

December 3rd, 2018



Eliza Laws
Senior Environmental Analyst
Albert A. Webb Associates
3788 McCray Street
Riverside, CA 92506

Re: Biological Resources Constraints Assessment for the Snow Drop Road Improvements Project, Unincorporated San Bernardino County, California

Dear Ms. Laws:

The following letter report presents the updated results of a biological resources constraints assessment of potential sensitive natural or regulated resources located within and/or immediately adjacent to the Snow Drop Road Improvements study area (Study Area). The report has been prepared to support compliance with the California Environmental Quality Act (CEQA) documentation including the preparation of an Initial Study (IS), Mitigated Negative Declaration (MND) or Environmental Impact Report (EIR) and environmental review process conducted by the County of San Bernardino Special Districts Department, California. As discussed below, the assessment included a thorough literature review, site reconnaissance characterizing existing conditions (including floral, faunal and dominant vegetation communities), and summary of biological resources constraints.

STUDY AREA LOCATION

The 15.86-acre Study Area is located within the unincorporated region of San Bernardino County, California immediately north of the City of Rancho Cucamonga as shown in Attachment A, *Regional Location Map*. Specifically, the Study Area includes an approximately 2-mile reach of Archibald Avenue, Haven Avenue and Snow Drop Road as shown in Attachment B, *Study Area Map*.

PROJECT DESCRIPTION

The proposed project will include road improvements throughout the Study Area including road widening, select driveway improvements, pavement, and construction and/or improvements to existing and proposed drainage features including but not limited to culverts and associated rip/rap features.

METHODOLOGY

The following section details the methods implemented prior and during the reconnaissance survey conducted throughout the Study Area.

LITERATURE REVIEW

Existing biological resource conditions within and adjacent to the Study Area were initially investigated through review of pertinent scientific literature. Federal register listings, protocols, and species data provided by the United States Fish and Wildlife Service (USFWS) were also

reviewed in conjunction with anticipated federally listed species potentially occurring within the region of the Study Area. The California Natural Diversity Database (CNDDDB) (CDFW 2018a), a California Department of Fish and Wildlife (CDFW) Natural Heritage Division species account database, was also reviewed for all pertinent information regarding the locations of known occurrences of sensitive species in the vicinity of the Study Area. In addition, numerous regional floral and faunal field guides were utilized in the identification of species and suitable habitats. Combined, the reviewed sources provided an excellent baseline from which to inventory the biological resources potentially occurring in the area. Other sources of information included the review of unpublished biological resource letter reports and assessments. Other CDFW reports and publications consulted include the following:

- Special Animals (CDFW 2018b);
- State and Federally Listed Endangered and Threatened Animals of California (CDFW 2018c);
- Endangered, Threatened, and Rare Plants of California (CDFW 2018d); and
- Special Vascular Plants and Bryophytes List (CDFW 2018e).

FIELD SURVEY

A reconnaissance survey of the Study Area was conducted by Ruben Ramirez of Cadre Environmental (USFWS Permit 780566-14, CDFW Permit 02243) on June 22nd, 2018 in order to characterize and identify potential sensitive plant and wildlife habitats, and to establish the accuracy of the data identified in the literature search. Geologic and soil maps were examined to identify local soil types that may support sensitive taxa. Aerial photograph, topographic maps, vegetation and rare plant maps prepared for previous studies in the region were used to determine community types and other physical features that may support sensitive plants/wildlife, uncommon taxa, or rare communities that occur within or adjacent to the Study Area. Habitat assessments were conducted for, but not limited to, the following target species/groups.

- Coastal California gnatcatcher – FT/SSC
- Least Bell's vireo – FE/SE
- Burrowing owl - SSC
- Southwestern willow flycatcher – FE/SE
- San Bernardino kangaroo rat – FE/SSC
- Sensitive plants
- Protected trees San Bernardino County Code of Ordinance (Title 8, Division 8, Chapter 88.01: Plant Protection and Management)

Vegetation Communities/Habitat Classification Mapping

Natural community names and hierarchical structure follows the “*Manual of California Vegetation*” (Sayer and Keeler-Wolf 2009) classification system, which has been refined and augmented where appropriate to better characterize the habitat types observed onsite.

Floristic Plant Inventory

A general plant survey was conducted throughout the Study Area during the reconnaissance in a collective effort to identify all species occurring onsite.

All plants observed during the survey efforts were either identified in the field or collected and later identified using taxonomic keys. Plant taxonomy follows Hickman (1993). Scientific nomenclature and common names used in this report generally follow Roberts et al. (2004) or Baldwin et al. (2012) for updated taxonomy. Scientific names are included only at the first mention of a species; thereafter, common names alone are used.

Wildlife Resources Inventory

All animals identified during the reconnaissance survey by sight, call, tracks, scat, or other characteristic sign were documented. In addition to species actually detected, expected use of the site by other wildlife was derived from the analysis of habitats on the site, combined with known habitat preferences of regionally occurring wildlife species.

Vertebrate taxonomy followed in this report is according to the Center for North American Herpetology (2018 for amphibians and reptiles), the American Ornithologists' Union (1988 and supplemental) for birds, and Baker et al. (2003) for mammals. Both common and scientific names are used during the first mention of a species; common names only are used in the remainder of the text.

Jurisdictional Resources Assessment

The Study Area was assessed for potential jurisdiction by the United States Army Corps of Engineers (USACE), CDFW, and Regional Water Quality Control Board (RWQCB). Non-wetland waters of the United States were assessed based on the limits of the Ordinary High-Water Mark (OHWM) as determined by erosion, the deposition of vegetation or debris, and changes in vegetation and soil characteristics. The assessment utilized the methodology for routine wetland determination according to the methods outlined in the USACE Wetland Delineation Manual (Environmental Laboratory 1987) and the Arid West Wetland Delineation Supplement and updated regulatory guidance letters (USACE 2008). Wetlands are identified by the presence of three characteristics: hydrophytic vegetation, wetland hydrology, and hydric soils. If any of these criteria were met, one or more transects were run to determine the extent of the wetland. Specifically, the presence of wetland hydrology was evaluated throughout the Study Area by recording the extent of observed surface flows, depth of inundation, depth to saturated soils, and depth to free water in the soil pits, where applicable. In addition, indicators of wetland or riverine hydrology were recorded, including water marks, drift lines, rack, debris, and sediment deposits, as warranted. Any indicators of hydric soils, such as redoximorphic features, buried organic matter, organic streaking, reduced soil conditions, gleyed or low-chroma soils, or sulfidic odor were also recorded.

EXISTING ENVIRONMENTAL SETTING

The following section presents the existing conditions of the Study Area assessment area. The Study Area is located at the foothills of the San Bernardino Mountains with elevations ranging from 2,277 ft. above mean sea level (AMSL) near the southern reach of the Study Area and 2,790 ft. AMSL along the northern reach of Snow Drop Road. Substrates are characterized as Soboba stony loamy sand, Hanford course sandy loam, Cieneba-Rock outcrop, and Cieneba sandy loam (USDA 2018). The Study Area is located immediately north of the highly developed region of the City of Rancho Cucamonga while the entire Study Area is located adjacent to existing open space undeveloped lands and low density residential development.

VEGETATION COMMUNITIES

The 15.86-acre Study Area is dominated by developed/disturbed (existing road) and coastal sage scrub vegetation communities as described in this report, and illustrated in Attachment C, *Vegetation Communities Map*, Attachments D to F, *Current Study Area Photographs*, and summarized in Table 1, *Study Area Vegetation Community Acreages*. Natural community names and hierarchical structure follows the “*Manual of California Vegetation*” (Sayer and Keeler-Wolf 2009) classification system, which has been refined and augmented where appropriate to better characterize the habitat types observed.

Developed/Disturbed

The majority of the Study Area is developed/disturbed totaling 9.49 acres. Developed regions include the paved reaches of Archibald Avenue, Haven Avenue, and Snow Drop Road. Disturbed regions of the Study Area include the unpaved reach of Snow Drop Road, areas generally devoid of vegetation or dominated by ruderal non-native species including filaree (*Erodium* sp.), black mustard (*Brassica nigra*), London rockets (*Sisymbrium irio*), Russian thistle (*Kali tragus*), horseweed (*Conyza canadensis*), tocalote (*Centaurea melitensis*), Italian thistle (*Carduus pycnocephalus*) and non-native grasses.

