APPENDIX B
Biological Resources Reports

Michael Baker
INTERNATIONAL

We Make a Difference

July 10, 2020 JN 178669

CITY OF DIAMOND BAR
Attn: *Mr. Ryan Wright*
21810 Copley Drive
Diamond Bar, CA 91765

SUBJECT: Results of a Biological Resources Assessment of the Canyon Loop Trail Improvement Project– City of Diamond Bar, Los Angeles County, California

Dear Mr. Wright:

Michael Baker International (Michael Baker) is pleased to submit this report to the City of Diamond Bar documenting the results of a biological resources assessment of the Canyon Loop Trail Improvement Project (project) located in the City of Diamond Bar, Los Angeles County, California. Michael Baker conducted a literature review and a field survey to characterize existing site conditions and assess the potential for special-status[1] plant and wildlife species to occur on or within the immediate vicinity of the project site that could pose a constraint to future development. Specifically, this report provides a detailed assessment of the suitability of the on-site habitat to support special-status plant and wildlife species that were identified by the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) RareFind 5 (CDFW 2020a), the CNDDB Biogeographic Information and Observation System (BIOS; CDFW 2020b), the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants of California (Online Inventory; CNPS 2020), and other databases as potentially occurring in the vicinity of the project site.

Project Location

The survey area include the project site plus a 500-foot buffer, and is generally located south of State Route 60, east of State Route 57, north of Grand Avenue, and west of Chino Hills Parkway in the City of Diamond Bar, Los Angeles County, California (refer to Figure 1, *Regional Vicinity*, in Attachment A). The survey area is depicted in Sections 10, 11, 4, and 15 of Township 2 south, Range 9 west, on the United States Geological Survey's (USGS) *San Dimas, California* 7.5-minute quadrangle (refer to Figure 2, *Project Vicinity*, in Attachment A; USGS 1981). Specifically, the survey area is located along the Canyon Loop Trail within Summitridge Park (refer to Figure 3, *Survey Area*, in Attachment A).

[1] As used in this report, "special-status" refers to plant and wildlife species that are Federally-/State-listed, proposed, or candidates; plant species that have been designated a California Rare Plant Rank species by the California Native Plant Society; wildlife species that are designated by the California Department of Fish and Wildlife as Fully Protected, Species of Special Concern, or Watch List species; and State/locally rare vegetation communities.

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Project Description

The City of Diamond Bar proposes to implement a series of improvements to the existing Canyon Loop Trail. The intent of the project is primarily to realign the trail, improve drainage to minimize erosion of the trail, enhance the use of the trail where the gradients are steep, re-grade cross slopes, and consider amenities such as directional and interpretive signage, rest areas with benches, small shade shelters, climbing steps with cobblestone swale channelization, and water diverting improvements where necessary. Such trail improvements will reward hikers and visitors with 360-degree views of open space. Proposed improvements are shown in Figure 4, *Project Design*, in Attachment A.

Methodology

Literature Review

Prior to conducting the field survey, literature reviews and records searches were conducted for special-status biological resources potentially occurring on or within the vicinity of the survey area. Previous special-status plant and wildlife species occurrence records within the USGS *Baldwin Park, San Dimas, Ontario, La Habra, Yorba Linda,* and *Prado Dam, California* 7.5-minute quadrangles were determined through a query of the CNDDB (CDFW 2020a), BIOS (CDFW 2020b), the United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC; USFWS 2020a), CNPS Online Inventory (CNPS 2020), and the Calflora Database (Calflora 2020). Current conservation status of species was verified through lists and resources provided by the CDFW(CDFW 2020c, 2020d). In addition, Michael Baker reviewed all available reports, survey results, and literature detailing the biological resources previously observed on or within the vicinity of the survey area to gain an understanding of existing site conditions, confirm previous species observations, and note the extent of any disturbances that have occurred within the survey area that would otherwise limit the distribution of special-status biological resources. Standard field guides and texts were reviewed for specific habitat requirements of special-status species, as well as the following resources:

- *City of Diamond Bar General Plan 2040* (Dyett and Bhatia 2019);
- Google Earth Pro Historical Aerial Imagery from 1995 to 2019 (Google, Inc. 2019);
- *Los Angeles County General Plan* (Los Angeles County Planning Department 2015);
- Species Accounts provided by Birds of the World (Billerman et al. 2020);
- United States Department of Agriculture, Natural Resource Conservation Service's (USDA) *Custom Soil Resource Report for Los Angeles County, California, Southeastern Part,* (USDA 2020);
- USFWS Critical Habitat Mapper and Environmental Conservation Online System (USFWS 2020b); and
- *CEQA Review, Canyon Loop Trail Project, City of Diamond Bar* (Hamilton Biological 2019).

Habitat Assessment

Michael Baker biologists Stephen Anderson and Ryan Winkleman conducted a habitat assessment/field survey on May 6, 2020 to confirm existing site conditions within the 500-foot survey area. Limitations to site access included areas with extremely dense vegetation and/or steep slopes. Michael Baker extensively surveyed all special-status habitats and/or natural areas with a higher potential to support special-status

plant and wildlife species, where accessible. Vegetation communities occurring within the survey area were mapped on an aerial photograph and classified in accordance with the vegetation descriptions provided in *A Manual of California Vegetation* (MCV; Sawyer et al. 2009) and cross referenced with the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986). In addition, site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, indicator species, condition of on-site vegetation communities, and the presence of potentially regulated jurisdictional features were noted. Michael Baker used Geographic Information Systems (GIS) ArcView software to digitize the mapped vegetation communities and then transferred these data onto an aerial photograph to further document existing conditions and quantify the acreage of each vegetation community. Refer to Table 1 below for a summary of the survey dates, timing, surveyors, and weather conditions.

Table 1: Habitat Assessment Survey Date, Timing, Surveyors, and Weather Conditions

Date	Time (start / finish)	Surveyors	Weather Conditions	
			Temperature (°F) (start / finish)	Average Wind Speed (mph)
May 6, 2020	0809 / 1154	Stephen Anderson Ryan Winkleman	70 sunny / 88 sunny	3

All plant and wildlife species observed, as well as dominant plant species within each vegetation community, were recorded. Plant species observed during the habitat assessment were identified by visual characteristics and morphology in the field while unusual and less familiar plant species were photographed and identified later using taxonomic guides. Plant nomenclature used in this report follows the *Jepson Flora Project* (2020) and scientific names are provided immediately following common names of plant species (first reference only). Wildlife detections were made through aural and visual detection, as well as observation of sign including scat, trails, tracks, burrows, and nests. Field guides used to assist with identification of species during the habitat assessment included *The Sibley Guide to Birds* (Sibley 2014) for birds, *A Field Guide to Western Reptiles and Amphibians* (Stebbins 2003) for herpetofauna, *Bats of the United States and Canada* (Harvey et al. 2011) for bats, and *A Field Guide to Mammals of North America* (Reid 2006). Although common names of wildlife species are well standardized, scientific names are provided immediately following common names of wildlife species in this report (first reference only). To the extent possible, nomenclature of birds follows the most recent annual supplement of the American Ornithological Union's *Checklist of North American Birds* (Chesser et al. 2019), nomenclature of amphibians and reptiles follows *Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in Our Understanding* (Crother 2017), and nomenclature for mammals follows the *Revised Checklist of North American Mammals North of Mexico* (Bradley et al. 2014).

Focused Bird Surveys

In response to the letter *CEQA Review, Canyon Loop Trail Project, City of Diamond Bar* (Hamilton Biological 2019), submitted to the City of Diamond Bar, Michael Baker conducted focused surveys for coastal California gnatcatcher (*Polioptila californica californica*; a Federally Threatened Species and CDFW Species of Special Concern (SSC)) and cactus wren (*Campylorhynchus brunneicapillus*) between May 26 and July 1, 2020. Surveys were led by Mr. Winkleman with Michael Baker biologists Ashley Spencer and Tom Millington as support, as shown in Table 2. The surveys generally followed the protocol

Coastal California Gnatcatcher (Polioptila californica californica) Presence/Absence Survey Guidelines (USFWS 1997), as well as survey guidelines for cactus wren outlined in Mr. Winkleman's Scientific Collecting Permit issued by CDFW. A total of six (6) surveys were conducted in patches of suitable habitat for these species within 500 feet of the project site, similar to the habitat assessment, with the goal of mapping occurrences and territories of coastal California gnatcatchers and cactus wrens and, if possible, mapping nesting locations. Detailed results of the focused bird surveys are included in a separate survey report but relevant results are summarized and incorporated in this assessment as needed.

Table 2: Focused Bird Survey Dates, Timing, Surveyors, and Weather Conditions

Date	Time (start / finish)	Surveyors	Weather Conditions	
			Temperature (°F) (start / finish)	Average Wind Speed (mph)
May 26, 2020	0751 / 1222	Ryan Winkleman	64 sunny / 83 sunny	1
June 3, 2020	0713 / 1146	Ashley Spencer Ryan Winkleman	65 sunny / 87 sunny	4
June 10, 2020	0720 / 1150	Ashley Spencer Ryan Winkleman	69 sunny / 93 sunny	2
June 17, 2020	0729 / 1149	Tom Millington Ryan Winkleman	62 cloudy / 68 cloudy	1
June 24, 2020	0729 / 1142	Ashley Spencer Ryan Winkleman	62 cloudy / 76 sunny	2
July 1, 2020	0730 / 1130	Ashley Spencer Ryan Winkleman	62 cloudy / 67 cloudy	1

Existing Site Conditions

According to the USDA *Custom Soil Resource Report for Los Angeles County, California, Southeastern Part,* the survey area is underlain by the following soil units: Urban land-Sorrento-Arbolado complex, 2 to 9 percent slopes (1136), Gaviota-Chumash-Rock outcrop complex, 20 to 55 percent slopes (1145), and Counterfeit-Urban land complex, 10 to 35 percent slopes, terraced (1232). After a review of Google Earth historic imagery and results from the field survey, it was determined that the survey area consists of natural vegetation with relatively undisturbed soils. Areas immediately surrounding the survey area consist of residential developments to the east and west, and undeveloped land to the north and south. The survey area is located at an elevation of approximately 970 to 1,310 feet above mean sea level. Please refer to Attachment B for representative photographs of the survey area taken during the field survey.

Vegetation Communities and Land Cover Types

Several terrestrial vegetation communities were identified on-site during the field survey. Vegetation classification was based on MCV (Sawyer et al. 2009) and cross-checked with Holland (1986). The vegetation communities and land uses present on-site are depicted on Figure 5, *Vegetation Communities and Other Land Uses*, in Attachment A, and described in further detail below. Additionally, refer to Attachment C for a complete list of plant species observed within the survey area during the field survey.

Table 3 provides the acreages of each vegetation community/land use on-site, with each discussed in detail below.

Table 3. Vegetation Communities/Land Uses within the Survey Area

Vegetation Community/Land Use	Acreage
California Sagebrush – Black Sage Scrub	2.13
Disturbed California Sagebrush – Black Sage Scrub	17.76
California Buckwheat Scrub	0.45
Coast Live Oak Woodland and Forest	23.57
Coast Prickly Pear Scrub	9.90
Scrub Oak Chaparral	11.82
Disturbed California Walnut Groves	6.30
Disturbed Blue Elderberry Stands	2.23
Upland Mustards and Other Ruderal Forbs	15.38
Disturbed	6.01
Developed	7.56
TOTAL ACREAGE	**103.11**

California Sagebrush – Black Sage Scrub (Holland Equivalent: Diegan Coastal Sage Scrub; Code: 32500)

Approximately 2.13 acres of California sagebrush – black sage scrub vegetation is located within the survey area. The majority of this vegetation community is dominated by California sagebrush (*Artemisia californica*) and black sage (*Salvia mellifera*) with other shrubs such as white sage (*Salvia apiana*), deerweed (*Acmispon glaber*), and California buckwheat (*Eriogonum fasciculatum*) occurring as less frequent sub-dominants. Due to the high density of shrubs within the vegetation community, little to no herbaceous cover is present.

Disturbed California Sagebrush – Black Sage Scrub (Holland Equivalent: Disturbed Diegan Coastal Sage Scrub; Code: 32500)

Approximately 17.76 acres of disturbed California sagebrush – black sage scrub vegetation is located throughout the survey area. This vegetation community is similar in composition and generally in close proximity to the California sagebrush – black sage scrub found within the survey area but also contains black mustard (*Brassica nigra*) and tocalote (*Centaurea melitensis*) as co-dominant species, in many areas completely dominating the ground cover between native shrubs.

California Buckwheat Scrub (Holland Equivalent: Disturbed Diegan Coastal Sage Scrub; Code: 32500)

Approximately 0.45 acre of California buckwheat scrub vegetation is located within the western portion of the survey area. This vegetation community is entirely dominated by California buckwheat, and appears to be part of a previous restoration effort.

Coast Live Oak Woodland and Forest (Holland Equivalent: Southern Coast Live Oak Riparian Forest; Code 61310)

Approximately 23.57 acres of coast live oak woodland and forest vegetation is located within the survey area. The majority of this vegetation community occurs within the valley bottoms and is dominated by coast live oak (*Quercus agrifolia*), with southern California black walnut (*Juglans californica*; California Rare

Plant Rank (CRPR) 4.2) occurring as a less frequent sub-dominant. Plant species observed in the herbaceous layer include common bedstraw (*Galium aparine*), wild cucumber (*Marah macrocarpa*), and miner's lettuce (*Claytonia perfoliata*).

Coast Prickly Pear Scrub (Holland Equivalent: Diegan Coastal Sage Scrub; Code: 32500)

Approximately 9.90 acre of coast prickly pear scrub vegetation is located within the survey area. Coast prickly pear (*Opuntia littoralis*) is dominant within this vegetation community, with sticky monkey flower (*Diplacus aurantiacus*) prominently interspersed throughout the area. California buckwheat and California sagebrush are also present, but in lower proportions compared to coast prickly pear and sticky monkeyflower.

Scrub Oak Chaparral (Holland Equivalent: Scrub Oak Chaparral; Code: 37900)

Approximately 11.82 acres of scrub oak chaparral vegetation is located within the survey area. The majority of this plant community is dominated by inland scrub oak (*Quercus berberidifolia*), with other shrubs such as lemonade berry (*Rhus integrifolia*) chamise (*Adenostoma fasciculatum*), and laurel sumac (*Malosma laurina*) occurring as less frequent sub-dominants. In addition, wild cucumber was commonly observed growing within this vegetation community.

Disturbed California Walnut Groves (Holland Equivalent: Disturbed California Walnut Woodland; Code 71210)

Approximately 6.30 acres of disturbed California walnut groves vegetation is located within the northern portion of the survey area. Southern California black walnut is dominant within this vegetation community, with dense patches of black mustard occurring between the widely scattered trees. No other herbaceous plants or shrubs were present within this vegetation community.

Disturbed Blue Elderberry Stands (Holland Equivalent: Elderberry Savannah; Code 63430)

Approximately 2.23 acres of disturbed blue elderberry stands vegetation is located within the northern portion of the survey area. Blue elderberry (*Sambucus nigra*) and black mustard are co-dominant within this vegetation community, with lemonade berry and inland scrub oak occurring as less frequent sub-dominants. No overstory or herbaceous cover were present within the vegetation community.

Upland Mustards and Other Ruderal Forbs (Holland Equivalent: Non-Native Grassland; Code 42200)

Approximately 15.38 acres of upland mustards and other ruderal forbs vegetation is located within the survey area. This non-native plant community is dominated by black mustard, with other species such as coastal wild radish (*Raphanus sativus*), Italian thistle (*Carduus pycnocephalus*), wild oat (*Avena fatua*), and Italian rye grass (*Festuca perennis*) occurring as less frequent sub-dominants. No overstory or shrubs were present within the vegetation community.

Disturbed

Approximately 6.01 acres of disturbed areas are located throughout the survey area. Disturbed areas consist of areas of bare ground associated with the recreational hiking and biking trails within the park, along with

other areas of bare ground associated with an unsuccessful restoration site in the southwest corner of the survey area.

Developed

Approximately 7.56 acres of developed areas are located within the western edge of the survey area. These areas consist of the residential developments immediately adjacent to the park, including any ornamental vegetation associated with the residences.

Wildlife

Natural vegetation communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predation. This section provides a general discussion of common wildlife species that were detected by Michael Baker during the field survey or that are expected to occur based on existing site conditions. The discussion is to be used as a general reference and is limited by the season, time of day, and weather conditions in which the field survey was conducted. Refer to Attachment C for a complete list of wildlife species observed within the survey area during the field survey.

Fish

No fish or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would support populations of fish were observed in the survey area during the field survey. Although there is an ephemeral drainage in the center of the survey area, it is dry most of the year and would not support the establishment of a fish population on the site. Therefore, no fish are expected to occur.

Amphibians

No amphibians or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable breeding habitat for amphibians were observed within the survey area during the field survey. The ephemeral drainage in the center of the survey area does not hold enough moisture to support amphibians, and without any sort of pools or ponding areas on-site and the extended dry season that this feature experiences, no amphibians are expected to occur.

Reptiles

Four (4) reptilian species were observed by Michael Baker biologists in the survey area: Great Basin fence lizard (*Sceloporus occidentalis longipes*), coastal whiptail (*Aspidoscelis tigris stejnegeri*; a CDFW SSC), western side-blotched lizard (*Uta stansburiana elegans*), and red racer (*Coluber flagellum piceus*). The survey area consists of a mix of disturbed and undisturbed vegetation and surface soils and is expected to provide habitat for a number of reptilian species that are acclimated to natural and edge or urban environments. Additional reptilian species that may be present within the survey area include southern alligator lizard (*Elgaria multicarinata*), San Diego gopher snake (*Pituophis catenifer annectens*), and southern pacific rattlesnake (*Crotalus oreganus helleri*).

Birds

Fifty-seven (57) bird species were detected by Michael Baker biologists in the survey area, with the most commonly-occurring species including California quail (*Callipepla californica*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), California scrub jay (*Aphelocoma californica*), blue-gray

gnatcatcher (*Polioptila caerulea*), coastal California gnatcatcher, Bewick's wren (*Thryomanes bewickii*), cactus wren, phainopepla (*Phainopepla nitens*), house finch (*Haemorhous mexicanus*), lesser goldfinch (*Spinus psaltria*), California towhee (*Melozone crissalis*), and spotted towhee (*Pipilo maculatus*). In addition, multiple Cooper's hawks (*Accipiter cooperii*; a CDFW Watch List (WL) Species) were observed within the survey area during every survey and was determined by the presence of multiple fledglings in early July during the focused bird surveys to have nested on-site.

Nesting birds are protected pursuant to the Federal Migratory Bird Treaty Act (MBTA) of 1918 and the California Fish and Game Code (CFGC)[2]. To maintain compliance with the MBTA and CFGC, clearance surveys are typically required prior to any ground disturbance or vegetation removal activities to avoid direct or indirect impacts to active bird nests and/or nesting birds. Consequently, if an active bird nest is destroyed or if project activities result in indirect impacts (e.g., nest abandonment, loss of reproductive effort) to nesting birds, it is considered "take" and is potentially punishable by fines and/or imprisonment. The survey area provides nesting habitat for year-round and seasonal avian residents that could occur in the area. This includes species that nest in shrubs (e.g., coastal California gnatcatcher, mourning dove), species nesting in trees (e.g., phainopepla, house finch, acorn woodpecker (*Melanerpes formicivorus*)), and species that nest on the open ground (e.g., California quail). No active or remnant nests or birds displaying overt nesting behavior were observed during the field survey, but evidence of nesting by both cactus wrens and coastal California gnatcatchers was found during follow-up surveys.

Mammals

Five (5) mammalian species were observed by Michael Baker biologists in the survey area: mule deer (*Odocoileus hemionus*), California ground squirrel (*Otospermophilus beecheyi*), eastern fox squirrel (*Sciurus niger*), desert cottontail (*Sylvilagus audubonii*), and an unidentified species of woodrat (*Neotoma* sp.). The survey area and surrounding habitat provides suitable habitat for a limited number of mammalian species adapted to living in edge or urban environments. Other common mammalian species that may occur within the survey area include coyote (*Canis latrans*) and racoon (*Procyon lotor*). Bats occur throughout most of southern California and may use the survey area as foraging and roosting habitat (within hollow tree trunks/limbs, adjacent residential development). Common bat species that may occur within the survey area include Mexican free-tailed bat (*Tadarida brasiliensis*) and big brown bat (*Eptesicus fuscus*).

Migratory Corridors and Linkages

Wildlife corridors and linkages are key features for wildlife movement between habitat patches. Wildlife corridors are generally defined as those areas that provide opportunities for individuals or local populations to conduct seasonal migrations, permanent dispersals, or daily commutes, while linkages generally refer to broader areas that provide movement opportunities for multiple keystone/focal species or allow for propagation of ecological processes (e.g., for movement of pollinators), often between areas of conserved land.

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

The survey area is not located within any wildlife corridors, habitat conservation plans, reserves, or preserves according to the *Los Angeles County General Plan* (2015) or the *City of Diamond Bar General Plan 2040* (2019). The survey area is surrounded by a mixture of developed and undeveloped land on all sides and is located in relatively close proximity to major regional open space areas including the Chino Hills, Puente Hills, and Tonner Canyon. Wildlife movement into or out of the site is likely reduced by the presence of residential development surrounding the survey area, but it is still possible that mammals may use the survey area minimally to move between local open spaces such as those mentioned above.

State and Federal Jurisdictional Areas

There are three agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The U.S. Army Corps of Engineers (Corps) Regulatory Division regulates activities pursuant to Section 404 of the Federal Clean Water Act (CWA). Of the State agencies, CDFW regulates activities under Sections 1600 *et seq.* of the CFGC, and the Regional Water Quality Control Board (Regional Board) regulates activities pursuant to Section 401 of the CWA and/or Section 13263 of the California Porter-Cologne Water Quality Control Act.

One (1) jurisdictional drainage feature is situated near the center of the survey area, in the canyon between the two trails that are proposed for improvements. This feature is ephemeral, likely carrying flows only during rain events. It crosses the trail system twice but only as sheet flow, with no culvert passage evident under the trails. Although some sparse mulefat is present on the western end of the drainage before it crosses the trail and flows down a pipe riser. The drainage is otherwise generally a dry ditch flowing under a coast live oak canopy, with a generally weedy understory composed primarily of tocalote and prickly lettuce (*Lactuca serriola*). This drainage does not qualify as waters of the U.S. under the Corps but would still qualify as waters of the State under the regulatory authority of the Regional Board and as a jurisdictional streambed under CDFW. Since no work is proposed to occur a within the drainage feature, regulatory permits from these agencies are not required. However, should work be proposed within the flowline of the drainage, a Waste Discharge Requirements and Section 1600 Lake and Streambed Alteration Agreement would be required through the Regional Board and California Department of Fish and CDFW, respectively.

Special-Status Biological Resources

The CNDDB and CNPS Online Inventory were queried for reported locations of special-status plant and wildlife species as well as special-status natural vegetation communities in the USGS *Baldwin Park, San Dimas, Ontario, La Habra, Yorba Linda,* and *Prado Dam, California* 7.5-minute quadrangles. The field survey was conducted to assess the conditions of the habitat(s) within the boundaries of the survey area to determine if the existing vegetation communities, at the time of the field survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species. Additionally, the potentials for special-status species to occur within the survey area were determined based on the reported locations in the CNDDB and CNPS Online Inventory and the following:

- **Present**: the species was observed or detected within the survey area during the field survey.
- **High**: Occurrence records (within 20 years) indicate that the species has been known to occur on or within 1 mile of the survey area and the site is within the normal expected range of this species. Intact, suitable habitat preferred by this species occurs within the survey area and/or there is viable landscape connectivity to a local known extant population(s) or sighting(s).

