nearest is 1999 CNDDDB record ~3 mile northwest of Study Area; no iNaturalist records. Per USDON (2020), observed on MCBCP. |
| Reptile | Cheloniidae | <i>Chelonia mydas</i> | green sea turtle | FT, S1 | Sea turtle. Occurs throughout the world's oceans, nest on sandy beaches in coastal areas. | Not likely to occur. Study Area is outside of species' range; lacks suitable marine habitat. Per USDON (2020), known to occur on MCBCP where habitat present. |
| Reptile | Gekkonidae | <i>Coleonyx variegatus abbotti</i> | San Diego banded gecko | SSC, S1S2 | Occurs in arid areas including creosote flats, sagebrush desert, pinion juniper woods, and chaparral. Prefers rocky areas in coastal sage and chaparral but may occur in rock-free areas such as sand dunes. Occurs from coastal southern California south into Baja California. | Low. Study Area is just outside species' geographical range; contains suitable coastal scrub habitat. No CNDDDB or iNaturalist records within 5 miles. Per USDON (2020), observed on MCBCP. |
| Reptile | Viperiidae | <i>Crotalus ruber</i> | red-diamond rattlesnake | SSC, S3 | Coastal sage scrub, chaparral, woodlands, and desert scrub.; prefers rocky areas with dense vegetation; Coastal CA east to Whitewater Canyon. | High. Study Area contains suitable coastal scrub habitat. 2 CNDDDB records within 5 miles; numerous iNaturalist records; nearest is 2019 iNaturalist record ~0.5 mile southeast of Study Area. Per USDON (2020), observed on MCBCP. |
| Reptile | Dermochelyidae | <i>Dermochelys coriacea</i> | leatherback sea turtle | FE | Sea turtle. Occurs throughout the world's oceans, nest on sandy beaches in coastal areas. | Not likely to occur. Study Area is outside of species' range; lacks suitable marine habitat. Per USDON (2020), known to occur on MCBCP where habitat present. |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|-------------------|-----------------|--|--------------------------|---------------|---|---|
| Reptile | Colubridae | <i>Diadophis punctatus similis</i> | San Diego ringneck snake | S2? | Species found in a variety of habitats from sea level to 1,950 m in elevation, including wet meadows, rocky hillsides, gardens, farmland, grassland, chaparral, mixed coniferous forests, and woodlands. Requires moist microclimates and is usually found under rocks, logs, or leaf litter. Occurs primarily in San Diego Co. along the coast and in the Peninsular Range, as well as southwestern Riverside Co. south into northern Baja California. | High. Study Area contains suitable riparian scrub and woodland habitat, primarily northwest of Vandegrift Blvd and Project Site. 1 CNDDDB and several iNaturalist records within 5 miles; nearest is 2010 iNaturalist record ~2 miles east of Study Area. Per USDON (2020), observed on MCBCP. |
| Reptile | Phrynosomatidae | <i>Phrynosoma blainvillii</i> | coast horned lizard | SSC, S4 | Species requires loose, fine soils with a high sand fraction, abundance of native ants or other insects, open areas with limited overstory for basking and areas with low, dense shrubs for refuge. Range is Pacific coast to the deserts and the Sierra Nevada, north to the Bay Area, and south into Baja California. Elevational range is 10 to 2,130 m. | High. Study Area contains suitable coastal scrub and riparian scrub habitats. 3 CNDDDB records within 5 miles; several iNaturalist records; nearest is 2023 iNaturalist record ~0.6 miles west of Study Area. Per USDON (2020), observed on MCBCP. |
| Reptile | Scincidae | <i>Plestiodon skiltonianus interparietalis</i> | Coronado skink | WL, S2S3 | Grassland, chaparral, coastal sage scrub, pinon- juniper and juniper sage, woodland, pine-oak, and pine forests in coastal ranges of southern California. | High. Study Area contains suitable coastal scrub and grassland habitats. 3 CNDDDB records within 5 miles; 2 iNaturalist records; nearest is 2011 iNaturalist record ~2 miles east of Study Area. Per USDON (2020), observed on MCBCP. |
| Reptile | Colubridae | <i>Salvadora hexalepis virgultea</i> | coast patch-nosed snake | SSC, S3 | Burrows in loose soil in semi-arid bushy areas and chaparral in canyon, rocky hillsides, and plains. Occurs from near Creston in San Luis Obispo Co. south to Baja California, primarily on the coastal side of mountains. | Moderate. Study Area contains suitable coastal scrub habitat. No CNDDDB records within 5 miles; 1 iNaturalist record from 2013 ~5 miles west of Study Area. Per USDON (2020), observed on MCBCP. |
| Reptile | Natricidae | <i>Thamnophis hammondi</i> | two-striped gartersnake | SSC, S3S4 | Highly aquatic; found in or near permanent fresh water; often along streams with rocky beds and riparian growth. Occurs from northern Monterey Co. south through the | High. Study Area contains suitable riparian scrub and woodland habitat, primarily northwest of Vandegrift Blvd and Project Site. 3 CNDDDB and numerous iNaturalist records within 5 miles; nearest is 2021 iNaturalist record |