Table 1 – Study Area Vegetation Community Acreages

Vegetation Community	Acres
<i>Developed/Disturbed</i>	9.49
<i>Coastal Sage Scrub – Black Sage Dominant</i>	2.08
<i>Riversidean Alluvial Fan Sage Scrub</i>	1.51
<i>Coastal Sage Scrub – California Sage Dominant</i>	1.21
<i>Chamise Chaparral</i>	1.07
<i>Coast Live Oak (individual trees)</i>	0.21
<i>Eucalyptus Trees</i>	0.23
<i>Arroyo Willow Tree (individual tree)</i>	0.03
<i>Mulefat Scrub</i>	0.03
TOTAL	15.86

Source: Cadre Environmental 2018.

Coastal Sage Scrub – Black Sage Dominant

Coastal sage scrub – black sage dominant vegetation was documented throughout the Study Area totaling 2.08 acres. This vegetation community is dominated by black sage (*Salvia mellifera*). Other plant species documented in this vegetation community include California sage brush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), scrub oak (*Quercus berberidifolia*), chamise (*Adenostoma fasciculatum*), chaparral honeysuckle (*Lonicera interrupta*), and blue elderberry (*Sambucus cerulea*).

Riversidean Alluvial Fan Sage Scrub

Mature Riversidean alluvial fan sage scrub was documented within the floodprone area of Deer Creek wash totaling 1.51 acre. Species documented in this region include California sagebrush,

California buckwheat, pinebush (*Ericameria pinifolia*), white sage (*Salvia apiana*), deerweed (*Acmispon glaber*), and chamise.

In addition to the plant species documented within this region of Deer Creek wash, the southeast region of the Study Area was classified as alluvial fan sage scrub based on soil types (rock – sandy/loam) and a review of aerial photographs which clearly indicate the current and past alluvial soil-vegetative signature. The southwestern region of Deer Creek wash where the Study Area is located has not been recently subjected to extensive scouring by flood waters due to flood control features which direct the majority of flows in the vicinity east of the Study Area. These efforts have resulted in increased vegetation densities in the southwest region of the Deer Creek wash with little to no open areas often associated with active alluvial systems.

Coastal Sage Scrub – California Sagebrush Dominant

Coastal sage scrub – California sagebrush dominant vegetation was documented throughout the Study Area totaling 1.21 acres. This vegetation community is dominated by California sagebrush. Other plant species documented in this vegetation community include black sage, California buckwheat, deerweed, and sawtooth goldenbush (*Hazardia squarrosa*).

Chamise Chaparral

A few patches of chamise chaparral were documented in the western region of the Study Area totaling 1.07 acre. Species documented in this vegetation community include chamise, ceanothus (*Ceanothus* sp.), toyon (*Heteromeles arbutifolia*), and chaparral yucca (*Hesperoyucca whipplei*).

Coast Live Oak

Several individual coast live oak (*Quercus agrifolia*) trees were documented and mapped within the Study Area as shown in Attachment C, *Vegetation Communities Map*.

Eucalyptus Trees

Several Eucalyptus (*Eucalyptus* sp.) trees were documented and mapped within the Study Area.

Arroyo Willow Tree

A single arroyo willow (*Salix lasiolepis*) tree was documented and mapped within the Study Area.

Mulefat Scrub

A single small patch of mulefat scrub dominated by mulefat (*Baccharis salicifolia*) was documented and mapped within the Study Area.

GENERAL PLANT & WILDLIFE SPECIES

General plant species documented within the Study Area are presented in the previous section.

General wildlife species documented onsite or within the vicinity during the site assessment include but are not limited to red-tailed hawk (*Buteo jamaicensis*), mourning dove (*Zenaidura macroura*), Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), Say's phoebe (*Sayornis saya*), American crow (*Corvus brachyrhynchos*), acorn woodpecker (*Melanerpes formicivorus*), California towhee (*Melospiza crissalis*), spotted towhee (*Pipilo maculatus*), northern mockingbird (*Mimus polyglottos*), and house finch (*Haemorrhous mexicanus*).

JURISDICTIONAL WETLAND RESOURCES

No wetlands were documented within the Study Area. However, as illustrated in Attachment G, *Potential Constraints & Regulatory Resources Map*, several existing and proposed drainage improvements are expected to result in impacts to resources regulated by the USACE, CDFW, and RWQCB.

SENSITIVE BIOLOGICAL RESOURCES

The following discussion describes the plant and wildlife species present, or potentially present within the property boundaries, that have been afforded special recognition by federal, state, or local resource conservation agencies and organizations, principally due to the species' declining or limited population sizes, usually resulting from habitat loss. Also discussed are habitats that are unique, of relatively limited distribution, or of particular value to wildlife. Protected sensitive species are classified by state and/or federal resource management agencies, or both, as threatened or endangered, under provisions of the state and federal endangered species act. Vulnerable or "at-risk" species that are proposed for listing as threatened or endangered (and thereby for protected status) are categorized administratively as "candidates" by the USFWS. CDFW uses various terminology and classifications to describe vulnerable species. There are additional sensitive species classifications applicable in California. These are described below.

Sensitive biological resources are habitats or individual species that have special recognition by federal, state, or local conservation agencies and organizations as endangered, threatened, or rare. The CDFW, USFWS, and special groups like the California Native Plant Society (CNPS) maintain watch lists of such resources. For the purpose of this assessment sources used to determine the sensitive status of biological resources are:

Plants: USFWS (2018), CDFW (2018d, 2018e), CNDDDB (2018a), and CNPS (Skinner and Pavlik 1994).

Wildlife: California Wildlife Habitat Relationships Database System (CWHRRS 1991), USFWS (2018), CDFW (2018b, 2018c), CNDDDB (2018a).

Habitats: CNDDDB (2018a), CDFW (2018f).

FEDERAL PROTECTION AND CLASSIFICATIONS

The Federal Endangered Species Act of 1973 (FESA) defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range..." Threatened species are defined as "any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under

provisions of Section 9(a)(1)(B) of the FESA it is unlawful to “take” any listed species. “Take” is defined as follows in Section 3(18) of the FESA: “...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.” Further, the USFWS, through regulation, has interpreted the terms “harm” and “harass” to include certain types of habitat modification as forms of a “take.” These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a federal agency for an action that could affect a federally listed plant and animal species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants. Recently, the USFWS instituted changes in the listing status of former candidate species. Former C1 (candidate) species are now referred to simply as candidate species and represent the only candidates for listing. Former C2 species (for which the USFWS had insufficient evidence to warrant listing at this time) and C3 species (either extinct, no longer a valid taxon or more abundant than was formerly believed) are no longer considered as candidate species. Therefore, these species are no longer maintained in list form by the USFWS, nor are they formally protected. However, some USFWS field offices have issued memoranda stating that former C2 species are henceforth to be considered Federal Species of Concern. This term is employed in this document but carries no official protections. All references to federally protected species in this report (whether listed, proposed for listing or candidate) include the most current published status or candidate category to which each species has been assigned by USFWS.

For purposes of this assessment, the following acronyms are used for federal status species:

FE	Federal Endangered
FT	Federal Threatened
FPE	Federal Proposed Endangered
FPT	Federal Proposed Threatened
FC	Federal Candidate for Listing

The designation of critical habitat can also have a significant impact on the development of land designated as “critical habitat.” The FESA prohibits federal agencies from taking any action that will “adversely modify or destroy” critical habitat (16 U.S.C. § 1536(a)(2)). This provision of the FESA applies to the issuance of permits by federal agencies. Before approving an action affecting critical habitat, the federal agency is required to consult with the USFWS who then issues a biological opinion evaluating whether the action will “adversely modify” critical habitat. Thus, the designation of critical habitat effectively gives the USFWS extensive regulatory control over the development of land designated as critical habitat.

The Migratory Bird Treaty Act of 1918 (MBTA) makes it unlawful to “take” any migratory bird or part, nest, or egg of such bird listed in wildlife protection treaties between the United States and Great Britain, the Republic of Mexico, Japan, and the Union of Soviet States. For purposes of the MBTA, “take” is defined as to pursue, hunt, capture, kill, or possess or attempt to do the same.