- **Moderate**: Occurrence records (within 20 years) indicate that the species has been known to occur within 1 mile of the survey area and the site is within the normal expected range of this species. There is suitable habitat within the survey area but the site is ecologically isolated from any local known extant populations or sightings.
- **Low**: Occurrence records (within 20 years) indicate that the species has been known to occur within 5 miles of the survey area, but the site is outside of the normal expected range of the species and/or there is poor quality or marginal habitat within the survey area.
- **Not Expected**: There are no occurrence records of the species occurring within 5 miles of the survey area, there is no suitable habitat within the survey area, and/or the survey area is outside of the normal expected range for the species.

The literature search identified forty-one (41) special-status plant species, sixty-six (66) special-status wildlife species, and seven (7) special-status vegetation communities as occurring within the USGS *Baldwin Park, San Dimas, Ontario, La Habra, Yorba Linda,* and *Prado Dam, California* 7.5-minute quadrangles. Special-status plant and wildlife species were evaluated for their potential to occur within the survey area based on habitat requirements, availability and quality of suitable habitat, and known distributions. Special-status biological resources identified during the literature review as having the potential to occur within the vicinity of the survey area are presented in *Table D-1: Potentially Occurring Special-Status Biological Resources*, provided in Attachment D. Additionally, refer to Figure 6, *CNDDB Species Records*, in Attachment A, for occurrence records of special-status species documented within a 5-mile radius of the survey area.

Special-Status Plants

Forty-one (41) special-status plant species have been recorded in the USGS *Baldwin Park, San Dimas, Ontario, La Habra, Yorba Linda,* and *Prado Dam, California* 7.5-minute quadrangles by the CNDDB and CNPS Online Inventory (refer to Attachment D). One (1) special-status plant species was observed during the field survey, southern California black walnut. Based on the results of the field survey and a review of specific habitat preferences, distributions, and elevation ranges, it was determined that the survey area has a moderate potential to support Catalina mariposa-lily (*Calochortus catalinae*; CRPR 4.2); and a low potential to support chaparral sand-verbena (*Abronia villosa* var. *aurita*; CRPR 1B.1), California androsace (*Androsace elongata* ssp. *acuta*; CRPR 4.2), western spleenwort (*Asplenium vespertinum*; CRPR 4.2), Braunton's milk-vetch (*Astragalus brauntonii*; CRPR 1B.1, Federally Endangered), Nevin's barberry (*Berberis nevinii*; Federally and State Endangered, CRPR 1B.1), Plummer's mariposa-lily (*Calochortus plummerae*; CRPR 4.2), intermediate mariposa-lily (*Calochortus weedii* var. *intermedius* CRPR 1B.2), Lewis' evening-primrose (*Camissoniopsis lewisii*; CRPR 3), Parry's spineflower (*Chorizanthe parryi* var. *parryi*; CRPR 1B.1), paniculate tarplant (*Deinandra paniculata*; CRPR 4.2), many-stemmed dudleya (*Dudleya multicaulis*; CRPR 1B.2), mesa horkelia (*Horkelia cuneata* var. *puberula*; 1B.1), Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*; 4.3), aparejo grass (*Muhlenbergia utilis*; CRPR 2B.2), Hubby's phacelia (*Phacelia hubbyi*; CRPR 4.2), south coast branching phacelia (*Phacelia ramosissima* var. *austrolitoralis*; CRPR 3.2), Brand's star phacelia (*Phacelia stellaris*; CRPR 1B.1), white rabbit-tobacco (*Pseudognaphalium leucocephalum*; CRPR 2B.2), Engelmann oak (*Quercus engelmannii*; 4.2), and Coulter's matilija poppy (*Romneya coulteri*; CRPR 4.2). All remaining special-status plant species identified by the CNDDB and CNPS databases are not expected to occur within the survey area.

Special-Status Wildlife

Sixty-six (66) special-status wildlife species have been recorded in the USGS *Baldwin Park, San Dimas, Ontario, La Habra, Yorba Linda,* and *Prado Dam, California* 7.5-minute quadrangles by the CNDDB and IPaC (refer to Attachment D). Four (4) special-status wildlife species were observed during the habitat assessment and subsequent focused bird surveys: Cooper's hawk, southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*; a CDFW WL species), coastal whiptail, and coastal California gnatcatcher. No additional special-status wildlife species were detected within the survey area during the field survey. In addition to those species that were already documented to be present within the survey area, based on the results of the field surveys and a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, it was determined that the survey area has a high potential to support sharp-shinned hawk (*Accipiter striatus*; a CDFW WL species), red-diamond rattlesnake (*Crotalus ruber*; a CDFW SSC), and American peregrine falcon (*Falco peregrinus anatum*; a CDFW Fully Protected (FP) Species); a moderate potential to support merlin (*Falco columbarius*; a CDFW WL species); and a low potential to support southern California legless lizard (*Anniella stebbinsi*; a CDFW SSC), golden eagle (*Aquila chrysaetos*; a CDFW FP and WL species), California glossy snake (*Arizona elegans occidentalis*; a CDFW SSC), long-eared owl (*Asio otus*; a CDFW SSC), orange-throated whiptail (*Aspidoscelis hyperythra*; a CDFW WL species), Crotch bumble bee (*Bombus crotchii*; a State Candidate Endangered species), Vaux's swift (*Chaetura vauxi*; a CDFW SSC), northern harrier (*Circus hudsonius*; a CDFW SSC), white-tailed kite (*Elanus leucurus*; a CDFW FP species), willow flycatcher (*Empidonax traillii*; a State Endangered species), southwestern willow flycatcher (*Empidonax traillii extimus*; a Federally and State Endangered species), California horned lark (*Eremophila alpestris actia*; a CDFW WL species), western mastiff bat (*Eumops perotis californicus*; a CDFW SSC), loggerhead shrike (*Lanius ludovicianus*; a CDFW SSC), western red bat (*Lasiurus blossevillii*; a CDFW SSC), San Diego desert woodrat (*Neotoma lepida intermedia*; a CDFW SSC), coast horned lizard (*Phrynosoma blainvillii*; a CDFW SSC), summer tanager (*Piranga rubra*; a CDFW SSC), coast patch-nosed snake (*Salvadora hexalepis virgultea*; a CDFW SSC), and yellow warbler (*Setophaga petechia*; a CDFW SSC). Some of these species including Vaux's swift, willow flycatcher, southwestern willow flycatcher, and yellow warbler would only potentially occur as migrants briefly stopping over on their way north or south. All remaining special-status wildlife species identified by the CNDDB and IPaC are not expected to occur within the survey area. Due to regional significance, coastal California gnatcatcher and cactus wren are described in further detail below.

Coastal California Gnatcatcher

Coastal California gnatcatcher is a Federally threatened species with restricted habitat requirements, being an obligate resident of sage scrub habitats, particularly—but not exclusively—those that are dominated by California sagebrush. This species generally occurs below 750 feet elevation in coastal regions and below 1,500 feet inland. It ranges from Ventura County south to San Diego County and northern Baja California and is less common in sage scrub with a high percentage of tall shrubs. Coastal California gnatcatcher is considered a short-distance disperser through contiguous, undisturbed habitat (USFWS 2010). However, juveniles are capable of dispersing long distances (up to 14 miles) across fragmented and highly disturbed sage scrub habitat (USFWS 2010). Coastal California gnatcatcher prefers habitat with more low-growing vegetation (< 3 feet high). California gnatcatchers breed between mid-February and the end of August, with peak activity from mid-March to mid-May. Population estimates indicate that there are approximately 1,600 to 2,290 pairs of California gnatcatcher remaining. Declines are attributed to loss of sage scrub habitat due

to development, as well as cowbird nest parasitism. Federally designated Critical Habitat for coastal California gnatcatcher is not located within or directly adjacent to the survey area. The primary constituent elements essential to support the biological needs of foraging, reproducing, rearing of young, intra-specific communication, dispersal, genetic exchange, or sheltering for California gnatcatcher are:

1) Dynamic and successional sage scrub habitats and associated vegetation (Riversidean alluvial fan sage scrub, coastal sage-chaparral scrub, etc.) that provide space for individual and population growth, normal behavior, breeding, reproduction, nesting, dispersal and foraging; and

2) Non- sage scrub habitats such as chaparral, grassland, and riparian areas in proximity to sage scrub habitats that provide linkages to help with dispersal, foraging, and nesting.

The survey area provides abundant suitable habitat for coastal California gnatcatcher, with known populations occurring in the area. In addition, multiple breeding pairs of coastal California gnatcatchers are known to be present within the survey area based on ongoing project-related presence/absence surveys currently being conducted.

Cactus Wren

Cactus wrens are a somewhat common avian species found within arid and semi-arid regions of southern California. The subspecies coastal cactus wren (*C. b. sandiegensis*) is found within a very limited range of southern California and is designated by CDFW as a Species of Special Concern. This subspecies of cactus wren has a broad white eyebrow line, heavily spotted breast, solid brown crown, and range from 7 to 9 inches in length. Coastal cactus wrens have a range which extends from extreme northwestern Baja California north at least through the coastal lowlands of San Diego County (Shuford and Gardali 2008). The actual northern limit of its range is uncertain because of the lack of specimens from northwestern San Diego County and most of Orange County. However, observations made in the field based on differences in song (slower frequency and lower pitch) and visual assessments suggest southern Orange County to approximately the vicinity of State Route 74 (Ortega Highway) is the northern limit of coastal cactus wren (Shuford and Gardali 2008).

Coastal cactus wrens breed from early March through July and are mainly restricted to thickets of chollas (*Cylindropuntia prolifera*) or prickly-pear cacti (i.e., *Opuntia littoralis, O. oricola*) large enough to protect from predation. Suitable habitat conditions are normally found on south-facing slopes, at bases of hillsides, or in dry washes. Territories have been recorded as occurring at elevations below 1,500 feet amsl and averaging three (3) acres in size (Shuford and Gardali 2008). Coastal cactus wrens forage on the ground primarily for insects such as beetles, ants, wasps, grasshoppers, butterflies, and spiders.

The survey area provides an abundance of the undisturbed coast prickly pear scrub habitat that is essential nesting habitat for this species. Although multiple territories of cactus wren were observed on-site, the survey area is well outside the known range for the coastal *sandiegensis* subspecies, which ends around State Route 74 based on CDFW mapping. This local subspecies found on-site is likely *C. b. anthonyi*.

Special-Status Vegetation Communities

Seven (7) special-status vegetation communities have been reported in the USGS *Baldwin Park, San Dimas, Ontario, La Habra, Yorba Linda, and Prado Dam, California* 7.5-minute quadrangles by the CNDDB. Two

(2) special-status vegetation communities were observed within the survey area during the field survey, California walnut woodland and southern coast live oak riparian forest.

Critical Habitat

Under the definition used by the FESA, "Critical Habitat" refers to specific areas within the geographical range of a species that were occupied at the time it was listed that contain the physical or biological features that are essential to the survival and eventual recovery of that species and that may require special management considerations or protection, regardless of whether the species is still extant in the area. Areas that were not known to be occupied at the time a species was listed can also be designated as Critical Habitat if they contain one or more of the physical or biological features that are essential to that species' conservation and if the other areas that are occupied are inadequate to ensure the species' recovery. If a project may result in take or adverse modification to a species' designated Critical Habitat and the project has a Federal nexus, the project proponent may be required to provide suitable mitigation. Projects with a Federal nexus may include projects that occur on Federal lands, require Federal permits (e.g., CWA Section 404 permit), or receive any Federal oversight or funding. If there is a Federal nexus, then the Federal agency that is responsible for providing funds or permits would be required to consult with the USFWS under the FESA. The survey area is not located within any federally designated Critical Habitat (refer to Figure 7, *Critical Habitat*, in Attachment A). Therefore, consultation with the USFWS under Section 7 of the FESA would not be required for the loss or adverse modification of Critical Habitat.

Local Policies and Ordinances

According to Chapter 22.38 of the City of Diamond Bar's municipal code, native trees, including oak, walnut, sycamore, willow, and significant trees of cultural or historical value require a permit to be obtained prior to tree removal or tree pruning. Multiple coast live oak and black walnut trees are overhanging or occur within the project footprint and may require pruning and/or removal if trail improvements are proposed in these areas. Prior to construction, an application for a tree removal and/or tree pruning permit may be required if protected trees cannot be avoided. This may require the submittal of an arborist report before accepting the application for filling.

Conclusions and Recommendations

Special-Status Plants

Natural habitats within the survey area consist of both disturbed and undisturbed vegetation communities and soils throughout. One (1) special-status plant species was observed during the field survey, southern California black walnut. Based on the results of the habitat assessment and a review of specific habitat preferences, distributions, and elevation ranges, it was determined that the survey area has a moderate potential to support Catalina mariposa-lily; and a low potential to support chaparral sand-verbena, California androsace, western spleenwort, Braunton's milk-vetch, Nevin's barberry, Plummer's mariposa-lily, intermediate mariposa-lily, Lewis' evening-primrose, Parry's spineflower, paniculate tarplant, many-stemmed dudleya, Santa Ana River woollystar, mesa horkelia, Robinson's pepper-grass, aparejo grass, Hubby's phacelia, south coast branching phacelia, Brand's star phacelia, white rabbit-tobacco, Engelmann oak, and Coulter's matilija poppy. However, southern California walnut, Catalina mariposa-lily, California androsace, western spleenwort, Plummer's mariposa-lily, Lewis' evening-primrose, paniculate tarplant,

Robinson's pepper-grass, Hubby's phacelia, south coast branching phacelia, Engelmann oak, and Coulter's matilija poppy have a CRPR of 4 or 3. CRPR 4 designates a Watch List, and CRPR 3 designates plants that lack the necessary information to assign them to one of the other ranks or to reject them, both of which are generally not considered for impacts under the California Environmental Quality Act (CEQA). In addition, chaparral sand-verbena, Braunton's milk-vetch, Nevin's barberry, intermediate mariposa lily, Parry's spineflower, many-stemmed dudleya, mesa horkelia, aparejo grass, Brand's star phacelia, and white-rabbit tobacco have a CRPR of either 1B or 2B. CRPR 1B designates plants that are rare, threatened, or endangered in California and elsewhere, while 2B designates plants that are rare, threatened, or endangered in California but common elsewhere. Although CRPR 1B and 2B plants generally are considered for impacts under CEQA, these plants were determined to have a low potential to occur on site. Nevin's barberry is federally endangered and any impacts to this species, if present, would be considered significant with further mitigation required. All remaining special-status plant species identified by the CNDDB and CNPS databases are not expected to occur within the survey area.

To ensure proper avoidance of special-status plant species, prior to construction, and during the appropriate blooming periods for special-status plant species with the potential to occur within the project site, a qualified botanist shall conduct a focused rare plant survey in areas with suitable habitat to determine presence or absence of special-status plant species. The surveys shall be floristic in nature (i.e., identifying all plant species to the taxonomic level necessary to determine rarity), and shall be inclusive of, at a minimum, the areas proposed for trail improvements and those immediately surrounding those areas. The results of the survey shall be documented in a letter report that will be included in the environmental document. If individual or populations of special-status plant species are found within the areas proposed for disturbance, measures to avoid and minimize impacts shall be recommended. The surveys and reporting shall follow 2018 CDFW and/or 2001 CNPS guidelines. Although not expected, if State- and/or Federally-listed plant species are present and avoidance is infeasible, consultation with the CDFW and/or USFWS would be required and an Incidental Take Permit(s) from the CDFW and/or USFWS shall be obtained prior to the commencement of project activities.

Both coast live oak and southern California black walnuts located on-site are protected under Chapter 22.38 of the City of Diamond Bar's municipal code. Prior to construction, an application for a tree removal and/or tree pruning permit may be required. This may require the submittal of an arborist report before accepting the application for filling.

Special-Status Wildlife

Four (4) special-status wildlife species were observed during the field survey: Cooper's hawk, southern California rufous-crowned sparrow, coastal California gnatcatcher, and coastal whiptail. Based on the results of the habitat assessment and a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, it was determined that the survey area has a high potential to support sharp-shinned hawk, red-diamond rattlesnake, and American peregrine falcon; a moderate potential to support merlin; and a low potential to support southern California legless lizard, golden eagle, California glossy snake, long-eared owl, orange-throated whiptail, Crotch bumble bee, Vaux's swift, northern harrier, white-tailed kite, willow flycatcher, southwestern willow flycatcher, California horned lark, western mastiff bat, loggerhead shrike, western red bat, San Diego desert woodrat, coast horned lizard, summer tanager, coast patch-nosed snake, and yellow warbler. CDFW would determine the need to conduct surveys for any of these species prior to any development occurring. Although Crotch bumble bee is not yet listed, under

the CESA species that are designated as candidates for listing are afforded the same protections as those that are already listed; as such, CDFW may require an additional suitability assessment or analysis of the site's potential to support this species and mitigation or an Incidental Take Permit may be required if it is determined that this species occurs on the site. Because willow flycatcher and southwestern willow flycatcher have a low potential to occur on-site strictly as stopover migrants (there is nothing resembling willow flycatcher breeding habitat at all within or near to the survey area), it is unlikely that surveys for these species would be required. No focused surveys would be required for any of the remaining species that have a potential to occur. All remaining special-status wildlife species identified by the CNDDB and IPaC databases are not expected to occur within the survey area.

Because the project proposes to widen much of the southern trail to a width of five (5) feet, this will result in vegetation removal of habitat that is suitable for, or in some cases is already known to support, coastal California gnatcatcher. Although this area is not designated as Critical Habitat, loss of vegetation directly supporting known populations of coastal California gnatcatcher would constitute "take" under Section 9 of the FESA. Because the project will not have a Federal nexus, an incidental take permit (ITP) would instead be granted by the USFWS under Section 10(a)(1)(B) of the FESA. This typically entails the project proponent agreeing to a habitat conservation plan (HCP), an extensive process that can take years to complete. However, the USFWS also has a category of HCPs for projects that will otherwise have minor impacts on listed species, called a "low-effect HCP." These HCPs pertain to projects involving (1) minor or negligible effects on federally listed, proposed, or candidate species and their habitats covered under the HCP; and (2) minor or negligible effects on other environmental values or resources. Under low-effect HCPs, the permitting process is more streamlined and take can generally be authorized under a series of strict avoidance and minimization measures. It is recommended that the City of Diamond Bar pursue a low-effect HCP with the USFWS to permit removal of habitat suitable for and/or used by coastal California gnatcatchers on the project site. Avoidance and minimization measures that may be required in a low-effect HCP for this project, subject to consultation with the USFWS, include but are not limited to pre-construction nesting surveys for coastal California gnatcatcher and avoidance of any active nests or scheduling of work outside of the gnatcatcher nesting season, environmental training of all personnel who would be removing the vegetation, biological monitoring during initial vegetation removal, closing and restoration of any extraneous trail sections to recreational use, and on-site restoration and preservation of coastal sage scrub communities within the survey area (i.e. the vicinity of the impacts). The results of the focused bird surveys are required to be sent to the USFWS within 45 days following the completion of the surveys. It is recommended that the City of Diamond Bar contact the USFWS as soon as possible after the submission of the focused survey report to discuss what would be needed to obtain an incidental take permit for this project.

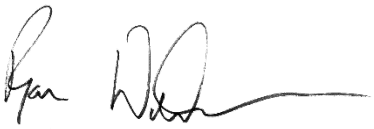
Nesting Birds

The survey area and surrounding vegetation communities provide suitable foraging and nesting habitat for a variety of year-round and seasonal avian residents as well as migrating songbirds that could occur in the area. If project-related activities are to be initiated during the nesting season (January 1st to August 31st), a pre-construction nesting bird clearance survey should be conducted by a qualified biologist no more than three (3) days prior to the start of any vegetation removal or ground disturbing activities. The qualified biologist should survey all suitable nesting habitat within the project impact area, and areas within a biologically defensible buffer zone surrounding the project impact area. If no active nests are detected during the clearance survey, project activities may begin, and no additional avoidance and minimization

measures would be required. If an active nest is found, the bird species should be identified and a "no-disturbance" buffer should be established around the active nest. The size of the "no-disturbance" buffer should be determined based on the judgement of the qualified biologist and level of activity and sensitivity of the species. It is further recommended that the qualified biologist periodically monitor any active nests to determine if project-related activities occurring outside the "no-disturbance" buffer disturb the birds and if the buffer should be increased. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, project activities within the "no-disturbance" buffer may occur following an additional survey by the qualified biologist to search for any new nests in the restricted area.

Please do not hesitate to contact me at (949) 330- 4115 or ryan.winkleman@mbakerintl.com should you have any questions or require further information regarding this report.

