APPENDIX B

Biological Resources Assessment

BIOLOGICAL RESOURCES ASSESSMENT

Tentative Tract Map 18233
City of Colton, California

Prepared for:
Modern Pacific Homes, LLC
Mr. Scott McKhann
P.O. Box 7538
Capistrano Beach, CA 92624

Prepared by:
M.J. Klinefelter
40960 California Oaks
Road #316
Murrieta, CA, 92562
(951) 698-8374
Contact:
Mike Klinefelter mike@4gis.com

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Summary of Information

The purpose of this report is to provide documentation for City of Colton environmental review of the proposed Project. This report includes the following:

- Descriptions of existing conditions at the Project site in terms of biological resources, including vegetation, wildlife, habitats, soils, and waters/wetlands.
- A discussion of potential impacts to biological resources, including special status species, resulting from implementation of the proposed Project.
- Recommended mitigation measures to avoid and/or minimize potential impacts to biological resources.

Report preparation date:
November 2014. (Revised November 15, 2016)

Project site location:
The Project site encompasses all or a portion of three parcels (APNs 0275-081-01, -02, and a portion of APN 0163-351-25) located west of Bostick Avenue, between West Litton Road and Palm Road, in the City of Colton, San Bernardino County, California. The Site is entirely within Section 31, Township 1 South, Range 4 West, San Bernardino Base and Meridian, on the U.S. Geological Survey San Bernardino South CA 7.5 minute quadrangle.

Related planning case numbers and APN:
Tentative Tract Map 18233; APNs 0275-081-01, -02, and a portion of APN 0163-351-25

Applicant:
Modern Pacific Homes, LLC
P.O. Box 7538
Capistrano Beach, CA 92624
(949) 295-7757

Principal Investigator:
Michael J. Klinefelter of M.J. Klinefelter
40960 California Oaks Rd #316, Murrieta, CA, 92562
Phone: 951- 698-8374
mike@4gis.com

Summary conclusions:
M.J. Klinefelter (MJK), on behalf of Modern Pacific Homes, has prepared this biological resources assessment report for Tentative Tract Map 18233 (TTM18233, or Project) in the City of Colton (City) in San Bernardino County, California. A field investigation for this assessment was conducted at the Project site (Site) on July 14 of 2014 by biologist Jon True. This report was prepared by Jon True and Mike Klinefelter. Mike Klinefelter conducted spatial data analysis and prepared map figures using Geographic Information Systems (GIS) data and ESRI ArcGIS 10.2 software.

No special status plant or wildlife species were detected at the Site. However, based on the biological resources assessment provided herein, the Site contains habitat that is suitable to support

several special status species. Special status plan surveys were conducted by David Bramlet between April and June 2016. The results of the special status plan surveys are documented in a separate report entitled Special Status Plant Surveys for a 33 Acre Parcel in the City of Colton dated July 2016 (Bramlet 2016). No special status plants were observed on the Site during the surveys conducted by David Bramlet and no impacts to special status plants are expected to occur. Suitable Burrowing Owl (BUOW) nesting and foraging habitat is present on-site, and a pre-construction survey for BUOW should be required prior to initiation of any construction activities. Additionally, a pre-construction nesting bird survey should be conducted if construction activities are scheduled during the avian nesting season (February 1 through August 31). The property is located within U.S. Fish and Wildlife Service (USFWS) designated critical habitat for the Coastal California Gnatcatcher (CAGN), a federally threatened species. USFWS-protocol focused surveys were conducted by Cereus Environmental (Cereus) to document the presence or absence of CAGN on-site. No CAGN were detected during the surveys and therefore no impacts to CAGN are expected (CEREUS 2014).

The proposed Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

There are no sensitive natural communities at the Site. There are no jurisdictional waters of the United States (WOUS) or waters of the state, and no wetland, riparian, riverine, or vernal pool habitats on-site. There are no oak trees or windrows present on-site. Based on the results of the sensitive plant surveys conducted by David Bramlet in 2016, there are no special status plants species on the site (Bramlet 2016).

The Project would not conflict with any local policies or ordinances protecting biological resources. The Site is not within any Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan areas; the proposed Project would not conflict with the provisions of any such plans. The Project is an infill development and impacts related to buildout of the City are anticipated to be less than significant assuming compliance with General Plan policies. However, without mitigation the Project would contribute to the cumulative loss of coastal sage scrub habitat in the vicinity that is suitable to support raptors and other special status bird species, special status mammal and reptile species, and rare plant species. Construction of the Project as proposed would result in the direct removal of approximately 3.46 acres of California sagebrush scrub (CSS) (a subset of coastal sage scrub). The CSS at the Site represents one of few remaining areas of coastal sage scrub in the City. To compensate for the loss of CSS, the Project proposes to preserve approximately 18 acres, including approximately 14 acres of CSS, designated for conservation within the open space Lot C.

Recommended mitigation measures are outlined in Section 5 of this report. If the mitigation measures are appropriately implemented, significant impacts to biological resources from Project development would be less than significant.

1. Property and Project Information

1.1 Location of Project

The TTM18233 Project site (Site) encompasses all or a portion of three parcels (APNs 0275-081-01 and -02, and a portion of APN 0163-351-25) located west of Bostick Avenue between West Litton Road and Palm Road, south of the I-10 freeway, north of the I-60 freeway, and west of the I-215 freeway in the City of Colton, San Bernardino County, California (Appendix A, Figure 1, Regional Map; and Figure 2, Vicinity Map). The Site is entirely within Section 31, Township 1 South, Range 4 West, San Bernardino Base and Meridian, on the U.S. Geological Survey San Bernardino South CA 7.5 minute quadrangle. It is approximately 41.6 acres (gross including existing developed road right of way) in size. The biological survey area included all of the Site except portions of the existing developed paved road right of way along Bostick and Litton Avenues for a total survey area of 41 acres.

Driving directions from I-215 to the Site are as follows:
Exit Barton Road and proceed west approximately 0.40 mile to South La Cadena Drive. Turn right (north) on South La Cadena Drive and proceed approximately 0.35 mile to West Litton Avenue. Turn left (west) on West Litton Avenue and proceed approximately 0.25 west to Bostick Avenue. The Site is located to the southeast of this intersection (south of W. Litton Drive and east of Bostick Avenue).

1.2 Project Description

Tentative Tract Map 18233 proposes to subdivide the Site into 89 residential lots and 3 lettered lots. The proposed Project includes an internal road network; access to the development will be from West Litton Ave from the north, Bostick Avenue from the east, and Palm Avenue from the south. A water quality basin (Lot A) will be located in the northeastern portion, a public park (Lot B) will be located in the southeastern portion of the main development, and an approximately 18-acre open space area (Lot C) will consist of the steeper terrain along the west and south-central portion of the Project. Existing utility easements and facilities will remain along the northern boundary of the Project (overhead power poles and electrical transmission lines - Southern California Edison; underground telecommunications lines - Pacific Bell).

1.3 Site Description

The location and general conditions of the Site and surrounding areas are portrayed in Map Figures 1 through 6 in Appendix A and Photo Figures 1 through 14 in Appendix B. The Site is currently vacant. It is situated approximately 43 miles east of the Pacific Ocean. The Site is within the Middle Santa Ana River watershed (HUC 1807020310), and the river is approximately 0.5 mile north, and 0.8 mile west, of the Site. Elevation ranges from approximately 1,000 feet above mean sea level (msl) in the northeast corner, to approximately 1,240 feet along the western boundary of the Site (Appendix A, Figure 2, Vicinity Map). The Site is bordered by residential development to the north, east, and southeast. Undeveloped land in La Loma Hills is present northwest, west, and south of the Site (Appendix A, Figure 3, Site Map). The northern portion of the Site is mostly level and, based on a review of historic aerial photography, it appears to have been cleared since at least 1995 (Google Earth, 2014) and prior to that time was historically used for agricultural purposes. From this area in the north, the Site slopes upward to the south and west into the lower slopes of La Loma Hills. It appears that citrus was historically grown on terraces cut into the lower slopes. Trees have been removed but the terraces remain; they are visible in Figure 3 (Site Map). Most of the terraced area has also been repeatedly cleared over many years. A dirt road is present at the top of the ridge

along the Site's western boundary. In the southern portion of the Site, there is a low ridge (approximately 100 feet in height above the agricultural area) to the south of the remnant terraces. From this ridge, the Site slopes back downhill to the southeastern corner, and uphill to the southwest corner of the Site. A network of dirt roads is present in the southern portion of the Site. One road connects with the road that runs along the western boundary of the Site and others connect to a road that leads southwest higher into La Loma Hills. These roads appear to be frequently used by pedestrians, domestic dogs, bicycles, and off-road vehicles. Existing utility easements and facilities are present along the northern boundary of the Site (overhead power poles and electrical transmission lines, and underground telecommunications lines).

2. Methodology

Prior to conducting a site visit, various applicable biological databases and reference documents were reviewed, including:

- California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB) (CDFW, 2014-a)
- Carlsbad U.S. Fish and Wildlife Service (USFWS) threatened and endangered species information (GIS database) (USFWS, 2014-a)
- California Native Plant Society's (CNPS) Online Inventory of Rare and Endangered Plants of California (CNPS, 2014)
- City of Colton 2013 General Plan Update Environmental Impact Report (2013 EIR) (City of Colton, May 2013)
- U.S. Geological Survey (USGS) San Bernardino South 7.5' quadrangle topographic map
- USFWS National Wetland Inventory Maps (USFWS, 2014-b)
- USFWS Critical Habitat Mapper (USFWS, 2014-c)
- U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (NRCS, 2014-a)
- NRCS Soil Survey Geographic (SSURGO) Database for San Bernardino County, California (Soil Survey Staff, 2014)
- NRCS List of Hydric Soils in California (NRCS, 2014-b)
- Recent and historic aerial imagery (Google Earth, 2014)
- California Irrigation Management Information System (CIMIS) station detail reports (CIMIS, 2014).

Additional resources and documents that were reviewed as part of this biological assessment are listed in Section 8 (References). For purposes of this report, individual plant nomenclature and taxonomy follow The Jepson Manual, Second Edition (Baldwin, et al., 2012) and online Jepson eFlora (UCB, 2014). The first time a plant or animal species is introduced in this report, both the scientific name and common name are given; thereafter, the common name is used. General information regarding wildlife species present in the region, including taxonomy and nomenclature, follow the American Ornithologists Union (2014) for birds, Whitaker (1996) and Jones et al. (1997) for mammals, Stebbins (2003) for reptiles and amphibians, and Heath (2004) for butterflies.

A field investigation for this assessment was conducted on July 14 of 2014 by biologist Jon True. A basemap was produced prior to the field investigation showing the parcel boundaries overlaid on an aerial photograph. The basemap was produced at a scale of 1:2400, or 1"=200'. Additionally, lists of special status plant and animal species that may occur at the Site were compiled prior to the field investigation. During the investigation, the entire Site was systematically and diligently surveyed to

inventory all biological resources present, including vegetation, birds, mammals, reptiles, amphibians, invertebrates, and any other wildlife. The Site was surveyed for the presence of any windrow, oak woodland, wetland, riparian, riverine, and vernal pool habitat. On-site habitats were assessed for suitability to support special status plant and wildlife species and although focused surveys were not conducted, extra emphasis was placed on detecting any special status species in the field. Soils, and the type and degree of site disturbance, were characterized. Areas adjacent to the Site were also observed to provide context and to enable evaluation of potential impacts to off-site resources.

A Trimble GeoXT handheld global positioning system receiver (GPS) was used in the field to document the locations of significant resources. Data collected from the GPS unit were downloaded into Trimble GPS Pathfinder Office software and differentially corrected to generate positions at sub-meter accuracy. GPS field data, project plans, land cover/vegetation and soils information, and other relevant digital map data were incorporated into a Geographic Information System (GIS) using ESRI ArcGIS 10.2 software to analyze data and create map figures that represent conditions at the Site (Appendix A, Figures 1-6). Digital photographs were taken to characterize on-site conditions and document significant resources. Photographs were taken with a digital camera with integrated GPS. GeoSpatial Experts GPS-Photo Link software was used to process photographs, produce photo documentation, and to produce GIS data with location and direction of where each photo was taken on-site. Photo point locations and compass directions of the photos included in this report are shown in Appendix A, Figure 3 (Site Map) and in the individual photo attribute table for each photo. Photo figures are included in Appendix B.

Each plant species encountered at the Site during the field investigation was recorded and identified in the field or collected and later identified using taxonomic keys. The investigation also included a survey for bryophytes (non-vascular plants) as well as lichens and fungi. The reconnaissance survey was floristic in nature; no focused sensitive plant surveys were conducted. It should be noted that the field investigation was conducted during a period of drought in southern California. A total of 4.75 inches of rain was recorded in the vicinity during the 2012 rain year (August 1 of 2012 through July 31 of 2013), and 5.7 inches of rain had been recorded in the 2013 rain year (August 1 of 2013 through July 14 of 2014, the date of the field investigation) (CIMIS, 2014). The long-term average precipitation in the area is approximately 16.56 inches per year (Weather.com, 2014); thus, rainfall over the last 2 rain years was approximately 32% of average. And since the field investigation was conducted in mid-July, the potential diversity and abundance of annual species was likely below average. However, all on-site plant material was closely examined, including dead and senesced individuals, and based on plant morphology and species accounts in the vicinity, each plant taxon was identified to the taxonomic level necessary to determine rarity and listing status.

During the field investigation, stands of vegetation were recorded and classified. The California Native Plant Society (CNPS), in collaboration with CDFW, has adopted a definitive system for describing vegetation statewide. This standard vegetation classification has been accepted by state and federal agencies, and the principal unit is called “alliance”, which is a floristically defined vegetation type identified by its dominant and characteristic species (e.g. *Artemisia californica* Shrubland Alliance, or California sagebrush scrub). This system is the most up-to-date and refined vegetation classification system for our region. It is described and outlined in A Manual of California Vegetation, Second Edition (MCV2) (Sawyer, *et al.*, 2009) which is the California expression of the National Vegetation Classification (NVC). In addition to alliances, a number of “associations” are documented in MCV2. These vegetation classifications are refinements to alliances and describe

associations of plant species that commonly co-occur with the alliance level species (e.g. *Artemisia californica-Diplacus aurantiacus* Association). The system also describes various "Semi-Natural Stands" which are dominated by non-native species that replace native vegetation. These stands are not equivalent to alliances; however, they are valuable classification types since much of the native California flora has been replaced by non-native species. During the field investigation, a stand that met membership rules of an alliance, association, or semi-natural stand based on dominant or characteristic species described in the MCV2 was classified accordingly. On-site vegetation classifications and land cover types were documented in the field using the base map with the parcel boundaries overlaid on high-resolution aerial imagery. Then the field data were digitized in the GIS to delineate each polygon and enable the calculation of acreages for each type. The minimum mapping unit was 0.10 acre.

During the investigation, wildlife species detected on-site were recorded and identified. No focused sensitive wildlife species surveys were conducted. Wildlife species were detected by sight (including the use of 10x42 binoculars), vocalizations, burrows, nests, tracks, scat, remains, and/or other signs. The Site was carefully evaluated for the presence of Burrowing Owl (BUOW) nesting and foraging habitat. All potential BUOW nesting habitat, including any existing burrows; earthen berms or banks; cement culverts; cement, asphalt, rock, or wood debris piles; openings beneath cement or asphalt pavement; and other man-made structures were carefully inspected for BUOW sign such as feces, pellets and feathers.

The methods used to assess special status species are described in Section 4.5. As noted above, USFWS-protocol focused surveys were conducted to document the presence or absence of CAGN on-site, and a separate report has been prepared that documents the survey results.

3. Existing Conditions

3.1 Vegetation

On-site vegetation consists of a mix of native and non-native plant species. Bare ground and non-native ruderal herbs are dominant in the northern portion of the Site, and native shrubs are dominant in the western and southern portions at the base of La Loma Hills. There are fewer than 10 scattered trees – including non-native pepper (*Schinus molle*) and native blue elderberry (*Sambucus nigra* subsp. *caerulea*) - scattered across the Site. In terms of floral diversity, a total of 46 vascular plant species, including 17 native species (37 percent) and 29 non-native species (63 percent), were recorded at the Site. As indicated above, the field investigation was conducted during a period of prolonged drought in southern California, and since the field investigation was conducted in mid-July, the potential diversity and abundance of annual species was likely below average. The distribution of native plant species cover and diversity is highly concentrated in the areas of native shrubland along the western perimeter and southern portion of the Site.

One native MCV2 vegetation alliance was mapped on-site: the *Artemisia californica* Shrubland Alliance, or California sagebrush scrub (CSS). This native alliance covers 18.28 acres on-site (see Section 3.1.1 below). Three land cover types were mapped at the Site: Disturbed-Ruderal (DIS-R), Disturbed-Agricultural (DIS-AG), and Disturbed-Road (DIS-RD). These land cover types combined cover 22.71 acres on-site (see Sections 3.1.2, 3.1.3, and 3.1.4 below). Table 1 below summarizes the acreages of on-site vegetation/land use types. Figure 4 (Vegetation Map) in Appendix A shows the distribution of on-site vegetation and land cover types. The photo figures in Appendix B document

the vegetation at the Site and surrounding areas. A compendium of plant species detected on-site and within a 100 foot buffer is provided in Appendix D (Table 1). Additional plant species information can be found in the sensitive plant survey report (Bramlet 2016)

Table 1. On-site Vegetation and Land Use Types

Vegetation/Land Use Type	Present On-site (acres)
California sagebrush scrub	18.28
Disturbed-Ruderal	10.05
Disturbed-Agricultural	10.10
Disturbed-Road	2.56
Total	40.99

3.1.1 *Artemisia californica* Shrubland Alliance (California sagebrush scrub)

As noted above, the only native alliance present at the Site is CSS. CSS is present along the western and south-central portions of the Site. California sagebrush (*Artemisia californica*) is dominant accounting for greater than 60% cover in the shrub canopy. Other native shrubs mixed within the CSS include brittlebush (*Encelia farinosa*), California buckwheat (*Eriogonum fasciculatum*), and white sage (*Saliva apiana*). The understory consists of a variety of primarily non-native grasses and herbs including ripgut brome (*Bromus diandrus*), red brome (*Bromus madritensis* subsp. *rubens*), Maltese star-thistle (*Centaurea melitensis*), shortpod mustard (*Hirschfeldia incana*), and filaree species (*Erodium botrys*, *E. brachycarpum*, and *E. cicutarium*). The stands of CSS in the central portion of the Site have been subject to moderate levels of disturbance from ongoing human-related activities in these areas including adjacent agricultural activities, roads, OHV use, pedestrian traffic, and trash and debris dumping. The stands in the western and southern portion are more intact, but they have been fragmented by dirt roads. The most intact CSS habitat is located within the proposed open space (Lot C).

3.1.2 Disturbed-Ruderal

The Disturbed-Ruderal classification (DIS-R) used in this assessment refers to areas that have been disturbed repeatedly over many years and consequently vegetation consists predominantly of non-native species and/or bare ground. Ruderal species are plant species that are first to colonize disturbed lands. Disturbances may be natural (e.g. wildfires, landslides) or may result as a consequence of human activities such as construction or agriculture. In California, many non-native invasive ruderal species have a competitive advantage over local native species and often permanently prevent a disturbed area from returning to its pre-disturbed state.

Ruderal vegetation is present primarily in the areas upslope of the disturbed agricultural areas in the northern and central portions of the Site (see Section 3.1.3 below). There is also a ruderal area northwest of the intersection of Bostick Avenue and Palm Avenue, as well as ruderal vegetation bounded by dirt roads in the southwestern portion of the Site. Ongoing human-related disturbances in these areas include agricultural activities, electrical transmission facilities, roads, OHV use, pedestrian traffic, and trash and debris dumping. Dominant vegetation in these areas consists of invasive non-native ruderal species (primarily non-native annual grasses and herbs) that are highly successful at colonizing and dominating disturbed areas. Dominant non-native annual grasses include ripgut brome, red brome, slender wild oat (*Avena barbata*), and wild oat (*Avena fatua*). Other grasses include soft chess (*Bromus hordeaceus*), cheat grass (*Bromus tectorum*), Bermuda grass (*Cynodon dactylon*), rattail sixweeks fescue (*Festuca myuros*), wall barley (*Hordeum murinum*), crimson fountain grass (*Pennisetum setaceum*), Arabian schismus (*Schismus arabicus*), Mediterranean grass (*Schismus barbatus*), and smilo grass (*Stipa m*iliacea var. *miliacea*). Dominant non-native annual herbs include shortpod mustard, Maltese star-thistle, filaree species, and horehound (*Marrubium vulgare).* Other annual herbs include tumbleweed (*Salsola albus*) and prickly

lettuce (*Lactuca serriola*). In addition to non-native species there are widely scattered individuals of California croton (*Croton californicus*), western ragweed (*Ambrosia psilostachya*), fiddleneck species (*Amsinckia intermedia, E. menziesii*), and California-aster (*Corethrogyne filaginifolia*).

3.1.3 Disturbed-Agricultural

The Disturbed-Agricultural classification (DIS-AG) refers to areas at the Site that have been subject to ongoing clearing, disking, and/or other ground disturbances related to agricultural operations. These areas are in the northern portion of the Site and consist primarily of bare ground. Vegetation is mostly absent or extremely sparse and, where present, consists of young invasive ruderal species adapted to high levels of disturbance, including the non-native species listed above in Sections 3.1.1 and 3.1.2 (which have recently been mowed and/or disked). Additionally, there is one blue elderberry and three California sagebrush individuals in the eastern portion of the agricultural area.

3.1.4 Disturbed-Road

The Disturbed-Road classification (DIS-RD) refers to the network of dirt roads in the southern portion of the Site. Vegetation is absent on the roads.

3.2 Wildlife

Native habitats throughout the majority of the City of Colton have been developed or have been modified and disturbed. These areas contain little natural open space and provide very limited and low quality habitat for wildlife species. Wildlife species are likely to utilize any remnant patches of native vegetation and ornamental landscaped areas such as parks and golf courses in the vicinity. The Project Site is located in one of the few remaining undeveloped areas in the City. There have been at least moderate levels of disturbance throughout the majority of the Site, and bare ground or invasive non-native plant species are dominant. In these areas, habitat for native wildlife is limited and of low quality. Where native CSS vegetation is present in the western and southern portions of the Site, relatively higher quality habitat is present. Population size and species diversity of native wildlife is low in relation to that which may be found in less disturbed, more intact habitats in the vicinity (e.g. Santa Ana River, National Forests, other local preserves, etc.). A total of 54 wildlife species were detected during the Site investigation, including 32 bird species, 6 mammal species, 13 insects and 3 reptile species. Most wildlife species detected are common, widely distributed, and adapted to living in proximity to human development. Photo figures showing on-site habitats are included in Appendix B. A compendium of animal species detected on-site and within a 100 foot buffer is provided in Appendix D (Table 2).

3.2.1 Birds

A variety of bird species are expected to be residents in the vicinity and to utilize local habitats throughout the year. Some of these common species include: Mourning Dove (*Zenaida macroura*), Anna's Hummingbird (*Calypte anna*), Nuttall's Woodpecker (*Picoides nuttallii*), Black Phoebe (*Sayornis nigricans*), American Crow (*Corvus brachyrhynchos*), Common Raven (*Corvus corax*), Bushtit (*Psaltriparus minimus*), House Wren (*Troglodytes aedon*), Northern Mockingbird (*Mimus polyglottos*), Spotted Towhee (*Pipilo maculatus*), California Towhee (*Pipilo crissalis*), Song Sparrow (*Melospiza melodia*), House Finch (*Carpodacus mexicanus*), and Lesser Goldfinch (*Carduelis psaltria*). At the project site, 12 of these 14 species were observed during the field investigation. Summer residents that may nest in the vicinity include Black-chinned Hummingbird (*Archilochus alexandri*), Pacific-slope Flycatcher (*Empidonax difficilis*), Ash-throated Flycatcher (*Myiarchus cinerascens*), Cassin's Kingbird (*Tryannus vociferans*), Black-headed Grosbeak (*Pheuticus melanocephalus*), Blue Grosbeak (Passerina caerulea), Hooded Oriole (*Icterus cucullatus*), and Bullock's Oriole (*Icterus*

bullockii). Wintering species may include Say's Phoebe (*Sayornis saya*), Ruby-crowned Kinglet (*Regulus calendula*), American Pipit (*Anthus rubescens*), Yellow-rumped Warbler (*Dendroica coronata*), and White-crowned Sparrow (*Zonotrichia leucophrys*).