The Bald Eagle and Golden Eagle Protection Act explicitly protects the bald eagle and golden eagle and imposes its own prohibition on any taking of these species. As defined in this act, take means to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, or molest or

disturb. Current USFWS policy is not to refer the incidental take of bald eagles for prosecution under the Bald Eagle and Golden Eagle Protection Act (16 U.S.C. 668-668d).

STATE PROTECTION AND CLASSIFICATIONS

California's Endangered Species Act (CESA) defines an endangered species as "...a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." The State defines a threatened species as "...a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species." Candidate species are defined as "...a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list." Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike FESA, CESA does not include listing provisions for invertebrate species.

Article 3, Sections 2080 through 2085, of CESA addresses the taking of threatened or endangered species by stating "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided..." Under CESA, "take" is defined as "...hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow "take" require "...permits or memorandums of understanding..." and can be authorized for "...endangered species, threatened species, or candidate species for scientific, educational, or management purposes." Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

Additionally, some sensitive mammals and birds are protected by the State as Fully Protected Mammals or Fully Protected Birds, as described in the California Fish and Game Code, Sections 4700 and 3511, respectively. SSC ("special" animals and plants) listings include special status species, including all state and federal protected and candidate taxa, Bureau of Land Management (BLM) and US Forest Service (USFS) sensitive species, species considered to be declining or rare by the CNPS or National Audubon Society, and a selection of species which are considered to be under population stress but are not formally proposed for listing. This list is primarily a working document for the CDFW's CNDDDB project. Informally listed taxa are not protected per se, but warrant consideration in the preparation of biotic assessments. For some species, the CNDDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nest sites.

For the purposes of this assessment, the following acronyms are used for State status species:

SE	State Endangered
ST	State Threatened
SCE	State Candidate Endangered
SCT	State Candidate Threatened
SFP	State Fully Protected
SP	State Protected
SR	State Rare
SSC	California Species of Special Concern
CWL	California Watch List

The CNPS is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in the State. This organization has compiled an inventory comprised of the information focusing on geographic distribution and qualitative characterization of rare, threatened, or endangered vascular plant species of California (Tibor 2001). The list serves as the candidate list for listing as threatened and endangered by CDFW. The CNPS has developed five categories of rarity (CRPR):

CRPR 1A	Presumed extinct in California.
CRPR 1B	Rare, threatened, or endangered in California and elsewhere.
CRPR 2	Rare, threatened, or endangered in California, but more common elsewhere.
CRPR 3	Plants about which we need more information – a review list.
CRPR 4	Species of limited distribution in California (i.e., naturally rare in the wild), but whose existence does not appear to be susceptible to threat.

As stated by the CNPS:

“Threat Rank is an extension added onto the California Rare Plant Rank and designates the level of endangerment by a 1 to 3 ranking with 1 being the most endangered and 3 being the least endangered. A Threat Rank is present for all California Rare Plant Rank 1B's, 2's, 4's, and the majority of California Rare Plant Rank 3's. California Rare Plant Rank 4 plants are seldom assigned a Threat Rank of 0.1, as they generally have large enough populations to not have significant threats to their continued existence in California; however, certain conditions exist to make the plant a species of concern and hence be assigned a California Rare Plant Rank. In addition, all California Rare Plant Rank 1A (presumed extinct in California), and some California Rare Plant Rank 3 (need more information) plants, which lack threat information, do not have a Threat Rank extension.” (CNPS 2018)

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

COUNTY PROTECTION AND CLASSIFICATION

As stated by the County of San Bernardino:

“Regulated trees. The following trees shall only be removed with an approved Tree or Plant Removal Permit issued in compliance with Section 88.01.050 (Tree or Plant Removal Permits): (1) Native trees. A living, native tree with a six inch or greater stem diameter or 19 inches in circumference measured 4.5 feet above natural grade level. (2) Palm trees. Three or more palm trees in linear plantings, which are 50 feet or greater in length within established windrows or parkway plantings, shall be considered to be heritage trees and shall be subject to the provisions of this Chapter regarding native trees.” (County of San Bernardino 2018)

SENSITIVE HABITATS

As stated by CDFW:

“One purpose of the vegetation classification is to assist in determining the level of rarity and imperilment of vegetation types. Ranking of alliances according to their degree of imperilment (as measured by rarity, trends, and threats) follows NatureServe’s Heritage Methodology, in which all alliances are listed with a G (global) and S (state) rank. For alliances with State ranks of S1-S3, all associations within them are also considered to be highly imperiled” (CDFW 2017c)

A single CDFW sensitive plant community, Riversidean Alluvial Fan Sage Scrub was documented within the Study Area as shown in Attachment C, *Vegetation Communities Map*.

SENSITIVE PLANTS

The Study Area was assessed to determine the potential for thirty-two (32) sensitive plant species known to occur within the region, to occur onsite, as presented in Table 2, *Sensitive Plant Species Assessment*. No suitable habitat for sensitive plant species listed as federal or state threatened/endangered was documented within the Study Area. There exists a low potential for eight (8) sensitive plant species listed by the CNPS to occur within the Study Area as listed in Table 2, *Sensitive Plant Species Assessment*.

Table 2. Sensitive Plant Species Assessment

Species Name (<i>Scientific Name</i>)	Habitat Description	Comments
Status		
Single whorl burrobrush (<i>Ambrosia monogyra</i>) CRPR 2B.2	Perennial shrub which generally blooms from August to November within chaparral or Sonoran Desert scrub in sandy substrates (CNPS 2018)	Not Expected: Not observed onsite during the site assessment and not expected to occur – perennial shrub.
Nevin's barberry (<i>Berberis nevinii</i>) CRPR 1B.1 FE/SE	Perennial evergreen shrub which generally blooms from February to June within chaparral, cismontane woodland, coastal scrub, and riparian scrub in sandy, gravelly substrates (CNPS 2018)	Not Expected: Not observed onsite and not expected to occur – perennial evergreen shrub.
Slender mariposa lily (<i>Calochortus clavatus</i> var. <i>gracilis</i>) CRPR 1B.2	Perennial bulbiferous herb which generally blooms from June to July within coastal bluff scrub, chaparral (maritime), lower montane coniferous forest (CNPS 2018)	Not Expected: Not expected to occur onsite based on a lack of suitable habitat.
Plummer's mariposa-lily (<i>Calochortus plummerae</i>) CRPR 4.2	Perennial bulbiferous herb which generally blooms from May to June within chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and grassland habitats with granite and rocky substrates. (CNPS 2018)	Low Potential: Low potential to occur within coastal sage scrub vegetation communities.
Smooth tarplant (<i>Centromadia pungens</i> ssp. <i>laevis</i>) CRPR 1B.1	Annual herb which generally blooms from April to September within chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland (alkaline substrates). (CNPS 2018)	Not Expected: Not observed or expected to occur onsite based on a lack of suitable habitat.

Species Name (<i>Scientific Name</i>)	Habitat Description	Comments
Status		
Peninsular spineflower (<i>Chorizanthe leptotheca</i>) CRPR 4.2	Annual herb which generally blooms from May to August within chaparral, coastal scrub, lower montane coniferous forest in alluvial fan, granitic substrates. (CNPS 2018)	Low Potential: Low potential to occur within coastal sage scrub vegetation communities.
Parry's spineflower (<i>Chorizanthe parryi</i> var. <i>parryi</i>) CRPR 1B.1	Annual herb which generally blooms from April to June within chaparral, cismontane woodland, coastal scrub and grassland habitats with sandy and/or rocky openings. (CNPS 2018)	Low Potential: Low potential to occur within coastal sage scrub vegetation communities.
White-bracted spineflower (<i>Chorizanthe xanti</i> var. <i>leucotheca</i>) CRPR 1B.2	Annual herb which generally blooms from April to June within coastal scrub (alluvial fans), Mojavean desert scrub, pinyon and juniper woodland in sandy or gravelly substrates. (CNPS 2018)	Low Potential: Low potential to occur within coastal sage scrub vegetation communities.
California saw-grass (<i>Cladium californicum</i>) CRPR 2B.2	Perennial rhizomatous herb which generally blooms from June to September within meadows, seeps, marshes and swamps in both alkaline and freshwater. (CNPS 2018)	Not Expected: Not expected to occur onsite based on a lack of suitable habitat.
Peirson's spring beauty (<i>Claytonia lanceolata</i> var. <i>peirsonii</i>) CRPR 3.1	Perennial herb which generally blooms from March to June within subalpine coniferous forest and upper montane coniferous forest. (CNPS 2018)	Not Expected: Not expected to occur onsite based on a lack of suitable habitat.
Paniculate tarplant (<i>Deinandra paniculata</i>) CRPR 4.2	Annual herb which generally blooms from March to November within coastal sage scrub, valley foothill grassland and vernal pools with sandy substrates. (CNPS 2018)	Low Potential: Low potential to occur within coastal sage scrub vegetation communities.
Slender-horned spineflower (<i>Dodecahema leptoceras</i>) CRPR 1B.1 FE/SE	Annual herb which generally blooms from April to June within chaparral, cismontane woodland and coastal scrub (alluvial fan) with sandy substrates. (CNPS 2018)	Not Expected: Not expected to occur onsite. The Riversidean alluvial fan sage scrub has a nearly 100% canopy cover and the species is not expected to occur.