Sincerely,



Ryan Winkleman
Senior Biologist
Natural Resources and Regulatory Permitting

Attachments:

A. *Project Figures*
B. *Site Photographs*
C. *Plant and Wildlife Species Observed List*
D. *Potentially Occurring Special-Status Biological Resources*
E. *References*

Attachment A

Project Figures

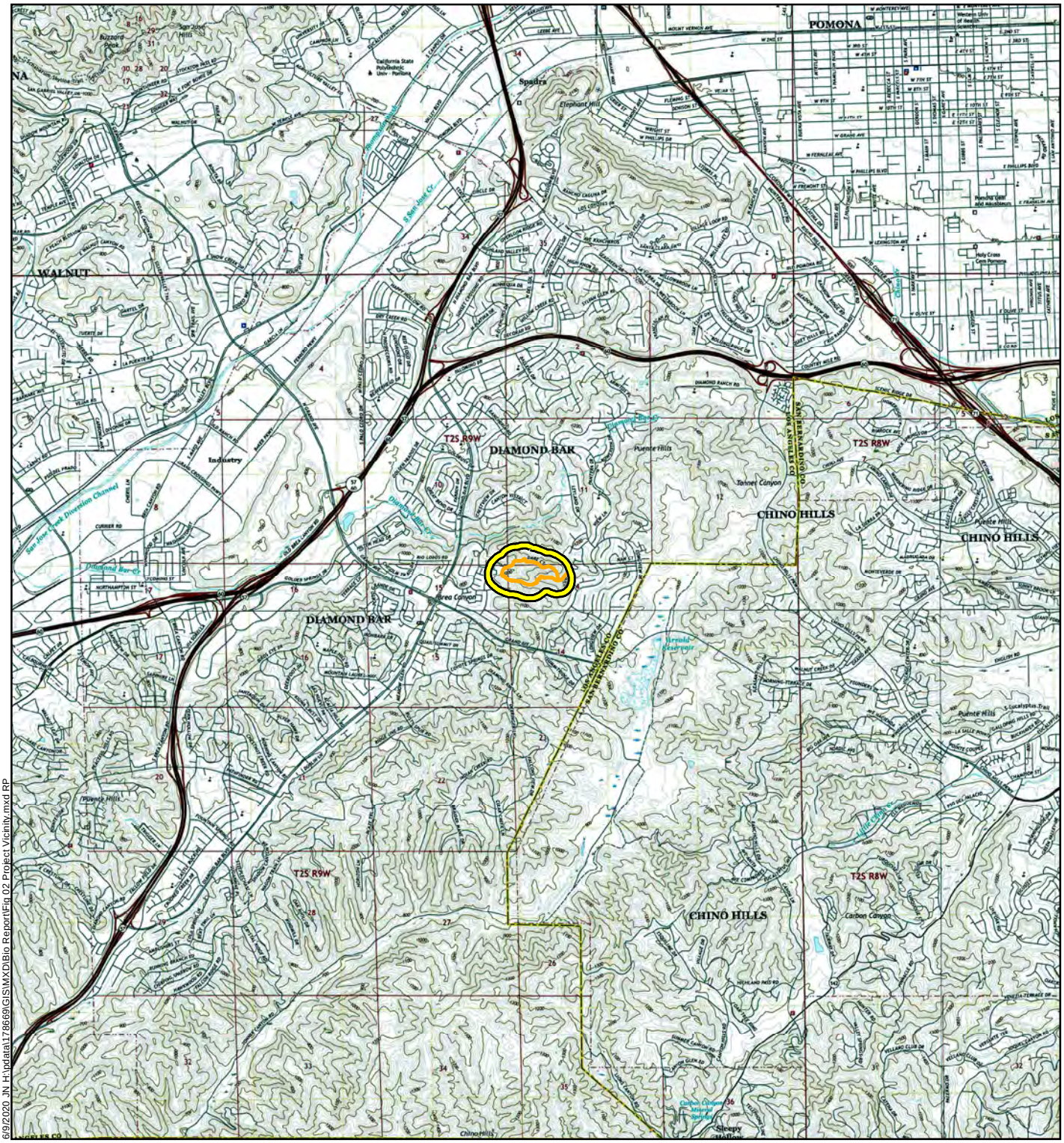
6/9/2020 JN H:\pdata\178669\GIS\MXD\Bio Report\Fig 01 Regional Vicinity.mxd RP

Michael Baker INTERNATIONAL

CANYON LOOP TRAIL IMPROVEMENT PROJECT
BIOLOGICAL RESOURCES ASSESSMENT REPORT

Regional Vicinity

Figure 1



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Legend

Project Site

Survey Area
(500-foot buffer)

Michael Baker INTERNATIONAL

0 0.5 1 Miles

Source: USGS 7.5-Minute topographic quadrangle maps: *Ontario, Prado Dam, San Dimas, and Yorba Linda, California (2018)*

CANYON LOOP TRAIL IMPROVEMENT PROJECT
BIOLOGICAL RESOURCES ASSESSMENT REPORT

Project Vicinity

Figure 2

Legend

- Project Site
- Survey Area (500-foot buffer)
- Photograph Point and Direction
- Reference Point

0 135 270 Feet

7/8/2020 JN: H:\data\178669\GIS\MXD\Bio_Report\Fig 03 Survey Area.mxd RP

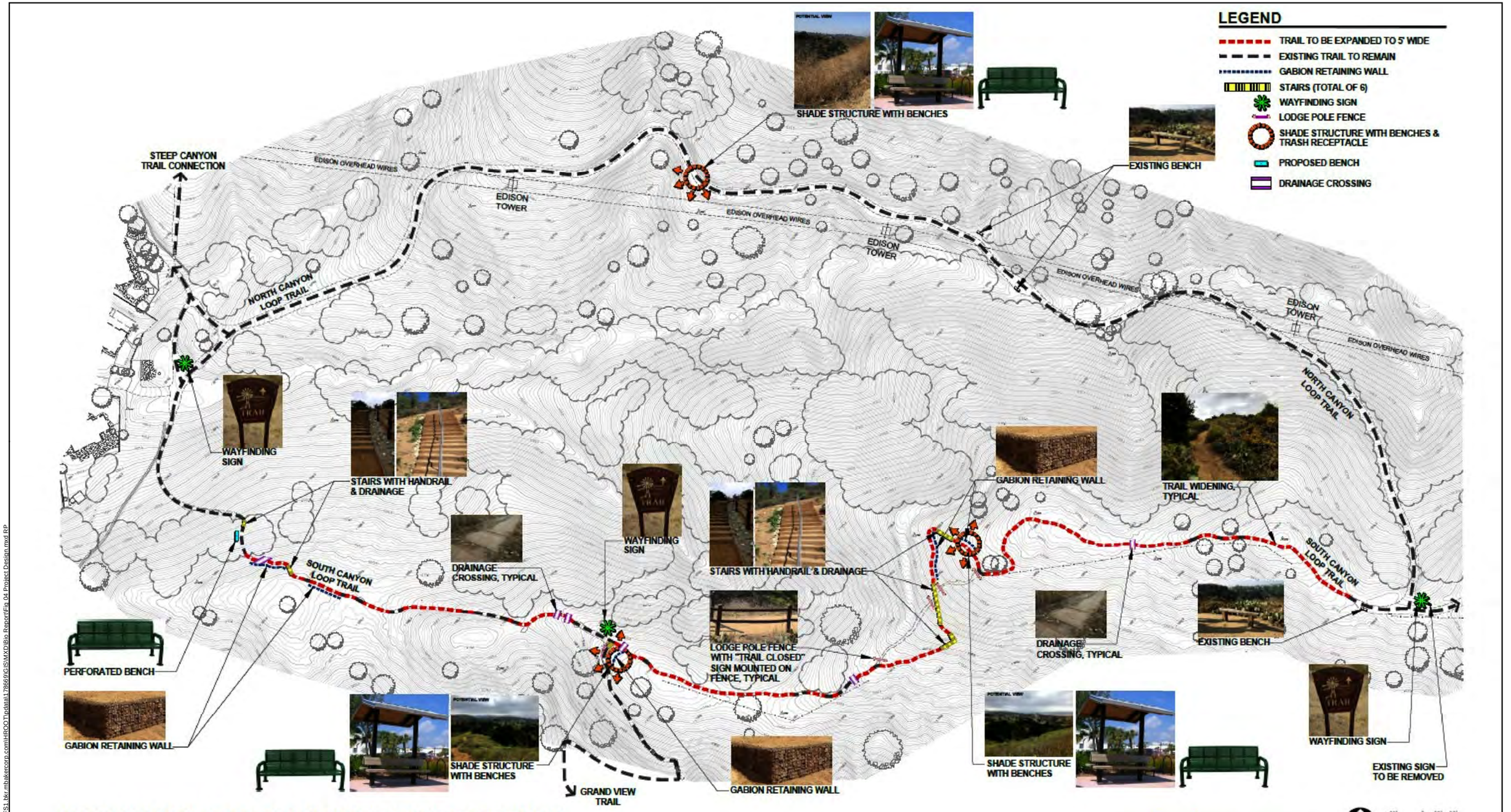
Michael Baker INTERNATIONAL

Source: Nearmap, 2020

CANYON LOOP TRAIL IMPROVEMENT PROJECT
BIOLOGICAL RESOURCES ASSESSMENT REPORT

Survey Area

Figure 3



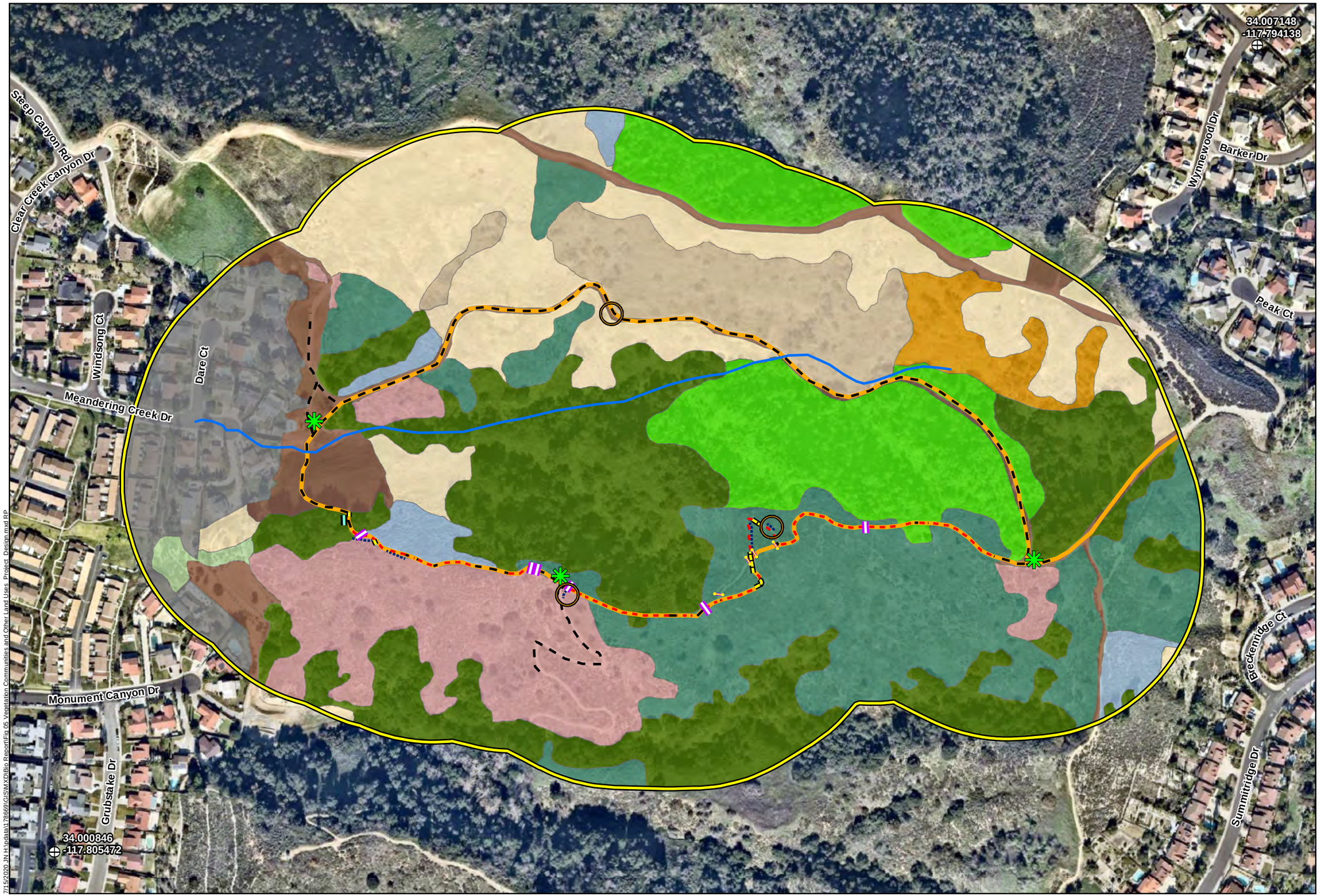
CANYON LOOP MULTI-USE TRAIL

CITY OF DIAMOND BAR

CONCEPT PLAN

7/8/2020 JN \\RVICA1FS1.bkr.mbakercorp.com\HROOT\data\178669\GIS\MXD\Bio Report\Fig 04 Project Design.mxd RP

Source: Richard Fisher Associates, 2019



Legend

- Survey Area (500-foot buffer)
- Project Site
- California Buckwheat Scrub (0.45 acre)
- California Sagebrush - Black Sage Scrub (2.13 acres)
- Coast Live Oak Woodland and Forest (23.57 acres)
- Coast Prickly Pear Scrub (9.90 acres)
- Disturbed Blue Elderberry Stands (2.23 acres)
- Disturbed California Sagebrush - Black Sage Scrub (17.76 acres)
- Disturbed California Walnut Groves (6.30 acres)
- Scrub Oak Chaparral (11.82 acres)
- Upland Mustards and Other Ruderal Forbs (15.38 acres)
- Disturbed (6.01 acres)
- Developed (7.56 acres)
- Unnamed Drainage
- Trail to be Expanded to 5' Wide
- Existing Trail to Remain
- Gabion Retaining Wall
- Stairs (Total of 6)
- Wayfinding Sign
- Lodge Pole Fence
- Shade Structure with Benches & Trash Receptacle
- Proposed Bench
- Drainage Crossing
- Reference Point

0 135 270 Feet

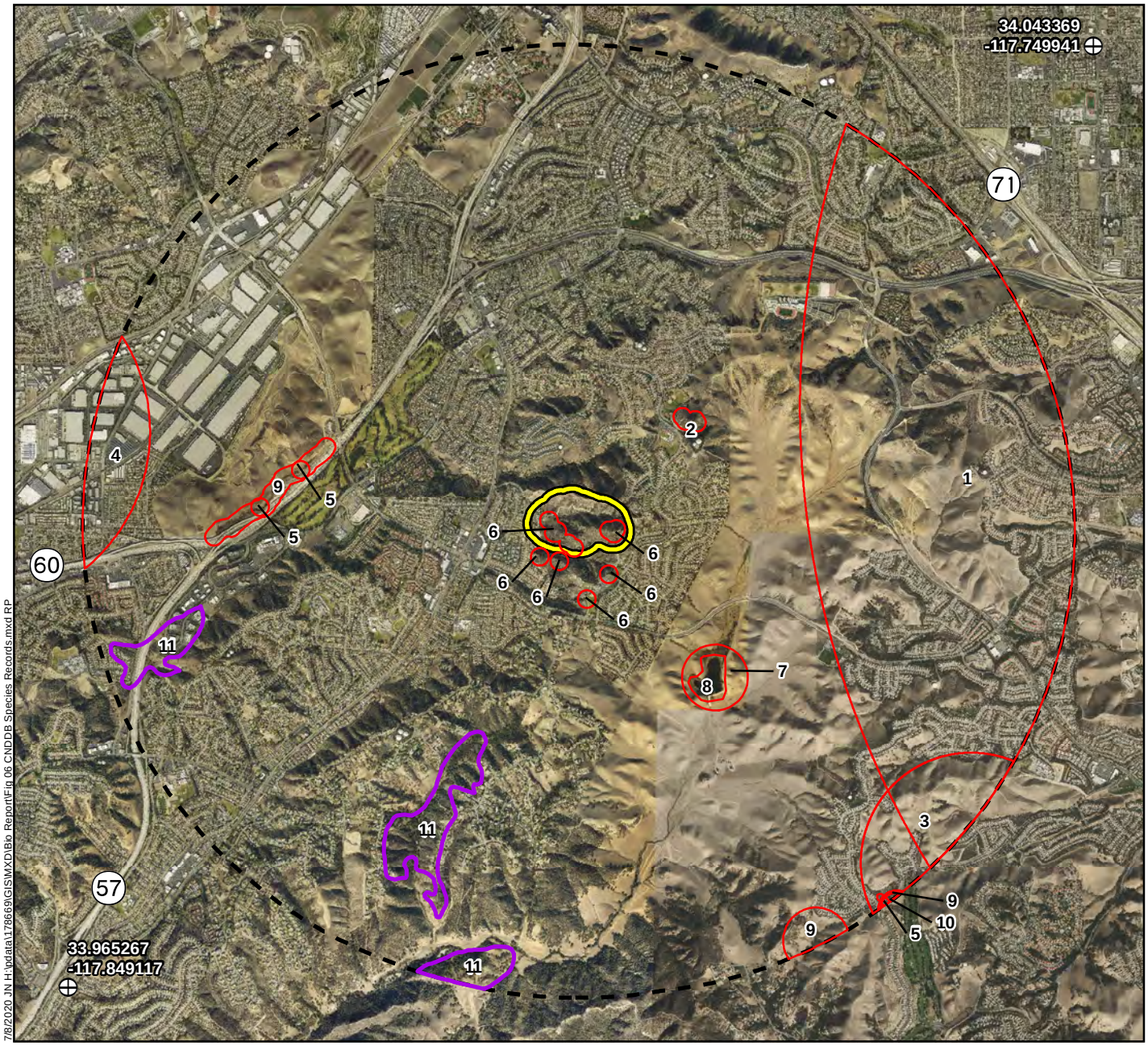
7/15/2020 JN H:\jobs\JN 179669\GIS\MXD\Bio Report\Fig 05 Vegetation Communities and Other Land Uses_Project Design.mxd RP

Source: Nearmap, 2020

CANYON LOOP TRAIL IMPROVEMENT PROJECT
BIOLOGICAL RESOURCES ASSESSMENT REPORT

Vegetation Communities and Other Land Uses

Figure 5



7/8/2020 JN H:\pdata\176669\GIS\MXD\Bio Report\Fig 06 CNDDB Species Records.mxd RP

Legend

Survey Area (500-foot buffer)

2.5-mile Radius Buffer

Animal

Vegetation Community

Reference Point

ID	Animal	ID	Animal	ID	Vegetation Community
1	California black rail	6	red-diamond rattlesnake	11	California Walnut Woodland
2	coastal California gnatcatcher	7	tricolored blackbird		
3	Cooper's hawk	8	western pond turtle		
4	Crotch bumble bee	9	yellow warbler		
5	least Bell's vireo	10	yellow-breasted chat		

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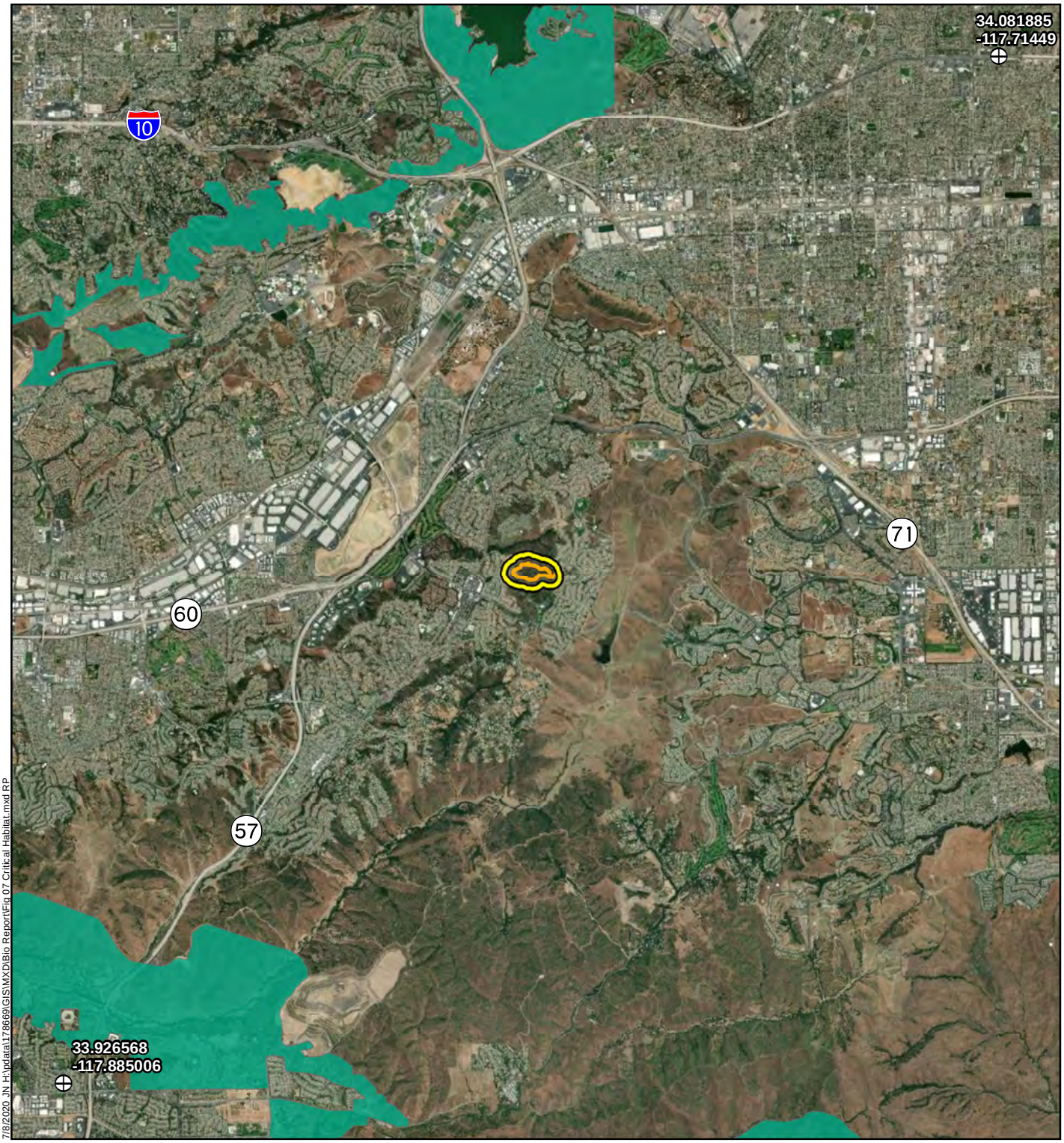
0 2,300 4,600 Feet

Source: Eagle Aerial, 2014, CDFW, 2020

CANYON LOOP TRAIL IMPROVEMENT PROJECT
BIOLOGICAL RESOURCES ASSESSMENT REPORT

CNDDB Species Records

Figure 6



7/8/2020 JN H:\pdata\178669\GIS\MXD\Bio Report\Fig 07 Critical Habitat.mxd RP

Legend

- Project Site
- Survey Area (500-foot buffer)
- Coastal California Gnatcatcher (*Polioptila californica californica*)
- Reference Point

Michael Baker INTERNATIONAL

0 0.75 1.5 Miles

Source: Esri, 2018, USFWS, 2020

CANYON LOOP TRAIL IMPROVEMENT PROJECT
BIOLOGICAL RESOURCES ASSESSMENT REPORT

Critical Habitat

Figure 7

Attachment B

Site Photographs

Photograph 1: Standing within the eastern portion of the project site, facing west overlooking coast live oak woodland and forest and disturbed California sagebrush – black sage scrub.

Photograph 2: Standing in the eastern portion of the project site, facing southwest overlooking scrub oak woodland in the background with the upland mustards and other ruderal forbs community in the foreground.

Photograph 3: Standing in the north end of the project site, facing southwest overlooking disturbed California walnut groves and coast live oak woodland and forest.

Photograph 4: Standing in the west end of the project site, facing east towards disturbed California sagebrush – black sage scrub.

Photograph 5: Standing in the western portion of the project site, facing northeast along the Canyon Loop Trail with disturbed California walnut groves in the background and the upland mustards and other ruderal forbs community in the foreground.

Photograph 6: Standing in the central portion of the project site, facing southwest towards disturbed California sagebrush – black sage scrub.

Photograph 7: Standing in the central portion of the project site, facing west towards coast prickly pear scrub.

Photograph 8: Standing in the southern portion of the project site, facing north overlooking coast prickly pear scrub and coast live oak woodland and forest, with upland mustards and other ruderal forbs in the foreground and background.