Several common bird species were observed at the Site (Appendix D, Table 2). The on-site CSS habitat provides nesting and foraging and cover habitat for year-round residents, seasonal residents, and migrating song birds. An abandoned song bird nest was detected in a blue elderberry tree in the southeastern portion of the Site. The entire Site contains foraging habitat for a number of raptor species, including Burrowing Owl (*Athene cunicularia*) (a Species of Special Concern in California, or "SSC"). However, nesting habitat for most raptors is limited due to the low number and short stature of the trees on-site. Raptors observed foraging at the Site include Red-tailed Hawk (*Buteo jamaicensis*), American Kestrel (*Falco sparverius*), and Turkey Vulture (*Cathartes avra*). The Site contains suitable nesting habitat for BUOW; the areas of open ground and low-growing vegetation, as well as numerous California ground squirrel (*Otospermophilus beecheyi*) burrows and scattered debris piles, provide suitable nesting habitat. Many Desert Cottontail (*Sylvilagus audubonii*) and California Ground Squirrel (*Spermophilus beecheyi*) individuals were observed on-site; these species are attractive food sources for larger local raptors including Red-tailed Hawk. Other raptor species that are likely present in the vicinity include great Horned Owl (*Bubo virginianus*) and Barn Owl (*Tyto alba*).

USFWS-protocol focused surveys were conducted by Cereus Environmental (Cereus) in the spring of 2014 to document the presence or absence of Coastal California Gnatcatcher (*Polioptila californica californica)* (CAGN) on-site. No CAGN were detected during the surveys and therefore no impacts to CAGN are expected (CEREUS 2014). A previous focused survey for CAGN was conducted in 2006 with negative results (Klinefelter 2006).

3.2.2 Mammals

Common mammal species expected in the vicinity include Virginia Opossum (*Didelphis virginiana*), Desert Cottontail, California Ground Squirrel, Botta's Pocket Gopher (*Thomomys bottae*), Coyote (*Canis latrans*), Common Raccoon (*Procyon lotor*), and Striped Skunk (*Mephitis mephitis*). As noted above, Desert Cottontail and California Ground Squirrel are present at the Site in large numbers, and San Diego Black-tailed Jackrabbit (*Lepus californicus bennettii*) may also utilize the Site. Prints and scat of Domestic Dog (*Canis lupus familiaris*) were seen across the Site; it is likely that dogs disturb and prey on native wildlife including small mammals, birds, and reptiles. Prints and scat of Mule Deer (*Odocoileus hemionus*) were detected in the CSS habitat at the base of the hills. Western Mastiff Bat (*Eumops perotis californicus*) and Western Yellow Bat (*Lasiurus xanthinus*) have been recorded within five miles of the Site. No suitable roosting habitat for bats is present at the Site, and no evidence of roosting was detected during the field investigation. Bat species may forage on-site if there is suitable roosting habitat on nearby properties. The trees and eaves of structures at other properties in the vicinity may provide roosting habitat.

3.2.3 Reptiles

Reptilian diversity and abundance typically varies with vegetation type and character. Many species prefer only one or two vegetation types; however, most species will forage in a variety of habitats. Most reptile species that occur in open areas use rodent burrows for cover, protection from predators, and refuge during extreme weather conditions. Common reptile species in the vicinity include Western Fence Lizard (*Sceloporus occidentalis*), Side-blotched Lizard (*Uta stansburiana*), Southern Alligator Lizard (*Elgaria multicarinata*), Gopher Snake (*Pituophis catenifer*), and Common

Kingsnake (*Lampropeltis getula*). Western Fence Lizard, Side-blotched Lizard, and Southern Alligator Lizard were observed at the Site.

3.2.4 Amphibians

Amphibians require moisture for at least a portion of their life cycle, and many require standing or flowing water for reproduction. Terrestrial species may or may not require standing water for reproduction; they survive in dry areas by aestivating (*i.e.*, remaining beneath the soil in burrows or under logs and leaf litter, and emerging only when temperatures are low and humidity is high). Many of these species' habitats are associated with water, and they emerge to breed once the rainy season begins. Breeding habitats include fresh water marshes and open water (reservoirs, permanent and temporary pools and ponds, and perennial streams). Amphibian species are not likely to utilize the Site due to its lack of water and its distance from the Santa Ana River and other water sources. None were detected during the field investigation. The river corridor contains habitat suitable to support common and special status amphibians.

3.2.5 Invertebrates

The vicinity is home to a variety of common invertebrate species. Thirteen common insect species were detected at the Site during the field investigation. Federally endangered Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*) (DSFLF) habitat includes coastal sage scrub, grassland, and alluvial sage scrub overlaying Delhi series soils. The Site is not within USFWS-designated DSFLF habitat. DSFLF has been recorded within five miles of the Site (USFWS, 2014-a; CDFW, 2014-a); however, this species was not detected at the Site and is not expected to occur due to the lack of Delhi sand soils, the generally degraded condition of the Site, the high proportion of non-native invasive plants, and the type and condition of the areas surrounding the Site.

3.3 Soils

The USDA Natural Resources Conservation Service Web Soil Survey (NRCS, 2014-a) documents three soil types at the site:

- Hanford coarse sandy loam, 2 to 9 percent slopes (HaC)
- Hanford coarse sandy loam, 9 to 15 percent slopes (HaD)
- Vista-Rock outcrop complex (Vr).

Brief summary descriptions of these soil types are provided in the subsections that follow. The distributions of the soil types across the Site are shown on Figure 5 (Soils Map) in Appendix A. The characteristics of the various soil types observed at the Site do not conform exactly to what is documented by NRCS due to long-term near-surface disturbance and alteration; however, the soils generally match the mapped soils and the native subsoil characteristics likely conform to the typical soil profile descriptions. Undisturbed and lightly disturbed areas outside of the former agricultural areas more closely match the descriptions.

3.3.1 Hanford coarse sandy loam, 2 to 9 percent slopes (HaC)

HaC is a well-drained soil found in alluvial fans on slopes of 2 to 9 percent typically between 150 to 900 feet in elevation. It is composed of alluvium derived from granite. The depth to restrictive features and water table is greater than 80 inches. Available water storage capacity is very high; however, flooding is rare and ponding typically does not occur. In a typical profile, sandy loam is present from 0 to 12 inches, and fine sandy loam, sandy loam, and coarse sandy loam are present from 12 to 60 inches in depth (NRCS, 2014-a).

3.3.2 Hanford coarse sandy loam, 9 to 15 percent slopes (HaD)

HaD is a well-drained soil found in alluvial fans on slopes of 9 to 15 percent typically between 150 to 900 feet in elevation. It is composed of alluvium derived from granite. The depth to restrictive features and water table is greater than 80 inches. Available water storage capacity is very high; however, flooding and ponding typically do not occur. As with HaC, sandy loam is present from 0 to 12 inches, and fine sandy loam, sandy loam, and coarse sandy loam are present from 12 to 60 inches in depth (NRCS, 2014-a).

3.3.3 Vista-Rock outcrop complex (Vr)

Vr is a well-drained soil found in hills typically between 400 to 4,000 feet in elevation. It is composed of residuum weathered from granite. The depth to restrictive features is 38 to 42 inches (to paralithic bedrock), and the depth to the water table is greater than 80 inches. Available water storage capacity is low. Flooding and ponding typically do not occur. In a typical profile, unweathered bedrock is present from 0 to 60 inches in depth (NRCS, 2014-a).

3.4 Jurisdictional Waters including Wetlands

The Site was evaluated to determine if any areas may be subject to U.S. Army Corps of Engineers (Corps) jurisdiction pursuant to Section 404 of the Clean Water Act (CWA), Santa Ana Regional Water Quality Control Board (RWQCB) jurisdiction pursuant to Section 401 of the CWA and Section 13260 of the California Water Code (CWC), and California Department of Fish and Wildlife (CDFW) jurisdiction pursuant to Division 2, Chapter 6, Sections 1600-1616 of the California Fish and Game Code. Prior to the field investigation, information and data from the following sources were reviewed:

- Current project plans for TTM 18233
- Recent and historic aerial imagery
- USFWS National Wetland Inventory (NWI) maps
- NRCS Web Soil Survey
- NRCS List of Hydric Soils in California
- USGS San Bernardino South 7.5 minute quadrangle topographic map.

Based on a review of these sources, no areas were identified that were likely to contain jurisdictional waters. The absence of jurisdictional waters was verified during the field investigation. The Site was carefully surveyed to identify any and all areas that may be subject to federal and/or state jurisdiction (waters of the U.S. and/or state, including wetlands), and there were no areas on-site that meet the criteria for potential jurisdictional waters, wetlands, streambed, or riparian habitat.

3.5 Riparian/Riverine Habitats

Riparian/riverine areas are defined as “lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flows during all or a portion of the year” (Dudek, 2003-a). Protection of these areas is important to conservation many listed amphibian, bird, fish, invertebrate, and plant species. There is no riverine/riparian habitat at the Site (as defined above); no riparian/riverine vegetation is present. The scattered blue elderberry individuals on-site are not associated with any streams or ephemeral drainages.

3.6 Vernal Pool Habitats/Fairy Shrimp

Vernal pools are ephemeral wetlands that form in shallow depressions underlain by a substrate near the surface that restricts the downward percolation of water. Depressions in the landscape fill with rainwater and runoff from adjacent areas during the winter and can remain inundated until spring or early summer, sometimes drying more than once during the wet season. Smaller pools can fill and dry and larger pools can hold water longer and can in the deeper portions support species that are more representative of freshwater marshes. Vernal pools are well known for their specificity to a particular location and abundance of rare, threatened, or endangered species including many plant species and fairy shrimp species.

The entire Site was carefully surveyed for depressions capable of holding standing water. No sign of standing water (current, recent or historic) was found on-site. No significant natural depressions capable of supporting vernal or seasonal pools were observed. There are no clay soils on-site that may pond water seasonally. The depth to restrictive features in the soil type present at the Site is more than 80 inches; available water capacity is low and flooding and ponding typically do not occur. There are no indications of standing water on historic or recent aerial imagery of the area. No vernal pools were found at the Site, and none are expected to be present. Due to the lack of vernal pool habitat on-site, no plant or animal species, including special status species (i.e. fairy shrimp and rare plants), that are associated with vernal pools are expected to occur on-site.

3.7 Special Status Plants and Animals

As indicated previously in this report, pre-survey database and literature searches were conducted to determine which special status plant and wildlife species may potentially occur at the Site, and on-site habitats were assessed during the field investigation for suitability to support any and all special status species that may occur in the vicinity. Although the field investigation did not include focused species surveys, extra emphasis was placed on detecting special status species in the field. Based on the evaluation, it was determined that the Site contains habitat that is suitable to support several special status plant and animal species; however, no special status species were detected at the Site. Refer to Section 4.5 for details; that section provides a special status species assessment and the results are summarized in Tables 1-3 in Appendix C.

4. Impacts

This section provides a discussion of potential impacts to biological resources that may occur as a result of Project development. Figure 6 in Appendix A shows the TTM18233 Project impact area overlaid on an aerial photograph. Impacts would occur in areas that have been subject to various levels of ongoing human disturbance. The relatively intact CSS habitat in the western and south-central portion of the Site would not be impacted. It is anticipated there would be minor impacts associated with the widening of West Litton Road and Bostick Avenue in areas that appear to already be dedicated right-of-way (ROW) but do not contain improvements.

4.1 Vegetation

Construction of the Project as proposed would result in the direct loss of on-site vegetation. Table 1 below shows the vegetation and land cover types present at the Site and the acreages of each that would be impacted. Additionally, Table 1 identifies the on-site vegetation communities that would be preserved as part of the open space Lot C.

Table 2. Proposed Impacts to Vegetation/Land Cover Types

Vegetation/Land Cover Type	Present On-site and within ROW (acres)	Proposed Impacts On-site and ROW (acres)	Proposed Open Space Preservation Area (acres)
California sagebrush scrub (CSS)	18.28	3.46	14.65
Disturbed-Ruderal (DIS-R)	10.05	7.96	2.06
Disturbed-Agricultural (DIS-AG)	10.10	10.05	0.00
Disturbed-Road (DIS-RD)	2.56	0.83*	1.34*
Total	40.99	22.30	18.05

* Note: Vegetation is absent on the dirt and paved roads and thus no impacts to vegetation would occur in these areas.

California sagebrush scrub is not considered a sensitive vegetation community; its Global Rank is G5 and State Rank is S5, which indicate that this alliance is secure (common, widespread, abundant, and lacking major threats or long-term concerns) (Sawyer, et al., 2009). However, the Site contains some of the few remaining stands of CSS in the City. As noted above, the most intact stands of CSS are located in the western and southern portion of the Site, and a large portion of these areas would not be directly impacted by Project development (see Figure 6 in Appendix A). The stands of CSS to be removed (located primarily along the perimeter of the historic agricultural land and in the southeastern portion of the Site) are of relatively low quality; they have been subject to moderate levels of disturbance from ongoing human-related activities including agricultural activities, nearby roads, OHV use, pedestrian traffic, and trash and debris dumping. However, due to the restricted distribution of coastal sage scrub communities and associated species in the local vicinity, the proposed impacts to scrub habitat may be considered cumulatively significant (see Section 4.7). The areas classified as Disturbed-Ruderal and Disturbed-Agricultural have been subject to repeated disturbance over many years and vegetation consists predominantly of non-native species and/or bare ground. Ecological impacts to these areas would be minimal.

Indirect impacts to adjacent vegetation communities in the vicinity could result from adverse edge effects which can occur along development edges. Construction and grading activities increase airborne dust particulates which may diminish the vitality of native vegetation to the west and south of the Project site; areas to the north and east are developed and vegetation consists of non-native horticultural species. The introduction of invasive non-native plant species from the development to adjacent open areas can adversely affect native plant cover and diversity, as well as adversely modify habitat for wildlife.

4.2 Wildlife

Direct impacts to wildlife from Project construction would be associated with removal and disruption of habitat, potentially resulting in the displacement or death of wildlife. Implementation of the proposed Project would result in the loss of native CSS habitat that provides nesting, foraging, roosting, and denning opportunities for a variety of wildlife species. Additionally, impacts to non-native habitats (Ruderal and Disturbed) would result in losses to lower-quality wildlife habitat. These non-native habitats may provide limited nesting, foraging, roosting, and denning opportunities for common species. Construction would result in the direct removal of nesting and foraging habitat for a variety of bird species, including BUOW, and may result in the loss of common small mammals, reptiles, invertebrates, and other slow-moving animals that may reside in the proposed impact area.

More mobile wildlife species that are utilizing the Site would be forced to move into adjacent areas of open space in the vicinity, which would consequently increase competition for available resources in those areas. This situation may result in the loss of individuals that cannot successfully compete. Birds and other wildlife can be indirectly affected by construction-related dust and noise, which can result in the disruption of foraging, nesting, and reproductive activities. Wildlife species utilizing nearby habitats may be indirectly affected by Project implementation, thereby decreasing biodiversity beyond the actual development envelope. Potential long-term indirect impacts to local wildlife could include, but are not limited to, the following:

- Habitat degradation due to non-native plant and animal invasion
- Habitat fragmentation
- An inherent increase in human activity
- Increased ambient noise
- Higher night-time light levels
- The increased threat of road-kill by traffic
- Deposition of trash and debris
- Increased population of nest predators, which would adversely affect breeding bird populations
- Exposure to urban pollutants (e.g., fertilizers, pesticides, herbicides, and other hazardous materials)
- Increased soil erosion.

4.3 Jurisdictional Waters including Wetlands

Based on the assessment described in Section 3.4, there are no jurisdictional waters of the U.S. or state (including wetlands) present at the Site; no impacts to jurisdictional waters will occur. Moreover, since there are no wetlands at the Site, no impacts to wetland plant or animal species are anticipated as a result of Project implementation.

4.4 Riparian/Riverine/Vernal Pool Habitats

As described in Sections 3.5 and 3.6, there are no riparian, riverine, or vernal pool habitats on-site and therefore no impacts to these habitats or their associated plant or wildlife species are anticipated.

4.5 Special Status Species

The following is a discussion of special status species that may occur in the vicinity, their potential to occur at the Site, and impacts to those species that may result from the proposed Project. Special status species are those species that have been given special recognition by federal, state, and/or local conservation agencies and organizations based on their limited, declining, threatened, or endangered populations. For the purpose of this evaluation, a species was considered to have special status if it met one or more of the following criteria:

- Currently listed as threatened or endangered under the federal Endangered Species Act (FESA)
- Currently listed as rare, threatened, or endangered under the California Endangered Species Act (CESA), or the California Native Plant Protection Act
- Proposed or candidate for listing as threatened or endangered under the FESA or CESA
- Included on CNPS Rare Plant Ranks 1A, 1B, 2, 3, or 4 (not only Ranks 1 and 2)
- CDFW Fully Protected Species

- Federal Species of Special Concern
- Species of Special Concern in California
- Species on the CDFW Watch List
- Species on the CDFW Special Animals List
- Species considered sensitive by the Bureau of Land Management (BLM) and USDA Forest Service (USFS)
- Other species protected under Section 15380 of the California Environmental Quality Act (CEQA).

The potential for special status species to occur at the Site was assessed based upon the different species' life history information and the range and distribution of those special status species known to occur in the region. This information was correlated with on-site conditions such as vegetation communities, habitat composition and quality, types and levels of disturbance, soils, aquatic resources, and elevations. A records search was conducted using the following sources:

- California Natural Diversity Database and its associated GIS data files, maintained by CDFW (CDFW 2014-a)
- Carlsbad USFWS species accounts (GIS data files) (USFWS, 2014-a)
- CNPS Online Inventory of Rare and Endangered Plants of California (CNPS, 2014)
- Consortium of California Herbaria (UCB, 2014)
- City of Colton 2013 General Plan Update EIR (Colton, 2013)
- CDFW Vegetation Classification and Mapping Program List of California Terrestrial Natural Communities (VegCAMP List).

A focused search of areas within a 5-mile radius around the Site was conducted using CNDDB and USFWS GIS data (CDFW, 2014-a; USFWS, 2014-a). These sources present collections of incidental species accounts that have been reported to the database. It should be noted that these sources do not provide definitive evidence of species' presence, and absence from the lists cannot be interpreted to mean that a species is not present. CNPS and CDFW recommend employing a 9-quadrangle search for records of special status plant species (*i.e.*, the search includes the 8 quads surrounding the quad in which the study area is located). The Site is located in the southeastern portion of the San Bernardino South USGS quad. In addition to reviewing USFWS and CNDDB species accounts (which include special status plant species), a search for additional special status plant species that have been recorded in the vicinity was conducted by consulting the CNPS Inventory of Rare and Endangered Plants for the following USGS quads: San Bernardino South, Devore, San Bernardino North, Harrison Mtn, Fontana, Redlands, Riverside West, Riverside East, and Sunnymead (CNPS, 2014-a). This search area extends (at a minimum) approximately 14.5 miles north, 11 miles south, 12 miles east, and 9.5 miles west of the Site. The Consortium of California Herbaria on-line database (Jepson, 2014-b) and the Biological Resources section of the City's 2013 EIR were also consulted to assess which special status plant species may occur at the Site. The USFWS online Critical Habitat Mapper was consulted; the Site is within USFWS designated Critical Habitat for CAGN, but not within critical habitat for other wildlife or plant species (USFWS, 2014-c).

Based on the species assessment, those special status species that have some potential to occur on-site are listed in Subsections 4.5.1 and 4.5.2 below. Tables 1 and 2 in Appendix C summarize this information. Table 3 in Appendix C lists the special status plant species that were assessed but deemed unlikely to occur at the Site. The 9-quad species search area included high elevation chaparral and forest vegetation communities in the San Bernardino Mountains; plants that occur in

these habitats are not expected to occur at the Site. Additionally, other plant species are not expected to occur on-site due to their distributional range, or the lack of specific suitable habitat, soils, and substrates.

4.5.1 Special Status Plants and Sensitive Natural Communities

As noted in Section 3.7, no special status plant species were detected at the Site during the field investigation. However, based on the species assessment, the following special status plant species were identified as having some potential to occur at the Site. Federal and state listing status and CNPS Rare Plant Ranks[1] are shown after each species.

- western spleenwort (*Asplenium vespertinum*) – None/None – CRPR 4.2
- Nevin's barberry (*Berberis nevinii*) – FE/CE – CRPR 1B.1
- Plummer's mariposa lily (*Calochortus plummerae*) – None/None – CRPR 4.2
- Parry's spineflower (*Chorizanthe parryi* var. *parryi*) – None/None – CRPR 1B.1
- paniculate tarplant (*Deinandra paniculata*) – None/None – CRPR 4.2
- mesa horkelia (*Horkelia cuneata* ssp. *puberula*) – None/None – CRPR 1B.1
- Southern California black walnut (*Juglans californica*) – None/None – CRPR 4.2
- Robinson's pepper-grass (*Lepidium virginicum* subsp*. menziesii*, formerly *Lepidium virginicum* var*. robinsonii*) – None/None – CRPR 4.3
- Coulter's matilija poppy (*Romneya coulteri*) – None/None – CRPR 4.2.

One of these species is federally endangered and state threatened - Nevin's barberry. No other species are listed as threatened or endangered, nor are they candidates for listing under FESA or CESA. Three species – Nevin's barberry, Parry's spineflower, and mesa horkelia - have a CRPR rank of 1B.1. The other species are ranked 4.2 or 4.3 and impacts would likely not threaten their regional populations.

Due to the potential for occurrence of sensitive plant species, more extensive focused sensitive plant surveys were conducted by botanist David Bramlet in the spring and summer of 2016 (Bramlet 2016). No sensitive were located on the Site and therefore no impacts to sensitive plan species are expected to occur. Please refer to the report prepared by David Bramlet for additional information regarding the sensitive plant surveys.

One sensitive natural community listed on the VegCAMP List has been recorded within 5 miles of the Site (along the Santa Ana River) - Southern Cottonwood Willow Riparian Forest (CDFW, 2014-a). Southern Riparian Scrub is present along the river as well. These sensitive natural communities are not present at the Project Site and therefore no impacts to these communities will occur.

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[1] **Federal/State Status Codes**:
FE = Listed as Federally Endangered under Federal Endangered Species Act (FESA)
CE = Listed as Endangered in California under California Endangered Species Act (CESA)
CNPS Rare Plant Ranks (CRPR):
1A = California Rare Plant Rank 1A (formerly List 1A): Plants Presumed Extinct in California
1B = California Rare Plant Rank 1B (formerly List 1B): Plants Rare, Threatened, or Endangered in California and Elsewhere
2 = California Rare Plant Rank 2 (formerly List 2): Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3 = California Rare Plant Rank 3 (formerly List 3): Plants About Which We Need More Information - A Review List
4 = California Rare Plant Rank 4 (formerly List 4): Plants of Limited Distribution - A Watch List
CNPS Threat Ranks:
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).

4.5.2 Special Status Wildlife

No special status wildlife species were observed at the Site during the field investigation. Based the species assessment, the following special status wildlife species have some potential to occur at the Site (for birds and bats, the potential for nesting and foraging is indicated; federal and state listing status are shown after each species and listing codes are provided below[2]).

Birds

- Coastal California Gnatcatcher (*Polioptila californica californica*) – Nesting and foraging – FT/SSC
    - Note: Although nesting and foraging habitat is present, focused CAGN surveys were conducted and no CAGN were detected; it is reasonable to infer that this species is not present on-site.
- Southern California Rufous-crowned Sparrow (*Aimophila ruficeps canescens*) – Nesting and foraging – None/SSC
- Burrowing Owl (*Athene cunicularia*) – Nesting and foraging – None/SSC
- Swainson's Hawk (*Buteo swainsoni*) – Nesting and foraging – FSC/CT
- Lark Sparrow (*Chondestes grammacus*) – Nesting and foraging – FSC/None
- Northern Harrier (*Circus cyanus*) – Nesting and foraging – None/SSC

Mammals

- Western Mastiff Bat (*Eumops perotis californicus*) – Foraging only – None/SSC
- Western Yellow Bat (*Lasiurus xanthinus*) – Foraging only – None/SSC
- San Diego Black-tailed Jackrabbit (*Lepus californicus bennettii*) – None/SSC
- American Badger (Taxidea taxus) – None/SSC

Reptiles

- Orangethroat Whiptail (*Aspidoscelis hyperythra*) – None/SSC
- Coastal Whiptail (*Aspidoscelis tigris stejnegeri*) – None/None
- Blainville's Horned Lizard (formerly known as the Coast Horned Lizard) (*Phrynosoma blainvillii*) – None/SSC
- San Diego Horned Lizard (*Phrynosoma coronatum blainvillei*) – None/SSC.