Species Name (<i>Scientific Name</i>)	Habitat Description	Comments
Status		
Many-stemmed dudleya (<i>Dudleya multicaulis</i>) CRPR 1B.2	Perennial herb which generally blooms from April to July within chaparral, coastal scrub and valley and foothill grassland often associated with clay substrates. (CNPS 2018)	Not Expected: Not expected to occur onsite based on a lack of suitable substrates.
Santa Ana River woollystar (<i>Eriastrum densifolium ssp. sanctorum</i>) CRPR 1B.1 FE/SE	Perennial herb which generally blooms from April to September within chaparral, coastal scrub (alluvial fan) in sandy and gravelly substrates. (CNPS 2018)	Not Expected: Not expected to occur onsite based on a lack of suitable habitat. The Riversidean alluvial fan sage scrub has a nearly 100% canopy cover and the species is not expected to occur.
Mesa horkelia (<i>Horkelia cuneata ssp. puberula</i>) CRPR 1B.1	Perennial herb which generally blooms from February to September within chaparral (maritime), cismontane woodland and coastal scrub with sandy or gravelly substrates. (CNPS 2018)	Low Potential: Low potential to occur within coastal sage scrub vegetation communities.
Southern California black walnut (<i>Juglans californica</i>) CRPR 4.2	Perennial deciduous tree which generally blooms from March to August in chaparral, cismontane woodland, coastal scrub, and riparian woodland in alluvial soils. (CNPS 2018)	Not Expected: Not observed onsite.
Robinson's pepper-grass (<i>Lepidium virginicum var. robinsonii</i>) CRPR 4.3	Annual herb which generally blooms from January to July within chaparral and coastal sage scrub habitats. (CNPS 2018)	Low Potential: Low potential to occur within coastal sage scrub and chaparral vegetation communities.
Lemon lily (<i>Lilium parryi</i>) CRPR 1B.2	Perennial bulbiferous herb which generally blooms from July to August within lower montane coniferous forest, meadows and seeps, riparian forest, and upper montane coniferous forest (CNPS 2018)	Not Expected: Not expected to occur onsite based on a lack of suitable habitat.

Species Name (<i>Scientific Name</i>)	Habitat Description	Comments
Status		
San Gabriel linanthus (<i>Linanthus concinnus</i>) CRPR 1B.2	Annual herb which generally blooms from April to July within chaparral, lower/upper montane coniferous forest in rocky openings. (CNPS 2018)	Not Expected: Not expected to occur onsite based on a lack of suitable habitat.
Parish's desert-thorn (<i>Lycium parishii</i>) CRPR 2B.3	Perennial shrub generally blooms from March to April within coastal scrub and Sonoran Desert scrub. (CNPS 2018)	Not Expected: Not expected to occur onsite based on a lack of suitable habitat.
Hall's monardella (<i>Monardella macrantha</i> ssp. <i>hallii</i>) CRPR 1B.3	Perennial rhizomatous herb which generally blooms from June to October within broadleaf upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland. (CNPS 2018)	Not Expected: Not observed or expected to occur onsite based on a lack of suitable habitat.
California muhly (<i>Muhlenbergia californica</i>) CRPR 4.3	Perennial rhizomatous herb which generally blooms from June to September within mesic, seeps and streambanks, coastal scrub, chaparral, lower montane coniferous forest and meadows. (CNPS 2018)	Not Expected: Not expected to occur onsite based on a lack of suitable habitat.
Prostrate vernal pool navarretia (<i>Navarretia prostrata</i>) CRPR 1B.1	Annual herb which generally blooms from April to July coastal sage scrub, meadows and seeps, valley and foothill grassland (alkaline), vernal pools. (CNPS 2018)	Not Expected: Not expected to occur onsite based on a lack of suitable habitat.
Woolly mountain-parsley (<i>Oreonana vestita</i>) CRPR 1B.3	Perennial herb which generally blooms from March to September within lower montane coniferous forest, subalpine coniferous forest, upper coniferous forest within gravel or talus substrates (CNPS 2018)	Not Expected: Not expected to occur onsite based on a lack of suitable habitat.

Species Name <i>(Scientific Name)</i> Status	Habitat Description	Comments
Rock Creek broomrape <i>(Orobanche valida ssp. valida)</i> CRPR 1B.2	Perennial herb (parasitic) which generally blooms from May to September within chaparral and pinyon and juniper woodland in granitic substrates. (CNPS 2018)	Not Expected: Not expected to occur onsite based on a lack of suitable substrates.
Brand's star phacelia <i>(Phacelia stellaris)</i> CRPR 1B.1 FC	Annual herb which generally blooms from March to June within coastal dunes and coastal scrub habitats. (CNPS 2018)	Not Expected: Not expected to occur onsite based on a lack of suitable habitat.
White-rabbit tobacco <i>(Pseudognaphalium leucocephalum)</i> CRPR 2B.2	Perennial herb which generally blooms from July to August within chaparral, cismontane woodland, coastal scrub, and riparian woodland with sandy or gravelly substrates. (CNPS 2018)	Low Potential: Low potential to occur within coastal sage scrub and chaparral vegetation communities.
Sanford's arrowhead <i>(Sagittaria sanfordii)</i>	Perennial rhizomatous herb which generally blooms from May to November near marshes and swamps. (CNPS 2018).	Not Expected: Not expected to occur onsite based on a lack of suitable habitat.
Salt spring checkerbloom <i>(Sidalcea neomexicana)</i> CRPR 2.2	Perennial herb which generally blooms from March to June within chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playas within alkaline and mesic substrates gravelly substrates. (CNPS 2018)	Not Expected: Not expected to occur onsite based on a lack of suitable substrates.
Laguna Mountains jewelflower <i>(Streptanthus bernardinus)</i> CRPR 4.3	Perennial herb which generally blooms from May to August within chaparral, lower montane coniferous forest. (CNPS 2018)	Not Expected: Not expected to occur onsite based on a lack of suitable habitat.

Species Name (Scientific Name)	Habitat Description	Comments
Status		
San Bernardino aster <i>(Symphyotrichum defoliatum)</i> CRPR 1B.2	Perennial rhizomatous herb which generally blooms from July to November near ditches, streams, springs in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, and valley and foothill grassland (vernally mesic). (CNPS 2018).	Not Expected: Not expected to occur onsite based on a lack of suitable substrates.
Greata's aster <i>(Symphyotrichum greatae)</i> CRPR 1B.3	Perennial rhizomatous herb which generally blooms from June to October within broad-leaved upland forest, chaparral, cismontane woodland, lower montane coniferous forest and riparian woodland habitats. (CNPS 2018)	Not Expected: Not expected to occur onsite based on a lack of suitable habitat.
<p>California Native Plant Society (CNPS): California Rare Plant Rank (CRPR) CRPR 1A – plants presumed extinct in California CRPR 1B – plants rare, threatened, or endangered in California, but more common elsewhere CRPR 2 – plants rare, threatened, or endangered in California, but more common elsewhere CRPR 3 – Plants about which we need more information, a review list CRPR 4 – Plants of limited distribution, a watch list .1 – Seriously endangered in California .2 – Fairly endangered in California .3 – Not very endangered in California</p> <p>Federal (USFWS) Protection and Classification FE – Federally Endangered FC – Federal Candidate for Listing</p> <p>State (CDFW) Protection and Classification SE – State Endangered</p>		