Attachment C

Plant and Wildlife Species Observed List

Table C-1: Plant and Wildlife Species Observed List

*Scientific Name**	Common Name	Cal-IPC Rating**	Special-Status Rank***
Plants			
Acmispon glaber	deerweed		
Adenostoma fasciculatum	chamise		
Artemisia californica	California sagebrush		
*Avena fatua**	wild oat		
*Brassica nigra**	black mustard	Moderate	
*Bromus diandrus**	ripgut	Moderate	
*Carduus pycnocephalus**	Italian thistle	Moderate	
*Carpobrotus edulis**	iceplant	High	
*Centaurea melitensis**	tocalote	Moderate	
Cirsium occidentale	cobweb thistle		
Claytonia perfoliata	miner's lettuce		
Croton setiger	turkey-mullein		
Deinandra fasciculata	clustered tarweed		
Dichelostemma capitatum	blue dicks		
Diplacus aurantiacus	sticky monkeyflower		
Dudleya lanceolata	Southern California dudleya		
Elymus condensatus	giant wild rye		
Encelia californica	California encelia		
Eriodictyon crassifolium	thick leaved yerba santa		
Eriogonum fasciculatum	California buckwheat		
*Erodium cicutarium**	coastal heron's bill	Limited	
Euphorbia albomarginata	rattlesnake sandmat		
*Festuca perennis**	Italian rye grass	Moderate	
Galium aparine	common bedstraw		
Heteromeles arbutifolia	toyon		
Heterotheca grandiflora	telegraph weed		
*Hordeum murinum**	farmer's foxtail	Moderate	
Juglans californica	Southern California black walnut		4.2
Lonicera subspicata	southern honeysuckle		
*Lysimachia arvensis**	scarlet pimpernel		
Malosma laurina	laurel sumac		
Marah macrocarpa	wild cucumber		
*Marrubium vulgare**	horehound	Limited	
*Melilotus indicus**	annual yellow sweetclover		
*Nicotiana glauca**	tree tobacco	Moderate	
Opuntia littoralis	coast prickly pear		
*Pennisetum setaceum**	fountaingrass	Moderate	
Phacelia distans	common phacelia		
Phacelia minor	California bluebell		

Table C-1: Plant and Wildlife Species Observed List

*Scientific Name**	Common Name	Cal-IPC Rating**	Special-Status Rank***
*Polypogon monspeliensis**	rabbitsfoot grass	Limited	
Quercus agrifolia	coast live oak		
Quercus berberidfolia	inland scrub oak		
*Raphanus sativus**	wild radish		
Rhus integrifolia	lemonade berry		
*Rumex crispus**	curly dock	Limited	
Salvia apiana	white sage		
Salvia mellifera	black sage		
Sambucus nigra	black elderberry		
*Silybum marianum**	milk thistle	Limited	
*Sonchus asper**	prickly sowthistle		
*Taraxacum officinale**	common dandelion		
Toxicodendron diversilobum	poison oak		
Reptiles			
Aspidoscelis tigris stejnegeri	coastal whiptail		SSC
Coluber flagellum piceus	red racer		
Sceloporus occidentalis longipes	Great Basin fence lizard		
Uta stansburiana elegans	western side-blotched lizard		
Birds			
Accipiter cooperii	Cooper's hawk		WL
Aeronautes saxatalis	white-throated swift		
Aimophila ruficeps canescens	southern California rufous-crowned sparrow		WL
Aphelocoma californica	California scrub jay		
Baeolophus inornatus	oak titmouse		
Buteo jamaicensis	red-tailed hawk		
Callipepla californica	California quail		
Calypte anna	Anna's hummingbird		
Campylorhynchus brunneicapillus	cactus wren		
Cardellina pusilla	Wilson's warbler		
Cathartes aura	turkey vulture		
Chamaea fasciata	wrentit		
Contopus sordidulus	western wood-pewee		
Corvus brachyrhynchos	American crow		
Corvus corax	common raven		
Dryobates nuttallii	Nuttall's woodpecker		
Empidonax difficilis	pacific-slope flycatcher		
Geococcyx californianus	greater roadrunner		
Haemorhous mexicanus	house finch		
Icterus bullockii	Bullock's oriole		
Icterus cucullatus	hooded oriole		

Table C-1: Plant and Wildlife Species Observed List

*Scientific Name**	Common Name	Cal-IPC Rating**	Special-Status Rank***
Leiothlypis celata	orange-crowned warbler		
*Lonchura punctulata**	scaly-breasted munia		
Mimus polyglottos	northern mockingbird		
Melanerpes formicivorus	acorn woodpecker		
Melospiza melodia	song sparrow		
Melozone crissalis	California towhee		
Molothrus ater	brown-headed cowbird		
Myiarchus cinerascens	ash-throated flycatcher		
Icterus bullockii	Bullock's oriole		
Patagioenas fasciata	band-tailed pigeon		
Petrochelidon pyrrhonota	cliff swallow		
Phainopepla nitens	phainopepla		
Pheucticus melanocephalus	black-headed grosbeak		
Picoides nuttallii	Nuttall's woodpecker		
Pipilo maculatus	spotted towhee		
Piranga ludoviciana	western tanager		
Polioptila caerulea	blue-gray gnatcatcher		
Polioptila californica californica	coastal California gnatcatcher		FT/SSC
Psaltriparus minimus	bushtit		
Sayornis nigricans	black phoebe		
Sayornis saya	Say's phoebe		
Selasphorus sasin/rufus	Allen's/rufous hummingbird		
Selasphorus sasin	Allen's hummingbird		
Sitta carolinensis	white-breasted nuthatch		
Spinus lawrencei	Lawrence's goldfinch		
Spinus psaltria	lesser goldfinch		
Spizella atrogularis	black-chinned sparrow		
Stelgidopteryx serripennis	northern rough-winged swallow		
Thryomanes bewickii	Bewick's wren		
Toxostoma redivivum	California thrasher		
Troglodytes aedon	house wren		
Turdus migratorius	American robin		
Tyrannus verticalis	western kingbird		
Tyrannus vociferans	Cassin's kingbird		
Vireo gilvus	warbling vireo		
Vireo huttoni	Hutton's vireo		
Zenaida macroura	mourning dove		
Mammals			
Neotoma sp.	woodrat		
Odocoileus hemionus	mule deer		

Table C-1: Plant and Wildlife Species Observed List

Scientific Name*	**Common Name**	**Cal-IPC Rating****	**Special-Status Rank*****
Otospermophilus beecheyi	California ground squirrel		
Sciurus niger	eastern fox squirrel		
Sylvilagus audubonii	desert cottontail		

* Non-native species

** **California Invasive Plant Council (Cal-IPC) Ratings**

High — These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

Moderate — These species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

Limited — These species are invasive, but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

*** **Special-Status Rank**

FT — Federally Threatened

SSC — Species of Special Concern – any species, subspecies, or distinct population of fish, amphibian, reptile, bird, or mammal native to California that currently satisfies one or more of the following criteria:

- is extirpated from California or, in the case of birds, in its primary seasonal or breeding role;
- is listed as Federally-, but not State-, threatened or endangered; meets the State definition of threatened or endangered but has not formally been listed.
- is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status; or
- has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for State threatened or endangered status.

WL — Watch List - taxa that were previously designated as “Species of Special Concern” but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.

Attachment D

Potentially Occurring Special-Status Biological Resources

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
SPECIAL-STATUS WILDLIFE SPECIES				
Accipiter cooperii Cooper's hawk	WL G5 S4	Yearlong resident of California. Generally, found in forested areas up to 3,000 feet above mean sea level (amsl) in elevation, especially near edges and rivers. Prefers hardwood stands and mature forests but can be found in urban and suburban areas where there are tall trees (25 to 50 feet high) for nesting. Prefers pines (*Pinus* spp.), oaks (*Quercus* spp.), Douglas firs (*Pseudotsuga* spp.), beeches (*Fagus* spp.), and spruces (*Picea* spp.) for nesting. Common in open areas during nesting season.	Yes	**Present (nesting and foraging):** This species was observed on-site during the reconnaissance survey, with a pair exhibiting apparent courtship behavior, as well as during every subsequent focused bird survey. The coast live oak woodlands present within and adjacent to the survey area provide suitable nesting habitat for this species, and new fledglings were found in this same area during the final survey on 7/1/20.
Accipiter striatus sharp-shinned hawk	WL G5 S4	Winter resident of southern California. Found in pine (*Pinus* spp.), fir (*Abies* spp.), and aspen (*Populus tremuloides*) forests. They can be found hunting in forest interior and edges from sea level to near alpine areas. Can also be found in rural, suburban and agricultural areas, where they often hunt at bird feeders.	No	**High (wintering):** The wooded habitat of the survey area would provide adequate habitat for this wintering species, and it has been reported several times in the project vicinity..
Agelaius tricolor tricolored blackbird	ST SSC G2G3 S1S2	Range is limited to the coastal areas of the Pacific coast of North America, from Northern California to upper Baja California. Can be found in a wide variety of habitat including annual grasslands, wet and dry vernal pools and other seasonal wetlands, agricultural fields, cattle feedlots, and dairies. Occasionally forage in riparian scrub habitats along marsh borders. Basic habitat requirements for breeding include open accessible water, freshwater marsh dominated by cattails (*Typha* spp.), willows (*Salix* spp.), and bulrushes (*Schoenoplectus* spp.), and either flooded or thorny/spiny vegetation and suitable foraging space providing adequate insect prey.	No	**Not Expected:** The survey area and surrounding areas do not contain the wetland habitat that this species typically nests in, nor suitable grassland habitat for foraging.
Aimophila ruficeps canescens southern California rufous-crowned sparrow	WL G5T3 S3	Yearlong resident that is typically found between 3,000 and 6,000 feet amsl. Breed in sparsely vegetated scrubland on hillsides and canyons. Prefers coastal sage scrub dominated by California sagebrush (*Artemisia californica*), but they can also be found breeding in coastal bluff scrub, low-growing serpentine chaparral, and along the edges of tall chaparral habitats.	Yes	**Present (foraging):** This species was observed on-site. The on-site coastal sage scrub, particularly where on slopes, provides suitable nesting habitat for this species, and it likely nests on-site.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Ammodramus savannarum grasshopper sparrow	SSC G5 S3	Yearlong resident along the coast of southern California. Occurs in grassland, upland meadow, pasture, hayfield, and old field habitats. Optimal habitat contains short- to medium-height bunch grasses interspersed with patches of bare ground, a shallow litter layer, scattered forbs, and few shrubs. May inhabit thickets, weedy lawns, vegetated landfills, fence rows, open fields, or grasslands.	No	**Not Expected:** This species is typically found in areas with expansive grasslands with sparse shrubs, a habitat type that is not present within the survey area.
Anniella pulchra northern California legless lizard	SSC G3 S3	Occurs from the southern edge of the San Joaquin River in northern Contra Costa County south to the Ventura County, south of which there is a wide area where the species of *Anniella* is or are unknown. Occurs in moist warm loose soil with plant cover. Moisture is essential. Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with California sycamores (*Platanus racemosa*), Fremont cottonwoods (*Populus fremontii*), or oaks (*Quercus* spp.). Leaf litter under trees and bushes in sunny areas and dunes stabilized with bush lupine *(Lupinus* sp.) and mock heather (*Ericameria ericoides*) often indicate suitable habitat. Often can be found under surface objects such as rocks, boards, driftwood, and logs. Can also be found by gently raking leaf litter under bushes and trees. Sometimes found in suburban gardens in southern California.	No	**Not Expected:** The survey area has marginally suitable habitat for this species in the dry drainage that runs through the center, but based on range it is expected that this species is not present.
Anniella stebbinsi southern California legless lizard	SSC G3 S3	Locally abundant specimens are found in coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fans. A large protected population persists in the remnant of the once extensive El Segundo Dunes at Los Angeles International Airport.	No	**Low:** There is marginally suitable habitat for this species in the dry drainage that runs through the center of the survey area, but there are no CNDDB records within 5 miles.
Antrozous pallidus pallid bat	SSC G5 S3	Locally common species locally common in the Great Basin, Mojave, and Sonoran deserts (specifically Sonoran life zone) and grasslands throughout the western U.S. Also occurs in shrublands, woodlands, and forests from sea level to 8,000 ft amsl. Prefers rocky outcrops, cliffs, and crevices for roosting with access to open habitats for foraging. May also roost in caves, mines, bridges, barns, porches, and bat boxes, and even on the ground under burlap sacks, stone piles, rags, baseboards, and rocks.	No	**Not Expected:** There is no roosting habitat within the survey area and no CNDDB reports within 5 miles of the survey area.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Aquila chrysaetos golden eagle	FP WL G5 S3	Yearlong resident of California. Occupies nearly all terrestrial habitats of the western states except densely forested areas. Favors secluded cliffs with overhanging ledges and large trees for nesting and cover. Hilly or mountainous country where takeoff and soaring are supported by updrafts is generally preferred to flat habitats. Deeply cut canyons rising to open mountain slopes and crags are ideal habitat.	No	**Low (foraging):** This species may forage over the site but in general the survey area does not contain adequate open space habitat for foraging or suitable nesting habitat.
Arizona elegans occidentalis California glossy snake	SSC G5T2 S2	Inhabits arid scrub, rocky washes, grasslands, and chaparral habitats. Appears to prefer microhabitats of open areas and areas with soil loose enough for easy burrowing.	No	**Low:** The survey area contains marginal habitat due to proliferation of weeds, and there are no CNDDB records of this species within 5 miles.
Artemisiospiza belli belli Bell's sage sparrow	WL G5T2T3 S3	This species has a wide, but sparse distribution in western Riverside County, specifically within the "Riverside lowlands, San Jacinto Foothills, Santa Ana Mountains, and Desert Transition Bioregions. Yearlong resident on the coastal side of southern California mountains. Breeds in coastal sage scrub and chaparral habitats from February to August. They require semi-open habitats with evenly spaced shrubs one to two meters high. Occurs in chaparral dominated by fairly dense stands of chamise (*Adenostoma fasciculatum*).	No	**Not Expected:** The survey area is outside of the typical range of this species on the coastal slope, which in Los Angeles County is typically restricted to montane chaparral habitat.
Asio otus long-eared owl	SSC G5 S3?	Uncommon yearlong resident throughout the state except the Central Valley and southern California deserts where it is an uncommon winter visitor. Requires riparian habitat and uses live oak thickets and other dense stands of trees.	No	**Low (wintering):** The survey area contains marginal wintering habitat, with some open grasslands and oak woodlands. There are a few known records at localities in the general vicinity.
Aspidoscelis hyperythra orange-throated whiptail	WL G5 S2S3	Uncommon to fairly common over much of its range in Orange, Riverside, and San Diego counties. Also occurs in southwestern San Bernardino County near Colton. Semi-arid brushy areas typically with loose soil and rocks, including washes, streamsides, rocky hillsides, and coastal chaparral.	No	**Low:** This species prefers more pristine patches of coastal sage scrub vegetation. The survey area has marginally suitable habitat due to weed proliferation, and there are no CNDDB records within 5 miles.
Aspidoscelis tigris stejnegeri coastal whiptail	SSC G5T5 S3	This subspecies is found in coastal southern California, mostly west of the Peninsular Ranges and south of the Transverse Ranges, and north into Ventura County. Ranges south into Baja California. Found in a variety of ecosystems, primarily hot and dry open areas with sparse vegetation in chaparral, woodland, and riparian areas. Associated with rocky areas with little vegetation or sunny microhabitats within shrub or grassland associations.	Yes	**Present:** Multiple individuals have been seen within the survey area during the project surveys.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Athene cunicularia burrowing owl	SSC G4 S3	Yearlong resident of California. Primarily a grassland species, but it persists and even thrives in some landscapes highly altered by human activity. Occurs in open, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. The overriding characteristics of suitable habitat appear to be burrows for roosting and nesting and relatively short vegetation with only sparse shrubs and taller vegetation.	No	**Not Expected:** The survey area does not contain suitable open space habitat to support this species.
Bombus crotchii Crotch bumble bee	SCE G3G4 S1S2	Found from coastal California east to the Sierra-Cascade crest and south into Mexico. Primarily occurs in California, including the Mediterranean region, Pacific coast, western desert, great valley, and adjacent foothills through most of southwestern California. Has also been recorded in Baja California, Baja California Sur, and in southwest Nevada. Inhabits open grassland and scrub habitats. Primarily nests underground. Food plant genera include *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum*.	No	**Low:** Although suitable habitat is present throughout much of the survey area, there are no recent records of this species anywhere in the project vicinity. The only records within 5 miles of the survey area are from one location in 1911 and another location with repeat records from 1932-1934; the areas of these records have been entirely developed.
Buteo swainsoni Swainson's hawk	ST G5 S3	Summer migrant in southern California. Typical habitat is open desert, grassland, or cropland containing scattered, large trees or small groves. Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. Forages in adjacent grassland or suitable grain or alfalfa fields or livestock pastures.	No	**Not Expected:** This species occurs in this area strictly as a migrant. While it may fly over the site on its way north or south during migration, it would not be expected to land anywhere in the survey area, which does not contain suitable foraging habitat.
Campylorhynchus brunneicapillus sandiegensis coastal cactus wren	SSC G5T3Q S3	The yearlong resident coastal population (*C.b. sandiegensis*) has a very limited range, extending from extreme northwestern Baja California north through the coastal lowlands of San Diego County and apparently into southern Orange County. Restricted to thickets of cholla (*Cylindropuntia prolifera*) or prickly-pear cacti (*Opuntia littoralis, O. oricola*) tall enough to support and protect the birds' nests. Typically, habitat consists of coastal sage scrub at elevations below 1,500 feet amsl.	No	**Not Expected:** The survey area falls well outside of the recognized range of the *sandiegensis* subspecies, which ends around State Route 74 based on CDFW mapping. However, the site does contain multiple pairs of another local subspecies, *C.b. anthonyi*.
Catostomus santaanae Santa Ana sucker	FT G1 S1	Occur in the watersheds draining the San Gabriel and San Bernardino Mountains of southern California. Steams that Santa Ana sucker inhabit are generally perennial streams with water ranging in depth from a few inches to several feet and with currents ranging from slight to swift.	No	**Not Expected:** There is no suitable aquatic habitat and the survey area is well outside of the range of this species.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Chaetodipus fallax fallax northwestern San Diego pocket mouse	SSC G5T3T4 S3S4	Found terrestrially in a wide variety of temperate habitats ranging from chaparral and grasslands to scrub forests and deserts. Open habitat on the Pacific slope from southwestern San Bernardino County to northwestern Baja California. Habitat types include coastal sage scrub, sage scrub/grassland ecotones, and chaparral communities. Major habitat requirement is the presence of low growing vegetation or rocky outcroppings, as well as sandy soil to dig burrows.	No	**Not Expected:** The survey area has too much dense, high-growing vegetation for it to be suitable for this species.
Chaetura vauxi Vaux's swift	SSC G5 S2S3	Summer resident of northern California. Hollow trees are its favored nesting and roosting sites (chimneys are used on occasion), making this swift vulnerable to loss of old-growth forest. Breeds from southwestern Canada through the western United States to Mexico, Central America, and northern Venezuela. In winter, northern migrant populations of this species overlap southern residents.	No	**Low (migration):** This species does not nest in southern California and only migrates through. The extensive coast live oak woodlands in and around the survey area could potentially serve as stopover habitat for the night for migrating birds.
Circus hudsonius northern harrier	SSC G5 S3	Yearlong resident of California. Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded area. In general, it prefers saltwater marshes, wet meadows, sloughs, and bogs for nesting and foraging. Nests on the ground in shrubby vegetation or patches of dense vegetation, usually at the marsh edge.	No	**Low (foraging)**: This species is relatively widespread in the surrounding area, particularly because of Tonner Canyon and the Chino Hills. Some of the more open weedy areas in the survey area could serve as suitable foraging habitat by this species, but the site overall is only marginally suitable for this purpose, and there is no nesting habitat.
Coccyzus americanus occidentalis western yellow-billed cuckoo	FT SE G5T2T3 S1	In California, the breeding distribution is now thought to be restricted to isolated sites in Sacramento, Amargosa, Kern, Santa Ana, and Colorado River valleys. Obligate riparian species with a primary habitat association of willow-cottonwood riparian forest.	No	**Not Expected:** The survey area does not contain suitable foraging or nesting habitat for this species. There are no reports of this species in the general area within 5 miles.
Coturnicops noveboracensis yellow rail	SSC G4 S1S2	Precise breeding and wintering ranges and relative abundances difficult to discern fully because of the species' secretive behavior within its marsh habitat. This species occurs year-round in California as a very local breeder in northeastern interior and as a winter visitor (early October to mid-April). Require sedge marshes/meadows with moist soil or shallow standing water.	No	**Not Expected:** This species is rare everywhere in California and only reliably occurs in the far northeast corner of the state. It is not expected to occur within the survey area.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Crotalus ruber red-diamond rattlesnake	SSC G4 S3	Found in southwestern California, from the Morongo Valley west to the coast and south along the peninsular ranges to mid Baja California. It can be found from the desert, through dense chaparral in the foothills (it avoids the mountains above around 4,000 feet amsl), to warm inland mesas and valleys, all the way to the cool ocean shore. It is most commonly associated with heavy brush with large rocks or boulders. Dense chaparral in the foothills, boulders associated coastal sage scrub, oak/pine woodlands, and desert slope scrub associations; however, chamise and red shank (*Adenostoma sparsifolium*) associations may offer better structural habitat for refuges and food resources for this species than other habitats.	No	**High:** The survey area has suitable habitat throughout the entire limits and there are a high number of CNDDB reports of this species within the Summitridge Park Trail system.
Dipodomys merriami parvus San Bernardino kangaroo rat	FE SCE SSC G5T1 S1	Inhabits early to intermediate seral stages of coastal scrub habitat. This species prefers alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and floodplains.	No	**Not Expected:** The survey area does not contain alluvial scrub habitat and is outside of the range of this species.
Elanus leucurus white-tailed kite	FP G5 S3S4	Yearlong resident along the coastal ranges and valleys of California. Occurs in low elevation, open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Uses trees with dense canopies for cover. Important prey item is the California vole (*Microtus californicus*). Nests in tall (20 to 50 feet) coast live oaks (*Quercus agrifolia*).	No	**Low (nesting and foraging):** The survey area has marginal nesting and foraging habitat, with patches of oak woodlands surrounded by open (but very weedy) hillsides. There are a few records within 5 miles.
Empidonax traillii willow flycatcher	SE G5 S1S2	A rare summer resident of California with currently known breeding locations restricted primarily to the Sierra Nevada/Cascade region, near Buelton in Santa Barbara County; Prado Basin in Riverside County; and several locations in San Diego County. In California, the species is restricted to thickets of willows, whether along streams in broad valleys, in canyon bottoms, around mountain-side seepages, or at the margins of ponds and lakes.	No	**Low (migration):** This species may occur within the survey area for resting or foraging purposes strictly during migration. However, this species does not and would not nest anywhere within 5 miles of the survey area.
Empidonax traillii extimus southwestern willow flycatcher	FE SE G5T2 S1	Uncommon summer resident in southern California primarily found in lower elevation riparian habitats occurring along streams or in meadows. The structure of suitable breeding habitat typically consists of a dense mid-story and understory and can also include a dense canopy. Nest sites are generally located near surface water or saturated soils. The presence of surface water, swampy conditions, standing or flowing water under the riparian canopy are preferred.	No	**Low (migration):** This species may occur within the survey area for resting or foraging purposes strictly during migration. However, this species does not and would not nest anywhere within 5 miles of the survey area.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Emys marmorata western pond turtle	SSC G3G4 S3	Found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches, with abundant vegetation, either rocky or muddy bottoms, in woodland, forest, and grassland. In streams, prefers pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking. May enter brackish water and even seawater. Found at elevations from sea level to over 5,900 feet amsl.	No	**Not Expected:** There is no suitable aquatic within the survey area.
Eremophila alpestris actia California horned lark	WL G5T4Q S4	Yearlong resident of California. This subspecies is typically found in coastal regions. Breed in level or gently sloping shortgrass prairie, montane meadows, "bald" hills, open coastal plains, fallow grain fields, and alkali flats. Within southern California, California horned larks breed primarily in open fields, (short) grasslands, and rangelands. Nests on the open ground.	No	**Low (nesting and foraging):** The survey area contains marginal nesting and foraging habitat for this species, but the open space areas are generally consumed by dense weeds. There are a few local records within 5 miles.
Eumops perotis californicus western mastiff bat	SSC G5T4 S3S4	Primarily a cliff-dwelling species, roost generally under exfoliating rock slabs. Roosts are generally high above the ground, usually allowing a clear vertical drop of at least 3 meters below the entrance for flight. In California, it is most frequently encountered in broad open areas. Its foraging habitat includes dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, and agricultural areas.	No	**Low:** There is suitable roosting and foraging habitat on-site, but there are no CNDDB records within 5 miles of the survey area.
Falco columbarius merlin	WL G5 S3S4	Uncommon winter resident of southern California. Nest in forested openings, edges, and along rivers across northern North America. Found in open forests, grasslands, and especially coastal areas with flocks of small songbirds or shorebirds. This species does not breed in California.	No	**Moderate (wintering):** The survey area generally contains suitable wintering habitat for this species, and there are a handful of records within 5 miles.
Falco mexicanus prairie falcon	WL G5 S4	The prairie falcon is associated primarily with perennial grasslands, savannahs, rangeland, some agricultural fields during the winter season, and desert scrub areas, all typically dry environments of western North American where there are cliffs or bluffs for nest sites. The species requires sheltered cliff ledges for cover and nesting which may range in height from low rock outcrops of 30 feet to vertical 400 feet high (or more) cliffs and typically overlook some treeless country for hunting. Open terrain is used for foraging. Will forage up to 15 miles from the nest site.	No	**Not Expected:** The survey area does not contain suitable nesting or foraging habitat for this species.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Falco peregrinus anatum American peregrine falcon	FP G4T4 S3S4	This species breeds and winters throughout California, with the exception of desert areas. Use a large variety of open habitats for foraging, including tundra, marshes, seacoasts, savannahs, grasslands, meadows, open woodlands, and agricultural areas. Sites are often located near rivers or lakes. Riparian areas, as well as coastal and inland wetlands, are also important habitats year-round for this species. The species breeds mostly in woodland, forest, and coastal habitats. The nest is typically a scrape or depression dug in gravel on a cliff ledge or on manmade structures, including skyscraper ledges, tall towers, and bridges. Within southern California, peregrine falcons are primarily found at coastal estuaries and inland oases wherever a food source is located.	No	**High (foraging):** The survey area generally contains suitable foraging habitat for this species, and there are a handful of records within 5 miles. There is no suitable nesting habitat within the survey area.
Gila orcuttii arroyo chub	SSC G2 S2	Native to the Los Angeles, San Gabriel, San Luis Rey, Santa Ana, and Santa Margarita rivers and to Malibu and San Juan creeks. This species has been introduced and have successfully established populations in the Santa Ynez, Santa Maria, Cuyama and Mojave river systems as well as smaller coastal streams such as Arroyo Grande Creek and Chorro Creek in San Luis Obispo County. Warm streams of the Los Angeles Plain, which are typically muddy torrents during the winter, and clear quiet brooks in the summer, possibly drying up in places. They are found both in slow-moving and fast-moving sections, but generally deeper than 16 inches.	No	**Not Expected:** There is no suitable aquatic within the survey area.
Haliaeetus leucocephalus bald eagle	SE FP G5 S3	Locally common yearlong resident of southern California. Typically prefer areas near large water bodies such as sea coasts, coastal estuaries and inland lakes and rivers, in many areas, these birds are found within two miles of a water source. Most populations, specifically those in northern regions, migrate to southern, milder climates annually. Generally, these birds' nest in the canopy of tall, coniferous trees, surrounded by smaller trees. They have been reported nesting on the ground, on cliffs, on cellular phone towers, on electrical poles and in artificial nesting towers.	No	**Not Expected:** The survey area does not contain suitable nesting or foraging habitat for this species. There is possibly foraging habitat at the local Arnold Reservoir southeast of the survey area, but there is no suitable nesting habitat within 5 miles.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Icteria virens yellow-breasted chat	SSC G5 S3	Summer resident of California. Primarily found in tall, dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. Breeding habitat within southern California primarily consists of dense, wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. Nesting areas are associated with streams, swampy ground, and the borders of small ponds. It winters south the Central America. Found at elevations ranging from 820 to 2,625 feet amsl.	No	**Not Expected:** There is no suitable nesting or foraging habitat within the survey area, which lacks the riparian scrub that this species occurs in.
Lanius ludovicianus loggerhead shrike	SSC G4 S4	Yearlong resident of California. Prefers open habitats with bare ground, scattered shrubs, and areas with low or sparse herbaceous cover including open-canopied valley foothill hardwood, riparian, pinyon-juniper desert riparian, creosote bush scrub, and Joshua tree woodland. Requires suitable perches including trees, posts, fences, utility lines, or other perches. Nests in branches up to 14 feet above the ground frequently in a shrub with thorns or with tangled branching habitats.	No	**Low (foraging):** The survey area has marginal foraging habitat for this species on the hillsides, but this species is nearly extirpated from the coastal slope as a breeding bird.
Larus californicus California gull	WL G5 S4	Require isolated islands in rivers, reservoirs and natural lakes for nesting, where predations pressures from terrestrial mammals are diminished. Uses both fresh and saline aquatic habitats at variable elevations and degrees of aridity for nesting and for opportunistic foraging.	No	**Not Expected:** This species may fly over the survey area, but there is no suitable foraging or roosting habitat and this is outside of this species' breeding range.
Lasiurus blossevillii western red bat	SSC G5 S3	Winter range includes western lowlands and coastal regions south of San Francisco Bay. There is migration between summer and winter ranges. Roosting habitat includes forests and woodlands from sea level up through mixed conifer forests. Roosts primarily in trees, less often in shrubs. Roost sites are often found adjacent to streams, fields, or urban areas. Forages over grasslands, shrublands, open woodlands and forests, and croplands. Not found in desert areas.	No	**Low:** There is suitable roosting and foraging habitat on-site, but there are no CNDDB records within 5 miles of the survey area.
Lasiurus xanthinus western yellow bat	SSC G5 S3	Roosts in palm trees in foothill riparian, desert wash, and palm oasis habitats with access to water for foraging.	No	**Not Expected:** The survey area and surrounding vicinity (generally developed) lacks roosting habitat for this species.
Laterallus jamaicensis coturniculus California black rail	ST FP G3G4T1 S1	Suitable habitat generally includes salt marshes, freshwater marshes, and wet meadows. Typical associated vegetation includes pickle weed (*Salicornia virginica*), in salt marshes and bulrush (*Scirpus* spp.) in less saline habitats.	No	**Not Expected:** This species is extremely rare anywhere in southern California outside of the far southeast corner of the state. There is no suitable nesting or foraging habitat within the survey area.