Ground clearing and removal of on-site vegetation during Project implementation would result in the direct loss of suitable habitat for the special status species listed above. The only species protected by federal or state listings is Swainson's Hawk, which is listed as threatened in California under CESA. Impacts to the other species listed above would likely not threaten their regional populations; therefore, removal of the habitat would represent a less than significant impact. As indicated above, surveys were conducted for CAGN and results were negative; thus, impacts to CAGN are not expected. Impacts to Swainson's Hawk, BUOW, and other bird species will be avoided by conducting pre-construction BUOW and nesting bird surveys (see Sections 5.2.2 and 5.2.3 below).

[2] **Federal/State Status Codes**:
FE = Federally Endangered under Federal Endangered Species Act (FESA)
FT = Federally Threatened under Federal Endangered Species Act (FESA)
CE = Endangered in California under California Endangered Species Act (CESA)
CT = Threatened in California under California Endangered Species Act (CESA)
FSC = Federal Species of Special Concern
SSC = Species of Special Concern in California

4.6 Wildlife Movement and Nursery Sites

Projects should be designed to maximize the potential for wildlife movement and to minimize impacts to wildlife corridors. Consideration of these impacts is typically required in the review of projects under existing state and federal regulations. Wildlife corridors connect large patches of natural open space and provide routes for the migration of animals. They contribute to the viability of species' populations by allowing the exchange of genes between populations, providing access to adjacent habitat areas for foraging and mating, and providing avenues for re-colonization of habitat after local extirpation or ecological catastrophes (*e.g.*, fires) (Dudek, 2003-b). Nursery sites may be a grove of trees, cave, cliff, or even man-made structures, such as box culverts and bridges, which are used for rearing young or roosting. Solitary and colonial species, such as raptors, swallows, and bats, may return to the same nesting sites year after year.

Most of the land within the City of Colton has been converted from open space to commercial, industrial, residential, and recreational uses. Regional wildlife movement is severely restricted due to the highly urbanized nature of the City and greater San Bernardino and Riverside Counties. The South Coast Wildlands, in collaboration with the US Forest Service, the National Park Service, and numerous conservation groups, have designed the South Coast Ecoregion wildland network as part of the South Coast Missing Linkages project. The South Coast Missing Linkages project is designed to maintain and restore connections between wildlands by identifying and prioritizing linkages that conserve essential biological and ecological processes. There are no linkage designs within or near the Colton planning area (Colton, 2013).

The San Bernardino County General Plan Open Space Element identifies the Santa Ana River as a wildlife corridor. The river and is approximately 0.5 mile north, and 0.8 mile west, of the Site. The river corridor is relatively wide and supports natural vegetation communities; therefore, it likely serves as a movement corridor for both terrestrial and aquatic species, and provides stop-over areas for migratory birds on the Pacific Flyway. The river corridor is an important and valuable regional resource with relatively high levels of native biodiversity. The La Loma Hills are present to the northwest, west, and southwest of the Site. The hills contain numerous roads and native habitats have been fragmented. Although the habitats within the vacant undeveloped hills are of significantly reduced quality than that of intact natural areas, they nonetheless contain stands of native vegetation and support native wildlife, and provide potential habitat for special status species.

The Site is one of the few remaining undeveloped properties in the City planning area. However, it is located in an area where habitat has been highly fragmented by urban development and historic agricultural operations. Residential development is present immediately to the north, east, and southeast of the Site, and developed areas are present approximately one mile southwest of the Site. Additionally, north and west of the river, lands are developed within 1-2 miles of the Site. Due to the presence of these highly urbanized surrounding areas, the Site does not serve as a regional wildlife corridor. The Site does not contain streams that support fish or other aquatic species. Therefore, implementation of the proposed Project would not interfere with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors. Additionally, since native wildlife nursery sites are not present on-site, no impacts to these resources would occur.

4.7 Cumulative Impacts

Cumulative impacts refer to incremental effects of an individual project when viewed in connection with the effects of past projects, current projects, and probable future projects. The intended purpose of the proposed Project is the development of a residential community to serve the City of Colton as well as western San Bernardino County. The Project would help meet the demand for housing and the job market in the City and in western San Bernardino County. Public benefits include employment opportunities, an increase in the local tax base, and a long-term economic benefit to the surrounding community.

As noted above, the Site is located in an area dominated by urban development. Most of the properties in the immediate vicinity are already developed or zoned for future development, and development will likely occur at those parcels regardless of development of TTM18233. The Project is an infill development and is typical of other activities in the region. Future conditions are expected to be similar. The goals of the Project are in line with the guidance provided in the City's 2013 EIR as well as the San Bernardino County General Plan (San Bernardino, 2007). Impacts related to buildout of the City and SOI are anticipated to be less than significant if projects comply with General Plan policies and standard conditions.

The City's 2013 EIR states that:

> To address the long-term, cumulative loss of sensitive habitat and associated species in the San Bernardino Valley, the City will continue to implement existing federal and state regulations related to species and habitat protection and conservation. Considering the proposed General Plan consistency with the existing federal and state regulations, the [Plan's] contribution to the long-term loss of sensitive habitat and species will not be considerable.

Project construction would contribute to the incremental loss of undeveloped land in the region. Cumulative impacts potentially include greater limitations on wildlife movement, increased edge effects, reduced habitat quality, and increased wildlife mortality. The primary effects of the Project, when considered with other projects in the region, would be the cumulative direct loss of open space, native coastal sage scrub, vegetation associations important to raptors, habitat for special status plant and wildlife species, and undeveloped land that may support migratory avian species. Specifically, present and future projects in the vicinity are anticipated to permanently remove plant and wildlife resources within development areas. Natural resource changes and stresses resulting from the Project may include the ongoing extraction of water and associated lowering of groundwater tables; air pollution from the surrounding urbanized areas; an increase in impervious surfaces within the watershed, which would lead to greater urban runoff entering the stream systems in the watershed; and, a continued need to conduct flood risk management activities to protect existing residential, commercial, or institutional developments.

The Site is not within any adopted Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or any other approved local, regional, or State habitat conservation plan. Therefore, implementation of the proposed Project would not conflict with the provisions of any such adopted plan. Based on the biological resources assessment provided herein, and when considered in the context of other past, current and future projects in the City and the region, the proposed Project would contribute to the cumulative loss of coastal sage scrub habitat which provides habitat for raptors and other special status bird species, special status mammal and reptile

species, and rare plant species. Due to the restricted distribution of scrub communities and the sensitive species within them in the local vicinity, the proposed impacts to scrub habitat may be considered cumulatively significant. However, mitigation outlined in Section 5.1.1 would compensate for the loss of coastal sage scrub habitat. Thus, adverse cumulative effects to regional biological resources as a result of implementing the proposed project are expected to be less than significant.

5. Recommended Mitigation Measures

The Biological Resources section of the City's 2013 EIR (Section 4.4) outlines relevant environmental policies and regulations, thresholds of significance, and mitigation measures related to biological resources. The proposed Project shall comply with the mitigation measures outlined in Section 4.4 of the EIR and those recommended in this section below. These measures are not exhaustive; the focus is on measures designed to avoid potentially significant adverse effects to biological resources. Proposed development projects in the City should also be designed to avoid or minimize adverse impacts to biological resources from lighting, noise, trash/debris, urban and stormwater runoff, toxic materials, invasive non-native plants, domesticated and feral animals, dust, trampling, and unauthorized recreational use (including off-highway vehicle use). The Project proponent will be responsible to comply with all mitigation measures required by the City. If the following mitigation measures are implemented, no significant adverse impacts to biological resources are anticipated as a result of Project implementation.

Mitigation Measure 4.4.A-1 in the 2013 EIR states:

> A biological resources assessment shall be prepared for any land use plan or development proposal located on any undeveloped land within a Critical Habitat designation or identified in the General Plan Environmental Impact Report as dry herbaceous, hardwood forest-woodland, shrub, or giant reed-pampas grass vegetation communities or mapped Delhi sands habitat. This assessment shall identify the habitat types and quality, identify species occurrence and distribution, determine the specific impacts to biological resources and characterize the biological significance of those impacts, and define measures to avoid, reduce or compensate for any significant impacts attributable to a proposed project. The reduction in impacts may include a redesign of the project. The compensation may include creating and/or preserving in perpetuity equivalent or better quality habitat at a minimum 1:1 ratio, as will be determined through project specific analysis. The biological resources assessment shall be prepared by a qualified biologist and submitted to the Development Services Director for review/approval in consultation with the biologist in consultation with the biologist and other as appropriate to the project. The biological resources assessment shall be included in the CEQA compliance documentation for all such proposals.

The biological resources assessment provided herein has been prepared on behalf of the Project applicant to satisfy Mitigation Measure 4.4.A-1.

5.1 Vegetation

5.1.1 California sagebrush scrub

As described in Section 4.1, construction of the Project as proposed would result in the direct removal of approximately 3.46 acres of California sagebrush scrub (a subset of coastal sage scrub). The CSS at the Site represents one of few remaining areas of coastal sage scrub in the City. This habitat is suitable to support several special status plant and wildlife species, as

described in Section 4.5, however, no special status species were detected during the biological assessment and focused surveys. To compensate for the removal of 3.46 acres, preservation of a minimum of 3.46 acres of California sagebrush scrub habitat (or similar coastal sage scrub habitat) designated for conservation. A conservation easement or deed restriction may be placed over a portion of the approximately 18-acre open space (Lot C), which contains approximately 14 acres of CSS. The CSS that would be removed as part of the proposed Project is of lower quality than that found in the western and south-central portions of the Site, due to various current and past human-related disturbances. Therefore, preservation of approximately 14 acres of CSS within the open space Lot C would preserve in perpetuity higher quality CSS habitat at a 4:1 mitigation ratio. If this mitigation measure is implemented, direct and cumulative adverse impacts to CSS would be less than significant.

5.1.2 General Vegetation in the Vicinity

The following measures are recommended to minimize indirect impacts to vegetation in the vicinity of the Project site:

- Dust control measures designed to minimize effects to vegetation in the vicinity should be implemented.
- Native plants should be used to the greatest extent feasible in landscaped areas. Many invasive non-native horticultural species can spread readily into natural areas and the local watershed. Landscaping should not include invasive plants identified by the California Invasive Plant Council (Cal-IPC).

5.2 Wildlife

5.2.1 Endangered and/or Threatened Species

As noted above, focused coastal California gnatcatcher surveys were conducted and results were negative; no impacts to CAGN are expected. Potential impacts to state-threatened Swainson's Hawk through vegetation removal and the resulting loss of nesting and foraging habitat will be mitigated through the preservation of CSS habitat as described in Section 5.1.1 and nesting bird surveys as outlined in Section 5.2.3. Potential impacts to non-listed special status wildlife species that may occur on-site (all of which are Species of Special Concern in California), will be mitigated through preservation of CSS habitat.

5.2.2 Burrowing Owl

Mitigation Measure 4.4.A-2 in the 2013 EIR states:

> A focused survey for burrowing owls shall be conducted by a qualified professional biologist for any new development project proposed on a vacant site of two acres or larger, with a landscape of annual and perennial grasslands, desert, or arid scrubland with low-growing vegetation or agricultural use or vegetation. The purpose of the survey is to determine if burrowing owls are foraging or nesting on or adjacent to the project site. If surveys confirm that the site is occupied habitat, mitigation measures to minimize impacts to burrowing owls, their burrows, and foraging habitat shall be identified. The results of this survey, including any mitigation recommendations, shall be incorporated into the project-level CEQA compliance documentation. Owl surveys and approaches to mitigation shall be in accordance with the Staff Report on Burrowing Owl Mitigation, issued by the California Department of Fish and Game [now CDFW] on March 7, 2012.

As described in Sections 3.2.1 and 4.5.2, there is suitable nesting and foraging habitat on-site for BUOW. Therefore, prior to issuance of a grading permit and initiation of construction-related ground disturbances, the following mitigation measures should be implemented to mitigate potential adverse impacts to BUOW at the Site. A qualified wildlife biologist experienced in BUOW ecology, surveys, monitoring, and mitigation should coordinate with CDFW and the City on behalf of the applicant to implement these mitigation measures.

Avoidance During the Breeding Season

Breeding season avoidance measures, including but not limited to those listed below should be implemented.

- If ground-disturbing activities are scheduled during the breeding season (February 1 through August 30), a pre-construction survey for resident BUOW should be conducted by the qualified biologist (biologist) within 30 days prior to construction activities. If ground-disturbing activities are delayed or suspended for more than 30 days after the pre-construction survey, the Site should be re-surveyed for owls. Pre-construction survey methodology should be based on Appendix D (Breeding and Non-breeding Season Surveys and Reports) of the 2012 CDFW Staff Report. Results of the pre-construction survey will be provided to CDFW and the City.
- If BUOW are not detected during the pre-construction survey, then no further mitigation would be required.
- If BUOW are found to be utilizing the Site during the pre-construction survey, measures should be developed by the biologist in coordination with CDFW and the City to avoid impacting owls and occupied burrows during the nesting period. These measures shall be based on the most current CDFW protocols and would minimally include establishment of buffer setbacks from occupied burrows as well as owl monitoring.

Burrow Exclusion and/or Closure During the Non-breeding Season

During the non-breeding season (September 1 through January 31), if burrows occupied by migratory or non-migratory BUOW are detected during the pre-construction survey, then burrow exclusion and/or closure may be used to exclude owls from those burrows. Burrow exclusion and/or closure should only be conducted by a qualified biologist in coordination with CDFW using the most current CDFW guidelines.

5.2.3 Nesting Birds

Impacts to nesting birds as a result of Project implementation would be considered a potentially significant impact since disturbing or destroying active nests is a violation of the Migratory Bird Treaty Act. Additionally, nests and eggs are protected under Fish and Game Code Section 3503. The removal of on-site vegetation has the potential to result in a significant impact to nesting birds during the avian nesting season (February 1 through August 31). Therefore, if feasible, vegetation removal activities should be scheduled for outside the nesting season. This would ensure that no active nests would be disturbed and that removal could proceed rapidly. If vegetation removal, soil disturbance, or any other construction related activity is to occur during the nesting season, a pre-construction nesting bird survey should be conducted by a qualified wildlife biologist (biologist) prior to initiation of construction. Extra emphasis should be placed on detecting any nests in the few trees on-site. If nests are discovered, they should be avoided through establishment of an appropriate buffer setback, as determined by the biologist. The temporary "no construction" area should be maintained until the nest has completed its cycle, as determined by the biologist. Once the nest cycle is complete and all nestlings have fledged and left the nest (or the nest has failed), then

construction in the area may resume. A biologist should be present on-site to monitor vegetation removal activities to ensure that any nests not detected during the initial survey are not disturbed. If initial ground disturbing activities or site clearing is proposed to occur outside of the nesting season (September 1 through January 31), then a pre-construction survey would not be required and construction may commence unimpeded.

6. Summary

Special Status Species

No special status plant or wildlife species were detected at the Site. However, as discussed in Section 4.5 and summarized in Appendix C (Tables 1-3), several special status species were identified that may occur on-site. Focused sensitive plant species surveys were conducted by botanist David Bramlet in the spring and summer of 2016. No special status plant species were detected during the focused surveys and no impacts to special status plant species are expected to occur.

Riparian Habitat and Jurisdictional Areas

As described in Sections 3.4 and 4.5.1, there are no riparian habitats and no sensitive natural communities at the Site. The proposed Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS. No jurisdictional waters or wetlands are present at the Site. The proposed Project would not have a substantial adverse effect on any waters or wetlands subject to regulation by the Corps, RWQCB, and/or CDFW. No impacts to wetland plant or animal species are anticipated as a result of Project implementation.

Wildlife Movement

As described in Section 4.6, the proposed Project would not interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

Biological Resource Policies

The proposed Project would not conflict with any local policies or ordinances protecting biological resources.

Habitat Conservation Plans/Natural Community Conservation Plans

As discussed in Section 4.7, the Site is not within any Habitat Conservation Plan (HCP), Natural Community Conservation Plan (NCCP), or other approved local, regional, or state habitat conservation plan areas. The proposed Project would not conflict with the provisions of any such plans.

Cumulative Impacts

As described in Section 4.7, the proposed Project is an infill development and impacts related to buildout of the City are anticipated to be less than significant assuming compliance with General Plan policies. However, the Project would contribute to the cumulative loss of scrub habitat that is suitable to support raptors and other special status bird species, special status mammal and reptile species, and rare plant species. Due to the limited distribution of scrub communities and the sensitive species within them, without mitigation the proposed impacts to scrub habitat may be

considered cumulatively significant. With implementation of mitigation outlined in Section 5.1.1, impacts to CSS would be less than significant.

7. Report Certification

I hereby certify that the statements and information presented herein and in the attached exhibits are true and correct to the best of my knowledge and belief.

Revised Date: November 20, 2016

SIGNED: 

Michael J. Klinefelter

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APPENDIX A

MAP FIGURES



M.J. Klinefelter
GIS & ENVIRONMENTAL CONSULTING
40960 CALIFORNIA OAKS RD #316
MURRIETA, CALIFORNIA 92562
PH (951) 698-8314

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TITLE
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PROJECT
TTM 18233
City of Colton, CA

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DATE 10/31/2014



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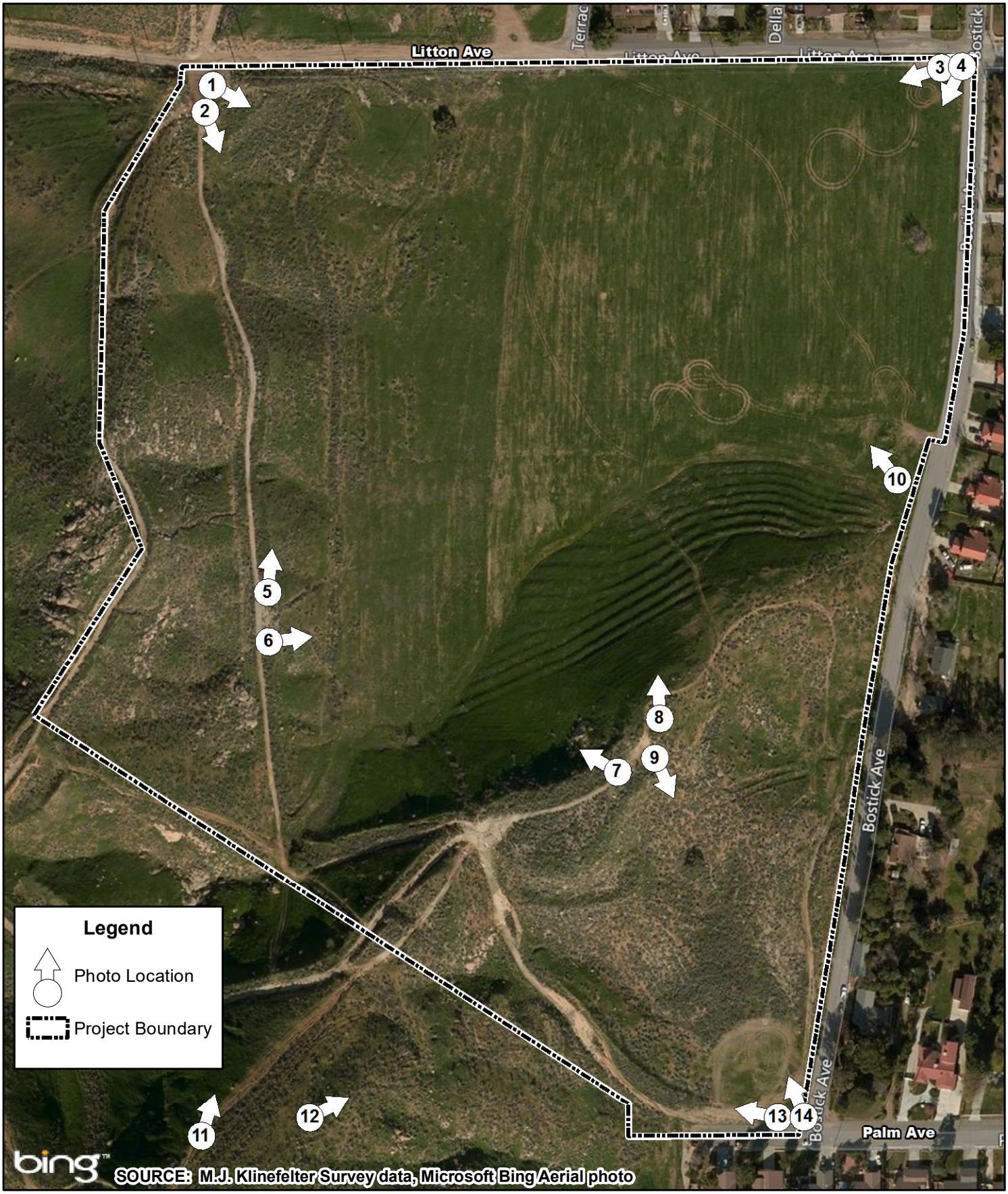


M.J. Klinefelter
GIS & ENVIRONMENTAL CONSULTING
40960 CALIFORNIA OAKS RD #316
MURRIETA, CALIFORNIA 92562
PH (951) 698-8314

0 200 400 Feet

N

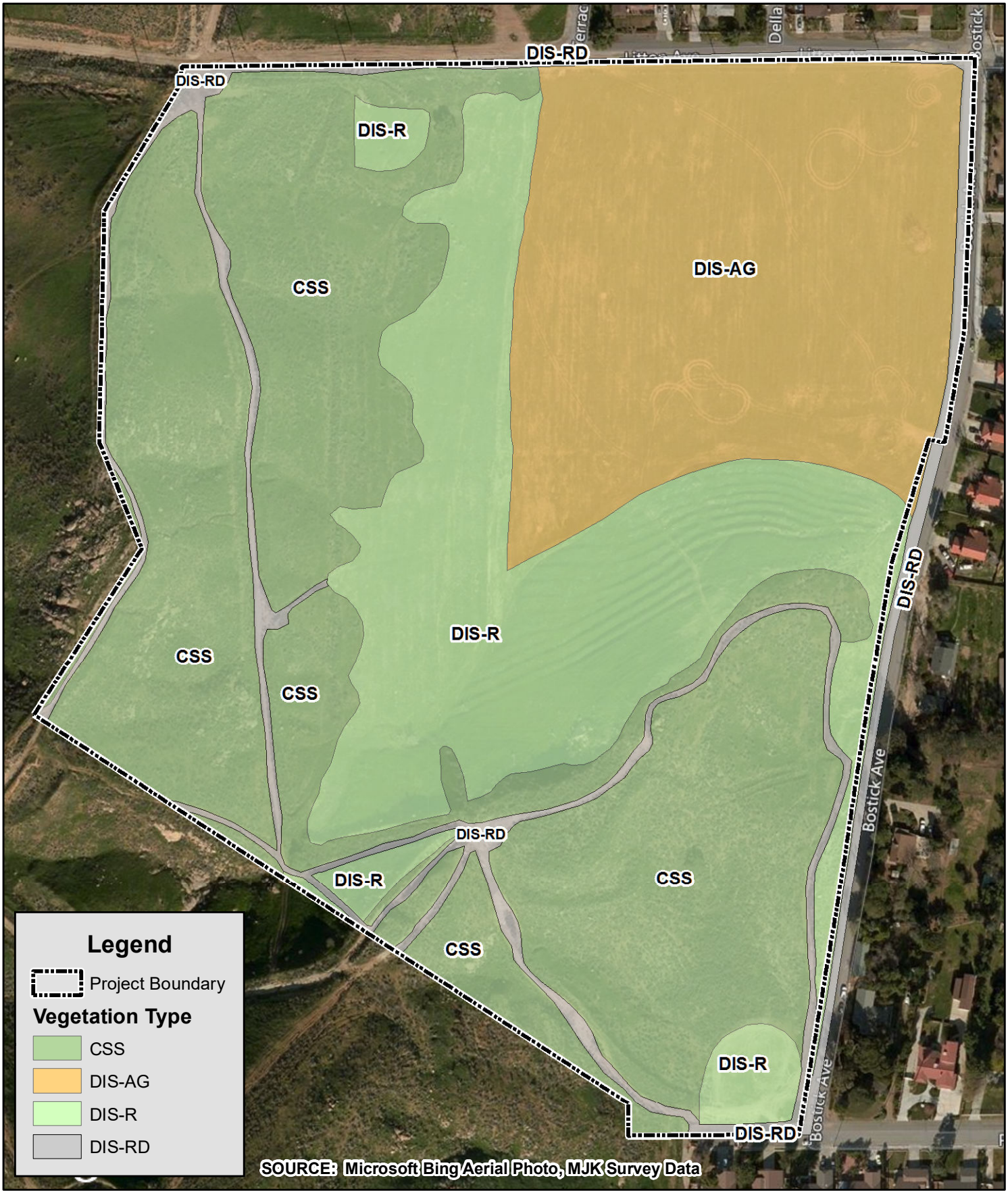
TITLE
SITE MAP

PROJECT
TTM 18233
City of Colton, CA

FIGURE
3

FILE NAME: Path: S:\gis_data\mckhann\figures\3_Site.mxd

DATE 11/21/2016



M.J. Klinefelter
GIS & ENVIRONMENTAL CONSULTING
40960 CALIFORNIA OAKS RD #316
MURRIETA, CALIFORNIA 92562
PH (951) 698-8314