SENSITIVE WILDLIFE

The Study Area was assessed to determine the potential for thirty (30) sensitive wildlife species known to occur within the region, to occur onsite, as presented in Table 3, *Sensitive Wildlife Species Assessment*. Suitable habitat for one (1) species listed as federal or state threatened/endangered, coastal California gnatcatcher (*Poliophtila californica californica*) was documented within the Study Area. A total of nine (9) sensitive wildlife species not listed as federal or state endangered have a low to moderate potential to occur within the Study Area and one (1) sensitive bird, Cooper's hawk (*Accipiter cooperii*) was documented onsite during the 2014 habitat assessment conducted by Ecological Sciences Inc. (2014a)

Table 3. Sensitive Wildlife Species Assessment

Species Name (<i>Scientific Name</i>)	Habitat Description	Comments
Status		
INVERTEBRATES		
Delhi Sands flower-loving fly (<i>Rhaphiomidas terminatus abdominalis</i>) FE	Restricted to Delhi sand formations in Riverside and San Bernardino Counties.	Not Expected: Not expected to occur onsite based on a lack of suitable soils.
AMPHIBIANS		
Arroyo toad (<i>Anaxyrus californicus</i>) FE/SSC	Shallow, slow moving active and braided stream channels with sandy substrates for breeding, bench and terrace habitats for foraging and aestivation, willow scrub, coastal sage scrub and riparian/oak woodlands.	Not Expected: Not expected to occur onsite based on a lack of suitable breeding and upland habitat.
Southern Mountain yellow-legged frog (<i>Rana muscosa</i>) FE/SE/CWL Southern California Distinct Population Segment	Occurs in close proximity to lakes, streams, pools in rocky tributaries and canyons.	Not Expected: Not expected to occur onsite based on a lack of suitable breeding habitat.
REPTILES		
Silvery legless lizard (<i>Anniella pulchra pulchra</i>) SSC	Stabilized dunes, beaches, dry washes, pine, oak, and riparian woodlands, and chaparral; sparse vegetation with sandy or loose, loamy soils. (Ecological Sciences Inc. 2014a)	Low Potential: The species may occur within the few areas of coastal sage scrub and chaparral habitats.
Coast horned lizard (<i>Phrynosoma blainvillii</i>) SSC	The horned lizard occurs primarily in scrub, chaparral, and grassland habitats.	Low Potential: The species may occur within the few areas of coastal sage scrub with a moderate to low canopy cover.

Species Name <i>(Scientific Name)</i> Status	Habitat Description	Comments
Two-striped garter snake <i>(Thamnophis hammondi)</i> SSC	The two-striped garter snake occurs in riparian, riverine habitats in association with emergent water.	Not Expected: Not expected to occur onsite based on a lack of suitable habitat.
BIRDS		
Cooper's hawk <i>(Accipiter cooperii)</i> SSC	Cooper's hawk is most commonly found within or adjacent to riparian/oak forest and woodland habitats. This uncommon resident of California increases in numbers during winter migration.	Observed: Detected within the Study Area during previous habitat assessment (Ecological Sciences Inc. 2014a)
Sharp-shinned hawk <i>(Accipiter striatus)</i> CWL	Potential habitat for the sharp-shinned hawk includes montane coniferous forest for potential breeding areas and riparian scrub, woodland, and forest habitat, oak woodland and forest, chaparral, coastal sage scrub, desert scrub, and Riversidean alluvial fan sage scrub for foraging.	Moderate Potential: Potentially forages onsite during seasonal migration.
Southern California rufous-crowned sparrow <i>(Aimophila ruficeps canescens)</i> CWL	Southern California rufous-crowned sparrow is a non-migratory bird species that primarily occurs within sage scrub and grassland habitats and to a lesser extent chaparral sub-associations. This species generally breeds on the ground within grassland and scrub communities in the western and central regions of California.	Moderate Potential: Potentially forages and breeds within coastal sage and chaparral vegetation.

Species Name <i>(Scientific Name)</i> Status	Habitat Description	Comments
Golden eagle <i>(Aquila chrysaetos)</i> CWL, SFP	Within southern California, the species prefers grasslands, brushlands (coastal sage scrub and chaparral), deserts, oak savannas, open coniferous forests, and montane valleys.	Low Potential: Potentially forages onsite.
Burrowing owl <i>(Athene cunicularia)</i> SSC	The burrowing owl uses predominantly open land, including grassland, agriculture (e.g., dry-land farming and grazing areas), playa, and sparse coastal sage scrub and desert scrub habitats. Some breeding burrowing owls are year-round residents and additional individuals from the north may winter throughout the region.	Not Expected: Not expected to occur onsite based on a lack of suitable burrows and foraging habitat.
Northern Harrier <i>(Circus cyaneus)</i> SSC	The northern harrier frequents open wetlands, wet and lightly grazed pastures, old fields, dry uplands, upland prairies, mesic grasslands, drained marshlands, croplands, shrub-steppe, meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands and is seldom found in wooded.	Low Potential: Potentially forages onsite.
Western yellow-billed cuckoo <i>(Coccyzus americanus occidentalis)</i> FT/SE	The western yellow-billed cuckoo inhabits dense riparian and shrub communities.	Not Expected: Not expected to occur onsite based on a lack of suitable riparian habitat.

Species Name (<i>Scientific Name</i>)	Habitat Description	Comments
Status		
White-tailed kite (<i>Elanus leucurus</i>) SFP	The white-tailed kite is found in riparian, oak woodlands adjacent to open spaces including grasslands, wetlands, savannahs and agricultural fields. This non-migratory bird occurs in lower elevations of California.	Low Potential: Potentially forages onsite.
Southwestern willow flycatcher (<i>Empidonax traillii extimus</i>) FE/SE	The southwestern willow flycatcher breeds in dense riparian and shrub communities where exposed water is present including rivers, wetlands and reservoirs.	Not Expected: Not expected to occur onsite based on a lack of suitable riparian habitat.
Merlin (<i>Falco columbarius</i>) CWL	Transient in the spring and fall and may occasionally winter within the area. It does not require specific conditions or locations for nesting because it does not nest in the region.	Not Expected: Not expected onsite. Breeds in the northern Great Plains.
Prairie falcon (<i>Falco mexicanus</i>) CWL	Habitat use of the prairie falcon includes annual grasslands to alpine meadows. 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.	Low Potential: Potentially forages onsite.
American peregrine falcon (<i>Falco peregrinus anatum</i>) SFP	Throughout the species' range, peregrine falcons are found in a large variety of open habitats, including tundra, marshes, seacoasts, savannahs and high mountains.	Not Expected: Not expected to breed onsite based on a lack of suitable habitat.

Species Name (<i>Scientific Name</i>)	Habitat Description	Comments
Status		
Yellow-breasted Chat (<i>Icteria virens</i>) SSC	The yellow-breasted chat is associated with riparian woodland and riparian scrub habitats.	Not Expected: Not expected to occur onsite based on a lack of suitable riparian habitat.
Coastal California gnatcatcher (<i>Polioptila californica californica</i>) FT/SSC	The coastal California gnatcatcher is a non-migratory bird species that primarily occurs within sage scrub habitats in coastal southern California dominated by California sagebrush.	Observed: Documented immediately adjacent to Haven Avenue within coastal sage scrub habitat located adjacent to the Study Area (USFWS Database 2017)
Yellow Warbler (<i>Setophaga petechia</i>) SSC	Habitat characteristics of the yellow warbler are well known to include riparian scrub, forest and woodland vegetation.	Not Expected: Not expected to occur onsite based on a lack of suitable riparian habitat.
Least Bell's vireo (<i>Vireo bellii pusillus</i>) FE/SE	Least Bell's vireo reside in riparian habitats with a well-defined understory including southern willow scrub, mulefat, and riparian forest/woodland habitats.	Not Expected: Not expected to occur onsite based on a lack of suitable riparian habitat.
MAMMALS		
Pallid bat (<i>Antrozous pallidus</i>) SSC	Roosts in rocky areas and forages in grassland, shrublands, and woodlands.	Not Expected: Not expected to occur onsite based on a lack of suitable habitat
Northwestern San Diego pocket mouse (<i>Chaetodipus fallax fallax</i>) SSC	The northwestern San Diego pocket mouse occurs in coastal sage, upland sage scrubs, and alluvial fan sage scrub, sage scrub/grassland ecotones, chaparral, and desert scrubs at all elevations up to 6,000 feet.	Not Expected: Not expected to occur onsite based on a lack of suitable habitat
San Bernardino kangaroo rat (<i>Dipodomys merriami parvus</i>) FE/SSC	Prefers alluvial scrub, coastal sage scrub habitats with sandy and gravelly substrates.	Not Expected: Not expected to occur onsite. The Riversidean alluvial fan sage scrub has a nearly 100% canopy cover and the species is not expected to occur.