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Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Lepus californicus bennettii San Diego black-tailed jackrabbit	SSC G5T3T4 S3S4	Occupies many diverse habitats, but primarily is found in arid regions supporting short-grass habitats, agricultural fields, or sparse coastal scrub.	No	**Not Expected**: There is no suitably open shrubby habitat within the survey area, which is also too surrounded by development, for this species to be expected. There are no CNDDB records within 5 miles.
Microtus californicus stephensi south coast marsh vole	SSC G5T1T2 S1S2	Found within tidal marshes in Los Angeles, Orange, and southern Ventura counties.	No	**Not Expected:** There is no suitable habitat for this species within the survey area and no CNDDB records within 5 miles.
Neotoma lepida intermedia San Diego desert woodrat	SSC G5T3T4 S3S4	Occurs in coastal scrub communities between San Luis Obispo and San Diego Counties. Found in a variety of shrub and desert habitats, primarily associated with rock outcroppings, boulders, cacti, or areas of dense undergrowth. Woodrats often are associated with cholla cactus which they use for water and dens or boulders and boulder piles. The most common natural habitats for records are chaparral, coastal sage scrub (including RSS and Diegan coastal sage scrub) and grassland.	No	**Low:** The survey area contains suitable habitat for this species, but there are no CNDDB records within 5 miles.
Nyctinomops femorosaccus pocketed free-tailed bat	SSC G4 S3	Often found in pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree (*Yucca brevifolia*) woodland, and palm oasis habitats. Prefers rocky desert areas with high cliffs or rock outcrops, which are used as roosting sites.	No	**Not Expected:** There is no suitable habitat for this species within the survey area and no CNDDB records within 5 miles.
Nyctinomops macrotis big free-tailed bat	SSC G5 S3	Found in New Mexico, southern Arizona, and Texas. Rare in California. Records of this species are from urban areas of San Diego County. Prefers rugged, rocky terrain up to 8,000 feet amsl. Roosts in buildings, caves, and occasionally in holes in trees. Also roosts in crevices in high cliffs or rock outcrops.	No	**Not Expected:** There is no suitable habitat for this species within the survey area and no CNDDB records within 5 miles.
Oncorhynchus mykiss irideus **pop. 10** steelhead – southern California DPS	FE G5T1Q S1	Steelhead can survive in a wide range of temperature conditions. Species is found where dissolved oxygen concentration is at least 7 parts per million. In streams, deep low-velocity pools are important wintering habitats. Spawning habitat consists of gravel substrates free of excessive silt.	No	**Not Expected:** There is no suitable aquatic within the survey area.
Pandion haliaetus osprey	WL G5 S4	Winter resident of southern California. Associated strictly with large, fish-bearing waters, primarily in ponderosa pine through mixed conifer habitats. Uses large trees, snags, and dead-topped trees in open forest habitats for cover and nesting. Requires open, clear waters for foraging and uses rivers, lakes, reservoirs, bays, estuaries, and surf zones.	No	**Not Expected:** The survey area does not contain suitable nesting or foraging habitat for this species. There is possibly foraging habitat at the local Arnold Reservoir southeast of the survey area, but there is no suitable nesting habitat within 5 miles.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Perognathus longimembris brevinasus Los Angeles pocket mouse	SSC G5T1T2 S1S2	Occurs in lower elevation grasslands and coastal sage scrub communities in and around the Los Angeles Basin. Prefers open ground with fine sandy soils. May not dig extensive burrows, but instead will seek refuge under weeds and dead leaves instead.	No	**Not Expected:** There is no suitable habitat for this species within the survey area and no CNDDB records within 5 miles.
Phalacrocorax auritus double-crested cormorant	WL G5 S4	Yearlong resident of California. Prefers water less than 30 feet deep with rocky or gravel bottom. Rests in daytime and roosts overnight beside water on offshore rocks, islands, cliffs, dead branches of trees, wharfs, jetties, or even transmission lines. Occupies diverse aquatic habitats in all seasons. In California, most individuals are found nesting in coastal regions. Requires suitable places for daytime resting (e.g., rocks, sandbars, pilings). Forage in shallow water (< 30 feet deep).	No	**Not Expected:** There is no suitable foraging or nesting habitat for this species within the survey area. The survey area lacks any open waters or any notable expansive open fields and lacks any rookery trees.
Phrynosoma blainvillii coast horned lizard	SSC G3G4 S4	Occurs in a wide variety of vegetation types including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland and coniferous forest. Its elevational range extends up to 4,000 feet in the Sierra Nevada foothills and up to 6,000 feet in the mountains of southern California. In inland areas, this species is restricted to areas with pockets of open microhabitat, created by disturbance (e.g. fire, floods, unimproved roads, grazing lands, and fire breaks). The key elements of such habitats are loose, fine soils with a high sand fraction; an abundance of native ants or other insects; and open areas with limited overstory for basking and low, but relatively dense shrubs for refuge.	No	**Low:** There are pockets of suitable habitat within the survey area where the weeds are not as prevalent and there is more open ground, but there is only one record from within the last 20 years within 5 miles of the survey area.
Piranga rubra summer tanager	SSC G5 S1	Summer resident in southern California where it breeds in low-elevation willow and Fremont cottonwood woodlands, and in higher-elevation mesquite and saltcedar (*Tamarix* spp.) stands. Winters in the tropics, mainly in lowlands but also up to middle elevations in mountains, both in solid forest and in edges and clearings with scattered trees. Nests close to creeks, favoring broad riparian zones (196 feet [60 meters]).	No	**Low (wintering):** This species is a fairly common winter vagrant in coastal southern California and may occur as a vagrant within the survey area. However, it would not be expected to nest on-site.
Polioptila californica californica coastal California gnatcatcher	FT SSC G4G5T2Q S2	Yearlong resident of sage scrub habitats that are dominated by California sagebrush. This species generally occurs below 750 feet amsl in coastal regions and below 1,500 feet amsl inland. Ranges from the Ventura County, south to San Diego County and northern Baja California and it is less common in sage scrub with a high percentage of tall shrubs. Prefers habitat with more low-growing vegetation.	Yes	**Present:** The survey area contains a relatively high number of gnatcatchers that are confirmed to be nesting on-site.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Rhinichthys osculus* ssp. *3 Santa Ana speckled dace	SSC G5T1 S1	Requires permanent flowing streams with summer water temperatures of 62 – 68 degrees Fahrenheit. Inhabits shallow cobble and gravel riffles and small streams that flow through steep, rocky canyons with chaparral covered walls.	No	**Not Expected:** There is no suitable aquatic within the survey area.
Riparia riparia bank swallow	ST G5 S2	Neotropical migrant found in riparian and other lowland habitats in California, west of the deserts. The species does not breed in southern California. During the summer, the species is restricted to riverbanks, creeks, seashores, and lakes with vertical banks, bluffs, and cliffs with fine-textured or sandy soils nearby for nesting.	No	**Not Expected:** There is no suitable foraging habitat for this species within the survey area. This species does not breed anywhere in the region.
Salvadora hexalepis virgultea coast patch-nosed snake	SSC G5T4 S2S3	Occurs in brushy vegetation including coastal scrub and chaparral from the coast to the mountains. Takes refuge in existing small mammal burrows.	No	**Low:** There is suitable habitat within the survey area, but no CNDDB records within 5 miles.
Setophaga petechia yellow warbler	SSC G5 S3S4	Yearlong resident along the southern coast of California with the remainder of the State being occupied during the summer. The species also winters along the Colorado River and in parts of Imperial and Riverside Counties. Nests in riparian areas dominated by willows, cottonwoods, California sycamores, or alders (*Alnus* spp.) or in mature chaparral. May also use oaks, conifers, and urban areas near stream courses.	No	**Low (foraging):** The survey area contains marginal foraging habitat for this birds during migration, but there is no nesting habitat. Lack of any non-oak riparian habitat or eucalyptus trees reduces the possibility of birds staying on-site for very long.
Spea hammondii western spadefoot	SSC G3 S3	Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Rain pools which do not contain American bullfrogs (*Lithobates catesbeianus*), predatory fish, or crayfish are necessary for breeding. Estivates in upland habitats adjacent to potential breeding sites in burrows approximating 3 feet in depth.	No	**Not Expected:** There is no suitable habitat within the survey area and no CNDDB records within 5 miles.
Taricha torosa coast range newt	SSC G4 S4	Found in wet forests, oak forests, chaparral, and rolling grasslands. In southern California, it is found in drier chaparral, oak woodland, and grasslands.	No	**Not Expected:** There is no suitable habitat within the survey area and no CNDDB records within 5 miles.
Taxidea taxus American badger	SSC G5 S3	Occupies a wide variety of habitats including dry, open grassland, sagebrush, and woodland habitats. Badgers are generally associated with treeless regions, prairies, park lands and cold desert areas (Lindzey 1982). Require dry, friable, often sandy soil to dig burrows for cover, food storage, and giving birth. Occasionally found in riparian zones and open chaparral with less than 50% plant cover.	No	**Not Expected:** There is no suitable habitat within the survey area and no CNDDB records within 5 miles.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Thamnophis hammondii two-striped gartersnake	SSC G4 S3S4	Occurs in or near permanent fresh water, often along streams with rocky beds and riparian growth up to 7,000 feet amsl.	No	**Not Expected:** There is no suitable habitat within the survey area and no CNDDB records within 5 miles.
Thamnophis sirtalis* pop. *1 south coast gartersnake	SSC G5T1T2 S1S2	Utilizes a wide variety of habitats - forests, mixed woodlands, grassland, chaparral, farmlands, often near ponds, marshes, or streams.	No	**Not Expected:** There is no suitable habitat within the survey area and no CNDDB records within 5 miles.
Vireo bellii pusillus least Bell's vireo	FE SE SSC G5T2 S2	Summer resident in southern California. Breeding habitat generally consists of dense, low, shrubby vegetation in riparian areas, and mesquite brushlands, often near water in arid regions. Early successional cottonwood-willow riparian groves are preferred for nesting. The most critical structural component of nesting habitat in California is a dense shrub layer that is 2 to 10 feet (0.6 to 3.0 meters) above ground. The presence of water, including ponded surface water or moist soil conditions, may also be a key component for nesting habitat.	No	**Not Expected:** There is no suitable nesting or foraging habitat within the survey area, which lacks the riparian habitat that this species occurs in.
Xanthocephalus xanthocephalus yellow-headed blackbird	SSC G5 S3	Occurs primarily as a migrant and summer resident from April to early October; breeds from mid-April to early October. Small numbers winter in the southern Central Valley and the Imperial and Colorado River valleys. Occurs in freshwater emergent wetlands, and moist, open areas along croplands and mud flats of lacustrine habitats. Prefers to nest in tall, dense wetland vegetation characterized by tules (Scirpus spp.), cattails (Typha spp.), or other similar plant species along the border of lakes and ponds.	No	**Not Expected:** The survey area does not contain suitable nesting or foraging habitat for this species and there are no reports in the general vicinity.
SPECIAL-STATUS PLANT SPECIES				
Abronia villosa* var. *aurita chaparral sand-verbena	1B.1 G5T2? S2	Annual herb. Occurs on sandy soils within chaparral, coastal scrub, and desert dunes habitat. Found at elevations ranging from 246 to 5,249 feet amsl. Blooming period is (January) March through September.	No	**Low:** The sandy soils within chaparral habitat (inland scrub oak chaparral) preferred by this species is present on-site. However, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).
Androsace elongata* ssp. *acuta California androsace	4.2 G5?T3T4 S3S4	Annual herb. Occurs in chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, and valley and foothill grassland habitats. Found at elevations ranging from 492 to 4,281 feet amsl. Blooming period is from March to June.	No	**Low:** The chaparral (scrub oak chaparral) habitat preferred by this species is present within the survey area. However, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Asplenium vespertinum western spleenwort	4.2 G4 S4	Perennial rhizomatous herb. Found on rocky soils within chaparral, cismontane woodland, and coastal scrub habitat. Found at elevations ranging from 591 to 3,281 feet amsl. Blooming period is February through June.	No	**Low:** The rocky soils within chaparral (scrub oak chaparral) habitat preferred by this species is present within the survey area. However, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).
Astragalus brauntonii Braunton's milk-vetch	FE 1B.1 G2 S2	Perennial herb. Found in recently burned or disturbed areas, usually sandstone with carbonate layers in coastal scrub, chaparral, and valley and foothill grassland habitats. Found at elevations ranging from 13 to 2,100 feet amsl. Blooming period is January through August.	No	**Low:** The chaparral habitat (inland scrub oak chaparral) preferred by this species is present on-site. However, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).
Atriplex coulteri Coulter's saltbush	1B.2 G3 S1S2	Perennial herb. Blooms March through October. Generally associated with alkaline or clay soils that occur in grasslands and coastal bluff habitats. Known elevations range from 30 to 1,440 feet amsl.	No	**Not Expected:** The alkaline and clays soils preferred by this species is not present within the survey area. Additionally, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).
Atriplex parishii Parish's brittlescale	1B.1 G1G2 S1	Annual herb. Blooms June through October. Usually found on drying alkali flats with fine soils in vernal pools, chenopod scrub, wet meadows, and playas. Known elevations range from 15 to 4,660 feet amsl.	No	**Not Expected:** No vernal pools, chenopod scrub, wet meadows, or playa habitats typically preferred by this species are present within the survey area. Additionally, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).
Atriplex serenana var. davidsonii Davidson's saltscale	1B.2 G5T1 S1	Annual herb. Occurs on alkaline soils within coastal bluff scrub and coastal scrub habitats. Grows in elevations ranging from 33 to 656 feet amsl. Blooming period is from April to October.	No	**Not Expected:** The survey area is outside of the known elevation range for this species. Additionally, the alkaline soils preferred by this species are not present within the survey area. Further, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).
Berberis nevinii Nevin's barberry	FE SE 1B.1 G1 S1	Perennial evergreen shrub. Occurs on sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian scrub. Found at elevations ranging from 899 to 2,707 feet amsl. Blooming period is (February) March through June.	No	**Low:** The sandy and gravelly soils within chaparral (scrub oak chaparral) preferred by this species is present within the survey area. However, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).

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Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Calochortus catalinae Catalina mariposa-lily	4.2 G3G4 S3S4	Perennial herb (bulb). Habitats include chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Found at elevations ranging from 49 to 2,297 feet amsl. Blooming period is February through June.	No	**Moderate:** The chaparral (scrub oak chaparral) and coastal scrub habitats preferred by this species are present within the survey area. In addition, the nearest documented occurrence is 0.3 mile south of the project site (UC Riverside, 2020).
Calochortus plummerae Plummer's mariposa-lily	4.2 G4 S4	Perennial bulbiferous herb. Occurs on granitic and rocky soils within chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley/foothill grassland. Grows in elevations ranging from 328 to 5,577 feet amsl. Blooming period is from May to July.	No	**Low:** The rocky soils within chaparral (scrub oak chaparral) and coastal scrub habitats preferred by this species is present within the survey area. However, the nearest documented occurrence for this species (Occurrence Number 95) is 4.2 miles northwest of the survey area (CNDDB, 2020).
Calochortus weedii* var. *intermedius intermediate mariposa-lily	1B.2 G3G4T2 S2	Perennial bulbiferous herb. Found in chaparral, coastal scrub, and valley and foothill grasslands in rocky or calcareous soils. Found at elevations ranging from 344 to 2,805 feet amsl. Blooming period is May through July.	No	**Low:** The rocky soils within chaparral (scrub oak chaparral) and coastal scrub habitats preferred by this species is present within the survey area. However, the nearest documented occurrence for this species (Occurrence Number 123) is 2.5 miles south of the survey area (CNDDB, 2020).
Calystegia felix lucky morning-glory	1B.1 G1Q S1	Annual herb (rhizomatous). Blooms March through September. Found on silty loam and alkaline soils in meadows and seeps and alluvial soils in riparian scrub. Historically associated with wetland and marshy places, but possibly in drier situations as well. Known elevations range from 25 to 710 feet amsl.	No	**Not Expected:** The survey area is outside of the known elevation range for this species. Additionally, the typical habitat preferred by this species is not present within the survey area.
Camissoniopsis lewisii Lewis' evening-primrose	3 G4 S4	Annual herb. Occurs on sandy or clay soils coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrubland, and valley/foothill grassland habitats. Grows in elevations ranging from 0 to 984 feet amsl. Blooming period is March through May (June).	No	**Low:** The sandy soils within coastal scrubland preferred by this species is present within the survey area. However, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).
Centromadia parryi* ssp. *australis southern tarplant	1B.1 G3T2 S2	Annual herb. Occurs in marshes and swamps (margins), valley and foothill grassland (vernally mesic), and vernal pools. Found at elevations ranging from 0 to 1,575 feet amsl. Blooming period is from May to November.	No	**Not Expected:** The marshes and swamp, valley and foothill grassland, and vernal pool habitats typically preferred by this species are not present within the survey area. Further, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).