0 200 400 Feet

N

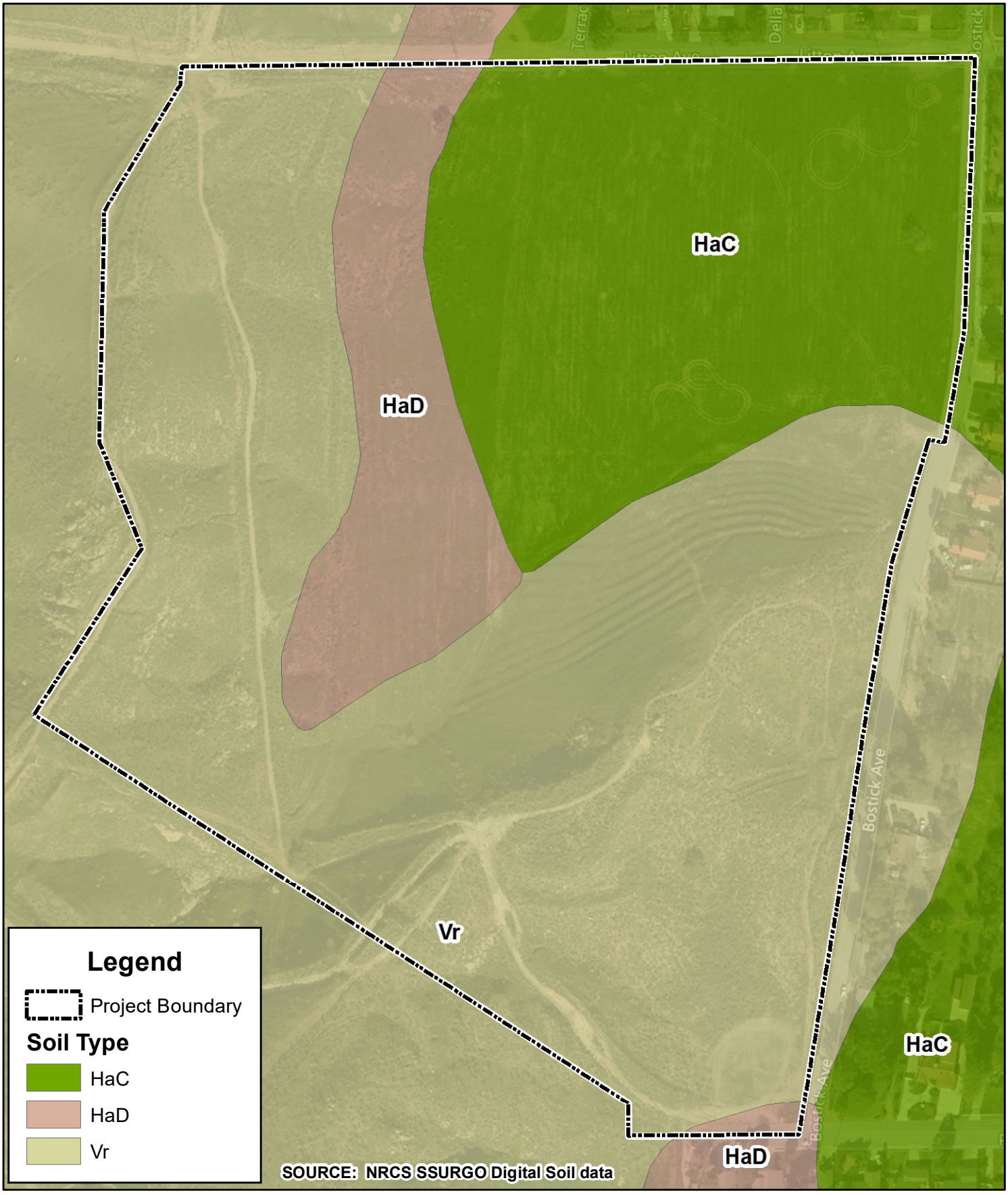
TITLE
VEGETATION MAP

PROJECT
TTM 18233
City of Colton, CA

FIGURE
4

FILE NAME: Path: S:\gis_data\mckhann\figures\4_Vegetation.mxd

DATE 11/21/2016



M.J. Klinefelter
GIS & ENVIRONMENTAL CONSULTING
40960 CALIFORNIA OAKS RD #316
MURRIETA, CALIFORNIA 92562
PH (951) 698-8314 FAX (951) 223-0442

0 200 400 Feet

N

TITLE
SOILS MAP

PROJECT
TTM 18233
City of Colton, CA

FIGURE
5

FILE NAME: Path: S:\gis_data\mckhann\figures\5_Soils.mxd

DATE 11/15/2016



M.J. Klinefelter
GIS & ENVIRONMENTAL CONSULTING
40960 CALIFORNIA OAKS RD #316
MURRIETA, CALIFORNIA 92562
PH (951) 698-8314

0 150 300 Feet

N

TITLE
IMPACT MAP

PROJECT
TTM 18233
City of Colton, CA

FIGURE
6

FILE NAME: Path: S:\gis_data\mckhann\figures\6_impact..mxd

DATE 11/21/2016

APPENDIX B

PHOTO FIGURES

Appendix B
Photo Figures



Attributes	
Title	TTM 18233 - City of Colton
Subject	Biological Resources Assessment
Photo No	1
Date Stamp	7/14/2014
Latitude	N 34.03830°
Longitude	W 117.34055°
Photo Direction	119° ESE
Make	SAMSUNG
Model	SCH-I535



Attributes	
Title	TTM 18233 - City of Colton
Subject	Biological Resources Assessment
Photo No	2
Date Stamp	7/14/2014
Latitude	N 34.03819°
Longitude	W 117.34059°
Photo Direction	160° SSE
Make	SAMSUNG
Model	SCH-I535



Attributes	
Title	TTM 18233 - City of Colton
Subject	Biological Resources Assessment
Photo No	3
Date Stamp	7/14/2014
Latitude	N 34.03836°
Longitude	W 117.33684°
Photo Direction	252° WSW
Make	SAMSUNG
Model	SCH-I535



Attributes	
Title	TTM 18233 - City of Colton
Subject	Biological Resources Assessment
Photo No	4
Date Stamp	7/14/2014
Latitude	N 34.03836°
Longitude	W 117.33674°
Photo Direction	206° SSW
Make	SAMSUNG
Model	SCH-I535



Attributes	
Title	TTM 18233 - City of Colton
Subject	Biological Resources Assessment
Photo No	5
Date Stamp	7/14/2014
Latitude	N 34.03615°
Longitude	W 117.34029°
Photo Direction	6° N
Make	SAMSUNG
Model	SCH-I535



Attributes	
Title	TTM 18233 - City of Colton
Subject	
Photo No	6
Date Stamp	7/14/2014
Latitude	N 34.03595°
Longitude	W 117.34028°
Photo Direction	83° E
Make	SAMSUNG
Model	SCH-I535



Attributes	
Title	TTM 18233 - City of Colton
Subject	Biological Resources Assessment
Photo No	7
Date Stamp	7/14/2014
Latitude	N 34.03538°
Longitude	W 117.33851°
Photo Direction	300° WNW
Make	SAMSUNG
Model	SCH-I535



Attributes	
Title	TTM 18233 - City of Colton
Subject	Biological Resources Assessment
Photo No	8
Date Stamp	7/14/2014
Latitude	N 34.03561°
Longitude	W 117.33830°
Photo Direction	358° N
Make	SAMSUNG
Model	SCH-I535



Attributes	
Title	TTM 18233 - City of Colton
Subject	Biological Resources Assessment
Photo No	9
Date Stamp	7/14/2014
Latitude	N 34.03544°
Longitude	W 117.33832°
Photo Direction	155° SSE
Make	SAMSUNG
Model	SCH-I535



Attributes	
Title	TTM 18233 - City of Colton
Subject	Biological Resources Assessment
Photo No	10
Date Stamp	7/14/2014
Latitude	N 34.03661°
Longitude	W 117.33708°
Photo Direction	322° NW
Make	SAMSUNG
Model	SCH-I535



Attributes	
Title	TTM 18233 - City of Colton
Subject	Biological Resources Assessment
Photo No	11
Date Stamp	7/14/2014
Latitude	N 34.03385°
Longitude	W 117.34064°
Photo Direction	18° NNE
Make	SAMSUNG
Model	SCH-I535



Attributes	
Title	TTM 18233 - City of Colton
Subject	Biological Resources Assessment
Photo No	12
Date Stamp	7/14/2014
Latitude	N 34.03393°
Longitude	W 117.34009°
Photo Direction	63° ENE
Make	SAMSUNG
Model	SCH-I535



Attributes	
Title	TTM 18233 - City of Colton
Subject	Biological Resources Assessment
Photo No	13
Date Stamp	7/14/2014
Latitude	N 34.03391°
Longitude	W 117.33771°
Photo Direction	282° WNW
Make	SAMSUNG
Model	SCH-I535



Attributes	
Title	TTM 18233 - City of Colton
Subject	Biological Resources Assessment
Photo No	14
Date Stamp	7/14/2014
Latitude	N 34.03392°
Longitude	W 117.33758°
Photo Direction	340° NNW
Make	SAMSUNG
Model	SCH-I535

APPENDIX C

SPECIAL STATUS SPECIES ASSESSMENT TABLES

Appendix C - Special Status Species Assessment Tables
Table 1 – Special Status Plant Species With Potential to Occur at the Site

Scientific Name	Common Name	Federal/State Status	CNPS Rare Plant Rank	Primary Habitat Associations/Life Form/ Blooming Period	Potential to Occur at the Site
Asplenium vespertinum	western spleenwort	None/None	4.2	Rocky areas in chaparral, cismontane woodland, and coastal scrub between approx. 180-1,000 meters (approx. 590-3,280 feet) in elevation. Perennial rhizomatous herb. Blooms February-June.	This species has a low potential to occur on-site in the California sagebrush scrub habitat. This species was not detected at the Site during the field investigation, although it may have been suppressed by low rainfall conditions.
Berberis nevinii	Nevin's barberry	FE/CE	1B.1	Sandy or gravelly soils in washes, chaparral, cismontane woodland, coastal scrub, and riparian scrub between approx. 275-825 meters (~900-2700 feet) in elevation. Perennial evergreen shrub. Blooms March-June.	This species has a low potential to occur on-site in the California sagebrush scrub habitat. This species was not detected at the Site during the field investigation.
Calochortus plummerae	Plummer's mariposa lily	None/None	4.2	Chaparral, coastal sage scrub, cismontane woodland, lower montane coniferous forest, and valley and foothill grasslands on rocky granitic and/or alluvial substrate between approx. 100-1,700 meters (approx. 300 to 5,600 feet) in elevation. Known from the Santa Monica Mountains to San Jacinto Mountains in Riverside, San Bernardino, Los Angeles and Ventura Counties. Perennial herb (geophyte). Blooms May-July.	This species has a low potential to occur on-site, most likely in the California sagebrush scrub habitat. This species was not detected at the Site during the field investigation, although it may have been suppressed by low rainfall conditions.
Chorizanthe parryi var. parryi	Parry's spineflower	None/None	1B.1	Sandy or rocky areas and openings in chaparral, cismontane woodland, coastal scrub (including Riversidean sage scrub and Riversidean alluvial fan sage scrub), and valley and foothill grassland between approx. 275-1,220 meters (approx. 900-4,000 feet) in elevation. Annual herb. Blooms April-June.	This species has a moderate potential to occur on-site, most likely in the California sagebrush scrub habitat. This species was not detected at the Site during the field investigation but it may have been suppressed by low rainfall conditions.
Deinandra paniculata	paniculate tarplant	None/None	4.2	This species is typically found in grasslands (sometimes vernally mesic), open shrublands, roadsides, and fallow fields, and is associated with clay, alkaline, or sandy soils between approximately 25 and 1,250 meters (approx. 80 and 3,100 feet) in elevation. The core population area includes the Perris Basin and southeast Orange County (Roberts, 2013). Annual herb. Blooms April-November.	This species has a low potential to occur on-site. It was not detected at the Site during the field investigation, although it may have been suppressed by low rainfall conditions.
Horkelia cuneata ssp. puberula	mesa horkelia	None/None	1B.1	Sandy or gravelly soils in chaparral (maritime), cismontane woodland, and coastal scrub between 70-810 meters (approx. 230-2,660 feet) in elevation. Perennial herb. Blooms February-September.	This species has a low potential to occur in sandy and gravelly openings on-site. This species was not detected at the site during the field investigation.

Appendix C - Special Status Species Assessment Tables
Table 1 – Special Status Plant Species With Potential to Occur at the Site

Scientific Name	Common Name	Federal/State Status	CNPS Rare Plant Rank	Primary Habitat Associations/Life Form/ Blooming Period	Potential to Occur at the Site
Juglans californica	Southern California black walnut	None/None	4.2	Chaparral, cismontane foothill woodland, coastal scrub, wetland-riparian habitats between approx. 50-900 meters (approx. 165-2,950 feet) in elevation. Walnut woodland is a much fragmented, rare, and declining vegetation community. Threatened by urbanization and grazing, non-native plants, and possibly by lack of natural reproduction. Possibly threatened by hybridization with horticultural varieties of walnut. Perennial deciduous tree. Blooms March-August.	There is a low potential for this species to occur on-site. This species was not detected at the Site during the field investigation.
Lepidium virginicum subsp. *menziesii* [var. *robinsonii]*	Robinson's pepper-grass	None/None	4.3	Dry soils in coastal sage scrub, chaparral, grasslands, and disturbed areas below approximately 885 meters (approx. 2900 feet) in elevation.	There is a low potential for this species to occur on-site. This species was not detected at the Site during the field investigation, although it may have been suppressed by low rainfall conditions.
Romneya coulteri	Coulter's matilija poppy	None/None	4.2	Occurs in chaparral and coastal scrub, often in burns, typically in dry washes and canyons below 1,200 meters (approx. 3,950 feet) in elevation in the South Coast, western Transverse Ranges, and Peninsular Ranges. This plant has the largest flowers of any plant native to California. Perennial rhizomatous herb. Blooms March-July.	There is a low potential for this species to occur on-site. This species was not detected at the Site during the field investigation, although it may have been suppressed by low rainfall conditions.

Federal/State Status Codes:
FE = Listed as Federally Endangered under Federal Endangered Species Act (FESA)
CE = Listed as Endangered in California under California Endangered Species Act (CESA)
FC = Candidate for listing under FESA
SC = Candidate for listing uder CESA

CNPS Rare Plant Ranks:
1A = California Rare Plant Rank 1A (formerly List 1A): Plants Presumed Extinct in California
1B = California Rare Plant Rank 1B (formerly List 1B): Plants Rare, Threatened, or Endangered in California and Elsewhere
2 = California Rare Plant Rank 2 (formerly List 2): Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3 = California Rare Plant Rank 3 (formerly List 3): Plants About Which We Need More Information - A Review List
4 = California Rare Plant Rank 4 (formerly List 4): Plants of Limited Distribution - A Watch List
Threat Ranks:
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)

The "Potential to Occur at the Site" ranking is based on the following criteria:
Species Absent: The species was not detected during the site investigation or the species is restricted to habitats that do not occur at the site.
Low Potential for Occurrence: No species records cite the species within the immediate vicinity (5 miles) or at the site, and/or the on-site habitat needed to support the species is of restricted size and/or poor quality.
Moderate Potential for Occurrence: The habitat requirements associated with the species are present at the site and are of sufficient size and quality to support the species.

Appendix C - Special Status Species Assessment Tables
Table 1 – Special Status Plant Species With Potential to Occur at the Site

Scientific Name	Common Name	Federal/State Status	CNPS Rare Plant Rank	Primary Habitat Associations/Life Form/ Blooming Period	Potential to Occur at the Site
High Potential for Occurrence: The habitat strongly associated with that species is present at the site. Species Present: The species was observed at the site at the time of the site investigation.					

Appendix C - Special Status Species Assessment Tables
Table 2 – Special Status Wildlife Species Recorded in the Vicinity and their Potential to Occur at the Site

Scientific Name	Common Name	Federal/State Status	Primary Habitat Associations	Status On-site and Potential to Occur On-site
BIRDS				
Aimophila ruficeps canescens	Southern California Rufous-crowned Sparrow	None/SSC	This species is typically found in grassy hillsides, coastal sage scrub, and chaparral, often near steep, rocky slopes, in cismontane southern California. Southern California populations are increasingly restricted due to urbanization and agricultural development in Los Angeles, Orange, Riverside, San Diego, and San Bernardino counties.	This species was not detected during the field investigation. However, there is suitable nesting habitat for burrowing owl present in the CSS at the site, and there is a low potential for this species to occur on-site.
Athene cunicularia	Burrowing Owl	None/SSC	Usually occupies ground squirrel burrows in open grassland, lowland scrub, coastal dunes, agricultural and range lands, railroad rights-of-way, margins of highways, golf courses, airports and other artificial open areas. Resident over most of southern California (sparsely distributed over desert areas).	This species was not detected during the field investigation. However, there is suitable nesting and foraging habitat for burrowing owl present throughout the site, and there is a high potential for this species to occur on-site.
Buteo swainsoni	Swainson's Hawk	FSC/CT	Swainson's Hawks favor open habitats for foraging. Although much of their native prairie and grassland habitat has been converted to crop and grazing land, these hawks have adjusted well to agricultural settings. They forage in hay and alfalfa fields, pastures, grain crops, and row crops, and perch atop adjacent fence posts and overhead sprinkler systems. They rely on scattered stands of trees near agricultural fields and grasslands for nesting sites.	This species was not detected during the field investigation, but there is a low potential that it may nest in the few scattered trees on-site, and it may forage on-site if nesting in the vicinity.
Chondestes grammacus	Lark Sparrow	FSC/None	Breeds in open habitats, where grass adjoins scattered trees and shrubs, especially in poor or sandy soils. Park-like woodlands, mesquite grasslands, fallow fields with brushy edges, sagebrush.	This species was not observed during the field investigation, but there is a moderate potential for this species to nest and forage on-site.
Circus cyanus	Northern Harrier	None/SSC	This species is a year-round resident of southern California. It nests on the ground in open areas such as grasslands and agricultural fields. It also forages in these habitats, but also forages in areas with low growing shrubs such as coastal sage scrub.	This species was not observed during the field investigation, but there is a moderate potential for this species to nest and forage on-site.
Coccyzus americanus occidentalis	Western Yellow-billed Cuckoo	Candidate/CE	Occurs along the broad, lower flood-bottoms of larger river systems. Preferred habitats are meandering riparian systems (primarily deciduous woods including willow and cottonwood) with healthy hydraulics that are constantly eroding and depositing and creating young riparian habitat.	Absent. None detected on-site. None expected to occur on-site due to lack of suitable habitat. Last seen in the vicinity in 1930 (CNDDB).
Elanus leucurus	White-tailed Kite	FSC/SFP	Commonly found in savanna, open woodlands, marshes, desert grassland, partially cleared lands, and cultivated fields. Generally avoids areas with extensive winter freezes, but rainfall and humidity vary greatly throughout this bird's range. Hunts over lightly grazed or ungrazed fields where there may be larger prey populations than in more heavily grazed areas.	This species was not observed during the field investigation, but there is a moderate potential for this species to forage on-site and a low potential to nest in the few trees on-site.
Eremophila alpestris actio	California Horned Lark	None/SSC	Horned Larks favor bare, dry ground and areas of short, sparse vegetation; they avoid places where grasses grow more than a couple of inches high. Common habitats include prairies, deserts, tundra, beaches, dunes, and heavily grazed pastures. They also frequent areas cleared by humans, such as plowed fields and mowed expanses around airstrips. In wintertime, flocks of Horned Larks, often mixing with other birds of open ground, can be seen along roadsides, in feedlots, and on fields spread with waste grain and manure. At high altitudes and latitudes, they forage on snowfields in the late afternoon, though they mostly feed in areas free of snow.	There is a moderate potential for this species to nest and forage on-site. It was not detected during the field investigation.
Lanius ludovicianus	Loggerhead Shrike	FSC/SSC	This species has been declining throughout the United States due to various reasons, including loss of habitat. This species prefers open country with scattered shrubs and trees, it is also found in more heavily wooded habitats with large openings and in very short habitats with few or no trees. It hunts in open or brushy areas and nests in large shrubs such as ceanothus and lemonade berry.	This species was not observed during the field investigation, but there is a moderate potential for this species to nest and forage on-site.

Appendix C - Special Status Species Assessment Tables
Table 2 – Special Status Wildlife Species Recorded in the Vicinity and their Potential to Occur at the Site

Scientific Name	Common Name	Federal/State Status	Primary Habitat Associations	Status On-site and Potential to Occur On-site
Polioptila californica californica	Coastal California Gnatcatcher	FT/SSC	Occurs in coastal sage scrub, coastal sage scrub-chaparral mix, coastal sage scrub-grassland ecotone, and riparian areas in late summer. Occurs north of 30°N in nw Baja California, Mexico to Ventura County. Limited to lower elevations (<500m) south and west of Transverse and Peninsular Ranges. Highest densities occur in coastal areas of Orange and San Diego counties. Lower densities occur in western Riverside and southwestern San Bernardino counties and inland San Diego County. Small, now disjunct populations documented for Ventura and Los Angeles counties. Generally prefers open sage scrub (typically between 20 and 60 percent cover) with California sagebrush (*Artemisia californica*) as a dominant or co-dominant species. Dense sage scrub occupied less frequently than more open sites. More abundant near sage scrub-grassland interface than where sage scrub grades into chaparral. Dense sage scrub occupied less frequently than more open sites. Disturbances that reduce shrub cover such as frequent fire, mechanical disruption, livestock grazing, off-highway vehicle use, and military training activities appear to reduce habitat suitability for this species.	Absent. USFWS-protocol focused surveys were conducted by Cereus Environmental in 2014 to document the presence or absence of CAGN on-site. No CAGN were detected during the surveys. It is reasonable to infer that this species is not present on-site.
Vireo bellii pusillus	Least Bell's Vireo	FE/CE	Moist riparian scrub, woodlands and forest predominantly composed of willow and mule fat. Vegetation characteristics of riparian stands between five to ten years of age are most suitable for nesting.	Absent. None detected on-site. This species was not detected on-site and is not expected to occur on-site due to lack of suitable habitat.
MAMMALS				
Chaetodipus fallax fallax	Northwestern San Diego Pocket Mouse	None/SSC	Occurs in a variety of habitats, including coastal scrub, desert scrub, chaparral, grassland, and Riversidean alluvial fan sage scrub.	Absent. This species was not detected on-site and is not expected to occur on-site based on species distribution and on-site conditions. There is one CNDDB record of this species from the vicinity of Colton in 2001.
Dipodomys merriami parvus	San Bernardino Kangaroo Rat	FE/SSC	Occurs in alluvial sage scrub on alluvial fans, flood plains, along washes, in adjacent upland areas, and in areas with historic braided stream channels; these habitats characterized by sand, loam, sandy loam, or gravelly soils. Prefers the more open early and intermediate phases of alluvial sage scrub, but mature sage scrub is important as refugia during floods.	Absent. This species was not detected on-site and is not expected to occur on-site due to the lack of suitable habitat.
Dipodomys stephensi	Stephens' Kangaroo Rat	FE/CT	The geographic range of SKR includes the Anza, Perris, and San Jacinto Valleys and other areas of western Riverside and northwestern San Diego Counties. The vast majority of the SKR's range occurs in western Riverside Co., with the only other significant populations found at Camp Pendleton, the adjacent Fallbrook Naval Weapons Station, and sites around Lake Henshaw in northern San Diego Co. The species is not known from San Bernardino County. The vegetation most commonly associated with SKR includes coastal sagebrush, California buckwheat, and filaree (Erodium species). SKR are typically found in transition areas, including grasslands that border coastal sage scrub, transition areas where sage scrub and grasslands are intermixed, areas of sparse sage scrub, and areas where native habitat has been removed or disturbed by agriculture and other uses. What each of these areas has in common is sparse, perennial vegetation covering less than 50% of the ground. Potentially suitable soils include those types capable of supporting annual grasses mixed with forbs and shrub species, and soils must exhibit compaction characteristics suitable for the establishment of burrows.	Absent. This species has been reported in the Box Springs Mountains area in Riverside County, but is not known from San Bernardino County. It is not expected to occur on-site based on known species distribution.
Eumops perotis californicus	Western Mastiff Bat	None/SSC	Historically ranged throughout much of the southwestern United States and northwestern Mexico. In California, most records are from rocky areas at low elevations. Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in small colonies in cracks, crevices and small holes in vertical cliff faces, high buildings, trees, and tunnels throughout southwestern California. May prefer man-made structures including tall bridges. Foraging individuals wander widely.	This species was not detected on-site. It is not expected to roost at the Site; no evidence of roosting was detected during the field investigation. There is a moderate potential for this species to forage at the site if it is roosting on properties in the vicinity.
Lasiurus xanthinus	Western Yellow Bat	None/SSC	Found in varied habitats from the southwestern United States to southern Mexico; often associated with palms and desert riparian habitats. In Southern California, occurs in palm oases and residential areas with untrimmed palm trees. Roosts primarily in trees, especially the dead fronds of palm trees, although it has also been documented to roost under the leaves of deciduous trees such as cottonwoods.	This species was not detected on-site. It is not expected to roost at the Site; no evidence of roosting was detected during the field investigation. There is a moderate potential for this species to forage at the site if it is roosting on properties in the vicinity.