Species Name (<i>Scientific Name</i>)	Habitat Description	Comments
Status		
Western mastiff bat (<i>Eumops perotis californicus</i>) SSC	Roosts in rocky areas and forages in grassland, shrublands, and woodlands.	Not Expected: Not expected to occur onsite based on a lack of suitable habitat.
Western yellow bat (<i>Lasiurus xanthinus</i>) SSC	Roosts in the skirts of palm trees and forages in adjacent habitats.	Not Expected: Not expected to occur onsite based on a lack of suitable foraging habitat within the vicinity of the Study Area.
San Diego black-tailed jackrabbit (<i>Lepus californicus bennettii</i>) SSC	The San Diego black-tailed jackrabbit in open habitats, primarily including grasslands, sage scrub, alluvial fan sage scrub, and Great Basin sage scrub.	Not Expected: Not observed or expected to occur onsite based on a lack of suitable habitat and sign of burrow structures.
Desert San Diego woodrat (<i>Neotoma lepida intermedia</i>) SSC	The San Diego desert woodrat is found in sage scrub and chaparral wherever there are rock outcrops, boulders, cactus patches and dense undergrowth.	Low Potential: Low potential to occur with coastal sage scrub vegetation communities.
Los Angeles pocket mouse (<i>Perognathus longimembris brevinasus</i>) SSC	Low elevation grassland alluvial sage scrub and coastal sage scrub habitats.	Not Expected: Not expected to occur onsite based on a lack of suitable habitat. The Riversidean alluvial fan sage scrub has a nearly 100% canopy cover and the species is not expected to occur.
Federal (USFWS) Protection and Classification FE – Federally Endangered FC – Federal Candidate for Listing State (CDFW) Protection and Classification SE – State Endangered SSC – State Species of Special Concern CWL – California Watch List SPF – State Fully Protected		

The Study Area does not occur within or adjacent to a USFWS designated critical habitat for any federally listed threatened or endangered species.

BIOLOGICAL RESOURCES CONSTRAINTS

The following section includes an analysis of the direct and/or indirect impacts of the proposed action on sensitive or regulated biological resources based on the literature research and updated site assessment efforts. This analysis includes those project related activities that are anticipated to adversely impact the special status species and/or regulated resources. Direct effects are defined as actions that may cause an immediate effect on the species or its habitat, including the effects of interrelated actions and interdependent actions. Indirect effects are caused by or result from the proposed actions, are later in time, and are reasonably certain to occur. Indirect effects may occur outside of the area directly affected by the proposed action.

COUNTY OF SAN BERNARDINO PLANT PROTECTION AND MANAGMENT

Several mature oak trees meeting the minimum classification standard as a regulated tree were documented within the Study Area as shown in Attachment C, *Vegetation Communities Map*. As stated by the County of San Bernardino:

“Regulated trees. The following trees shall only be removed with an approved Tree or Plant Removal Permit issued in compliance with Section 88.01.050 (Tree or Plant Removal Permits): (1) Native trees. A living, native tree with a six inch or greater stem diameter or 19 inches in circumference measured 4.5 feet above natural grade level. (2) Palm trees. Three or more palm trees in linear plantings, which are 50 feet or greater in length within established windrows or parkway plantings, shall be considered to be heritage trees and shall be subject to the provisions of this Chapter regarding native trees.” (County of San Bernardino 2018).

In the event the proposed project will result in direct or indirect impacts to regulated trees, a certified arborist, horticulturist, or registered landscape architect familiar with the County of San Bernardino’s Development Code for regulated trees will be required to conduct an assessment of the trees proposed for removal within the entire Study Area. If required, a permit application will be submitted for review and approval by the County of San Bernardino. As stated by the County of San Bernardino:

“When Tree or Plant Removal Permit required. A Tree or Plant Removal Permit shall be required for the removal of a regulated tree or plant as identified in this Chapter. (1) Removals in conjunction with land use application or development permit Director approval. The Director may approve the removal of regulated trees or plants when requested in conjunction with a land use application, a Building Permit, and all other development permits (e.g., Grading Permits, Mobile Home Setdown Permits, etc.). An approved land use application and/or development permit shall be considered to include a Tree or Plant Removal Permit, if the land use application or development permit specifically reviews and approves the removals. The review of a land use application or development permit shall consider and require compliance with this Chapter.” (County of San Bernardino 2018).

SENSITIVE VEGETATION COMMUNITIES

Direct impacts to 1.51-acre of Riversidean alluvial fan sage scrub, a CDFW sensitive vegetation

community would be considered a significant impact and appropriate mitigation in the form of 1) mitigation credit purchase, 2) land conservation, or payment to in-lieu fee program (if available) will be required to offset impacts.

COASTAL CALIFORNIA GNATCATCHER

The coastal California gnatcatcher was documented within the Riversidean alluvial fan sage scrub habitat immediately adjacent to the Study Area in 2013 as illustrated in Attachment G, *Potential Constraints and Regulatory Resources Map*. At a minimum, updated USFWS protocol coastal California gnatcatcher surveys should be conducted throughout the Study Area where suitable habitat is present (coastal sage scrub vegetation communities) to determine the current status and distribution onsite. Direct or indirect impacts to occupied habitat for the coastal California gnatcatcher would require formal consultation with the USFWS, preparation of a low-effect Habitat Conservation Plan, and mitigation for direct impacts to occupied Riversidean alluvial fan sage scrub, a CDFW sensitive vegetation community.

SPECIAL STATUS FLORAL AND FAUNAL SPECIES

No suitable habitat for sensitive plant species listed as federal or state threatened/endangered was documented within the Study Area. There exists a low potential for eight (8) sensitive plant species listed by the CNPS to occur within the Study Area as listed in Table 2, *Sensitive Plant Species Assessment*. A total of nine (9) sensitive wildlife species not listed as federal or state endangered have a low to moderate potential to occur within the Study Area and one (1) sensitive bird, Cooper's hawk was documented onsite during the 2014 habitat assessment conducted by Ecological Sciences Inc. (2014a)

As accurately stated by Ecological Sciences Inc.:

*“Several **special-status plant species** have at least a moderate occurrence potential adjacent to the alignment based on the presence of suitable habitat (e.g., those indicated in Table 1). These species do not have formal state or federal listing status. Road improvement activities conducted within the existing road prism would not likely eliminate significant amounts of habitat for potentially occurring special-status plant species, reduce population size of sensitive plant species below self-sustaining levels on a local or regional basis, nor constitute a CEQA-significant impact to any special-status plant species.*

*Several **special-status wildlife species** either occur or have a moderate or high potential for occurrence adjacent to the alignment based on the presence of suitable habitat. Most of those species that have at least a moderate occurrence potential to occur adjacent to the site were all deemed by the Service to be too widespread and common to warrant listing as threatened or endangered, and as such, were removed from formal sensitive species status. At present, they have no state or federal listing status. They are included herein for discussion since they were formerly considered for listing, and because they are relatively common throughout the region. Impacts to an existing disturbed roadway would not likely constitute a CEQA-significant impact to any of these species, nor amount to a measurable impact within southern California or their overall range. (Ecological Sciences Inc. 2014a)*

FEDERAL MIGRATORY BIRD TREATY ACT

All of the native habitats and trees including the non-native Eucalyptus trees documented within the Study Area represent potential nesting habitat for birds and raptors protected by the federal Migratory Bird Treaty Act (MBTA).

Potential direct/indirect impacts to common and sensitive bird and raptor species will require compliance with the federal MBTA. Construction outside the nesting season (between September 1st and February 15th) does not require pre-removal nesting bird surveys. If construction is proposed between February 16th and August 31st, a qualified biologist must conduct a nesting bird survey(s) no more than three (3) days prior to initiation of grading to document the presence or absence of nesting birds within or directly adjacent (100 feet) to the Study Area.