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Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Centromadia pungens* ssp. *laevis smooth tarplant	1B.1 G3G4T2 S2	Annual herb. Occurs in alkaline soils within chenopod scrub, meadows and seeps, playas, riparian woodland, and valley/foothill grassland habitats. Grows in elevation from 0 to 2,100 feet amsl. Blooming period is April through September.	No	**Not Expected:** The alkaline soils typically preferred by this species are not present within the survey area. Further, the only occurrence record near the survey area was last seen in 1903 (CNDDB, 2020).
Chorizanthe parryi* var. *parryi Parry's spineflower	1B.1 G3T2 S2	Annual herb. Occurs on sandy and/or rocky soils in chaparral, coastal sage scrub, and sandy openings within alluvial washes and margins. Found at elevations ranging from 951 to 3,773 feet amsl. Blooming period is April through June.	No	**Low:** The chaparral (scrub oak chaparral) and coastal sage scrub habitats preferred by this species are present within the survey area. However, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).
Cladium californicum California saw-grass	2B.2 G4 S2	Perennial rhizomatous herb. Found in meadows and seeps, marshes and swamps (alkaline or freshwater). Found at elevations ranging from 197 to 5,249 feet amsl. Blooming period is June through September.	No	**Not Expected:** There are no meadows and seeps or marshes and swamps within the survey area. Further, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).
Convolvulus simulans small-flowered morning-glory	4.2 G4 S4	Annual herb. Found on wet clay and serpentine ridges within chaparral, coastal scrub, and valley and foothill grassland. Found at elevations ranging from 100 to 2820 feet amsl. Blooming period is March through July.	No	**Not Expected:** Wet clay and serpentine ridges are not present within the survey area. Further, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).
Deinandra paniculata paniculate tarplant	4.2 G4 S4	Annual herb. Occurs in coastal scrub, vernal pools, and valley/foothill grassland habitats. Found at elevations rainging from 82 to 3,084 feet amsl. Blooming period is April through November.	No	**Low:** Although the coastal scrub habitat preferred by this species is abundant within the survey area, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).
Dodecahema leptoceras slender-horned spineflower	FE SE 1B.1 G1 S1	Annual herb. Occurs on flood deposited terraces and washes in chaparral, coastal scrub, and alluvial fan sage scrub habitats. Found at elevations ranging from 1,181 to 2,690 feet amsl. Blooming period is from April to June.	No	**Not Expected:** The survey area is outside of the known elevation range for this species. Further, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).

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Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Dudleya multicaulis many-stemmed dudleya	1B.2 G2 S2	Perennial herb. Often occurs on clay soils and around granitic outcrops in chaparral, coastal sage scrub, and grasslands. Found at elevations ranging from 0 to 2,592 feet amsl. Blooming period is April through July.	No	**Low:** The clay soils within chaparral (scrub oak chaparral) and coastal sage scrub typically preferred by this species is present within the survey area. However, there are no occurrence records last seen within the past 20 years for this species within 5.0 miles of the survey area (CNDDB, 2020).
Eriastrum densifolium* ssp. *sanctorum Santa Ana River woollystar	FE SE 1B.1 G4T1 S1	Perennial herb. Grows on sandy or gravelly soils within chaparral and coastal scrub (alluvial fan) habitats. Found at elevations ranging from 298 to 2,001 feet amsl. Blooming period is April through September.	No	**Not Expected:** The survey area is outside of the known range of this species and lacks the alluvial fan habitat that this species is associated with. In addition, there are no occurrence records last seen within the past 20 years for this species within 5.0 miles of the survey area (CNDDB, 2020).
Horkelia cuneata* var. *puberula mesa horkelia	1B.1 G4T1 S1	Perennial herb. Found in sandy or gravelly soils within chaparral, cismontane woodland, and coastal scrub habitats. Found at elevations ranging from 230 to 2,657 feet amsl. Blooming period is February through September.	No	**Low:** The sandy soils within chaparral (scrub oak chaparral) typically preferred by this species is present within the project site. However, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).
Juglans californica southern California black walnut	4.2 G4 S4	Perennial deciduous tree. Found in chaparral, cismontane woodland, coastal scrub, and riparian woodland habitats. Found at elevations ranging from 164 to 2,953 feet amsl. Blooming period is March through August.	Yes	**Present:** This species occurs within the disturbed California walnut groves and coast live oak woodland and forest within the survey area.
Juncus acutus* ssp. *leopoldii southwestern spiny rush	4.2	Perennial rhizomatous herb. Occurs within coastal dunes (mesic), meadows and seeps (alkaline seeps), and marshes and swamps (coastal salt). Found at elevations ranging from 9 to 2,955 feet amsl. Blooming period is (March) May through June.	No	**Not Expected:** The wetland communities and hydric soils typically preferred by this species are not present within the survey area. Further, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).
Lasthenia glabrata ssp. coulteri Coulter's goldfields	1B.1 G4T2 S2	Annual herb. Prefers playas, vernal pools, and coastal salt marshes and swamps. Found at elevations ranging from 3 to 4,003 feet amsl. Blooming period is from February to June.	No	**Not Expected:** The wetland communities typically preferred by this species are not present within the survey area. Further, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Lepidium virginicum* var. *robinsonii Robinson's pepper-grass	4.3 G5T3 S3	Annual herb. Dry soils on chaparral and coastal sage scrub. Found at elevations ranging from 66 to 4,396 feet amsl. Blooming period is January through July.	No	**Low:** The dry soils within chaparral (scrub oak chaparral) and coastal sage scrub typically preferred by this species are present within the project site. However, the nearest documented occurrence (Occurrence Number 141) is 3.5 miles southwest of the survey area (CNDDB, 2020).
Monardella australis* ssp. *jokerstii Jokerst's monardella	1B.1 G4T1? S1?	Perennial rhizomatous herb. Grows on steep scree or talus slopes between breccia and secondary alluvial benches along drainages and washes. Found in chaparral and lower montane coniferous forest habitat. Blooming period is July through September. Found at elevations ranging from 4,429 to 5,741 feet amsl.	No	**Not Expected:** Although a drainage runs through the survey area, there is no breccia or secondary alluvial benches present along this drainage. Additionally, the survey area is outside of the known elevation range for this species. Further, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).
Muhlenbergia californica California muhly	4.3 G4 S4	Perennial rhizomatous herb. Found in mesic areas, meadows, seeps, and streambanks within chaparral, coastal scrub, and lower montane coniferous forest. Found at elevations ranging from 328 to 6,562 feet amsl. Blooming period is June through September.	No	**Not Expected:** There are no wetland communities within the survey area that this species is typically found within. Further, the only occurrence record of this species near the survey area is from 1916 (CNDDB, 2020).
Muhlenbergia utilis aparejo grass	2B.2 G4 S2S3	Perennial herb. Usually occurs in coastal sage scrub, creosote bush scrub, and wetland riparian habitats. Found at elevations ranging from 820 to 3,281 feet amsl. Blooming period is October through March.	No	**Low:** The coastal sage scrub habitat preferred by this species is present within the survey area. However, the only occurrence record of this species near the survey area is from 1916 (CNDDB, 2020).
Navarretia prostrata prostate vernal pool navarretia	1B.2 G2 S2	Annual herb. Blooms April through July. Occurs in mesic sites and on alkaline soils in coastal scrub, valley and foothill grassland, vernal pool, meadows, and seeps. Known elevations range from 5 to 4,055 feet amsl.	No	**Not Expected:** There are no alkaline soils or mesic sites present within the survey area. Further, the only occurrence record of this species near the survey area is from 1918 (CNDDB, 2020).
Phacelia hubbyi Hubby's phacelia	4.2 G4 S4	Annual herb. Grows on gravelly, rocky, talus soils within chaparral, coastal scrub, and valley and foothill grassland habitats. Found at elevations ranging from 0 to 3,281 feet amsl. Blooming period is from April to July.	No	**Low:** The rocky soils within chaparral (scrub oak chaparral) and coastal sage scrub habitat preferred by this species are present within the survey area. However, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Phacelia ramosissima var. austrolitoralis south coast branching phacelia	3.2 G5?T3Q S3	Perennial herb. Found on sandy, sometimes rocky site within chaparral, coastal scrub, coastal dunes, and coastal salt marsh. Found at elevations ranging from 15 to 980 feet amsl. Blooming period is from March to August.	No	**Low:** The sandy soils within chaparral (scrub oak chaparral) and coastal sage scrub habitat preferred by this species are present within the survey area. However, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).
Phacelia stellaris Brand's star phacelia	1B.1 G1 S1	Annual herb. Found in coastal dunes and coastal scrub habitats. Found at elevations ranging from 3 to 1,312 feet amsl. Blooming period is from March to June.	No	**Low:** Although the coastal scrub habitat preferred by this species is present within the survey area, the only occurrence record of this species near the survey area is from 1935 (CNDDB, 2020).
Pseudognaphalium leucocephalum white rabbit-tobacco	2B.2 G4 S2	Perennial herb. Found on sandy and gravelly soils within chaparral, cismontane woodland, coastal scrub, and riparian woodland habitats. Found at elevations ranging from 0 to 6,890 feet amsl. Blooming period is July through December.	No	**Low:** The sandy soils within chaparral (scrub oak chaparral), coastal scrub, and riparian woodland habitats are found throughout the survey area. However, the most recent occurrence record of this species near the survey area is from 1931 (CNDDB, 2020).
Quercus engelmannii Engelmann oak	4.2 G3 S3	Perennial deciduous tree. Occurs in chaparral, cismontane woodland, riparian woodland, and valley/foothill grassland. Grows in elevations ranging from 160 to 4,275 feet amsl. Blooming period is from March to June.	No	**Low:** The chaparral (scrub oak chaparral) and riparian woodland habitat preferred by this species are present within the survey area. However, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).
Romneya coulteri Coulter's matilija poppy	4.2 G4 S4	Perennial rhizomatous herb. Habitats include chaparral and coastal scrub. Grows at elevations ranging from 66 to 3,937 feet amsl. Blooming period is from March to July.	No	**Low:** The chaparral (scrub oak chaparral) and coastal scrub habitat preferred by this species are present within the survey area. However, there are no occurrence records for this species within 5.0 miles of the survey area (CNDDB, 2020).
Senecio aphanactis chaparral ragwort	2B.2 G4 S2	Annual herb. Grows on alkaline soils within chaparral, cismontane woodland, and coastal scrub habitats. Found at elevations ranging from 49 to 2,625 feet amsl. Blooming period is January through April (May).	No	**Not Expected:** The survey area contains no alkaline soils, which is required for this species. Further, the only occurrence record of this species near the survey area is from 1932 (CNDDB, 2020).

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Sidalcea neomexicana Salt Spring checkerbloom	2B.2 G4 S2	Perennial herb. Found on alkaline and mesic soils within chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playas. Found at elevations ranging from 49 to 5,020 feet amsl. Blooming period is from March to June.	No	**Not Expected:** The alkaline soils and mesic soils required for this species to grow is not present within the survey area. Further, the most recent occurrence record of this species near the survey area is from 1917 (CNDDB, 2020).
Symphyotrichum defoliatum San Bernardino aster	1B.2 G2 S2	Perennial rhizomatous herb. Occurs near ditches, streams, and springs within cismontane woodland, coastal scrub, lower montane coniferous forest, meadows, seeps, marshes, and valley/foothill grassland. Grows in elevations ranging from 0 to 6,700 feet amsl. Blooming period is from July to November.	No	**Not Expected:** The alkaline soils and mesic soils required for this species to grow is not present within the survey area. Further, the most recent occurrence record of this species near the survey area is from 1930 (CNDDB, 2020).
Thysanocarpus rigidus rigid fringepod	1B.2 G1G2 S1	Annual herb. Occurs on dry, rocky slopes and along ridges of oak and pine woodland in arid mountain ranges. Grows in elevations ranging from 1,395 to 7,100 feet amsl. Blooming period is from February to May.	No	**Not Expected:** The project site is out of the known elevation range for this species. Further, the only documented occurrence record of this species near the survey area is from 1923 (CNDDB, 2020).
SPECIAL-STATUS VEGETATION COMMUNITIES				
CNDDB/Holland (1986) California Walnut Woodland **MCV (1995)** California Walnut Series **NVCS (2009)** *Juglans californica* Woodland Alliance	G3 S3.2	Found at elevations ranging from 490 to 2,952 feet amsl in riparian corridors, but most stands cover all hillslopes. Southern California black walnut is dominant or co-dominant in the tree canopy with white alder (*Alnus rhombifolia*), two petaled ash (*Fraxinus dipetala*), toyon (*Heteromeles arbutifolia*), coast live oak, valley oak (*Quercus lobata*), polished willow (*Salix laevigata*), arroyo willow (*Salix lasiolepis*), black elderberry (*Sambucus nigra*), and California bay (*Umbellularia californica*). Trees are less than 50 feet tall; canopy is open to continuous. Shrub layer is sparse to intermittent. Herbaceous layer is sparse or grassy.	Yes	**Present:** Approximately 6.30 acres of this vegetation community occurs along the slope within the northern portion of the survey area.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
CNDDB/Holland (1986) Riversidian Alluvial Fan Sage Scrub **MCV (1995)** Scalebroom Series **NVCS (2009)** *Lepidospartum squamatum* intermittently flooded Shrubland Alliance	G3 S3	Found at elevations ranging from 164 to 4,922 feet amsl on intermittently or rarely flooded, low-gradient alluvial deposits along streams, washes, and fans. Scalebroom (*Lepidospartum squamatum*) is dominant, co-dominant, or conspicuous in the shrub canopy with burrobrush (*Ambrosia salsola*), California sagebrush, mulefat, bladderpod (*Cleome isomeris*), California cholla (*Cylindropuntia californica*), brittlebush (*Encelia farinosa*), thick leaved yerba santa (*Eriodictyon crassifolium*), hairy yerba santa (*Eriodictyon trichocalyx*), California buckwheat (*Eriogonum fasciculatum*), chaparral yucca (*Hesperoyucca whipplei*), deerweed (*Acmispon glaber*), laurel sumac (*Malosma laurina*), prickly-pear cactus, lemonade berry (*Rhus integrifolia*), sugar bush (*Rhus ovata*), skunkbrush (*Rhus aromatica*), and poison oak (*Toxicodendron diversilobum*). Emergent trees or tall shrubs may be present at low cover, including mountain mahogany (*Cercocarpus betuloides*), southern California black walnut, California juniper (*Juniperus californica*), California sycamore, Fremont cottonwood, or black elderberry. Shrubs are less than 7 feet tall; canopy is open to continuous, and two tiered. Herbaceous is layer variable and may be grassy.	No	**Absent:** This vegetation community does not occur within the survey area.
CNDDB/Holland (1986) Southern California Arroyo Chub/Santa Ana Sucker Stream **MCV (1995)** Not Identified **NVCS (2009)** Not Identified	N/A N/A	Characterized by a functioning hydrological system that experiences peaks and ebbs in water volume throughout the year; a mosaic of loose sand, gravel, cobble, and boulder substrates in a series of riffles, runs, pools and shallow sandy stream margins with water depths greater than 1.2 inches and water bottom velocities of more than 0.01 feet per second; non-turbid conditions or only seasonally turbid water; water temperatures less than 86° Fahrenheit; and stream habitat that includes algae, emergent aquatic vegetation, macroinvertebrates, and riparian vegetation.	No	**Absent:** This vegetation community does not occur within the survey area.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
CNDDB/Holland (1986) Southern Coast Live Oak Riparian Forest **MCV (1995)** Coast Live Oak Series **NVCS (2009)** *Quercus agrifolia* Woodland Alliance	G5 S4	Found at elevations ranging from sea level to 3,937 feet amsl in alluvial terraces, canyon bottoms, stream banks, slopes, and flats, Soils are deep, sandy or loamy with high organic matter. Coast live oak is a dominant or co-dominant in the tree canopy with bigleaf maple (*Acer macrophyllum*), box elder (*Acer negundo*), madrono (*Arbutus menziesii*), southern California black walnut, California sycamore, Fremont cottonwood, blue oak (*Quercus douglasii*), Engelmann oak (*Quercus engelmannii*), California black oak (*Quercus kelloggii*), valley oak, arroyo willow, and California bay. Trees are less than 98 feet tall; canopy is open to continuous. Shrub layer is sparse to intermittent. Herbaceous layer is sparse or grassy.	Yes	**Present:** Approximately 23.57 acres of this vegetation community occurs along the base of the slopes within the survey area.
CNDDB/Holland (1986) Southern Cottonwood Willow Riparian Forest **MCV (1995)** Fremont Cottonwood Series **NVCS (2009)** *Populus fremontii* Forest Alliance	G4 S3.2	Found at elevations ranging from sea level to 7,874 feet amsl on floodplains, along low-gradient rivers, perennial or seasonally intermittent streams, springs, in lower canyons in desert mountains, in alluvial fans, and in valleys with a dependable subsurface water supply that varies considerably during the year. Fremont cottonwood is a dominant or co-dominant in the tree canopy with box elder, desert baccharis (*Baccharis sergiloides*), Oregon ash (*Fraxinus latifolia*), northern California black walnut (*Juglans hindsii*), California sycamore, coast live oak, narrowleaf willow (*Salix exigua*), Goodding's willow (*Salix goodingii*), polished willow (*Salix laevigata*), arroyo willow, pacific willow (*Salix lasiandra* ssp. *lasiandra*), and yellow willow (*Salix lutea*). Trees and less than 25 meters tall; canopy is continuous to open. Shrub layer is intermittent to open. Herbaceous layer is variable.	No	**Absent:** This vegetation community does not occur within the survey area.
CNDDB/Holland (1986) Southern Sycamore Alder Riparian Woodland **MCV (1995)** California Sycamore Series **NVCS (2009)** *Platanus racemosa* Woodland Alliance	G3 S3	Found at elevations ranging from sea level to 7,874 feet amsl in gullies, intermittent streams, springs, seeps, stream banks, and terraces adjacent to floodplains that are subject to high-intensity flooding. Soils are rocky or cobbly alluvium with permanent moisture at depth. California sycamore is a dominant or co-dominant in the tree canopy with white alder, southern California black walnut, Fremont cottonwood, coast live oak, valley oak, narrowleaf willow, Gooding's willow, polished willow, arroyo willow, yellow willow, Peruvian pepper tree (*Schinus molle*), and California bay.	No	**Absent:** This vegetation community does not occur within the survey area.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
CNDDB/Holland (1986) Southern Willow Scrub **MCV (1995)** N/A **NVCS (2009)** N/A	N/A N/A	Southern willow scrub consists of dense, broadleaved, winter-deciduous stands of trees dominated by shrubby willows in association with mule fat and scattered emergent cottonwood and western sycamores. This vegetation community occurs on loose, sandy or fine, gravelly alluvium deposited near stream channels during flood flows. Frequent flooding maintains this early seral community, preventing succession to a riparian woodland or forest (Holland, 1986). In the absence of periodic flooding, this early seral type would be succeeded by southern cottonwood or western sycamore riparian forest.	No	**Absent:** This vegetation community does not occur within the survey area.

* **U.S. Fish and Wildlife Service (USFWS)**

FE Endangered – any species which is in danger of extinction throughout all or a significant portion of its range.

FT Threatened – any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

California Department of Fish and Wildlife (CDFW)

SE Endangered – any native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.

SCE State Candidate for Listing as Endangered – the classification provided to a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed as being under review by the Department of Fish and Wildlife for addition to the list of endangered species, or a species for which the commission has published a notice of proposed regulation to add the species to the list of endangered species.

ST Threatened – any native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required under the California Endangered Species Act.

FP Fully Protected – any native species or subspecies of bird, mammal, fish, amphibian, or reptile that were determined by the State of California to be rare or face possible extinction.

SSC Species of Special Concern – any species, subspecies, or distinct population of fish, amphibian, reptile, bird, or mammal native to California that currently satisfies one or more of the following criteria:

- is extirpated from California or, in the case of birds, in its primary seasonal or breeding role;
- is listed as Federally-, but not State-, threatened or endangered; meets the State definition of threatened or endangered but has not formally been listed.
- is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status; or
- has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for State threatened or endangered status.

WL Watch List - taxa that were previously designated as "Species of Special Concern" but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.

California Native Plant Society (CNPS) California Rare Plant Rank

1B Plants rare, threatened, or endangered in California and elsewhere.

2B Plants rare, threatened, or endangered in California but more common elsewhere.

3 Plant that lack the necessary information to assign them to one of the other ranks or to reject them.

4 Plants of limited distribution – Watch List.

Threat Ranks

.1 Seriously threatened in California (over 80% of occurrences threatened/high degree any immediacy of threat).

.2 Moderately threatened in California (20 to 80 percent of occurrences threatened/moderate degree and immediacy of threat).

.3 Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known).

NatureServe Conservation Status Rank

The Global Rank (G#) reflects the overall condition and imperilment of a species throughout its global range. The Infraspecific Taxon Rank (T#) reflects the global situation of just the subspecies or variety. The State Rank (S#) reflects the condition and imperilment of an element throughout its range within California. (G#Q) reflects that the element is very rare but there are taxonomic questions associated with it; the calculated G rank is qualified by adding a Q after the G#). Adding a ? to a rank expresses uncertainty about the rank.

G1/T1 Critically Imperiled – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.

G2/T2 Imperiled— At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.

G3/T3 Vulnerable— At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.

G4/T4 Apparently Secure— Uncommon but not rare; some cause for long-term concern due to declines or other factors.

G5/T5 Secure – Common; widespread and abundant.

S1 Critically Imperiled – Critically imperiled in the state because of extreme rarity (often 5 or fewer occurrences) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the State.

S2 Imperiled – Imperiled in the State because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or State.

S3 Vulnerable – Vulnerable in the State due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation.

S4 Apparently Secure – Uncommon but not rare; some cause for long-term concern due to declines or other factors.

Attachment E

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August 7, 2020 178669

City of Diamond Bar
Contact: Mr. Ryan Wright
21810 Copley Drive
Diamond Bar, CA 91765

SUBJECT: Results of Coastal California Gnatcatcher and Cactus Wren Focused Surveys for the Canyon Loop Trail Improvement Project in the City of Diamond Bar, Los Angeles County, California

Dear Mr. Wright:

Michael Baker International (Michael Baker) is pleased to submit this report to the City of Diamond Bar (City) documenting the results of coastal California gnatcatcher (*Polioptila californica californica*; CAGN) and cactus wren (*Campylorhynchus brunneicapillus*; CACW) focused surveys conducted for the Canyon Loop Trail Improvement Project (project or project site) located in the City of Diamond Bar, Los Angeles County, California. Surveys occurred during the 2020 field season, when Michael Baker was contracted by the City to perform CAGN and CACW surveys in suitable habitat within 500 feet of the proposed project.

Project Location

The survey area include the project site plus suitable CAGN and CACW habitat within a 500-foot buffer, and is generally located south of State Route 60, east of State Route 57, north of Grand Avenue, and west of Chino Hills Parkway in the City of Diamond Bar, Los Angeles County, California (refer to Figure 1, *Regional Vicinity*, in Attachment A). The survey area is depicted in Sections 11 and 14 of Township 2 south, Range 9 west, on the United States Geological Survey's (USGS) *San Dimas, California* 7.5-minute quadrangle (USGS 1981). Specifically, the survey area is located along the Canyon Loop Trail within Summitridge Park (refer to Figure 2, *Survey Area*, in Attachment A).

Project Description

The City of Diamond Bar proposes to implement a series of improvements to the existing Canyon Loop Trail. The intent of the project is primarily to realign the trail, improve drainage to minimize erosion of the trail, enhance the use of the trail where the gradients are steep, re-grade cross slopes, and consider amenities such as directional and interpretive signage, rest areas with benches, small shade shelters, climbing steps with cobblestone swale channelization, and water diverting improvements where necessary. Such trail improvements will reward hikers and visitors with 360-degree views of open space.