Appendix C - Special Status Species Assessment Tables
Table 2 – Special Status Wildlife Species Recorded in the Vicinity and their Potential to Occur at the Site

Scientific Name	Common Name	Federal/State Status	Primary Habitat Associations	Status On-site and Potential to Occur On-site
Lepus californicus bennettii	San Diego Black-tailed Jackrabbit	None/SSC	Occurs in a variety of habitats including herbaceous and desert scrub areas, early stages of open forest, and chaparral. Most common in relatively open habitats. Restricted to the cismontane areas of Southern California, extending from the coast to the Santa Monica, San Gabriel, San Bernardino, and Santa Rosa Mountain ranges.	This species was not detected during the field investigation. However, there is suitable habitat present throughout the site, and there is a moderate potential for this species to occur on-site. Avoiding impacts in the La Loma Hills to the south and west of the Site will allow this species (if present at the time of project initiation) to exit the construction zone and utilize these undeveloped areas.
Perognathus longimembris brevinasus	Los Angeles Pocket Mouse	None/SSC	Occurs in coastal sage scrub; chaparral; desert scrub; lower elevation grassland; Riversidean alluvial fan sage scrub; playas and vernal pools. Typically occurs on open landscapes associated with alluvial, aeolian, or well-drained upland deposits of sandy soil. Historically occurred in the coastal basins of southern California, from San Fernando and Burbank in the San Fernando Valley east to Cabazon, south through the San Jacinto and Temecula Valleys to Aguanga, Warner Pass, Vail, and Temecula. The recorded elevational range is from 167 m (at Burbank) to 808 m (Oak Grove). The current range does not include the San Fernando Valley, the majority of which has been urbanized. There is potential for the species in the canyons of the San Fernando Valley (e.g., Tujunga wash), although no field surveys have apparently been conducted there. Currently, the western-most record for extant P. brevinasus is Etiwanda Wash. Apart from the San Fernando Valley, the outline of the current range of P. brevinasus is similar to its historic range. However, the species occurs sparingly in, or is absent from, many historic localities in the San Bernardino, San Jacinto, and Temecula valleys.	Absent. This species was not detected on-site and is not expected to occur on-site due to known species distribution and on-site conditions in relation to species habitat preferences.
Nyctinomops femorosaccus	Pocketed Free-tailed Bat	None/SSC	The pocketed free-tailed bat inhabits the southwestern United States and northwestern Mexico. The bat has been seen in southern Arizona, southern California, southeastern New Mexico, western Texas, and into Mexico to the state of Michoacan. This species primarily inhabits semi-arid desertlands. Their roosts can be found in , and rock crevices. It is colonial and roosts primarily in crevices of rugged cliffs, caves, tunnels, mines, high rocky outcrops, crevices, and slopes. It has been found in a variety of habitats, including desert shrub and pine-oak forests. The species may also roost in buildings and under roof tiles.	Absent. There is one CNDDB record of this species from the vicinity of San Bernardino in 1985 (one female bat). This species was not detected on-site and it is not expected to roost at the Site; no evidence of roosting was detected during the field investigation. There is a low potential for this species to forage at the site if it is roosting on properties in the vicinity.
Onychomys torridus ramona	Southern Grasshopper Mouse	None/SSC	This species is found primarily in arid desert habitats, particularly low, open and semi-open scrub habitats including coastal sage scrub, mixed chaparral, low sagebrush, alkali desert scrub, desert scrub, riparian scrub, and annual grassland with scattered shrubs.	Absent. This species has not been recorded in the vicinity since 1923 (Reche Canyon). This species was not detected on-site and it is not expected to occur on-site.
Taxidea taxus	American Badger	None/SSC	American Badgers are typically found in dry, open grasslands, fields, and pastures with sandy loam soils and available prey (such as mice, squirrels, and groundhogs). They are found from high alpine meadows to sea level (or below in Death Valley, California).	Only one American Badger account has been recorded within 5 miles of the site in the CNNDB; account from 1908 in Reche Canyon. Nonetheless, there is a moderate potential for this species to occur on-site based species habitat preferences and site characteristics.
REPTILES				
Aspidoscelis hyperythra	Orangethroat Whiptail	None/SSC	This species ranges from the Santa Ana River in Orange County, and near Colton in San Bernardino County, west of the Peninsular ranges, and south throughout the Baja Peninsula. It is found from sea level to aproximately 610 meters (2,000 feet) in elevation in semi-arid brushy areas typically with loose soil and rocks, including washes, streamsides, rocky hillsides, and coastal chaparral.	There is a low potential for this species to occur on-site. It was not detected on-site during the field investigation.
Aspidoscelis tigris stejnegeri	Coastal Whiptail	None/None	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. It also ranges south into Baja California. It is found from sea level to 7,000 ft. (2,130 m) in a variety of ecosystems, primarily hot and dry open areas with sparse foliage - chaparral, woodland, and riparian areas.	There is a low potential for this species to occur on-site. It was not detected on-site during the field investigation.
Phrynosoma blainvillii	Blainville's Horned Lizard (formerly known as the Coast Horned Lizard)	None/SSC	This species occurs in chaparral, coastal sage scrub, grassland, montane coniferous forest, riparian scrub, woodlands and forest, as well as Riversidean alluvial fan sage scrub. It prefers open country, especially sandy areas, washes, and floodplains. It requires open areas for sunning, shrubs for cover, patches of loose soil for burial, and an abundant supply of ants or other insects.	This species was not detected at the Site; however, there is a low potential for this species to occur on-site.

Appendix C - Special Status Species Assessment Tables
Table 2 – Special Status Wildlife Species Recorded in the Vicinity and their Potential to Occur at the Site

Scientific Name	Common Name	Federal/State Status	Primary Habitat Associations	Status On-site and Potential to Occur On-site
Phrynosoma coronatum blainvillei	San Diego Horned Lizard	None/SSC	Coastal ranges from south Ventura, Los Angeles, San Bernardino, Orange, western Riverside, and western San Diego Counties. This species generally occurs in grassland, sage scrub, and chaparral, but can also be found in coniferous forest, broadleaf woodland, Valley-foothill hardwood, pine-cypress, juniper, and riparian habitats below 6,000 feet. It is usually found in open sandy areas such as ridge tops, washes, flood plains, and windblown deposits, especially where harvester ants (Pogonomyrmex spp.) are found.	There is a low potential for this species to occur on-site. Harvester ants were observed during the field investigation. This species was not detected during the field investigation.
INVERTEBRATES				
Rhaphiomidas terminatus abdominalis	Delhi Sands Flower-loving Fly	FE/None	Occurs in coastal sage scrub, grassland, alluvial sage scrub over Delhi soils. Found only in areas with Delhi sands soils in southwestern San Bernardino and northwestern Riverside counties. This species requires fine, sandy soils, often with wholly or partly consolidated dunes and sparse vegetation.	Absent. Although this species has been recorded within five miles of the Site (CNDDB, USFWS), it was not detected at the Site and is not expected to occur on-site due to the lack of Delhi sand soils.
FISH				
Catostomus santaanae	Santa Ana Sucker	FT/SSC	This species is native to the Los Angeles, San Gabriel, and Santa Ana River systems. Santa Ana suckers are primarily found in small to medium sized streams that flow year-round and may vary in depth from several centimeters to over 1 meter deep. They favor cool (<22°C) flowing water where gravel, rubble, and boulder substrates are present. While Santa Ana suckers are commonly found in association with algae, they are not normally found among macrophytes. They use their scraping mouths to feed on algae and detritus, and may also feed on insects. The sucker's natal streams are subject to severe flooding, though these fish are well adapted to re-colonize through early maturity, high fecundity, and extended spawning. Santa Ana suckers rarely live more than four years but they reach sexual maturity in their second summer. Spawning occurs in gravelly riffles from mid-March until early June.	Absent. None detected on-site. None expected to occur on-site due to lack of aquatic habitat.
Gila orcuttii	Arroyo Chub	None/SSC	This species is limited to the coastal drainages of Southern California and is native to the Los Angeles, San Gabriel, Santa Ana, San Luis Rey, and Santa Margarita Rivers and Malibu and San Juan Creeks. They have been extirpated from much of their native range, but have been introduced to streams along the coast as far north as Chorro Creek in San Luis Obispo County. They have also been introduced to the Mojave River system where they have eliminated the Mojave tui chub. Arroyo chub are adapted to survive in cool to warm (10-24 deg Celsius) streams that fluctuate between large winter storm flows, and low summer flows, and the low dissolved oxygen and wide temperature fluctuations associated with this flow regime. They are most common in slow flowing or backwater areas with sand or mud substrate, but may also inhabit areas with velocities in excess of 80 cm/s over coarse substrate. They feed on plants such as algae and water fern (Azolla), and on invertebrates such as insects and mollusks. Spawning takes place in pools and edge habitat from February to August with a peak in June and July.	Absent. None detected on-site. None expected to occur on-site due to lack of aquatic habitat.

Federal/State Status Codes:
FE = Federally Endangered under Federal Endangered Species Act (FESA)
FT = Federally Threatened under Federal Endangered Species Act (FESA)
CE = Endangered in California under California Endangered Species Act (CESA)
CT = Threatened in California under California Endangered Species Act (CESA)
FP – California Department of Fish and Game Fully Protected Species
SSC – Species of Special Concern in California
SCA - CDFW Special Animal in California
WL – CDFW Watch List

The "Status On-site and Potential to Occur at the Site" ranking is based on the following criteria:
Species Absent: The species was not detected during the site investigation or the species is restricted to habitats that do not occur at the site.
Low Potential for Occurrence: No species records cite the species within the immediate vicinity (5 miles) or within the site boundaries, and/or the on-site habitat needed to support the species is of restricted size and/or poor quality.
Moderate Potential for Occurrence: The habitat requirements associated with the species are present at the site and are of sufficient size and quality to support the species.
High Potential for Occurrence: The habitat strongly associated with that species is present at the site.
Species Present: The species was observed at the site at the time of the site investigation.

Appendix C - Special Status Species Assessment Tables
Table 3. Special Status Plants Assessed and Considered Unlikely to Occur at the Site.

Note: These species have been recorded in the CNPS Online Rare and Endangered Plant Inventory within the USGS San Bernardino South quad and the 8 surrounding quads, and/or within a 5-mile radius in the CNDDB and USFWS Carlsbad Office species databases.

Scientific Name	Common Name	Federal/State Status	CNPS Rank	Notes
Abronia villosa var. *aurita*	chaparral sand-verbena	None/None	1B.1	Occurs in sandy places in coastal scrub, chaparral, desert dunes between approx. 75-1,600 meters (approx. 250-5,250 feet) in elevation in the central and south coast, and western Sonoran Desert. It is unlikely that this species would occur at the Site based on species distribution and habitat requirements in relation to site conditions.
Acanthoscyphus parishii var. parishii	Parish's oxytheca	None/None	4.2	Occurs in sandy and gravelly soil in chaparral and lower montane coniferous forest between approx. 1,220-2,660 meters (approx. 4,000-8,725 feet) in elevation. Not expected at the Site where elevations are less than 1,250 feet.
Ambrosia monogyra	singlewhorl burrobrush	None/None	2.2	Occurs in sandy soils in chaparral and Sonoran desert scrub between approx. 10-500 meters (approx. 30-1,640 feet) in elevation. Historic records from near Rialto (1926 and 1947 records). Known from 16 occurrences in California. It is unlikely that this species would occur at the Site based on species distribution and habitat requirements in relation to site conditions.
Ambrosia pumila	San Diego ambrosia	FE/None	1B.1	Found in sandy loam or clay, and sometimes alkaline soils, in chaparral, coastal scrub, valley and foothill grassland, and vernal pools, often in disturbed areas, between approx. 20-600 meters (approx. 65-1,970 feet) in elevation in the South Coast and Peninsular Ranges (Riverside, San Diego Counties) to Baja California. It is unlikely that this species would occur at the Site based on species distribution and habitat requirements in relation to site conditions.
Artemisia palmeri	San Diego sagewort	None/None	4.2	Occurs in sandy, mesic soil in moist drainages in chaparral, coastal scrub, riparian forest, riparian scrub, and riparian woodland between approx. 15-915 meters (approx. 50-3,000 feet) in elevation in the South Coast and Peninsular Ranges to Baja California. It is unlikely that this species would occur at the Site based on species distribution and habitat requirements in relation to site conditions (no mesic soils on-site).
Astragalus hornii var. *hornii*	Horn's milk-vetch	None/None	1B.1	Found in alkaline areas in lake margins, meadows, seeps, playas, and salty flats between approx. 60-850 meters (approx. 200-2,800 feet) in elevation in the south San Joaquin Valley, South Coast, Western Transverse Ranges, and western edge of the Mojave Desert, to west-central Nevada. It is unlikely that this species would occur at the Site based on habitat requirements in relation to site conditions.
Brodiaea filifolia	thread-leaved brodiaea	FT/CE	1B.1	Occurs in grassland, vernal pools, chaparral (openings), cismontane woodland, coastal scrub, playas, and valley and foothill grassland, most often in clay soils, between approx. 25-1,120 meters (approx. 80-3,675 feet) in elevation in the South Coast (Los Angeles, San Diego Counties), San Bernardino Mountains (San Bernardino Co.), and western Peninsular Ranges (Orange, Riverside, San Diego Counties). This species is typically found in clay soils (none on-site) and is not expected to occur at the SIte.
California macrophylla	round-leaved filaree	None/None	1B.1	Occurs in clay soils, typically in open sites in scrub, cismontane woodland, and valley and foothill grassland below approx. 1,200 meters (3,950 feet) in elevation in the Inner North Coast Ranges, south Sierra Nevada Foothills, Great Central Valley, Central Western California, South Coast, Channel Islands (Santa Cruz, Santa Catalina islands), Western Transverse Ranges, and Peninsular Ranges, to northern Mexico. This species is found in clay soils (none on-site) and is not expected to occur at the SIte.
Calochortus catalinae	Catalina mariposa lily	None/None	4.2	Found in heavy soil, open grassland, scrub, chaparral, cismontane woodland, coastal scrub, valley and foothill grassland below 700 meters (approx. 2,300 feet) in elevation on the south Central Coast, west South Coast, and especially Channel Islands. The nearest record is from Red Hill near Upland in 1917-1918. It is unlikely that this species would occur at the Site based on species distribution and habitat requirements in relation to site conditions.
Calochortus palmeri var. *palmeri*	Palmer's mariposa lily	None/None	1B.2	Occurs in mesic areas, meadows, seeps, vernally moist places in lower montane coniferous forest (yellow-pine) and chaparral between 700-2,400 meters (approx. 2,300-7,900 feet) in elevation in the Tehachapi Mountain Area, south Central Western California, Transverse Ranges, and San Jacinto Mountains. No mesic habitat at the Site. Not expected at the Site where elevations are less than 1,250 feet.
Carex comosa	bristly sedge	None/None	2B.1	Found in wet places, marshes, swamps, and lake margins in valley and foothill grassland and coastal prairie below approx. 625 meters (approx. 2,050 feet) in elevation in the Inner North Coast Ranges, High Cascade Range, Great Central Valley, north Central Coast (Bodega Bay), San Francisco Bay Area, San Bernardino Mountains, Modoc Plateau (Shasta Co.); to British Columbia and eastern North America. There is no mesic habitat at the Site and this species is not expected to occur at the Site.

Appendix C - Special Status Species Assessment Tables
Table 3. Special Status Plants Assessed and Considered Unlikely to Occur at the Site.

Note: These species have been recorded in the CNPS Online Rare and Endangered Plant Inventory within the USGS San Bernardino South quad and the 8 surrounding quads, and/or within a 5-mile radius in the CNDDB and USFWS Carlsbad Office species databases.

Scientific Name	Common Name	Federal/State Status	CNPS Rank	Notes
Castilleja lasiorhyncha	San Bernardino Moutains owl's clover	None/None	1B.2	Occurs in mesic areas in chaparral, meadows, flats, seeps, pebble (pavement) plain, riparian woodland, and upper montane coniferous forest between approx. 1,000-2,400 meters (3,280-7,870 feet) in elevation in the San Bernardino Mountains and north and central Peninsular Ranges. There is no mesic habitat at the Site and this species is not expected to occur at the Site where elevations are less than 1,250 feet.
Caulanthus simulans	Payson's jewel-flower	None/None	4.2	Found in sandy, granitic soils in chaparral, coastal scrub, and pinyon/juniper woodland between approx. 90-2,200 meters (approx. 295-7,220 feet) in elevation in the eastern South Coast (western Riverside Co.), eastern Peninsular Ranges, and western edge of the Sonoran Desert. It is unlikely that this species would occur at the Site based on species distribution and habitat requirements in relation to site conditions.
Centromadia pungens subsp. *laevis*	smooth tarplant	None/None	1B.1	Occurs in open alkaline areas, playas, poorly drained flats, meadows and seeps, depressions, waterway banks and beds, grassland, chenopod scrub, riparian woodland, valley and foothill grassland, and disturbed sites below 650 meters (approx. 2,130 feet) in elevation in the South Coast and Peninsular Ranges, to northern Baja California. It is unlikely that this species would occur at the Site based on species habitat requirements in relation to site conditions.
Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	FE/CE	1B.2	Found in coastal salt marshes and swamps and coastal dunes below approx. 30 meters (approx. 100 feet) in elevation in the southern Central Coast (Morro Bay) and South Coast, to northern Baja California. This species was recorded within 5 miles of the Site in CNDDB, but based on species range and habitat requirements it was most likely misidentified.
Chorizanthe leptotheca	Peninsular spineflower	None/None	4.2	Occurs in granitic sand or gravel in chaparral, coastal scrub, alluvial fan, and lower montane coniferous forest between 300-1,900 meters (approx. 980-6,230 feet) in elevation in the eastern Peninsular Ranges, to northern Baja California. This species is not expected to occur on-site based on its known distribution.
Chorizanthe xanti var. *leucotheca*	white-bracted spineflower	None/None	1B.2	Sandy or gravelly soils in Mojavean desert scrub, pinyon and juniper woodland and coastal scrub (alluvial fans) between approx. 300-1,200 meters (approx. 985-3,940 feet) in elevation. Known from 48 occurrences in California (Los Angeles, Riverside, San Bernardino and San Diego Counties). Nearest local records from the vicinity of Devore. Where it has been recorded in the vicinity in alluvial areas, those areas are located along the large active alluvial systems of Cajon and Lytle Creeks (Telegraph Peak, Cajon and Devore quads). Not expected to occur on-site.
Convolvulus simulans	small-flowered morning-glory	None/None	4.2	Occurs on clay and occasionally serpentine substrates and seeps in annual grassland, coastal scrub, chaparral (openings), and valley and foothill grassland between approx. 30-875 meters (approx. 100-2,870 feet) in elevation in the southern Sierra Nevada Foothills, San Joaquin Valley/Inner South Coast Ranges, San Francisco Bay Area, southern Outer South Coast Ranges, South Coast, Channel Islands, Western Transverse Ranges, and Peninsular Ranges; to Arizona, Baja California. It is unlikely that this species would occur at the Site based on species habitat requirements (clay, serpentine) in relation to site conditions.
Cuscuta obtusiflora var. *glandulosa*	Peruvian dodder	None/None	2B.2	Found in marshes and swamps (freshwater) below 280 meters (approx. 920 feet) in elevation. Jepson eflora indicates that the species is extirpated. It was formerly sporadically collected in San Bernardino County between 1890-1898. It was last seen in 1948 at a marsh near Snelling (Merced County). The record from Warm Creek in San Bernardino County is presumed to be extirpated (CNPS). This species is not expected on-site due to lack of suitable habitat and presumed extirpation.
Cylindropuntia californica var. *californica*	snake cholla	None/None	1B.1	Occurs in coastal scrub, coastal chaparral between 30-150 meters (approx. 100-500 feet) in elevation in the southern South Coast to northern Baja California. This species is typically found at lower elevations than that of the Site.
Dodecahema leptoceras	slender-horned spineflower	FE/CE	1B.1	Found on sandy or gravelly soils in openings in chaparral, cismontane woodland, and alluvial fan scrub (usually late seral stage) in floodplains and terraced fluvial deposits and benches that typically receive overbank deposits every 50 to 100 years from generally larger washes or rivers in San Bernardino and Riverside Counties, between approx. 90-760 meters (approx. 300-2,500 feet) in elevation. Also found on gravel soils of Temecula arkose deposits in openings in chamise chaparral in the Vail Lake Area. The species' range extends from the central and eastern South Coast, adjacent foothills of Transverse Ranges, and Peninsular Ranges in Los Angeles, Riverside, and San Bernardino Counties. Many historical occurrences have been lost to urbanization and stream channelization; it is currently threatened by alteration of fire regimes, development, sand and gravel mining, flood control, foot traffic, proposed reservoir construction, recreational activities, vehicles, and non-native plants. This species is not expected at the Site based on species distribution and habitat requirements.

Appendix C - Special Status Species Assessment Tables
Table 3. Special Status Plants Assessed and Considered Unlikely to Occur at the Site.

Note: These species have been recorded in the CNPS Online Rare and Endangered Plant Inventory within the USGS San Bernardino South quad and the 8 surrounding quads, and/or within a 5-mile radius in the CNDDB and USFWS Carlsbad Office species databases.