The preconstruction survey(s) will focus on identifying any raptors and/or bird nests that may be directly or indirectly affected by construction activities. If active nests are documented, species-specific measures shall be prepared by a qualified biologist and implemented to prevent abandonment of the active nest. At a minimum, grading in the vicinity of a nest shall be postponed until the young birds have fledged. A minimum exclusion buffer of 100 feet shall be maintained during construction, depending on the species and location. The perimeter of the nest setback zone shall be fenced or adequately demarcated with stakes and flagging at 20-foot intervals, and construction personnel and activities restricted from the area. A survey report by a qualified biologist verifying that no active nests are present, or that the young have fledged, shall be submitted to the County of San Bernardino prior to initiation of grading in the nest-setback zone. The qualified biologist shall serve as a biological monitor during those periods when construction activities occur near active nest areas to ensure that no inadvertent impacts on these nests occur. A final report of the findings, prepared by a qualified biologist, shall be submitted to the County of San Bernardino prior to construction-related activities that have the potential to disturb any active nests during the nesting season.

Any nest permanently vacated for the season would not warrant protection pursuant to the MBTA.

JURISDICTIONAL WETLAND RESOURCES

As previously stated, no wetlands were documented within the Study Area. However, as illustrated in Attachment G, *Potential Constraints & Regulatory Resources Map*, several existing and proposed drainage improvements are expected to result in impacts to resources regulated by the USACE, CDFW, and RWQCB.

In the event any phase of the proposed project will require the construction, improvements or relocation of the existing drainage structures including but not limited to culverts and rip/rap features, the project applicant will conduct a formal jurisdictional delineation and obtain all applicable permits including a 404/408 Permit from the USACE, 1602 SAA from CDFW, and a 401 Certification issued by the RWQCB pursuant to the California Water Code Section 13260, as warranted. Compliance with the federal and state regulatory requirements will reduce potential impacts to jurisdictional resources to less than significant.

The project will also comply with all applicable water quality regulations, including obtaining and complying with those conditions established in Waste Discharge Requirements (WDR) and

County of San Bernardino National Pollutant Discharge Elimination System (NPDES) Stormwater program permits. Both of these permits include the treatment of all surface runoff from paved and developed areas, the implementation of applicable Best Management Practices (BMPs) during construction activities and the installation and proper maintenance of structural BMPs to ensure adequate long-term treatment of water before entering into any natural stream course.

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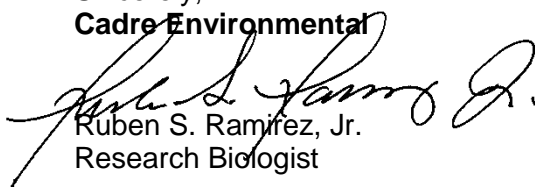
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Please call me if you have any questions or comments.

Sincerely,

Cadre Environmental



Ruben S. Ramirez, Jr.
Research Biologist

Attachments

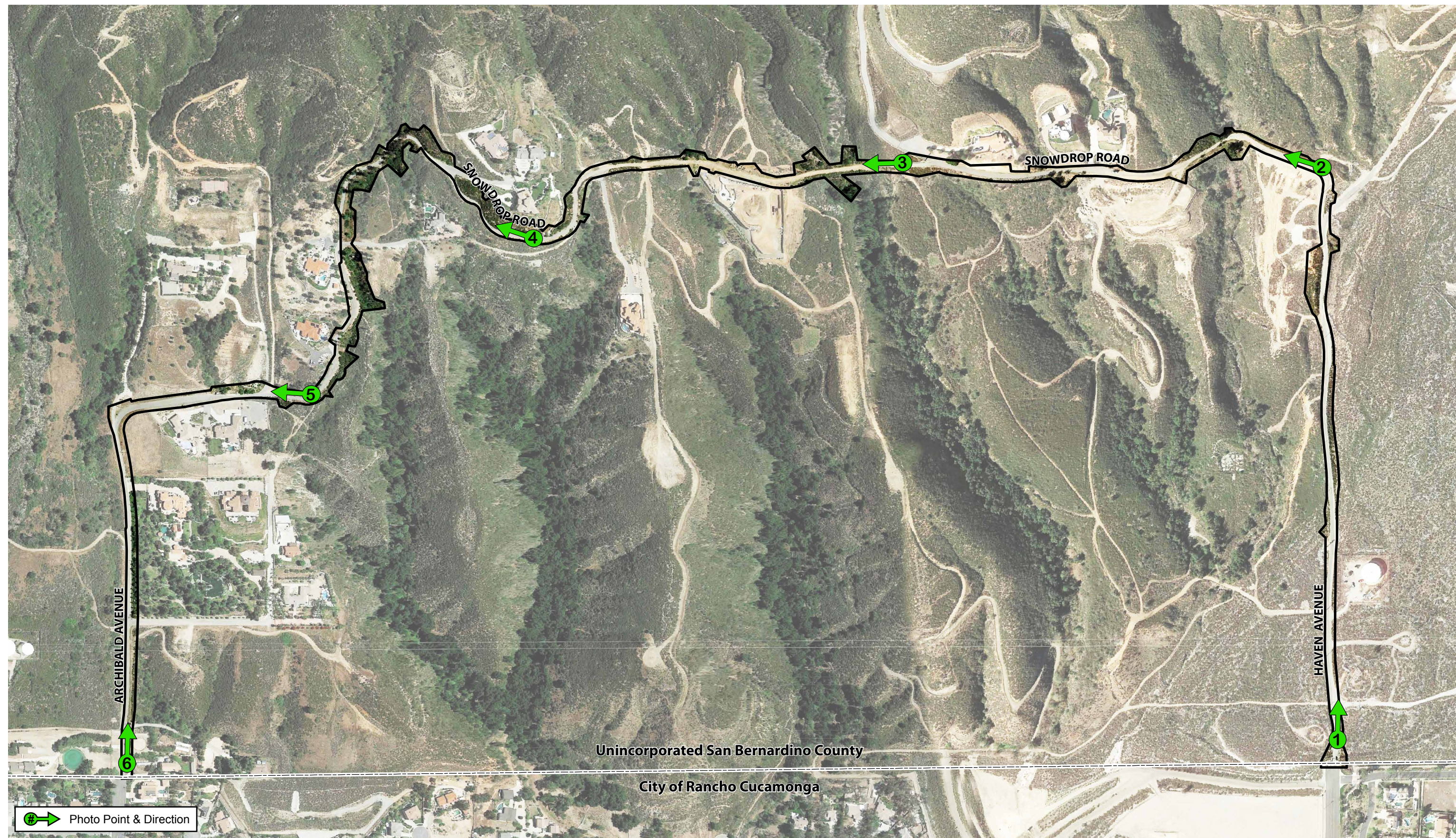
- A – Regional Location Map**
- B – Study Area Map**
- C – Vegetation Communities Map**
- D – Current Study Area Photographs**
- E – Current Study Area Photographs**
- F – Current Study Area Photographs**
- G – Potential Constraints & Regulatory Resources Map**