Regulatory Framework

Federal Endangered Species Act of 1973

As defined within the Federal Endangered Species Act of 1973 (FESA), an endangered species is any

animal or plant listed by regulation as being in danger of extinction throughout all or a significant portion of its geographical range. A threatened species is any animal or plant that is likely to become endangered within the foreseeable future throughout all or a significant portion of its geographical range. Without a special permit, Federal law prohibits the "take" of any individuals or habitat of Federally-listed species. Under Section 9 of the FESA, take is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." The term "harm" has been clarified to include "any act which actually kills or injures fish or wildlife, and emphasizes that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife." Enforcement of FESA is administered by the U.S. Fish and Wildlife Service (USFWS).

Under the definition used by the FESA, "Critical Habitat" refers to specific areas within the geographical range of a species that were occupied at the time it was listed that contain the physical or biological features that are essential to the survival and eventual recovery of that species and that may require special management considerations or protection, regardless of whether the species is still extant in the area. Areas that were not known to be occupied at the time a species was listed can also be designated as Critical Habitat if they contain one or more of the physical or biological features that are essential to that species' conservation and if the occupied areas are inadequate to ensure the species' recovery. If a project may result in take or adverse modification to a species' designated Critical Habitat and the project has a Federal nexus, the project proponent may be required to provide suitable mitigation. Projects with a Federal nexus may include projects that occur on Federal lands, require Federal permits (e.g., Clean Water Act Section 404 permit), or receive any Federal oversight or funding. If there is a Federal nexus, then the Federal agency that is responsible for providing funds or permits would be required to consult with the USFWS under the FESA.

Species Background

Coastal California Gnatcatcher

CAGN is a Federally threatened species with restricted habitat requirements, being an obligate resident of sage scrub habitats, particularly—but not exclusively—those that are dominated by California sagebrush (*Artemisia californica*). This species generally occurs below 750 feet elevation in coastal regions and below 1,500 feet inland. It ranges from Ventura County south to San Diego County and northern Baja California and is less common in sage scrub with a high percentage of tall shrubs. CAGN is considered a short-distance disperser through contiguous, undisturbed habitat (USFWS 2010). However, juveniles are capable of dispersing long distances (up to 14 miles) across fragmented and highly disturbed sage scrub habitat (USFWS 2010). CAGN prefers habitat with more low-growing vegetation (< 3 feet high). CAGN breeds between mid-February and the end of August, with peak activity from mid-March to mid-May. Population declines are attributed to loss of sage scrub habitat due to development, as well as brown-headed cowbird (*Molothrus ater*) nest parasitism. Federally designated Critical Habitat for CAGN is not located within or directly adjacent to the survey area. The primary constituent elements essential to support the biological needs of foraging, reproducing, rearing of young, intra-specific communication, dispersal, genetic exchange, or sheltering for CAGN are:

1) Dynamic and successional sage scrub habitats and associated vegetation (Riversidean alluvial fan sage scrub, coastal sage-chaparral scrub, etc.) that provide space for individual and population growth, normal behavior, breeding, reproduction, nesting, dispersal and foraging; and

2) Non-sage scrub habitats such as chaparral, grassland, and riparian areas in proximity to sage scrub habitats that provide linkages to help with dispersal, foraging, and nesting (USFWS 2007).

The survey area provides abundant suitable habitat for CAGN, although there are large sections of the survey area that are highly disturbed by non-native plants.

Cactus Wren

CACWs are a somewhat common avian species found within arid and semi-arid regions of southern California. The subspecies coastal cactus wren (*C. b. sandiegensis*; CCAWC) is found within a very limited range of southern California and is designated by CDFW as a Species of Special Concern (SSC). CCACW has more heavily spotted underparts more closely blending into the dark breast spot, less of a cinnamon-buff wash to the underparts, and extensive white in the interior tail feathers, as opposed to the continental desert subspecies and subspecies along the Los Angeles County coast, *C.b. anthonyi*, which has finer belly spotting more demarcated from the prominent breast spot, a heavier cinnamon-wash buff to the underparts, and white generally restricted to the outermost tail feather (rectrix 6) and occasionally onto rectrix 5 (the next feather in from the outside) (Rea and Weaver 1990). CCACW have a range which extends from extreme northwestern Baja California north at least through the coastal lowlands of San Diego County (Shuford and Gardali 2008). The actual northern limit of its range is uncertain because of the lack of specimens from northwestern San Diego County and most of Orange County. However, observations made in the field based on differences in song (slower frequency and lower pitch) and visual assessments suggest approximately the vicinity of State Route 74 (Ortega Highway) in Orange County may be the northern limit of CCACW, and this is apparently the range limit accepted by CDFW (Shuford and Gardali 2008).

CACWS breed from early March through July and are mainly restricted to thickets of chollas (*Cylindropuntia prolifera*) or prickly-pear cacti (i.e., *Opuntia littoralis, O. oricola*) large enough to protect from predation. Suitable habitat conditions are normally found on south-facing slopes, at bases of hillsides, or in dry washes. Territories have been recorded as occurring at elevations below 1,500 feet above mean sea level (amsl) and averaging three (3) acres in size (Shuford and Gardali 2008). CACWs forage on the ground primarily for insects such as beetles, ants, wasps, grasshoppers, butterflies, and spiders.

The survey area provides several distinct patches of the undisturbed coast prickly pear scrub habitat that is essential nesting habitat for this species. However, the survey area is well outside of the apparent geographic range for the coastal *sandiegensis* subspecies, which ends around State Route 74 based on CDFW mapping and distribution descriptions in Rea and Weaver (1990). The local subspecies found throughout Los Angeles County is *C. b. anthonyi*, although birds on the coastal slope often show some characteristics of the *sandiegensis* subspecies (such as more white in the tail than is otherwise expected for this subspecies).

Environmental Setting

The survey area for this effort encompasses suitable CAGN and CACW habitat within 500 feet of the existing Canyon Loop Trail. It is located in the southeastern corner of Los Angeles County less than 0.5 mile west of the boundary with San Bernardino County. The survey area represents a small subset of the entire 500-foot buffer around the Canyon Loop Trail and is approximately 30.24 acres in size. It is generally associated with preserved open space, although many areas within it, particularly the southeast portion of it, are disturbed with high proportions of non-native plant species as well. An unnamed ephemeral drainage runs roughly east to west through the center of the survey area. Areas immediately surrounding the survey area consist of residential developments to the east and west, and undeveloped land to the north and south.

Topography and Soils

The topography of the survey area is generally steep slopes with associated public trails along hilltops and other stabilized surfaces. The survey area is located at an elevation of approximately 970 to 1,310 feet amsl. According to the *Custom Soil Resource Report for Los Angeles County, California, Southeastern Part* (USDA 2020), the survey area is underlain by the following soil units: Urban land-Sorrento-Arbolado complex, 2 to 9 percent slopes (1136), Gaviota-Chumash-Rock outcrop complex, 20 to 55 percent slopes (1145), and Counterfeit-Urban land complex, 10 to 35 percent slopes, terraced (1232).

Vegetation Communities

Several terrestrial vegetation communities were identified on-site during the field survey. Vegetation classification was based on *A Manual of California Vegetation (Second Edition)* (Sawyer et al. 2009) and cross-checked with Holland (1986). The vegetation communities and land uses present within the survey area are depicted on Figure 3, *Vegetation Communities*, in Attachment A, and described in further detail below. Figure 3 and the descriptions below only include those communities that are suitable habitat for CAGN and CACW and do not include all vegetation communities or land uses within 500 feet of the project. All of the following vegetation communities are associated with what would be considered coastal sage scrub (CSS) habitat.

<u>California Sagebrush – Black Sage Scrub (Holland Equivalent: Diegan Coastal Sage Scrub; Code: 32500)</u>

Approximately 2.13 acres of California sagebrush – black sage scrub vegetation is located within the survey area. The majority of this vegetation community is dominated by California sagebrush (*Artemisia californica*) and black sage (*Salvia mellifera*) with other shrubs such as white sage (*Salvia apiana*), deerweed (*Acmispon glaber*), and California buckwheat (*Eriogonum fasciculatum*) occurring as less frequent sub-dominants. Due to the high density of shrubs within the vegetation community, little to no herbaceous cover is present.

<u>Disturbed California Sagebrush – Black Sage Scrub (Holland Equivalent: Disturbed Diegan Coastal Sage Scrub; Code: 32500)</u>

Approximately 17.76 acres of disturbed California sagebrush – black sage scrub vegetation is located throughout the survey area. This vegetation community is similar in composition and generally in close proximity to the California sagebrush – black sage scrub found within the survey area but also contains black mustard (*Brassica nigra*) and tocalote (*Centaurea melitensis*) as co-dominant species, in many areas completely dominating the ground cover between native shrubs.

<u>California Buckwheat Scrub (Holland Equivalent: Disturbed Diegan Coastal Sage Scrub; Code: 32500)</u>

Approximately 0.45 acre of California buckwheat scrub vegetation is located within the western portion of the survey area. This vegetation community is entirely dominated by California buckwheat, and appears to be part of a previous restoration effort.

<u>Coast Prickly Pear Scrub (Holland Equivalent: Diegan Coastal Sage Scrub; Code: 32500)</u>

Approximately 9.90 acres of coast prickly pear scrub vegetation is located within the survey area. Coast prickly pear (*Opuntia littoralis*) is dominant within this vegetation community, with sticky monkeyflower (*Diplacus aurantiacus*) prominently interspersed throughout the area. California buckwheat and California sagebrush are also present, but in lower proportions compared to coast prickly pear and sticky monkeyflower.

Methods

Literature Review

Prior to conducting the focused surveys, Michael Baker performed a detailed literature review and record search of the project site, vicinity, and region for CAGN and CACW records. The literature search included a review of any existing biological and focused CAGN survey reports from the project vicinity, as well as records reported in the CNDDB (CDFW 2020), the USFWS online Critical Habitat Mapper (USFWS 2020), the Cornell Lab of Ornithology's eBird database (eBird 2020), and a letter written to the City of Diamond Bar by Hamilton Biological (Hamilton Biological 2019).

Focused Surveys

Protocol surveys for CAGN and CACW were conducted concurrently along, and in areas of suitable habitat within 500 feet of, the existing Canyon Loop Trail in 2020. All surveys were conducted by Michael Baker biologists Ryan Winkleman (USFWS recovery permit TE-88331A-2), Ashley Spencer, and Tom Millington between May and July 2020 (refer to Table 1, *Survey Dates, Surveyors, Time, and Weather Conditions*). The surveys followed the CAGN guidelines described in the USFWS protocol *Coastal California Gnatcatcher (Polioptila californica californica) Presence/Absence Survey Guidelines, February 28, 1997* (USFWS 1997) and the CACW guidelines described in Mr. Winkleman's CDFW scientific collecting permit (SC-182750017). A total of six (6) surveys were conducted between May 26 and July 1, 2020.

Table 1: Survey Dates, Surveyors, Time, and Weather Conditions

Date	Surveyors	Time (start/finish)	Weather Conditions	
			Temperature (°F) (start/finish)	Wind Speed Range (miles per hour)
5/26/20	Ryan Winkleman	0751 / 1222	64 / 83	0-1
6/3/20	Ryan Winkleman, Ashley Spencer	0713 / 1146	65 / 87	0-8
6/10/20	Ryan Winkleman, Ashley Spencer	0720 / 1150	69 / 93	0-3
6/17/20	Ryan Winkleman, Tom Millington	0729 / 1149	62 / 68	0-1
6/24/20	Ryan Winkleman, Ashley Spencer	0729 / 1142	62 / 76	0-3
7/1/20	Ryan Winkleman, Ashley Spencer	0730 / 1130	62 / 67	0-1

During each survey, the biologist(s) walked areas of suitable habitat for CAGN and/or CACW within the survey area and would stop at strategic locations and use taped playback to attempt to lure the target species into view. All recordings were obtained from xeno-canto.org (2020) and were played with a Pixel 3XL smartphone amplified with a MIFA F10 portable Bluetooth speaker. In each instance the biologist(s) would position themselves in an area of suitable habitat and wait up to one (1) minute to see if the target species could be incidentally detected. If no birds were detected, Mr. Winkleman would play a short recording or short portion of a recording, followed by approximately one (1) minute of silence before playing another

recording or continuing the same recording. Recordings were cycled rather than repeated to more realistically mimic birds making variable vocalizations. In areas where both species could feasibly be present, the CAGN and CACW recordings were played alternately. If birds responded aurally or flew into view, all playback was stopped while the biologist(s) observed the bird(s) from a distance and took notes on age, sex, and behavior. Territory boundaries were mapped in the Avenza smartphone application while in the field and updated as necessary to record the approximate boundaries over the six surveys. If nesting behavior was observed, the biologists watched from a safe distance and, if found, plotted the nest location as accurately as possible using Global Positioning System (GPS) technology and then watched for updates on subsequent surveys from a safe distance. Photographs were periodically taken during the surveys (refer to Figure 2, *Survey Area*, in Attachment A, as well as to Attachment B).

Results

A total of forty-seven (47) wildlife species were observed within the CAGN survey area during the CAGN focused surveys including four (4) reptiles, seventy-six (76) birds, and five (5) mammals. A complete list of wildlife species observed during the focused survey is included in Attachment C.

Coastal California Gnatcatcher

Based on information in the CNDDB (CDFW 2020), eBird (eBird 2020), and from a local expert (Benson personal communication 2020), CAGN is a rare and local resident in the coastal slope of Los Angeles and San Bernardino Counties. Populations are somewhat widespread but persistent in the project vicinity in Los Angeles County, spanning across the Chino Hills, San Jose Hills, and Puente Hills. In San Bernardino County, which is located immediately to the east of the project site, CAGN persists in only four or five populations in the entire county, including in Chino Hills State Park. Farther to the south, CAGN is reasonably common in the foothills of the Santa Ana Mountains in Orange County. The project site is not located within designated Critical Habitat (USFWS 2007).

A minimum of five (5) CAGN territories were mapped during the focused surveys (refer to Figure 4, *Coastal California Gnatcatcher Results*, in Attachment A). Four (4) nests were found in two (2) of these territories, one (1) of which successfully led to chicks fledging. Of the minimum five territories, four (4) territories (Territories 1, 3, 4, and 5) had chicks fledge in them. The boundaries of Territories 3 and 5 expanded over time due to post-breeding dispersal, with Territory #5 potentially undergoing two separate instances of dispersal to two areas where no CAGN had been previously detected. A more detailed summary of CAGN activity in each territory during each survey is provided in Table 2 below.

Cactus Wren

Similar to CAGN, CACW is a rare and local resident on the coastal slope of Los Angeles and San Bernardino Counties. In Los Angeles County the species is better off but declining, with populations known from the Chino Hills, San Jose Hills, Puente Hills, and foothills of the San Gabriel Mountains. In adjacent San Bernardino County, the only known populations are in the upper Santa Ana River wash near Redlands/Mentone/Highland and near the confluence of Cajon and Lytle Creeks, both far from the survey area (Benson personal communication 2020). This species is much more common in Orange County in the foothills of the Santa Ana Mountains and less so in the San Joaquin Hills. Birds in Los Angeles County are considered to be of the non-sensitive subspecies *C.b. anthonyi*, although it should be noted that many of the birds on the coast, including the ones in the survey area, show characteristics, such as the extent of white barring in the tail feathers, typically associated with the sensitive CCACW.

Table 2: CAGN Survey Results

Date	Territories				
	Territory #1	**Territory #2**	**Territory #3**	**Territory #4**	**Territory #5**
5/26/20	Adult male present and foraging solitarily.	Adult male present and foraging, territorial against juvenile CACW. Adult female briefly observed.	CAGN incidentally heard, but not seen.	Adult male present and foraging.	Family unit with two adults and at least two juveniles present.
6/3/20	Family unit with two adults and two juveniles present.	Adult male present and foraging, territorial against juvenile CACW.	No activity observed.	Family unit with at least one juvenile present.	Adult male present, no other birds seen.
6/10/20	Adult male present with two female-type birds, could not see well enough to determine age.	Adult pair present, **Nest #1** found. Male observed perched over nest in a shading action.	Family unit present with at least two juveniles in a new post-breeding dispersal area where not previously found.	Adult pair present and foraging, no other birds seen.	Adult pair present, **Nest #1** found. Both male and female observed incubating and shading the eggs.
6/17/20	Adult male present with a single female-type bird, not aged.	**Nest #1** failed. Adult pair periodically seen throughout territory but no indications of nesting.	Family unit in the post-breeding dispersal area again.	Adult male present and foraging. Possible female seen but not confirmed.	Adult pair observed feeding chicks in **Nest #1**. Chicks too small to count from afar.
6/24/20	Adult male present with a single female-type bird, not aged.	Adult pair present and nearly finished building **Nest #2**.	Two female-type birds present in the post-breeding dispersal area, including the adult female carrying off food.	Adult male present and foraging.	Adult pair present feeding chicks in **Nest #1**. Four chicks visible in nest. Two juvenile birds found to the north, up the hillside above the territory in mustard, assumed to be the juveniles from 5/26 in a post-breeding dispersal area, although not previously found here despite weekly playback.
7/1/20	Four birds flew in together to playback and then went out of sight. Later observed the adult pair bringing food to juveniles.	**Nest #2** failed. Adult male observed building a new nest, **Nest #3**.	One bird heard-only, one female-type bird briefly seen in the post-breeding dispersal area.	Adult male present and foraging.	**Nest #1** empty and nesting territory abandoned. Four birds, including at least one adult (male), found in the 6/24 post-breeding dispersal area. Up to three separate birds found approximately 250 meters to the east. Possibly more Territory #5 dispersal.

A total of five (5) CACW territories were mapped during the focused surveys (refer to Figure 5, *Cactus Wren Results*, in Attachment A). No attempts were made to find CACW nests, although one (1) nest was incidentally found outside of any apparently active territories. Although no nests were found in the territories, all five territories fledged young. Of these, Territory #5 is the only one that had an obvious instance of post-breeding dispersal into a new area during the surveys, with all other families utilizing the same territories that they had evidently nested in. A more detailed summary of CACW activity in each territory during each survey is provided in Table 3 below.

Table 3: CACW Survey Results

Date	Territories				
	Territory #1	**Territory #2**	**Territory #3**	**Territory #4**	**Territory #5**
5/26/20	Adult pair present. Independent juvenile bird to the west either from Territory #1 or Territory #3.	Adult male singing.	Adult pair present.	Adult pair with two juveniles present.	One bird heard only. Cooper's hawk suppressed activity.
6/3/20	Adult pair present. Independent juvenile bird to the west either from Territory #1 or Territory #3.	Adult male singing.	Adult bird present.	At least three birds present. Food exchange witnessed between adult and one of the juveniles.	One bird heard only. Cooper's hawk suppressed activity.
6/10/20	Two adults present.	Three adults and one juvenile present.	Adult male singing.	Two adults and two juveniles present.	Two adults and two juveniles present together.
6/17/20	Two adults and three juveniles present.	Two adults and two juveniles present.	Adult male singing.	At least four birds present.	Family unit moved slightly north to a post-breeding dispersal area.
6/24/20	One bird present, did not take notes on age.	Three birds present, did not take notes on age.	Two adults present.	Five birds present together.	All four birds seen together in the post-breeding dispersal area.
7/1/20	Two adults seen in territory.	All four birds seen in territory.	One adult with two juveniles observed. First evidence of nesting.	Five birds present in a group together.	No birds found in the post-breeding dispersal area. Two adults and one juvenile found in the original territory.

Conclusions and Recommendations

Based on the results of the focused surveys, at least five (5) CAGN and five (5) CACW territories were found to be present within the 500-foot survey area. Four (4) CAGN pairs and all five (5) CACW pairs

successfully fledged young in 2020 as evidenced by firsthand observations by Michael Baker biologists during the surveys. Many of the territories were directly adjacent to, crossed over, or were at least in close proximity to proposed trail improvement areas. Of the nests that were found, the closest nest (CAGN Territory #2 Nest #1) was approximately 70 feet from the Canyon Loop Trail.

Although a variety of trail improvements are proposed for this project, most of the improvements are widening the existing trail in the southern half of the survey area. This would result in loss of suitable habitat for these species, particularly for CAGN. Based on project plans, the length of proposed trail widening is currently estimated at approximately 1,942 feet, or approximately 0.37 mile. The trail is proposed to be widened to five feet total width, which means on average based on field observations during the surveys it would be widened an additional one to two feet from its current width at these locations. The on-site CACW is not believed to be the sensitive CCACW protected by the CDFW as a SSC; regardless, impacts to this species can be addressed through a nesting bird clearance survey (see below), with additional benefits imparted via CAGN protections. Although this area is not designated as Critical Habitat, loss of vegetation directly supporting known populations of CAGN would constitute "take" of CAGN under Section 9 of the FESA. Because the project will not have a Federal nexus to allow for FESA Section 7 consultations, an incidental take permit (ITP) would instead be granted by the USFWS under Section 10(a)(1)(B) of the FESA. This typically entails the project proponent agreeing to a habitat conservation plan (HCP), an extensive process that can take years to complete. However, the USFWS also has a category of HCPs for projects that will otherwise have minor impacts on listed species, called a "low-effect HCP." These HCPs pertain to projects involving (1) minor or negligible effects on federally listed, proposed, or candidate species and their habitats covered under the HCP; and (2) minor or negligible effects on other environmental values or resources. Under low-effect HCPs, the permitting process is more streamlined and take can generally be authorized under a series of strict avoidance and minimization measures. Therefore, it is recommended that the City consult with USFWS and pursue a low-effect HCP to permit removal of habitat suitable for and/or used by CAGN on the project site.

To avoid indirect impacts and take of CAGN or CACW, it is recommended that all project-related construction occur outside of the general breeding season (February 15 – September 15). Timing the construction to be outside of this window of time would avoid impacts to CAGN or CACW nests. If it is not possible to construct the project outside of this time period, it is recommended that a nesting bird survey be conducted within seven (7) days prior to the start of construction in a 500-foot buffer from the project. The survey should be conducted by a qualified biologist with demonstrable experience identifying CAGN and CACW nesting behavior and finding their nests, and who has been approved by the USFWS to conduct a CAGN nesting survey. If an active CAGN or CACW nest is found during the survey, no project-related construction will be allowed within 500 feet of an active CAGN nest or 300 feet of an active CACW nest, or within an alternative safe distance as determined by the qualified biologist based on topography, visual shielding, nest progress, and the type of construction and associated disturbance, until the active nest has been determined by the qualified biologist to have failed or to have successfully gone to completion (i.e. the nestlings have fledged and are no longer reliant on the nest). Results of the nesting bird survey, should one be required, shall be compiled in a memorandum and submitted to the City and to the USFWS for the project record.

Please do not hesitate to contact me at (949) 533-0918 or ryan.winkleman@mbakerintl.com should you

have any questions or require further information regarding the information presented in this report.