Scientific Name	Common Name	Federal/State Status	CNPS Rank	Notes
Eriastrum densifolium subsp. *sanctorum*	Santa Ana River woollystar	FE/CE	1B.1	Santa Ana River woollystar is associated with sandy or gravelly soils of high energy washes, floodplains, and dry riverbeds (primarily the Santa Ana River and larger tributaries [e.g. Lytle and Cajon Creeks]) and other sandy, open habitats of floodplains and terraced fluvial deposits, primarily in alluvial fan sage scrub and chaparral in San Bernardino and Riverside Counties. This species is not expected to occur on-site based on species distribution and habitat requirements.
Eriogonum evanidum	vanishing wild buckwheat	None/None	1B.1	Occurs in sandy or gravelly soils in chaparral, cismontane woodland, lower montane coniferous forest, and pinyon and juniper woodland between approx. 1,100-2,225 meters (approx. 3,600-7,300 feet) in elevation. Not expected at the Site where elevations are less than 1,250 feet.
Eriophyllum lanatum var. *obovatum*	southern Sierra woolly sunflower	None/None	4.3	Found in sandy loam in open lower and upper montane coniferous forest between approx. 1,100-2,500 meters (approx. 3,600-8,200 feet) in elevation in the southern High Sierra Nevada and San Bernardino Mountains. This species is not expected to occur at the where elevations are less than 1,250 feet.
Fimbristylis thermalis	hot springs fimbristylis	None/None	2B.2	Found in wet mineralized typically alkaline soils near hot springs and in seepage meadows between approx. 110-1,340 meters (approx. 360-4,400 feet) in elevation in the Outer South Coast Ranges, San Gabriel Mountains, San Bernardino Mountains, White and Inyo Mountains, and Mojave Desert; to southern Nevada, Utah, Arizona, and Mexico. This species is not expected to occur at the Site based on species habitat requirements in relation to site conditions.
Frasera neglecta	pine green-gentian	None/None	4.3	Occurs in dry, open woodland of lower and upper montane coniferous forest and pinyon and juniper woodland between approx. 1,400-2,500 meters (approx. 4,600-8,200 feet) in elevation in the Outer South Coast Ranges and Transverse Ranges. This species is not expected to occur at the Site where elevations are less than 1,250 feet.
Galium californicum ssp. *primum*	Alvin Meadow bedstraw	None/None	1B.2	Found in granitic, sandy soils in shady areas in chaparral and lower montane coniferous forest (primarily Jeffrey-Coulter-pine forest) between approx. 1,350-1,700 meters (approx. 4,400-5,575 feet) in elevation in the South Coast and San Jacinto Mountains. This species is known from only four occurrences. This species is not expected to occur at the Site where elevations are less than 1,250 feet.
Galium johnstonii	Johnston's bedstraw	None/None	4.3	Occurs in chaparral, lower montane coniferous forest, riparian woodland, and pinyon and juniper woodland between approx. 1,220-2,300 meters (approx. 3,930-7,540 feet). Not expected at the Site where elevations are less than 1,250 feet.
Helianthus nuttallii subsp. *parishii*	Los Angeles sunflower	None/None	1A	Occurs in marshes and swamps (coastal salt and freshwater) below 1,675 meters (approx. 5,500 feet) in elevation in southwestern California. Last seen in 1937. No mesic habitat on-site, therefore not expected on site.
Heuchera caespitosa	urn-flowered alumroot	None/None	4.3	Occurs in rocky areas in cismontane woodland, lower montane coniferous forest, riparian forest (montane), and upper montane coniferous forest between approx. 1,155-2,650 meters (approx. 3,790-8,700 feet). Not expected at the Site where elevations are less than 1,250 feet.
Hulsea vestita ssp. *parryi*	Parry's sunflower	None/None	4.3	Found granitic or carbonate substrates in rocky areas and open gravel and talus slopes in lower and upper montane coniferous forest, sagebrush, and pinyon and juniper woodland between approx. 1,370-2,895 meters (approx. 4,500-9,500 feet) in elevation in the eastern San Gabriel Mountains, San Bernardino Mountains, and southwest Desert Mountains (Little San Bernardino Mtns). This species is not expected to occur at the Site where elevations are less than 1,250 feet.
Imperata brevifolia	California satintail	None/None	2B.1	Found in mesic locations (wet springs, meadows and seeps [often alkali], streambanks, floodplains) in chaparral, coastal scrub, Mojavean desert scrub, and riparian scrub below approx. 1,215 meters (approx. 4,000 feet) in elevation in the Outer North Coast Ranges, Cascade Range Foothills, south Sierra Nevada Foothills, San Joaquin Valley, South Coast, Transverse Ranges, Desert; to Utah, Texas, Mexico. No mesic habitat is present on-site; thus this species is not expected.
Juncus duranii	Duran's rush	None/None	4.3	Occurs in mesic (moist) areas in lower montane coniferous forest, upper montane coniferous forest, and meadows and seeps between approx. 1,770-2,805 meters (5,800-9,200 feet) in elevation in Los Angeles, Riverside and San Bernardino Counties. No mesic habitat at the Site. Not expected at the Site in white sage scrub where elevations are less than 1,700 feet. No mesic habitat on-site. Not expected at the Site where elevations are less than 1,250 feet.

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Table 3. Special Status Plants Assessed and Considered Unlikely to Occur at the Site.

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Scientific Name	Common Name	Federal/State Status	CNPS Rank	Notes
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	None/None	1B.1	Saline places, marshes and swamps (coastal salt), playas, and vernal pools below 1,220 meters (approx. 4,000 feet) in elevation in the Inner North Coast Ranges, southern Sierra Nevada Foothills, Tehachapi Mountain Area, Great Central Valley, Central Western California, South Coast, northern Channel Islands (Santa Rosa Island), Peninsular Ranges, and western Mojave Desert. This species is not expected to occur at the Site based on species habitat requirements (mesic) in relation to site conditions.
Lilium humboldtii subsp. *ocellatum*	ocellated Humboldt lily	None/None	4.2	Occurs in openings in chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and riparian woodland between approx. 30-1,800 meters (approx. 100-5,900 feet) in elevation. It is unlikely that this species would occur at the Site based on species habitat requirements in relation to site conditions.
Lilium parryi	lemon lily	None/None	1B.2	Occurs in mesic areas in lower montane coniferous forest, upper montane coniferous forest, riparian forest and meadows and seeps between approx. 1,220-2,745 meters (3,930-9,005 feet) in elevation. No mesic habitat at the Site. Not expected at the Site where elevations are less than 1,250 feet.
Lycium parishii	Parish's desert-thorn	None/None	2B.3	Occurs in coastal scrub and Sonoran desert scrub on sandy and rocky slopes and canyons between approx. 135-1,000 meters (approx. 440-3,280 feet) in elevation in the eastern South Coast and westerm Sonoran Desert; to Arizona and northwestern Mexico. This species is not expected to occur on-site and was not detected during the field investigation. CRPR 2B.3 indicates that it is "not very endangered in California".
Malacothamnus parishii	Parish's bush-mallow	None/None	1A	This species was historically found in chaparral and coastal scrub between 305-455 meters (approx. 1,000-1,500 feet). It is known only from the type collection (in 1895) and has been extirpated by urbanization. The Riverside Co. record from the Santa Rosa Mtns is probably erroneous, based on a misidentification of Sphaeralcea. CNPS field surveys have been unsuccessful. CRPR 1A indicates that this species is "Extirpated in California, rare or extinct Elsewhere". Not expected to occur on-site.
Monardella macrantha subsp. *hallii*	Hall's monardella	None/None	1B.3	Found broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, valley and foothill grassland between 600-2,200 meters (approx. 1,950-7,250 feet) in elevation in the southern San Bernardino Mountains and Peninsular Ranges. It is unlikely that this species would occur at the Site based on species habitat requirements in relation to site conditions.
Monardella pringlei	Pringle's monardella	None/None	1A	Found in sandy coastal scrub between 300-400 meters (approx. 985-1,315 feet) in elevation. Known from only two occurrences from the vicinity of Colton. Last seen in 1941. Habitat lost to urbanization. Recent CNPS field surveys have been unsuccessful. It is unlikely that this species would occur at the Site based on species distribution and habitat requirements in relation to site conditions.
Monardella saxicola	rock monardella	None/None	4.2	Occurs on rocky, usually serpentinite substrate in closed-cone coniferous forest, chaparral, and lower montane coniferous forest between approx. 500-1,800 meters (approx. 1,640-5,900 feet) in elevation. Not expected at the Site where elevations are less than 1,250 feet.
Muhlenbergia californica	California muhly	None/None	4.3	Occurs in mesic areas including seeps and streambanks in chaparral, coastal scrub, lower montane coniferous forest, and meadows and seeps between approx. 100-2,000 meters (approx. 325-6,560 feet) in elevation. No mesic habitat at the Site; not expected at the Site.
Myosurus minimus ssp. *apus*	little mousetail	None/None	3.1	Found in wet fields, vernal pools (alkaline), streambanks, and lake shores primarily in valley and foothill grassland between approx. 20-640 meters (approx. 65-2,100 feet) in elevation. It is unlikely that this species would occur at the Site based on habitat requirements in relation to site conditions.
Nasturtium gambelii	Gambel's water cress	FE/CT	1B.1	Occurs in marshes and swamps (freshwater or brackish), streambanks, and lake margins below 350 meters (approx. 1,150 feet) in elevation in the southern Central Coast and South Coast; to Mexico. It is nearly extinct in U.S.; known in CA from only four occurrences. The historical report from San Diego Co. likely constitutes a misidentification (CNPS). This species is not expected to occur at the Site based on habitat requirements in relation to site conditions (no mesic habitat).
Opuntia basilaris var. *brachyclada*	short-joint beavertail	None/None	1B.2	Occurs in chaparral, Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland between approx. 425-1,800 meters (1,400-5,900 feet) in elevation. It is unlikely that this species would occur at the Site based on species habitat requirements in relation to site conditions.
Perideridia parishii ssp. *parishii*	Parish's yampah	None/None	2B.2	Found in damp meadows and seeps in lower and upper montane coniferous forest between 1,465-3,000 meters (approx. 4,800-9,850 feet) in elevation in the San Bernardino Mountains; to Arizona, New Mexico. This species is not expected to occur at the Site based on habitat requirements in relation to site conditions (no mesic habitat) and elevations below 1,250 feet.

Tentative Tract Map 18823 - City of Colton, California

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Note: These species have been recorded in the CNPS Online Rare and Endangered Plant Inventory within the USGS San Bernardino South quad and the 8 surrounding quads, and/or within a 5-mile radius in the CNDDB and USFWS Carlsbad Office species databases.

Scientific Name	Common Name	Federal/State Status	CNPS Rank	Notes
Phacelia mohavensis	Mojave phacelia	None/None	4.3	Occurs in sandy or gravelly soil in cismontane woodland, lower montane coniferous forest, meadows and seeps, and pinyon and juniper woodland between approx. 1,400-2,500 meters (4,590-8,200 feet) in elevation in Los Angeles, San Bernardino, Tulare and Ventura Counties. Not expected at the Site where elevations are less than 1,250 feet.
Phacelia stellaris	Brand's star phacelia	FC/None	1B.1	Found in open areas in coastal dunes and coastal scrub below 400 meters (approx. 1,300 feet) in elevation in the South Coast to Baja California. It is known from approximately ten occurrences; historical occurrences have been extirpated by development. It is unlikely that this species would occur at the Site based on species distribution.
Pickeringia montana var. *tomentosa*	woolly chaparral-pea	None/None	4.3	Occurs in gabbroic, granitic, and clay substrates in chapparal, typically in washes, below 1,700 meters (approx. 5,575 feet) in elevation in the San Bernardino Mountains and Peninsular Ranges; to Baja California. This species is not expected occur at the Site based on species distribution and habitat requirements.
Piperia leptopetala	narrow-petaled rein orchid	None/None	4.3	Found in generally dry sites, in cismontane woodland and lower and upper montane coniferous forest between 380-2,225 meters (approx. 1,250-7,300 feet) in elevation in the Klamath Ranges, North Coast Ranges, Cascade Range, Sierra Nevada, San Francisco Bay Area, South Coast Ranges, Transverse Ranges, and Peninsular Ranges; to Washington. It is unlikely that this species would occur at the Site based on species distribution and habitat requirements.
Ribes divaricatum var. *parishii*	Parish's gooseberry	None/None	1A	Found in riparian woodland between 65-300 meters (approx. 210-1,000 feet) in elevation. Last seen in 1980 at Whittier Narrows Nature Center (LA County). Recent CNPS surveys have been unsuccessful. It is known from fewer than five historical occurrences. It is likely extirpated due to a combination of dry years, altered stream flows, human-caused fires, habitat loss, and invasive species. Not expected to occur on-site due to lack of suitable habitat and presumed extirpation.
Schoenus nigricans	black bog-rush	None/None	2B.2	Occurs in marshes, swamps, and springs in generally alkaline soils below 2,000 meters (approx. 6,500 feet) in elevation in the San Gabriel Mountains, San Bernardino Mountains, and Mojave Desert in California (as well other areas in the southern U.S., Mexico, and Europe). No mesic habitat at the Site, not expected at the Site.
Senecio aphanactis	chaparral ragwort	None/None	2.2	Occurs in chaparral, cismontane woodland, and coastal scrub, sometimes alkaline soil, between approx. 15-800 meters (approx. 50-2,625 feet) in elevation. Known from 47 occurrences in California. It is unlikely that this species would occur at the Site based on species habitat requirements in relation to site conditions.
Senecio astephanus	San Gabriel ragwort	None/None	4.3	Found in chaparral/coastal-sage scrub and oak woodland, typically on steep rocky slopes, between 400-1,500 meters (approx. 1,300-4,950 feet) in elevation in the South Coast Ranges and Transverse Ranges. It is unlikely that this species would occur at the Site based on species habitat requirements in relation to site conditions.
Sidalcea malviflora ssp. *dolosa*	Bear Valley checkerbloom	None/None	1B.2	Found in meadows and seeps, lower and upper montane coniferous forest, and riparian woodland between 1,495-2,685 meters (approx. 4,900-8,800 feet) in elevation. It is known only from the San Bernardino Mtns. This species is not expected to occur at the Site based on species distribution and habitat requirements in relation to site conditions.
Sidalcea neomexicana	salt spring checkerbloom	None/None	2B.2	Occurs in mesic habitat including alkaline springs and marshes in chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playas, generally below 1,500 meters (approx. 4,900 feet) in elevation in the South Coast, Western Transverse Ranges (potentially extirpated), San Gabriel Mountains, San Bernardino Mountains, Peninsular Ranges, and southwest Mojave Desert, to New Mexico and northern Mexico. No mesic habitat at the Site, not expected at the Site.
Sidotheca caryophylloides	chickweed oxytheca	None/None	4.3	Found in sand or gravel in lower montane coniferous forest between 1,100-2,600 meters (approx. 3,600-8,500 feet) in elevation in the southern High Sierra Nevada (Tulare Co.), Transverse Ranges, and San Jacinto Mountains. It is unlikely that this species would occur at the Site based on species habitat requirements in relation to site conditions.
Sphenopholis obtusata	prairie wedge grass	None/None	2B.2	Found in mesic habitat in cismontane woodland and in meadows and seeps between approx. 300-2,000 meters (approx. 980-6,560 feet). No mesic habitat at the Site, not expected at the Site.
Streptanthus bernardinus	Laguna Mountains jewel-flower	None/None	4.3	Occurs in chaparral and lower montane coniferous forest between approx. 670-2,500 meters (2,200-8,200 feet) in elevation. Local records from near Lytle Creek north of the Site. It is unlikely that this species would occur at the Site based on species habitat requirements in relation to site conditions.
Streptanthus campestris	southern jewel-flower	None/None	1B.3	Found in open, rocky places in chaparral, lower montane coniferous forest, and pinyon and juniper woodland between 900-2,300 meters (approx. 2,950-7,550 feet) in elevation in the Transverse Ranges and Peninsular Ranges; to northern Baja California. This species is not expected to occur at the Site based on species distribution and habitat requirements in relation to site conditions.

Tentative Tract Map 18823 - City of Colton, California

Appendix C - Special Status Species Assessment Tables
Table 3. Special Status Plants Assessed and Considered Unlikely to Occur at the Site.

Note: These species have been recorded in the CNPS Online Rare and Endangered Plant Inventory within the USGS San Bernardino South quad and the 8 surrounding quads, and/or within a 5-mile radius in the CNDDB and USFWS Carlsbad Office species databases.

Scientific Name	Common Name	Federal/State Status	CNPS Rank	Notes
Symphyotrichum defoliatum	San Bernardino aster	None/None	1B.2	Found near ditches, streams, springs in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, and vernally mesic valley and foothill grassland between approx. 2-2,040 meters (6-6,700 feet) in elevation. Local records from near Lytle Creek north of the Site. It is unlikely that this species would occur at the Site based on species habitat requirements in relation to site conditions.
Thelypteris puberula var. *sonorensis*	Sonoran maiden fern	None/None	2B.2	Occurs in meadows and seeps and along streams between 50-800 meters (approx. 165-2,625 feet) in elevation in the South Coast, Western Transverse Ranges, San Gabriel Mountains, and San Jacinto Mountains; to Arizona and southern Mexico. It is unlikely that this species would occur at the Site based on species distribution and habitat requirements in relation to site conditions.

Federal/State Status Codes:
FE = Listed as Federally Endangered under Federal Endangered Species Act (FESA)
CE = Listed as Endangered in California under California Endangered Species Act (CESA)
FC = Candidate for listing under FESA
SC = Candidate for listing under CESA

CNPS Rare Plant Ranks:
1A = California Rare Plant Rank 1A (formerly List 1A): Plants Presumed Extinct in California
1B = California Rare Plant Rank 1B (formerly List 1B): Plants Rare, Threatened, or Endangered in California and Elsewhere
2 = California Rare Plant Rank 2 (formerly List 2): Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
3 = California Rare Plant Rank 3 (formerly List 3): Plants About Which We Need More Information - A Review List
4 = California Rare Plant Rank 4 (formerly List 4): Plants of Limited Distribution - A Watch List
Threat Ranks:
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)

APPENDIX D

PLANT AND WILDLIFE SPECIES LISTS

Appendix D
Table 1. Plant Species Detected at the Site

Scientific Name - Family	Common Name - Family	Scientific Name - Species	Common Name - Species	Native/Non-native
Adoxaceae	Muskroot Family			
		Sambucus nigra subsp. *caerulea*	blue elderberry	native
Anacardiaceae	Sumac or Cashew Family			
		Schinus molle	pepper tree	non-native
Asteraceae	Sunflower Family			
		Ambrosia psilostachya	western ragweed	native
		Artemisia californica	California sagebrush	native
		Carduus pycnocephalus subsp. *pycnocephalus*	Italian thistle	non-native
		Centaurea melitensis	Maltese star-thistle	non-native
		Corethrogyne filaginifolia	California-aster	native
		Encelia farinosa	brittlebush	native
		Erigeron bonariensis	flax-leaved horseweed	non-native
		Erigeron canadensis	horseweed	native
		Helianthus annuus	common sunflower	native
		Heterotheca grandiflora	telegraph weed	native
		Hypochaeris glabra	smooth cat's-ear	non-native
		Lactuca serriola	prickly lettuce	non-native
		Psuedognaphalium californicum	cudweed	native
		Sonchus oleraceous	common sow thistle	non-native
Boraginaceae	Borage or Waterleaf Family			
		Amsinckia intermedia	common fiddleneck	native
		Amsinckia menziesii	common fiddleneck	native
Brassicaceae	Mustard Family			
		Hirschfeldia incana	shortpod mustard	non-native
		Sisymbrium altissimum	tumble mustard	non-native
		Sisymbrium irio	London rocket	non-native
Chenopodiaceae	Goosefoot Family			
		Salsola tragus	Russian thistle	non-native
Euphorbiaceae	Spurge Family			
		Croton californicus	California croton	native
		Croton setiger	turkey-mullein	native

Appendix D
Table 1. Plant Species Detected at the Site

Scientific Name - Family	Common Name - Family	Scientific Name - Species	Common Name - Species	Native/Non-native
Geranianceae	Geranium Family			
		Erodium botrys	filaree	non-native
		Erodium brachycarpum	filaree	non-native
		Erodium cicutarium	redstem filaree	non-native
Lamiaceae	Mint Family			
		Marrubium vulgare	horehound	non-native
		Saliva apiana	white sage	native
Poaceae	Grass Family			
		Avena barbata	slender wild oat	non-native
		Avena fatua	wild oat	non-native
		Bromus diandrus	ripgut brome	non-native
		Bromus hordeaceus	soft chess	non-native
		Bromus madritensis subsp. *rubens*	red brome	non-native
		Bromus tectorum	cheat grass	non-native
		Cynodon dactylon	Bermuda grass	non-native
		Festuca myuros	rattail sixweeks fescue	non-native
		Hordeum murinum	wall barley	non-native
		Pennisetum cetaceum	crimson fountain grass	non-native
		Schismus arabicus	Arabian schismus	non-native
		Schismus barbatus	Mediterranean grass	non-native
		Stipa miliacea var. miliacea	smilo grass	non-native
Polygonaceae	Buckwheat Family			
		Eriogonum fasciculatum	California buckwheat	native
		Eriogonum gracile	slender woolly wild buckwheat	native
Solanaceae	Nightshade Family			
		Datura wrightii	Jimson weed	native
		Nicotiana glauca	tree tobacco	non-native

Biological Resources Assessment
Tentative Tract Map 18233 - City of Colton, California

Appendix D
Table 2. Wildlife Species Detected at the Site

Scientific Name - Class	Common Name - Class	Scientific Name - Family	Common Name - Family	Scientific Name - Species	Common Name - Species
Aves	Birds				
		Accipitridae	Hawks and Eagles		
				Buteo jamaicensis	Red-tailed Hawk
		Aegithalidae	Bushtits		
				Psaltriparus minimus	Bushtit
		Cathartidae	New World Vultures		
				Cathartes aura	Turkey vulture
		Charadriidae	Plovers, Dotterels, and Lapwings		
				Charadrius vociferous	Killdeer
		Columbidae	Pigeons and Doves		
				Columba livia	Pigeon
				Zenaida macroura	Mourning Dove
		Corvidae	Jays, Magpies, and Allies		
				Aphelocoma californica	Western Scrub-jay
				Corvus brachyrynchos	American Crow
				Corvus corax	Common Raven
		Emberizidae	Sparrows and Allies		
				Melospiza melodia	Song Sparrow
				Pipilo crissalis	California Towhee
		Falconidae	Falcons and Caracaras		
				Falco sparverius	American Kestrel
		Fringillidae	Finches		
				Carduelis lawrencei	Lawrence's Goldfinch
				Carduelis psaltria	Lesser Goldfinch
				Carpodacus mexicanus	House Finch
		Hirundinidae	Swallows and Martins		
				Hirundo rustica	Barn Swallow
				Stelgidopteryx serripennis	Northern Rough-winged Swallow

Appendix D
Table 2. Wildlife Species Detected at the Site

Scientific Name - Class	Common Name - Class	Scientific Name - Family	Common Name - Family	Scientific Name - Species	Common Name - Species
		Icteridae	Blackbirds, Orioles and Allies		
				Icterus cucullatus	Hooded Oriole
				Sturnella neglecta	Western Meadowlark
		Mimidae	Mimids		
				Mimus polyglottos	Northern Mockingbird
		Parulidae	New World Warblers		
				Dendroica cornata	Yellow-rumped Warbler
		Passeridae	Old World Sparrows		
				Passer domesticus	House Sparrow
		Sturnidae	Starlings		
				Sturnus vulgaris	European Starling
		Sylviidae	Old World Warblers		
				Chamaea fasciata	Wrentit
		Trochilidae	Hummingbirds		
				Calypte anna	Anna's Hummingbird
		Troglodytidae	Wrens		
				Salpinctes obsoletus	Rock Wren
				Thryomanes bewickii	Bewick's Wren
				Troglodytes aedon	House Wren
		Tyrannidae	Tyrant Flycatchers		
				Myiarchus cinerascens	Ash-throated Flycatcher
				Sayornis nigricans	Black Phoebe
				Tyrannus verticalis	Western Kingbird
				Tyrannus vociferans	Cassin's Kingbird
Insecta	Insects				
		Acrididae	Grasshoppers		
				Trimerotropis pallidipennis	Pallid-winged Grasshopper
		Apidae	Bees		

Appendix D
Table 2. Wildlife Species Detected at the Site

Scientific Name - Class	Common Name - Class	Scientific Name - Family	Common Name - Family	Scientific Name - Species	Common Name - Species
				Apis mellifera	European Honey Bee
		Calliphoridae	Various Flies		
				Phaenicia sericata	Greenbottle Fly
		Coccinellidae	Ladybugs		
				Hippodamia convergens	Convergent Ladybug Beetle
		Formicidae	Ants		
				Conomyrma spp.	Crater-nest Ants
				Pogonomyrmex rugosus	Rough Harvester Ant
		Hesperiinae	Skippers		
				Hylephila phyleus	Fiery Skipper
		Lycaenidae	Gossamer-winged Butterflies		
				Strymon melinus	Gray Hairstreak
		Mutillidae	Subfamily *Sphaeropthalminae*		
				Dasymutilla magnifica	Red Velvet-ant
		Nymphalidae	Brush-footed butterflies		
				Junonia coenia	Common Buckeye
				Vanessa cardui	Painted Lady
		Pieridae	Whites, Sulphurs, Yellows		
				Pieris rapae	European Cabbage White
		Tenebrionidae	Darkling Beetles		
				Coelocnemis californicus	California Broad-necked Darkling Beetle
Mammalia	Mammals				
		Canidae	Canids		
				Canis lupus familiaris	Domestic Dog (prints and scat)
		Cervidae	Deer		
				Odocoileus hemionus	Mule Deer (prints and scat)
		Geomyidae	Pocket Gophers		

Appendix D
Table 2. Wildlife Species Detected at the Site

Scientific Name - Class	Common Name - Class	Scientific Name - Family	Common Name - Family	Scientific Name - Species	Common Name - Species
				Thomomys bottae	Botta's Pocket Gopher
		Leporidae	Rabbits and Hares		
				Sylvilagus audubonii	Desert Cottontail
		Muridae	Mice, Rats, and Voles		
				Neotoma fuscipes	Dusky-footed Woodrat (nest)
		Sciuridae	Squirrels and Allies		
				Otospermophilus beecheyi	California Ground Squirrel
Reptilia	Reptiles				
		Anguidae	Anguids		
				Elgaria multicarinata	Southern Alligator Lizard
		Phrynosomatidae	Phrynosomatid Lizards		
				Sceloporus occidentalis	Western Fence Lizard
				Uta stansburiana	Common Side-blotched Lizard

END OF DOCUMENT

SPECIAL STATUS PLANT SURVEYS
FOR A
41 ACRE PARCEL IN THE CITY OF COLTON

Prepared for:

Modern Pacific Homes LLC
P.O. Box 7538
Capistrano Beach CA 92624

Prepared by:

David Bramlet
D.Bramlet, Consulting Biologist
1691 Mesa Dr. No. P-4
Newport Beach CA 92660
714-549-0647

September 2016

SECTION 1.0 INTRODUCTION

1.1 Project Location

The proposed Tentative Tract 18233 is located on three parcels, comprising 41.58 acres, Assessor's Parcel Numbers (APN) 275-081-01, 275-081-02, and 0163-351-25 in the City of Colton in San Bernardino County, see Figure 1. The property is located south of Litton Ave., east of Bostick Ave., and north of Palm Avenue. These areas contain existing single family residential areas, while the areas to the west of the property contained undeveloped areas of the La Loma Hills.