Attachment A - Regional Location Map

*Biological Resources Constraints Report
Snow Drop Road Improvements Project*





Attachment B - Study Area Map

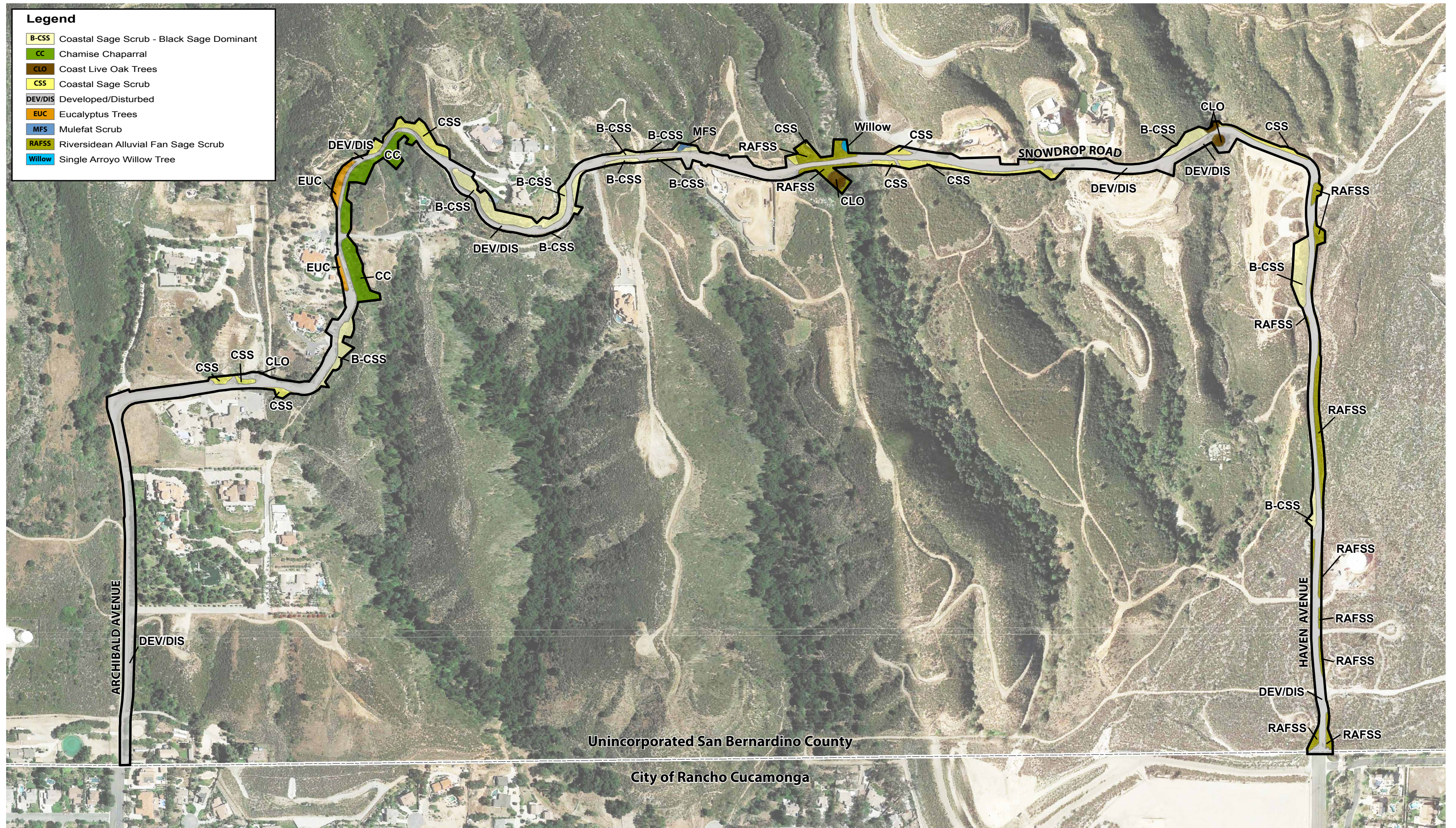
Biological Resources Constraints Report
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CADRE
Environmental



Legend

- B-CSS Coastal Sage Scrub - Black Sage Dominant
- CC Chamise Chaparral
- CLO Coast Live Oak Trees
- CSS Coastal Sage Scrub
- DEV/DIS Developed/Disturbed
- EUC Eucalyptus Trees
- MFS Mulefat Scrub
- RAFSS Riverside Alluvial Fan Sage Scrub
- Willow Single Arroyo Willow Tree



Study Area (Unincorporated San Bernardino County)

Attachment C - Vegetation Communities Map

*Biological Resources Constraints Report
Snow Drop Road Improvements Project*



1 inch = 400 ft.



PHOTOGRAPH 1 - Northward view of Haven Avenue - Haven Avenue is bordered by Riversidean alluvial fan sage scrub vegetation communities.



PHOTOGRAPH 2 - Westward view of Snow Drop Road from the intersection of Haven Avenue. The existing alignment of Snow Drop Road is developed and disturbed.

Refer to Attachment B for Photographic Key Map

Attachment D - Current Study Area Photographs

*Biological Resources Constraints Report
Snow Drop Road Improvements Project*





PHOTOGRAPH 3 - Westward view of the eastern reach of Snow Drop Road. The road is bordered by coastal sage scrub and individual coast live oak trees near drainage crossings.



PHOTOGRAPH 4 - Westward view of western reach of Snow Drop Road.

Refer to Attachment B for Photographic Key Map

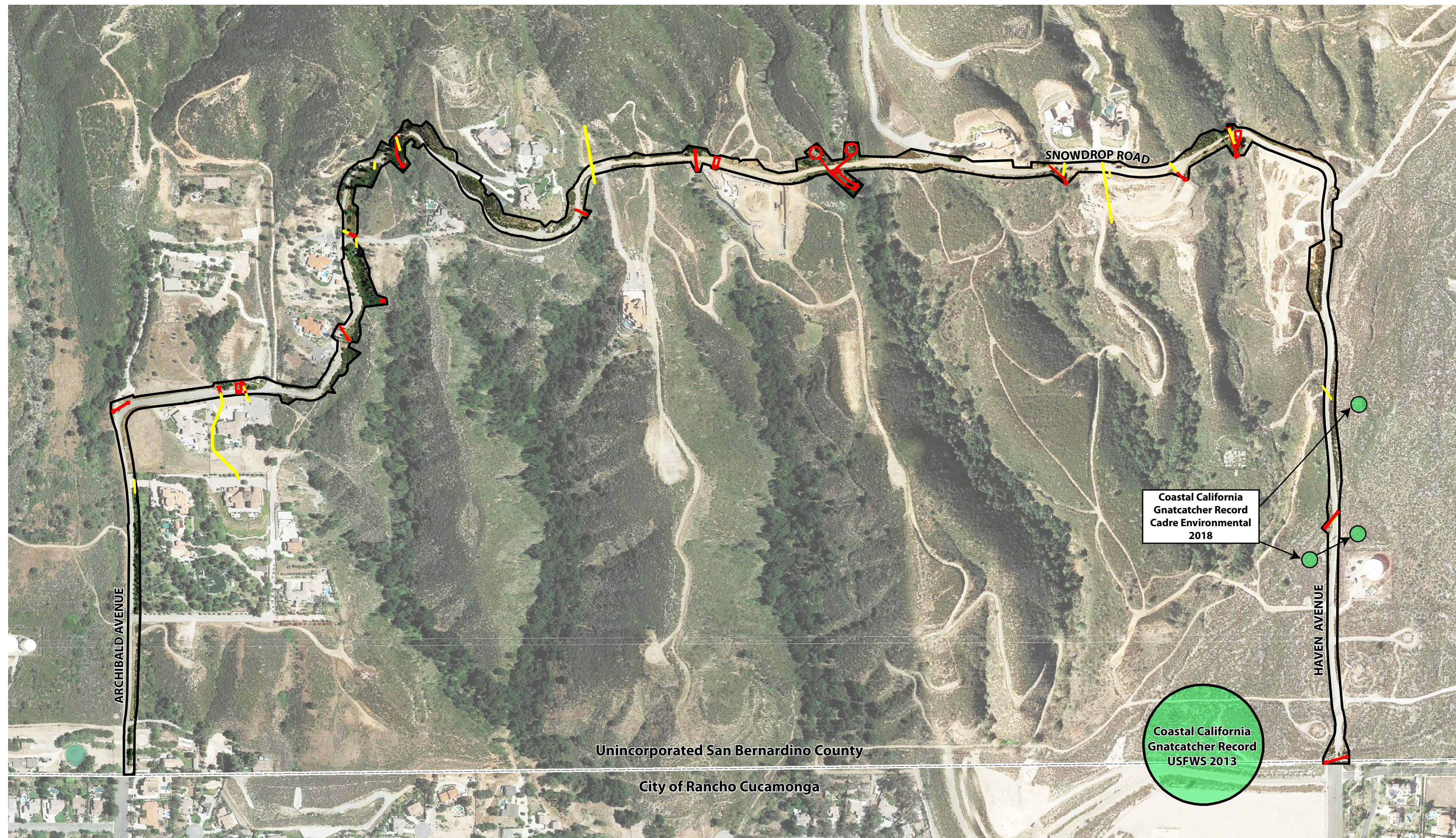


PHOTOGRAPH 5 - Westward view of Snow Drop Road near the intersection of Archibald Road.



PHOTOGRAPH 6 - Northward view of Archibald Road adjacent to the southwest Study Area boundary.

Refer to Attachment B for Photographic Key Map



Study Area (Unincorporated San Bernardino County)

Existing Drainage Improvements

Proposed Drainage Improvements

Attachment G - Potential Constraints & Regulatory Resources Map

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