Sincerely,

Ryan Winkleman
Senior Biologist
Natural Resources and Regulatory Permitting

Attachments:

A. *Figures*
B. *Site Photographs*
C. *Wildlife Species Observed List*
D. *References*

Attachment A

Figures

7/30/2020 JN H:\pdata\178669\GIS\MXD\Focused Bird Surveys\Fig 01 Regional Vicinity.mxd RP

CANYON LOOP TRAIL IMPROVEMENT PROJECT
COASTAL CALIFORNIA GNATCATCHER AND CACTUS WREN FOCUSED SURVEY RESULTS

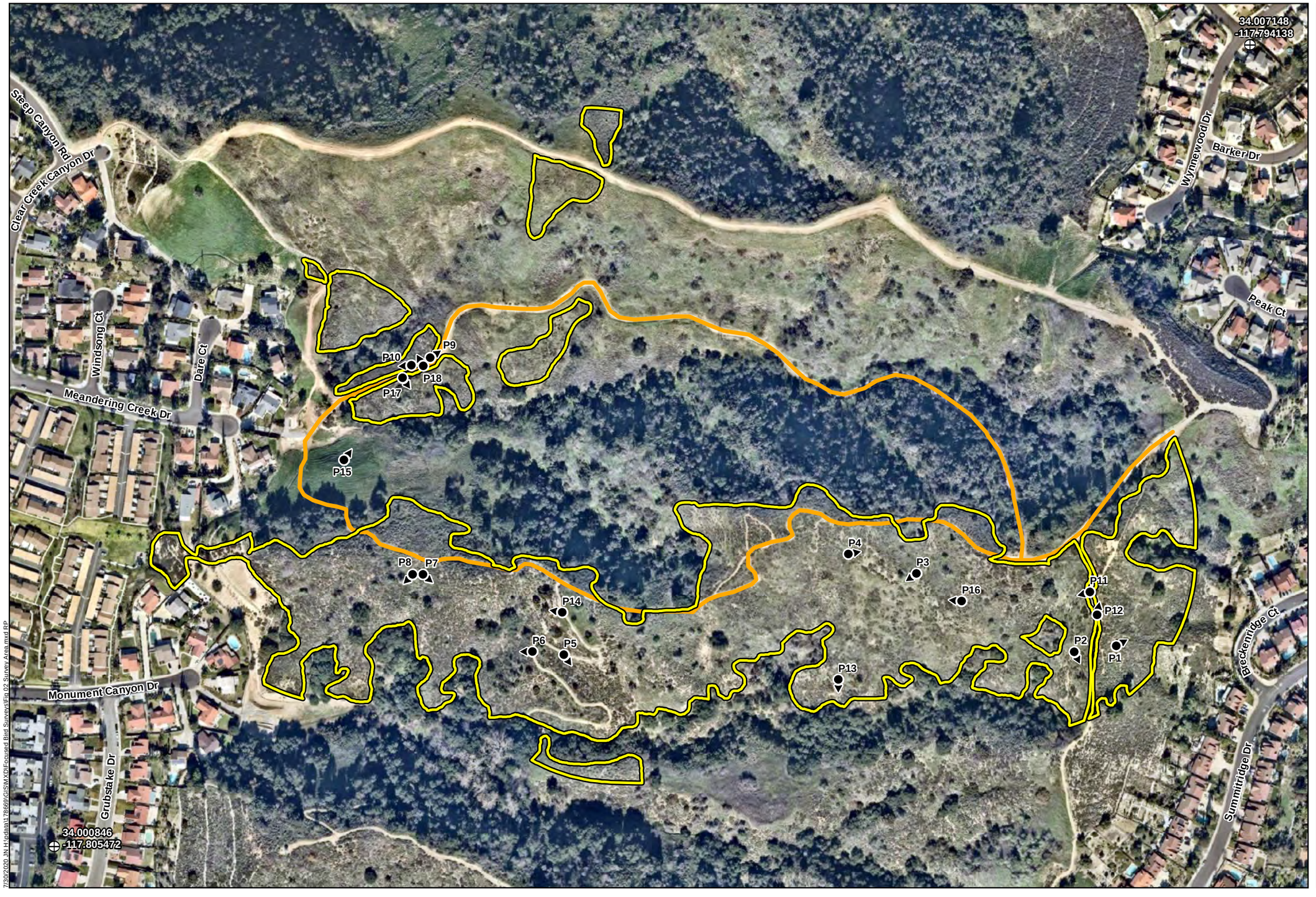
Michael Baker INTERNATIONAL

0 2.5 5 Miles

Source: ArcGIS Online, 2018

Regional Vicinity

Figure 1



Legend

- Project Site
- Survey Area (Suitable Habitat within 500 Feet)
- Photograph Point and Direction
- Reference Point

0 135 270 Feet

7/30/2020 JN H:\jobdata\178669\GIS\MXD\Focused Bird Surveys\Fig 02-Survey Area.mxd RP

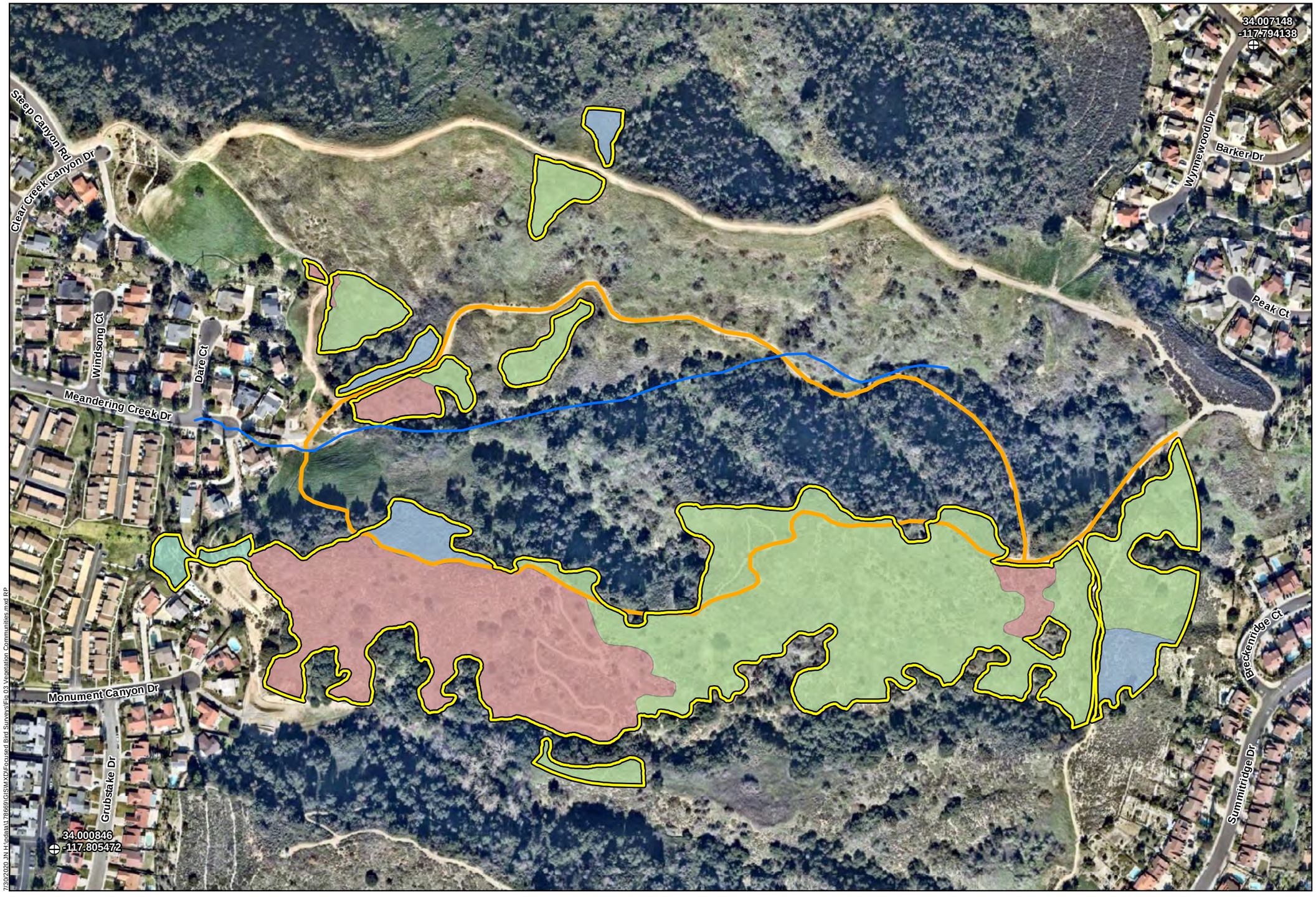
Michael Baker INTERNATIONAL

Source: Nearmap, 2020

CANYON LOOP TRAIL IMPROVEMENT PROJECT
COASTAL CALIFORNIA GNATCATCHER AND CACTUS WREN FOCUSED SURVEY RESULTS

Survey Area

Figure 2



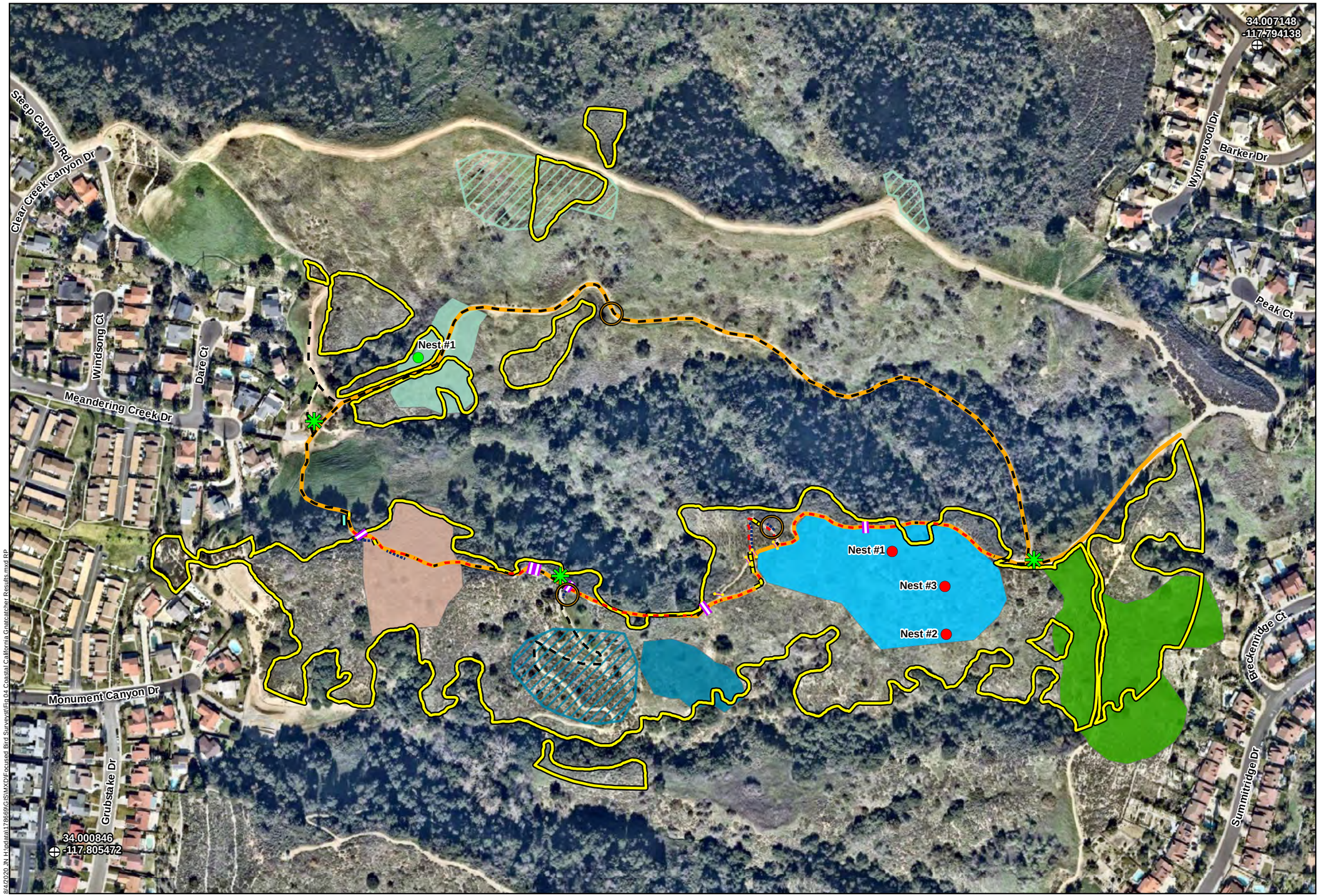
7/30/2020 JN H:\projdata\178669\GIS\MXD\Focused Bird Surveys\Fig 03 Vegetation Communities.mxd RP

Source: Nearmap, 2020

CANYON LOOP TRAIL IMPROVEMENT PROJECT
COASTAL CALIFORNIA GNATCATCHER AND CACTUS WREN FOCUSED SURVEY RESULTS

Vegetation Communities

Figure 3



Legend

- Project Site
- Survey Area (Suitable Habitat within 500 Feet)
- Reference Point

CAGN Territories

- Territory #1
- Territory #2
- Territory #3
- Territory #3 (Post-breeding Dispersal)
- Territory #4
- Territory #5
- Territory #5 (Post-breeding Dispersal)

CAGN Nests

- Successful Nest
- Failed Nest

Proposed Trail Improvements

- Trail to be Expanded to 5' Wide
- Existing Trail to Remain
- Gabion Retaining Wall
- Stairs
- Wayfinding Sign
- Lodge Pole Fence
- Shade Structure with Benches & Trash Receptacle
- Proposed Bench
- Drainage Crossing

0 135 270 Feet

8/4/2020 JN: Hydrant\178669\GIS\MXD\Focused Bird Survey\stFig 04 Coastal California Gnatcatcher Results.mxd RP

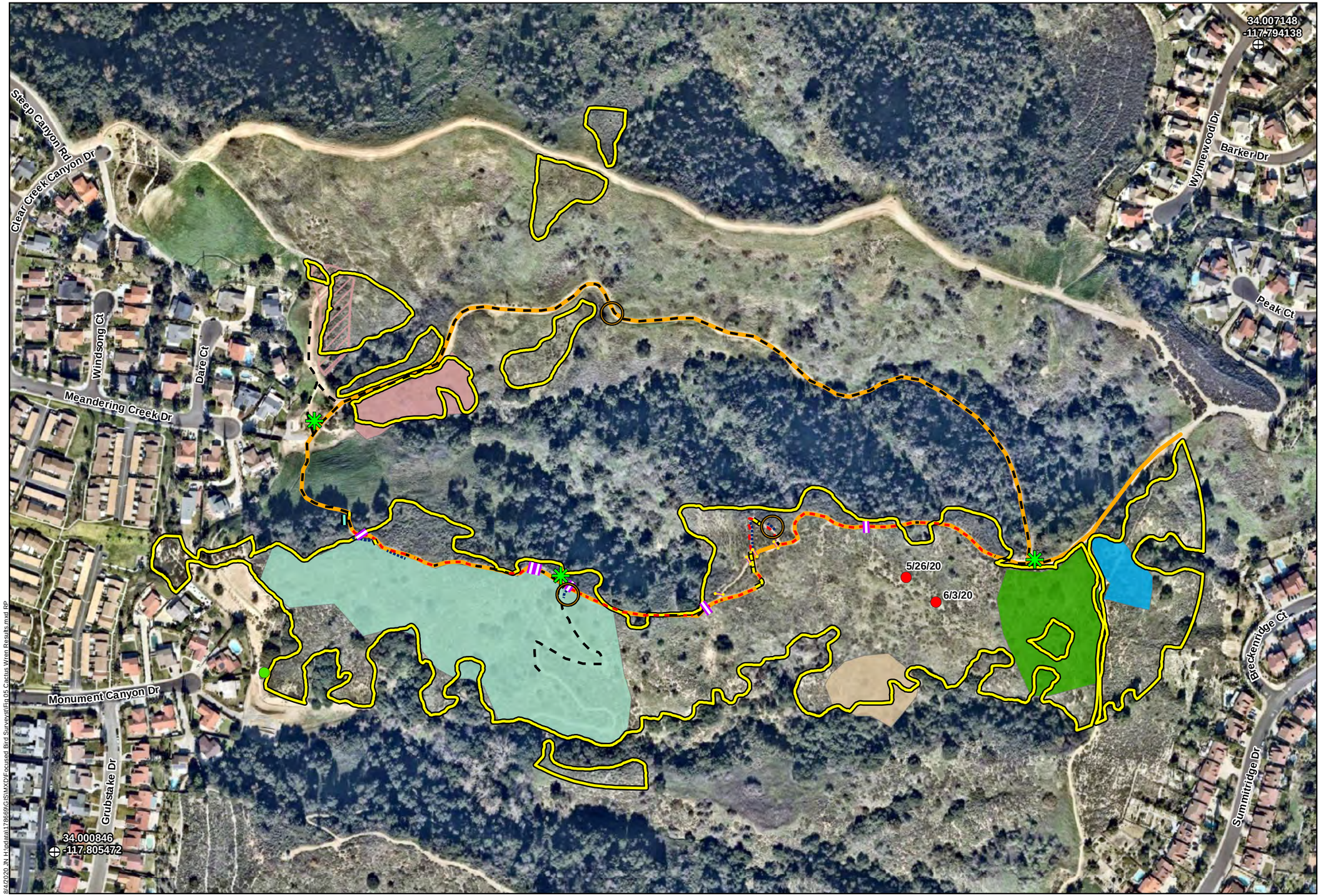
Michael Baker INTERNATIONAL

Source: Nearmap, 2020

CANYON LOOP TRAIL IMPROVEMENT PROJECT
COASTAL CALIFORNIA GNATCATCHER AND CACTUS WREN FOCUSED SURVEY RESULTS

Coastal California Gnatcatcher Results

Figure 4



Legend

- Project Site
- Survey Area (Suitable Habitat within 500 Feet)
- Reference Point

CACW Territories

- Territory #1
- Territory #2
- Territory #3
- Territory #4
- Territory #5
- Territory #5 (Post-breeding Dispersal)

CACW Nests

- Old Nest

CACW Observations

- Solitary Juvenile

Proposed Trail Improvements

- Trail to be Expanded to 5' Wide
- Existing Trail to Remain
- Gabion Retaining Wall
- Stairs
- Wayfinding Sign
- Lodge Pole Fence
- Shade Structure with Benches & Trash Receptacle
- Proposed Bench
- Drainage Crossing

0 135 270
Feet

8/4/2020 JN H:\data\178669\GIS\MXD\Focused Bird Surveys\Fig 05 Cactus Wren Results.mxd RP

Source: Nearmap, 2020

CANYON LOOP TRAIL IMPROVEMENT PROJECT
COASTAL CALIFORNIA GNATCATCHER AND CACTUS WREN FOCUSED SURVEY RESULTS

Cactus Wren Results

Figure 5

Attachment B

Site Photographs

Photograph 1: Standing in coastal California gnatcatcher (CAGN) Territory 1 facing east-northeast.

Photograph 2: Standing in the CAGN Territory 2 facing south-southeast.

Photograph 3: Standing in CAGN Territory 2 facing southwest. This is the most highly-disturbed CAGN territory within the survey area.

Photograph 4: Standing in CAGN Territory 2 facing northeast.

Photograph 5: Standing in CAGN Territory 3 facing southeast.

Photograph 6: Standing in CAGN Territory 3 facing west.

Photograph 7: Standing in CAGN Territory 4 facing southeast.

Photograph 8: Standing in CAGN Territory 4 facing southwest.

Photograph 9: Standing in CAGN Territory 5 facing northeast.

Photograph 10: Standing in CAGN Territory 5 facing west.

Photograph 11: Facing west toward cactus wren (CACW) Territory 1.

Photograph 12: Facing north toward CACW Territory 2.

Photograph 13: Standing in CACW Territory 3 facing south.

Photograph 14: Standing in CACW Territory 4 facing west.

Photograph 15: Facing northeast toward CACW Territory 5.

Photograph 16: An adult male CAGN acts aggressively toward a lone juvenile CACW in CAGN Territory #2.

Photograph 17: A CACW family gathers together in CACW Territory 5.

Photograph 18: An adult male CAGN brings food for the waiting nestlings in Territory 5 Nest #1.

Attachment C

Wildlife Species Observed List

Table C-1: Wildlife Species Observed List

*Scientific Name**	Common Name	Special-Status Rank**
Reptiles		
Aspidoscelis tigris stejnegeri	coastal whiptail	SSC
Coluber flagellum piceus	red racer	
Sceloporus occidentalis longipes	Great Basin fence lizard	
Uta stansburiana elegans	western side-blotched lizard	
Birds		
Accipiter cooperii	Cooper's hawk	WL
Aeronautes saxatalis	white-throated swift	
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	WL
Aphelocoma californica	California scrub jay	
Baeolophus inornatus	oak titmouse	
Buteo jamaicensis	red-tailed hawk	
Callipepla californica	California quail	
Calypte anna	Anna's hummingbird	
Campylorhynchus brunneicapillus	cactus wren	
Cathartes aura	turkey vulture	
Chamaea fasciata	wrentit	
Contopus sordidulus	western wood-pewee	
Corvus brachyrhynchos	American crow	
Corvus corax	common raven	
Dryobates nuttallii	Nuttall's woodpecker	
Empidonax difficilis	pacific-slope flycatcher	
Geococcyx californianus	greater roadrunner	
Haemorhous mexicanus	house finch	
Icterus cucullatus	hooded oriole	
Leiothlypis celata	orange-crowned warbler	
Melanerpes formicivorus	acorn woodpecker	
Melozone crissalis	California towhee	
Mimus polyglottos	northern mockingbird	
Molothrus ater	brown-headed cowbird	
Myiarchus cinerascens	ash-throated flycatcher	
Patagioenas fasciata	band-tailed pigeon	
Petrochelidon pyrrhonota	cliff swallow	
Phainopepla nitens	phainopepla	
Pipilo maculatus	spotted towhee	
Polioptila caerulea	blue-gray gnatcatcher	
Polioptila californica californica	coastal California gnatcatcher	FT/SSC
Psaltriparus minimus	bushtit	
Sayornis nigricans	black phoebe	
Sayornis saya	Say's phoebe	
Selasphorus sasin	Allen's hummingbird	

Table C-1: Wildlife Species Observed List

Scientific Name*	**Common Name**	**Special-Status Rank****
Sitta carolinensis	white-breasted nuthatch	
Spinus lawrencei	Lawrence's goldfinch	
Spinus psaltria	lesser goldfinch	
Stelgidopteryx serripennis	northern rough-winged swallow	
Thryomanes bewickii	Bewick's wren	
Toxostoma redivivum	California thrasher	
Troglodytes aedon	house wren	
Turdus migratorius	American robin	
Tyrannus verticalis	western kingbird	
Tyrannus vociferans	Cassin's kingbird	
Vireo huttoni	Hutton's vireo	
Zenaida macroura	mourning dove	
Mammals		
Neotoma sp.	woodrat	
Odocoileus hemionus	mule deer	
Otospermophilus beecheyi	California ground squirrel	
*Sciurus niger**	eastern fox squirrel	
Sylvilagus audubonii	desert cottontail	

* Non-native species

** **Special-Status Rank**

FT Federally Threatened

SSC Species of Special Concern – any species, subspecies, or distinct population of fish, amphibian, reptile, bird, or mammal native to California that currently satisfies one or more of the following criteria:

- is extirpated from California or, in the case of birds, in its primary seasonal or breeding role;
- is listed as Federally-, but not State-, threatened or endangered; meets the State definition of threatened or endangered but has not formally been listed.
- is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status; or
- has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for State threatened or endangered status.

WL Watch List - taxa that were previously designated as "Species of Special Concern" but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.

Attachment D

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