The site is located approximately 3,800 ft. west of I-215, 1,240 ft. west of La Cadena Drive, and 3,970 ft. east of the Santa Ana River. The parcel is located on the San Bernardino South 7.5' USGS topographic map, at T1S R4W in Section 31, and the UTM coordinates for this property are 11S 04 68 795mE X 37 66 225mN, see Figure 2. An aerial photograph, noting the boundaries of the parcel is noted in Figure 3. The elevation of the property ranges from 1,012 to 1,242 ft. above mean sea level.

1.2 Previous Report and Current Study

A biological resources assessment of the project site was prepared in 2016 (Klinefelter 2016). This study documented the existing biological resources on this property including vegetation, wildlife, soils, and the presence of any jurisdictional waters or wetlands. The report also noted the potential impacts to these resources from the development of the proposed project and proposed a series of mitigation measures to compensate for these impacts.

The mitigation measures proposed in this report recommended that recommended focused botanical surveys for at least three potentially occurring species status plant species known from the study region be conducted before the issuance of the grading permit. These species included: Nevin's barberry (*Berberis nevinii*), Parry's spineflower (*Chorizanthe parryi* var. *parryi*), and mesa horkelia (*Horkelia cuneata* ssp. *puberula*).

The recommended focused botanical surveys were conducted in the spring-early summer of 2016, and the following report documents these surveys conducted on the project site. The following study will incorporate the information on plant communities and soils, that were documented in the 2016 biological assessment Klinefelter 2016), along with the maps from that study.

1.3 Project Description

The proposed project is the grading and preparation of 89 single family residential lots as noted in the Tentative Tract Map No. 18233 (Mayers and Associates 2016), see Figure 4. Two additional lots are included in the grading area, one in the northeast corner would be used as a retention basin, and another beside just beside Bostick Ave., i.e. Lot B, is labeled as a “dog park” or community open space.

The grading will be generally limited to the flat area south of Litton Ave., but does extend to the base of the hills west of Street E, and south of Street D. In addition, the flat area north of Palm Ave., and west of Bostick Ave. will also be graded into residential lots. The area of hills, including the western ridge, in the center of the property will not be graded or developed, and is planned as open space and comprises some 18.2 acres.

Figure 1: Regional Locality, Colton 41 acre Parcel (from Klinefelter 2016)



M.J. Klinefelter GIS & ENVIRONMENTAL CONSULTING 40960 CALIFORNIA OAKS RD #316 MURRIETA, CALIFORNIA 92562 PH (951) 698-8314	0 3,500 7,000 Feet	TITLE **VICINITY MAP** PROJECT **TTM 18233** City of Colton, CA	FIGURE 2
FILE NAME: Path: S:\gis_data\mckhann\figures\2_Vicinity.mxd		DATE 10/31/2014	

Figure 2: Topographic Map, Colton 41 acre Parcel

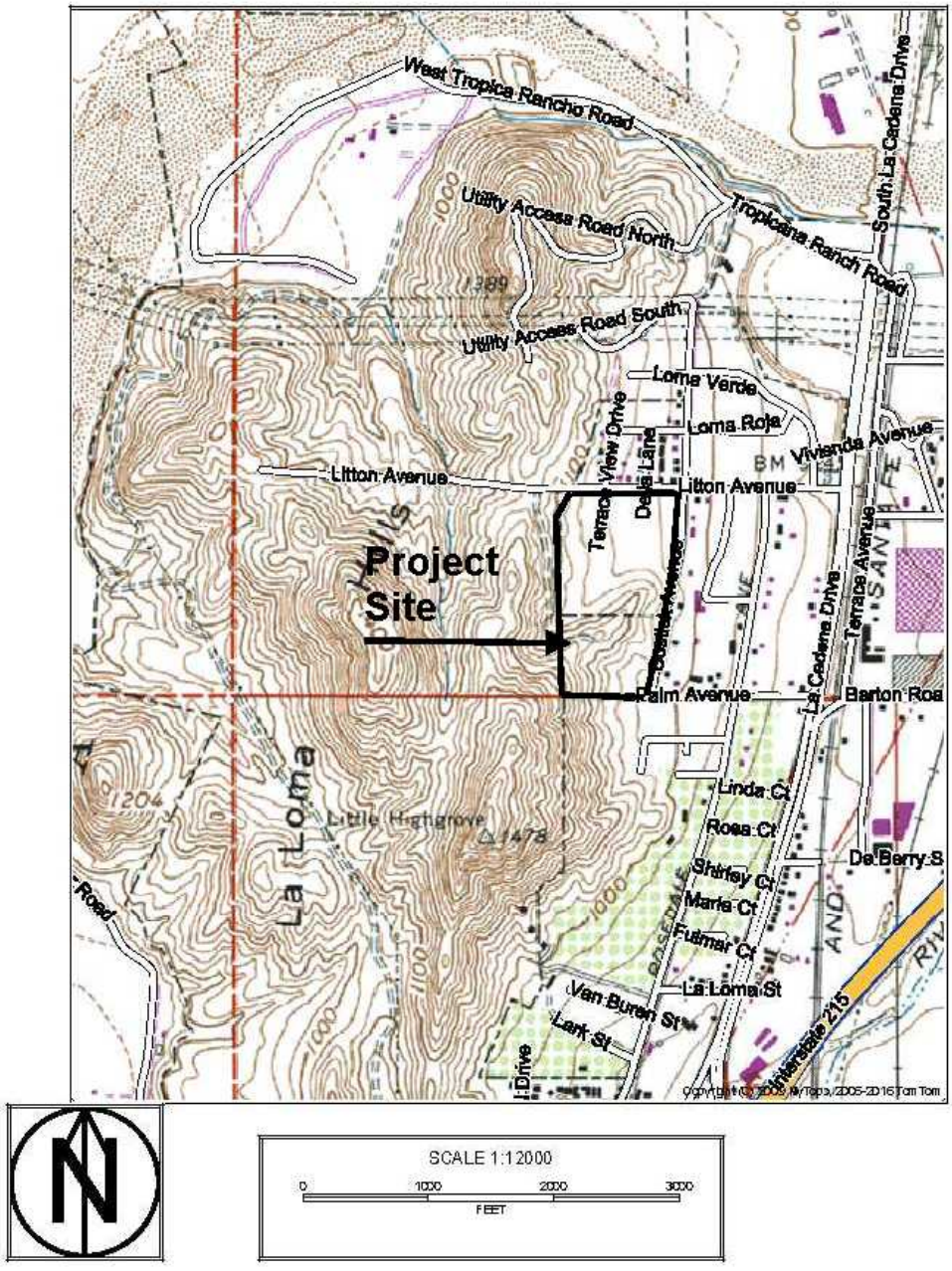


Figure 3: Aerial Photo, Colton 41 acre Parcel (from Klinefelter 2016)

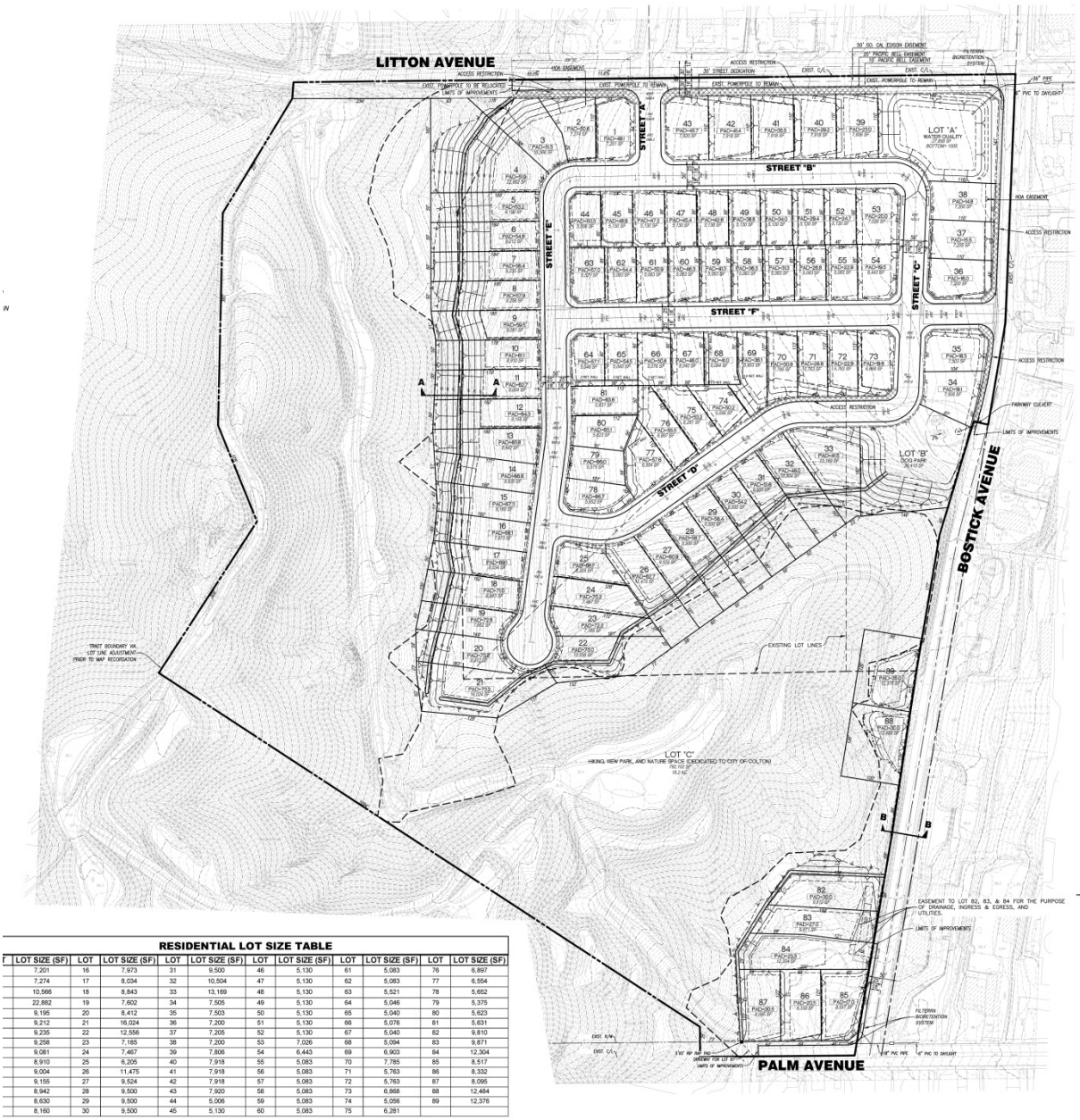


Figure 4: Development Plan, Colton 41 acre Parcel

STATE OF CALIFORNIA, COUNTY OF SAN BERNARDINO
CITY OF COLTON

VESTING TENTATIVE TRACT MAP NO. 18233

STATE OF CALIFORNIA
MAYERS & ASSOCIATES CIVIL ENGINEERING, INC.
SEPTEMBER 2016



RESIDENTIAL LOT SIZE TABLE

LOT	LOT SIZE (SF)	LOT	LOT SIZE (SF)	LOT	LOT SIZE (SF)	LOT	LOT SIZE (SF)	LOT	LOT SIZE (SF)	LOT	LOT SIZE (SF)
	7,201	16	7,973	31	9,500	46	5,130	61	5,083	76	6,897
	7,274	17	8,034	32	10,504	47	5,130	62	5,083	77	6,554
	10,566	18	8,843	33	13,169	48	5,130	63	5,521	78	5,652
	22,882	19	7,602	34	7,505	49	5,130	64	5,046	79	5,375
	9,195	20	8,412	35	7,503	50	5,130	65	5,040	80	5,623
	9,212	21	16,024	36	7,200	51	5,130	66	5,076	81	5,631
	9,235	22	12,556	37	7,205	52	5,130	67	5,040	82	9,810
	9,258	23	7,185	38	7,200	53	7,026	68	5,094	83	9,871
	9,081	24	7,467	39	7,806	54	6,443	69	6,903	84	12,304
	8,910	25	6,205	40	7,918	55	5,083	70	7,785	85	8,517
	9,004	26	11,475	41	7,918	56	5,083	71	5,763	86	8,332
	9,155	27	9,524	42	7,918	57	5,083	72	5,763	87	8,095
	8,942	28	9,500	43	7,920	58	5,083	73	6,868	88	12,484
	8,630	29	9,500	44	5,006	59	5,083	74	5,056	89	12,376
	8,160	30	9,500	45	5,130	60	5,083	75	6,281		

SECTION 2.0 METHODS

2.1 Literature Review

A review of the existing literature was conducted to determine any descriptions of existing habitats within the study and the potential presence of any special status plant and animal species. Sources reviewed for this study included:

- CNDDB Rarefind database of special status species and habitats for the San Bernardino South, Riverside East, Fontana and the San Bernardino North 7.5' quadrangles (CDFW 2016a);
- CNPS Rare Plant Inventory for the San Bernardino South, Riverside East, Fontana and the San Bernardino North 7.5' quadrangles (CNPS 2016);
- Documented plant collections from the Consortium of California Herbaria for the study area (Consortium 2016);
- Biological Resource Assessment of the Property (Klinefelter 2016);
- Biological surveys conducted within or in the vicinity of the project site (BioResource Consultants 2013, Psomas 2015, and SJM Biological 1993); and
- NRCS (2016) soil maps for the property.

2.2 Field Surveys

A field survey of the property was initially conducted on 1 April 2016 by David Bramlet, botanist from 08:00 to 14:15 hours. The second survey was performed on 6 May 2016 from 8:15 to 13:00 hours and a final survey was conducted on 8 June 2016 from 7:20 to 12:15 hours.

The surveys examined each plant community occurring on the project site, and field notes were taken to record the plant species occurring in each of these communities. The field examinations attempted to cover the entire site, especially any changes in soils, topography and aspect. A GPS receiver was used to log the site coverage of each survey. Photographs were taken of different localities on the property, in order to document the field conditions during each site visit.

The site examinations attempted to cover the phenology of the special status plant species anticipated to occur in the general locality of the project site. However, this also covers the blooming period of other plant species, and would address species status plants that may not be anticipated for the Colton locality.

Plants were generally identified in the field and all observed species were recorded in the field notes. However, species that could not be readily identified in the field were collected and identified in the office.

Reference areas were examined for: Parry's spineflower; smooth tarplant (*Centromadia pungens* ssp. *leavis*); paniculate tarplant (*Deinandra paniculata*); and Robinson's peppergrass (*Lepidium virginicum* ssp. *robinsonii*). These sites were examined to determine the ability to locate the plants in 2016, and the phenology of these plants over the season. However, these site examinations were unable to locate the Parry's spineflower, or Robinson's peppergrass (possibly examined too late in the season) at these known localities. However, the Parry's spineflower was observed by other local botanists in the region during the 2016 field season.

The rainfall reported in the general area (Riverside , Canyon Crest) was 7.96" which slightly above the average precipitation of 7.05" and higher than the past three years. However, the rainfall pattern for the year was unusual with February being a very dry month, instead of one of the wettest months of this season. This may have contributed to a poor germination of some annual plant species in 2016.

Scientific and common names presented in the text, generally follow the Vascular Plants of western Riverside County: An annotated checklist (Roberts et al. 2004). Although some of the nomenclature from the Jepson Manual (Baldwin et al. 2012), is used to provide current names for these species. The names for the special status plant species (narrow endemic, and criteria area species) all follow the CNPS Rare Plant Inventory (CNPS 2016).

SECTION 3.0 ENVIRONMENTAL CONDITIONS

3.1 Current Land Uses

The property is surrounded by single lot residential housing on the north, south, and east sides of the property. The area to the west of these parcels is currently undeveloped land containing native plant communities.

3.2 Soils

The soils found on the Colton property include: Hanford coarse sandy loam, 2-9 percent slopes (HaC); Hanford coarse sandy loam 9-15 percent slopes (HaD); and Vista-Rock outcrop complex (Vr). Detailed descriptions of each of these soil series is provided in the Biological Resources Assessment of the project site (Klinefelter 2016). The distribution of these soils on the project site is shown in Figure 5.

3.3 Plant Communities

The plant communities of the project were mapped in the Biological Resources Assessment (Klinefelter 2016), and additional mapping was not conducted as part of the survey for special status plant species. However, additional observations of the composition, and extent of these communities on the property were noted as part of this study. Figure 6 presents the plant communities noted in the Biological Assessment (Klinefelter 2016), and Appendix A notes the plant species observed during the field surveys. In addition, Appendix B provides a series of photos of the project site, to note the field conditions during this study.

The plant communities noted on this property, as described by Klinefelter (2016) consisted of: California sagebrush scrub in the hills of the parcels; Disturbed-Ruderal, which consisted of disturbed areas upslope of the old agricultural lands the project site; Disturbed-Agricultural, which is comprised of the old agricultural areas on the flat lands of the property; and Disturbed-Roads, which comprises the existing network of dirt roads found on the project site.

The 2016 field studies, noted that the distribution of Riversidian sage scrub on the vegetation map is generally correct (Figure 4 of Klinefelter 2016), but that a Brittlebush scrub (Encelia farinosa alliance) is the characteristic community found on the property. Brittlebush scrub is found on all of the south facing slopes, west facing slopes along Bostick Ave., and the east facing slope of the north half of the property (the area just south of Litton Ave.).

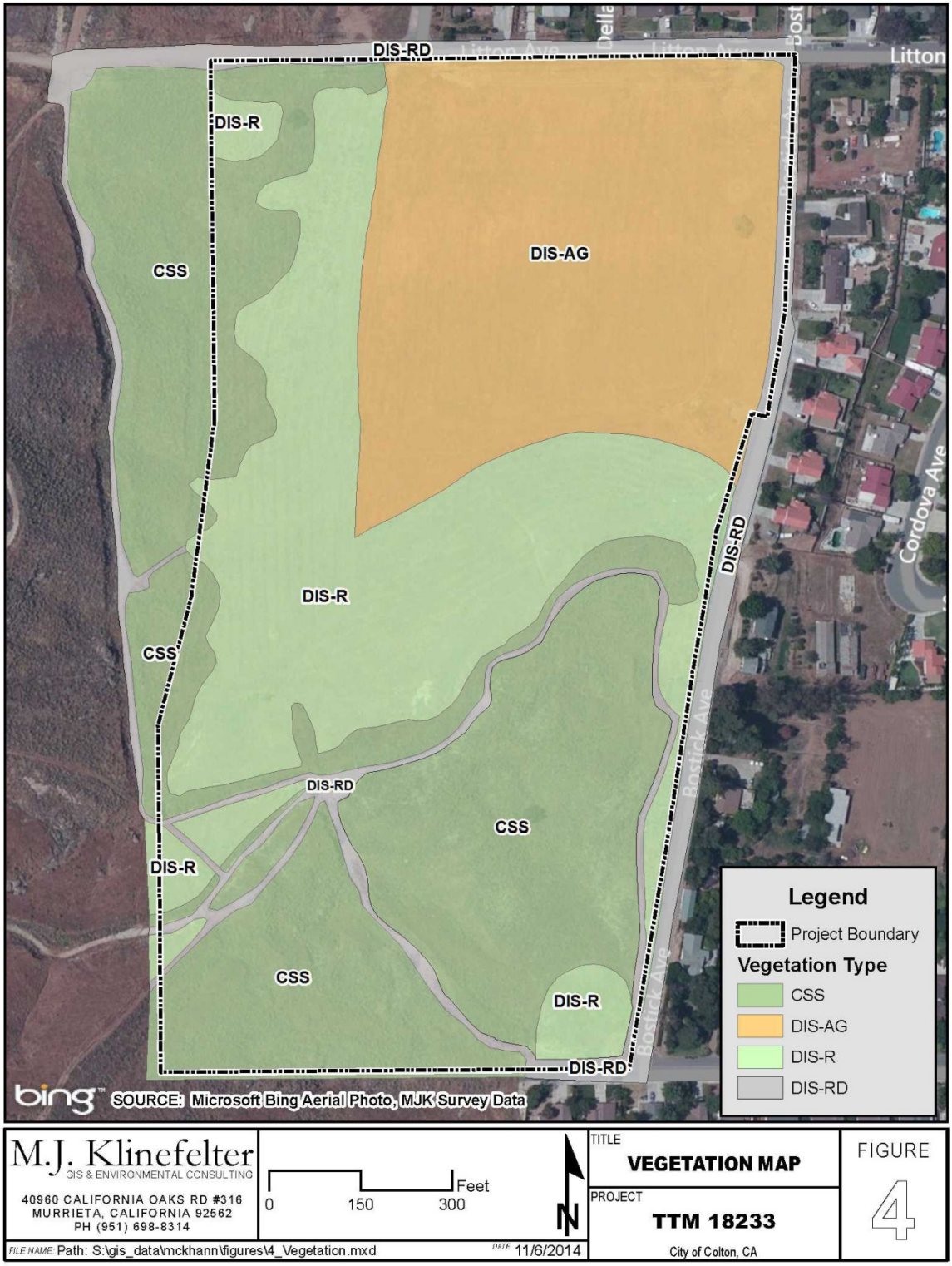
Figure 5: Soils Map, Colton 41 Acre Parcel



The California sagebrush alliance (California sagebrush scrub) is restricted to north facing slope of the property, just above the old terraces. This alliance is generally restricted to a small band of shrubs, just below the existing access road.

The distribution of the other communities, is consistent with the 2016 field observations. However, the grasslands above the old agricultural area would be better characterized as disturbed annual grasslands, rather than ruderal grasslands. Generally, ruderal grasslands have a dominance of highly weedy species, such as tocalote (*Centaurea meltensis*). In contrast, these grasslands contained species rather typical of annual grasslands in the region. Some of the characteristic species included dense stands of ripgut brome (*Bromus diandrus*), along with red brome (*Bromus madritensis* ssp. *rubens*), common fiddleneck (*Amsinckia intermedia*), and red-stemmed filaree (*Erodium cicutarium*).

Figure 6: Plant Communities and other Mapping Units found on the Colton 41 acre parcel (from Klinefelter 2016)



SECTION 4.0 SPECIAL STATUS PLANT SPECIES

Species of special interest include those plant or wildlife species listed by the state or federal governments as endangered, threatened or rare and species which are candidates for future listing. These include species noted on the CNDDB special plants lists (CDFW 2016b), or plants on the CNPS Rare Plant Inventory (CNPS 2016).

CNDDB (CDFW 2016a) element reports were then developed for the San Bernardino South, Riverside East, Fontana, and Redlands, USGS 7.5' quadrangles, to provide the known locations of special status plant species in the general region. The CNPS Rare Plant Inventory (CNPS 2016) and the Consortium of California Herbaria (Consortium 2016) were also reviewed for information on the distribution of special status plants recorded from the general region. Previous studies in the study area were also used to determine the known localities of these plant species and these included the biological resources assessment of the project site (Klinefelter 2016), along with: BioResources Consultants 2013; Power Engineers 2010; Psomas 2015; and SJM Biological 1993.

The plant species of special interest potentially occurring in the study are presented in Table 1 and species recorded from the study region, but not anticipated to occur in the vicinity of the property is noted in Table 2.

The biological resources assessment (Klinefelter 2016) recommended focused botanical surveys for several special status plant species, including the Nevin's barberry, Parry's spineflower, and the mesa horkelia. However, the literature review noted that the Nevin's barberry, and mesa horkelia are unlikely to occur in the vicinity of the project site, see Table 2. Therefore, several other species besides the Parry's spineflower, were considered the most likely species to occur at this locality. The following section, provides a brief description of each of these special status plant species potentially occurring on the project site.