Appendix D-2: Potential to Occur – Wildlife

| Taxa Group | Family | Scientific Name | Common Name | Status | Lifeform and Habitat | Occurrence in Study Area |
|------------|--------|-----------------|-------------|--------|---|--|
| | | | | | South Coast and Peninsular Ranges to Baja California. | ~1 mile west of Study Area. Per USDON (2020), observed on MCBCP. |

Sources: CDFW 2023a; eBird 2023; iNaturalist 2023; USDON 2020; USDON 2018 and 2023

1 - Conservation Status

Federal designations: (federal Endangered Species Act, U.S. Fish and Wildlife Service).

- FE: Federally listed, endangered
- FT: Federally listed, threatened
- FD: Federally delisted
- PRO: Proposed for listing
- CAN: Candidate for listing

State (CA) designations: (California Endangered Species Act, California Department of Fish and Wildlife [CDFW])

- SE: State listed, endangered.
- ST: State listed, threatened.
- SC: State candidate for listing, endangered or threatened
- SSC: CDFW California Species of Special Concern. Considered vulnerable to extinction due to declining numbers, limited geographic ranges, or ongoing threats.
- FP: CDFW Fully Protected species. May not be taken or possessed without permit from CDFW

State Rank:

- SX: Presumed Extirpated – Species is believed to be extirpated from the state Not located despite intensive searches of historical sites and other appropriate habitat, and virtually no likelihood that it will be rediscovered
- S1: Critically Imperiled – At very high risk of extirpation in the state due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors.
- S2: Imperiled – At high risk of extirpation in the state due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors.
- S3: Vulnerable – At moderate risk of extirpation in the state due to a fairly restricted range, relatively few populations or occurrences, recent and widespread declines, threats, or other factors.
- S4: Apparently Secure – At a fairly low risk of extirpation in the state due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors

Uncertainty about the status of an element is expressed in two major ways:

1. By expressing the ranks as a range of values: e.g., S2S3 indicates the rank is somewhere between S2 and S3.
2. By adding a "?" to the rank: e.g., S2?; this represents more certainty than S2S3, but less certainty than S2

2 - Definitions of occurrence probability: Estimated occurrence probabilities based on literature sources cited earlier and 2024 reconnaissance level surveys and habitat analyses reported here.

- Present:** Taxon was observed within the Project Area during 2024 reconnaissance level surveys.
- High:** Both a documented recent record (within 20 years) exists of the taxon within the Study Area (approximately 5 miles) and the environmental conditions (including soil type) associated with taxon are present.
- Moderate:** Both a documented recent record (within 20 years) exists of the taxon within the Project Area or in the Study Area (approximately 5 miles) and the environmental conditions associated with taxon presence are marginal or limited within the Project Area and the Project Area is located within the known current distribution of the taxon and the environmental conditions (including soil type) associated with taxon are present.
- Low:** A historical record (over 20 years) exists of the taxon within the Project Area or in the general region (approximately 10 miles) and the environmental conditions (including soil type) associated with taxon are present but marginal or limited.