Table 1 Special Status Plant Species Potentially Occurring on the Project Site

Species	Federal/ State	CNPS/Other	Known or Expected Localities	Comments
Calochortus plummerae Plummer's mariposa lily		CRPR 4.2	Jurupa Hills, Box Springs Mtns., San Bernardino Valley, Cajon & Lytle Creek washes, and Fontana. Foothills of the San Bernardino Mtns. and San Gabriel Mtns.	Found in coastal sage scrub or chaparral. Moderate level for occurrence in the areas of Riversidian sage scrub on the project site.
Centromadia pungens ssp. *laevis* Smooth tarplant		CRPR 1B.1	Santa Ana River, Lytle Creek, Cities of San Bernardino, and Ontario.	Found in alkali meadows or grasslands. Also found on the margin of riparian habitats in the region. Low potential for occurrence on the project site.
Chorizanthe parryi var. *parryi* Parry's spineflower		CRPR 1B.1	Jurupa Hills, Colton, Rialto, San Bernardino Valley & foothills, Reche Cyn., Cajon & Lytle Creek washes, Santa Ana River Wash, Box Springs Mountain.	Found principally in alluvial fans and openings of coastal sage scrub. Moderate potential for occurrence in the areas of Riversidian sage scrub on the project site.
Deinandra paniculata Paniculate tar plant		CRPR 4.2	San Bernardino Valley, Fontana (Etiwanda Creek), Jurupa Hills, Santa Ana River.	Found in annual grasslands and in openings of coastal sage scrub. Moderate to low potential for occurrence in the disturbed grasslands of the project site.

Lepidium virginicum var. *robinsonii* Robinson's pepper grass		CRPR 4.3	Jurupa Hills, San Bernardino Valley, Box Springs Mtn., Santa Ana River, Reche Cyn., Sycamore Cyn., Norco Hills.	Found in openings of coastal sage scrub. Moderate to high potential for occurrence in the areas of Riversidian sage scrub.
Juglans californica Southern California black walnut		CRPR 4.2	Lower San Bernardino Valley area including Colton, Fontana, City of San Bernardino, Jurupa Hills, Cajon Wash, Santa Ana River, and Lytle Creek.	Grasslands, Riversidian sage scrub,oak woodlands, alluvial fan sage scrub. In the City areas This species is often associated with walnuts not native to southern California including J. *hindsii* , J. *nigra*, and *J.regia*. Not observed on the project site.

Federal Designations:

FE= Listed by the Federal government as an endangered species.
FT = Listed by the Federal government as a threatened species.

State Designations:

CE = Listed as endangered by the State of California.
CT= Listed by the State of California as a threatened species.

California Rare Plant Rank (CRPR):

CRPR 1A = Plants presumed extinct in California.
CRPR 1B = Plants considered rare, threatened or endangered in California and 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.

CNPS Threat Code Extensions

.1 = Seriously endangered in California.
.2 = Fairly endangered in California.
.3 = Not very endangered in California.

Other:

LC = Local Concern

Table 2 Plant Species of Special Interest Known to Occur in the Region, but not Anticipated in the Vicinity of the Project Site

Species	Federal/ State	CNPS/Other	Known or Expected Localities	Comments
Abronia villosa var. *aurita* Chaparral sand verbena		CRPR 1B.1	Corona, San Bernardino Valley	Found on fine sands, often in alluvial flood plains.
Ambrosia pumila San Diego ambrosia	FE	CRPR 1B.1	La Sierra Heights (Historical collection, likely extirpated	Found in moist annual grassland. In western Riverside county, this species is currently known from the Nichols wetland area, & Skunk Hollow.
Asplenium vespertinum Western spleenwort		CRPR 4.2	Reche Canyon (Historic), canyons in the San Gabriel Mtns.	Rocky areas in Riversidian sage scrub, chaparral, woodland areas.
Astragalus hornii var. *hornii* Horn's milk vetch		CRPR 1B.1	San Bernardino Valley (Historic, likely extirpated).	Historic records for the San Bernardino Valley, no recent observations of this species in this region.
Berberis nevinii Nevin's barberry	FE, CE	CRPR 1B.1	San Timoteo Cyn., Scott Cyn., Redlands, Claremont.	Riversidian sage scrub, chaparral, oak woodland.
Chorizanthe xanti var. *leucotheca* White-bracted spineflower		CRPR 1B.2	Lytle and Cajon Creek washes.	Found principally in alluvial fans and openings of coastal sage scrub.
Dodecahema leptoceras Slender-horned spineflower	FE, CE	CRPR 1B.1	Santa Ana River Wash, Lytle Creek.	Found on old, stable terraces in alluvial fan sage scrub.

Eriastrum densiflorum ssp. *sanctorum* Santa Ana River woolly star	FE, CE	CRPR 1B.1	Santa Ana River Wash, Lytle-Cajon Creek Washes	Found in active washes in Riversidian alluvial fan sage scrub.
Horkelia cuneata var. puberula Mesa horkelia		CRPR 1B.1	Recorded from Etiwanda, Glendora, Claremont, Colton, and the San Bernardino Valley.	Found in openings of coastal sage scrub, chaparral, or oak woodland.
Monardella pringlei Pringle's monardella		CRPR 1A	Historically known from the Colton area, the area between Colton and Rialto, and the Jurupa Hills.	Riversidian sage scrub in loose, sandy soils. The species was last reported in the 1940s and is currently considered extinct.
Phacelia stellaris Brands star phacelia		CRPR 1B.1	Recorded from the Santa Ana River Wash, Rancho Cucamonga, San Gabriel River	Found in open sandy flats in alluvial fan sage scrub, coastal sage scrub, or coastal dunes.
Pseudognaphalium leucocepalum Alluvial wash everlasting		CRPR 2B.2	Santa Ana River (Historic), San Bernardino Valley (Historic), washes in the lower San Gabriel Mtns.	Found in sandy washes.
Romneya coulteri Coulter's matilija poppy		CRPR 4.2	San Timoteo Cyn., Cajon Wash.	Riversidian sage scrub, Chaparral. Often found in alluvial areas or on cut slopes.
Symphyotrichum defoliatum [*Aster bernardinus*] San Bernardino Aster		CRPR 1B.2	Santa Ana River Cyn., Lytle Creek, San Timoteo Canyon.	Riparian habitats, washes in coastal sage scrub or chaparral.
See Table 1 for description of abbreviations used in this table.				

Plummer's marisposa lily (*Calochortus plummerae*) is a late blooming mariposa lily found in rocky areas of Riversidian sage scrub, Riversidian alluvial fan sage scrub, and chaparral. Plants are typically pinkish or are light yellow at the base of flowers, and the inner petal surface has dense hairs for about half the length of these petals. In the region this mariposa lily is known from the Jurupa hills, Cajon-Lytle Creek washes and surrounding foothills, San Bernardino Valley, and the base of the San Gabriel and San Bernardino Mountains and the Box Springs Mountains.

This species would have high potential to occur in the rocky highlands of the property, but generally no potential in the disturbed grasslands found on the project site.

Smooth tarplant (*Centromadia pungens* ssp. *laevis*) is broadly distributed in alkali grasslands, alkali wetlands and disturbed alkali soils within the Perris Basin, and Santa Ana River Basin. It is one of two species of spiny tarplants found in the region, and can occur in highly disturbed localities. In the region this tarplant is known from the Santa Ana River channel, San Bernardino Valley, and Lytle Creek.

The smooth tarplant has very low potential for occurrence on the project site, as the property generally lacks suitable habitat for this species.

Parry's spineflower (*Chorizanthe parryi* var. *parryi*) is small, white-flowered, spineflower found in the openings of chaparral, sage scrub, alluvial fan sage scrub and Juniper woodland. This species is known to occur in Los Angeles, San Bernardino and Riverside Counties, principally in the alluvial fan areas along the San Gabriel and San Bernardino Mountains. In contrast in the inland valley area, the species is found in openings of Riversidian sage scrub and chaparral, usually on sandy soils.

In the Inland Riverside-San Bernardino area, the species is known to occur from the Gavilan Hills to Banning-Palm Springs and from the base of the San Bernardino Mountains to Vail Lake area. In the study region it has been recorded from the: Jurupa Hills, Colton (historic), Rialto (historic), San Bernardino Valley and foothills, Reche Canyon, Box Springs Mtn., Cajon and Lytle Creek washes, and the Santa Ana River.

This species would have high potential to occur in the rocky highlands of the property, and potential habitat was located in the uplands of this property. This habitat consists of sandy openings in the Riversidian sage scrub, characterized by a cover of mosses and other cryptograms. The disturbed grasslands found in the lower areas of the project site, lack suitable habitat for this species.

Paniculate tarplant (*Deinandra paniculata*) is found in cismontane Riverside, southern Orange and San Diego Counties. This species also extends into northern Baja California. The San Diego tarweed is found in grasslands and Riversidian sage scrub throughout the lower valleys of western Riverside County. In the study region this tarplant has been documented from the San Bernardino Valley, Fontana, Jurupa Hills, Norco Hills, and the Santa Ana River.

This species has moderate potential for occurrence on the project site, and generally would be anticipated to occur in the disturbed grasslands found on this property.

Robinson's peppergrass (*Lepidium virginicum* ssp. *robinsonii*) is an erect annual with white flowers. This species has divided based leaves and a roundish pedicel. Dry openings in rocky coastal sage scrub are the apparent preferred habitat for this peppergrass.

This peppergrass species occurs in cismontane region of southern California, including the Channel Islands, south to northern Baja California. In the region this species has been documented from the Jurupa Hills, San Bernardino Valley (historic), Santa Ana River, Box Springs Mtn., Sycamore Cyn., Reche Cyn., and the Norco Hills.

This species would have high potential to occur in the rocky highlands of the property, and potential habitat was located in the uplands of this property. This habitat consists of sandy openings in the Riversidian sage scrub, characterized by a cover of mosses and other cryptograms. The disturbed grasslands found in the lower areas of the project site, lack suitable habitat for this species.

Southern California black walnut (*Juglans californica*) is a small tree often associated with grassland areas, but also found in oak woodlands, and riparian habitats. Due to long-term walnut production in the region it is often associated with walnuts not native to the region, including the northern California black walnut (*J. hindsii*),that were used for rootstock, and remaining cultivated walnuts (*Juglans regia*).

In the region the southern California black walnut is found mostly along the Santa Ana River, Grand Terrace area, San Bernardino Valley, foothills of the San Bernardino mountains and the Cajon-Lytle Creek washes. No walnut trees were observed on the project site.

SECTION 5.0 RESULTS

The 2016 botanical field surveys did not locate any special status plant species on the project site. Overall, the most likely species to occur would be the Plummer's mariposa lily, Parry's spineflower, and Robinson's pepper grass in the areas of Riversidian sage scrub. Paniculate tarplant would be a species that could potentially occur in the disturbed grasslands found on this property.

Potential habitat for the Parry's spineflower was located in openings in the Riversidian sage scrub. This habitat consisted of open areas with a substantial moss cover and a generally sandier substrate than the surrounding areas. However, this species was not located in any of these areas found on the property. Plummer's mariposa lily could occur on the boulder slopes in the drier sage scrub habitat, however, the later season surveys (May-June) did not observe the Plummer's mariposa lily on the project site.

The paniculate tarplant has moderate potential for occurrence in the disturbed grasslands found north of Palm Ave., and very low to low potential for the disturbed grassland areas located south of west Litton Avenue. The paniculate tarplant was not observed during the 2016 field surveys on the project site.

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SPECIAL STATUS PLANT SURVEYS
FOR TRACT 18233
IN THE CITY OF COLTON

Prepared for:

Scott McKhann
P.O. Box 7538
Capistrano Beach, CA 92624

Prepared by:

Teresa B. Salvato
Consulting Botanist
1009 Bascomb Drive
Riverside, CA 92507
(909)720-8534
and
Andrew C. Sanders
Consulting Botanist
422 Campus View Drive
Riverside, CA 92507
(951) 827-3601

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SECTION 1.0 INTRODUCTION

1.1 Project Location

Tentative Tract 18233 will encompass approximately 49 acres and consists of all of parcels (Assessor's Parcel Numbers or APNs) 275-081-01 and 275-081-02, and the westerly portion of APN 163-351-028, in the city of Colton in San Bernardino County. The property is located south of Litton Avenue, west of Bostick Avenue and north of Palm Avenue. See Figure 1. The surrounding area contains single family residences, while the area west of the property is undeveloped slopes of the La Loma Hills. Due to the steepness and ruggedness of the east portion of the development site, and as the east portion will not be disturbed, our study area totaled 33 acres.

The parcels are located approximately one half mile west of Hwy I-215, one quarter mile west of La Cadena Drive, and one half mile east of the Santa Ana River, on the San Bernardino South 7.5' USGS topographic map, at T1S R4W in Section 31. The UTM coordinates for this property are approximately 11S 04 68 795 mE X 37 66 225mN. See Figure 2. An aerial photograph, showing the boundaries of the project site is shown in Figure 3. The elevation of the property ranges from 1,020 ft to 1,118 ft above mean sea level.

1.2 Previous Report and Current Study

Biological resources assessments of the project site were prepared in 2014 (Klinefelter 2014) and in 2016 (Bramlet 2016). These studies documented the existing biological resources on this property including vegetation, wildlife, soils, and the presence of any jurisdictional waters or wetlands. The reports also noted the potential impacts to these resources from the development of the proposed project and proposed a series of mitigation measures to compensate for these impacts. The present report does not discuss wildlife.

The mitigation measures proposed in the 2016 report recommended that focused botanical surveys for at least three potentially occurring special status plant species known from the study region be conducted before the issuance of the grading permit. These species included: Nevin's Barberry (*Berberis nevinii*), Parry's Spineflower (*Chorizanthe parryi var. parryi*), and Mesa Horkelia (*Horkelia cuneata ssp. puberula*).

The recommended focused botanical surveys were conducted in early and late spring of 2019 and the results of these surveys are documented in this report. Information on plant communities and soils that was documented in the 2014 and 2016 biological assessments are incorporated in this study along with an explanation of differences found between those studies and this one.

1.3 Project Description

The proposed project is the grading and preparation of 88 single family residential lots as noted in the Tentative Tract Map No. 18233 (Mayers and Associates 2019). See Figure 4. One additional lot is included in the grading area, in the northeast corner, and will be used as a retention basin. The hill between the two parcels is labeled as a community open space. The grading will generally be limited to the flat and gently sloping areas south of Litton Ave., but will extend to the base of the hills west of proposed Street A and south of proposed Street E within the large northern parcel. In addition, the flat area north of Palm Ave., and west of Bostick Ave. will be graded into residential lots. The area of hills in the center of the property, approximately 12.6 acres, will not be graded or developed, and is planned as open space.

SECTION 2.0 METHODS

2.1 Literature Review

A review of the existing literature was conducted to find any descriptions of existing habitats within the study area and the potential presence of special status plant species. Sources reviewed for this study included:

CNPS Rare Plant Inventory for the San Bernardino South, Riverside East, Fontana and the San Bernardino North 7.5' USGS topographic quadrangles (CNPS 2019)

Documented voucher plant collections from the Consortium of California Herbaria for the study area (CCH 2019), the majority of which are represented by actual specimens in the UC Riverside Herbarium

Biological Resource Assessment of the Property, (Klinefelter 2014) and (Bramlet 2016)

Biological surveys conducted within or in the vicinity of the project site

NRCS (2016) soil maps for the property.

2.2 Field Surveys

A reconnaissance of the property was initially conducted on March 23 2019 by Teresa B. Salvato, Andrew C. Sanders and Paul T. Markley, botanists, from 1:00 p.m. to 3:30 p.m. This was to identify property boundaries and access points, and to get a general picture of the nature of the flora and vegetation of the site. On subsequent visits, the three of us walked 30 m parallel lines, per the CNPS rare plant survey protocol, on 6 April 2019 from 1:00 p.m. to 5:00 p.m. We conducted the late spring survey on 20 April

2019 from 8:00 a.m. to 1:00 p.m. Teresa made one additional visit to the site on May 21 2019 to check for the possibility of late-blooming special status plants, and to photograph the site.

The survey dates were chosen based on the phenology of the special status plants that were thought to possibly occur in the general vicinity of the project site. Thus early spring and late spring surveys were conducted. Any special status species that were active in the fall would presumably be observed in their vegetative forms during the late spring survey. Two of the three target species are perennial and could be found in any season.

The surveys examined each plant community occurring on the project site and field notes were taken to record the plant species occurring in each of these communities. The botanists covered the entire site and took note of changes in aspect, topography and recorded all plant species as they were observed.

Section 3.0 ENVIRONMENTAL CONDITIONS

3.1 Current Land Uses

The property is surrounded by single lot residential housing on the north, south, and east sides. The area to the west of the project site is currently undeveloped land containing native plant communities. The terrain on which the areas slated for development are located, is relatively flat with a 0-8% slope. A rocky and gravelly hill with a 1118 ft summit divides the two parcels. West of the parcels, the La Loma Hills rise to a height of 1430 ft.

3.2 Soils

The soils found on the Colton property include: Hanford coarse sandy loam, 2-9 percent slopes (HaC); Hanford coarse sandy loam 9-15 percent slopes (HaD); and Vista-Rock outcrop complex (Vr). Detailed descriptions of each of these soil series is provided in the Biological Resources Assessment of the project site (Klinefelter 2014). The distribution of these soils on the project site is shown in Figure 5.

3.3 Plant Communities

The plant communities of the project were mapped in the Biological Resources Assessment (Klinefelter 2014), and additional mapping was not conducted as part of the survey for special status plant species. However, additional observation of the composition and changes in these communities on the property were noted as part of this study. Figure 6 presents the plant communities noted in the Biological Assessment (Klinefelter 2014), and Section 6 notes the plant species observed during the field surveys. In addition, Appendix A provides a series of photos of the project site, to note the field conditions during this study.

The plant communities noted on this property, as described by Klinefelter (2014) consisted of: California sagebrush scrub in the hills of the parcels; Disturbed-Ruderal(DR), which consisted of disturbed areas upslope of the old agricultural lands on the site; Disturbed-Agricultural(DA), which is comprised of the old agricultural areas on the flat lands of the property; and Disturbed-Roads(Rd), which comprises the existing network of dirt roads found on the project site. None of these communities were seen to be significantly different from each other in 2019. All consist of a mix of the same widespread weeds and a few of the more resilient native plants.

The 2019 field study noted that the distribution of Riversidian sage scrub on the vegetation map is generally correct (Figure 4 of Klinefelter 2014), but that Brittlebush (*Encelia farinosa*) scrub is the characteristic community found on the property. Brittlebush scrub is found on all of the south-facing slopes, and the east-facing slope of the north half of the property, the hillside just south of Litton Ave.

The California sagebrush (*Artemisia californica*) is infrequent and predominantly on the ridge top and upper slope of the north-facing aspect of the hill separating the two parcels. The lower north-facing slope of this hillside was previously terraced for citrus cultivation and is best characterized as Ruderal grassland, that is, non-native grassland with occasional native forbs. The dominant species found here are ripgut brome (*Bromus diandrus*), red brome (*Bromus rubens*) both introduced species, and common fiddleneck (*Amsinckia intermedia*) a native species.

The flat area bordered by Litton Ave and Bostick Ave listed by Klinefelter (2014) as Disturbed-Agricultural was formerly citrus orchard and has subsequently been disked repeatedly for weed control. Presently there are very few native plants in this area which, due to unusually heavy rainfall this past winter, was covered with a dense, 4-5 ft tall, growth of cheeseweed (*Malva parviflora*) interspersed with fiddlenecks (*Amsinckia intermedia* and *A. retrorsa*), and mustards (*Brassica tournefortii* and *B. geniculata*).

Many of the species we observed this year were also recorded by Dave Bramlet in his 2016 survey of the same site. Some of them were found only offsite in the hills west of the site. The offsite areas would have offered a more accurate sense of original habitat since they are far less disturbed than the flat parcels of the study site. If we had found any special status plants in the offsite hills, we could at least verify the potential for those species to be found on site as well but no special status plants were found in the areas surrounding the study site.

Since the study in 2016, the site seems to be even more degraded in terms of native plant habitat. Drought conditions in 2016, 2017 and 2018 may have contributed to the decline in native shrubs on the ridge top and south-facing hillsides that were documented in previous reports. Some native annuals may have suffered the same fate as the shrubs and been pushed out by non-natives.

The flat areas of the study site are used by local residents for pet walking, off-road activity and other recreational activities. On one site visit we observed two horses that had been left to graze for the day. These activities contribute to site disturbance and may increase nitrogen deposition that in turn, creates a favorable environment for weedy species. Ground disturbance and compaction by vehicles, in addition to annual disking for weed control, doubtless contributed to the general degradation of habitat needed by native plants.

SECTION 4.0 SPECIAL STATUS PLANT SPECIES

Species of special status include those listed by the state or federal governments as endangered, threatened or rare and other species which are candidates for future listing or listed by other agencies or organizations. These include species noted in the CNPS Rare Plant Inventory (CNPS 2019). None of the species found or considered in this report are formally listed as threatened or endangered by the state of California or the federal government.

The special status rankings by the California Native Plant Society are as follows:

California Rare Plant Rank (CRPR)

CRPR 1A = Plants presumed extinct in California

CRPR 1B = Plants considered rare, threatened or endangered in California and 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

California Native Plant Society Threat Code Extensions

.1 = Seriously endangered in California

.2 = Fairly endangered in California

.3 = Not very endangered in California

CNDDB (CDFW 2016a) element reports were developed for the San Bernardino South, Riverside East, Fontana, and Redlands USGS 7.5' quadrangles, to provide the known locations of special status plant species in the general region. The CNPS Rare Plant Inventory (CNPS 2019) and the Consortium of California Herbaria (Consortium 2019) were also reviewed for information on the distribution of special status plants recorded from the general vicinity.

The biological resources assessment (Klinefelter 2014) recommended focused botanical

surveys for three special status plant species, including Nevin's barberry (*Berberis nevinii*), Parry's spineflower (*Chorizanthe parryi* var. *parryi*), and Mesa horkelia (*Horkelia cuneata* var. *puberula*). In addition to these three species, five special status plants were considered potential targets of this survey: Plummer's Mariposa lily (*Calochortus plummerae*), Smooth tarplant (*Centromadia pungens* ssp. *laevis*), Paniculate tarplant (*Deinandra paniculata*), Robinson's pepper grass (*Lepidium virginicum* var. *robinsonii*), and Southern California black walnut (*Juglans californica*). Section 5 provides a brief description of each of these special status plants potentially occurring on the project site.

A number of special status plant species known to occur in the region but not anticipated in the vicinity of the project sight were considered and rejected by the authors as search targets for this survey. They are listed below:

Abronia villosa var. *aurita* — Chaparral Sand Verbena
- no suitable habitat

Ambrosia pumila — San Diego Ambrosia
- no suitable habitat

Asplenium vespertinum — Western Spleenwort
- excessively dry habitat

Astragalus hornii var. *hornii* — Horn's Milk Vetch
- collected in San Bernardino several times by S.B. Parish between 1881 and 1900 but not seen in this region since

Chorizanthe xanti var. *leucotheca* — White-bracted Spineflower
- found on alluvial fans and desert scrub, no habitat

Dodecahema leptoceras	Slender-horned Spineflower - Santa Ana River wash, no habitat on parcels
Eriastrum densiflorum ssp *sanctorum*	Santa Ana River Woolly Star - Santa Ana River wash, no habitat on parcels
Monardella pringlei	Pringle's Monardella - on Colton dunes, apparently now extinct
Phacelia stellaris	Brand's Star Phacelia - Santa Ana River wash, no habitat on parcels
Pseudognaphalium leucocephalum	Alluvial Wash Everlasting - sandy wash benches
Romneya coulteri	Coulter's Matilija Poppy - chaparral hillsides and wash benches
Symphyotrichum defoliatum	San Bernardino Aster - no suitable habitat on parcels

Section 5.0 Results

In the course of the botanical surveys of 2019, no special status plants were found. Below is a list of sensitive plant species that were previously suggested as possibly present on the study site, and a brief discussion as to why they probably were not found.

Berberis nevinii Nevin's Barberry (CNPS 1B.1)is a large (to 3 m tall) woody plant that is a narrow endemic on alluvial benches. It does not generally grow in rocky granitic areas such as are present on the study site. There is one known record of this species on a granitic hill in Riverside but that occurrence is presumed to be escaped from cultivation at nearby houses. This plant is very conspicuous and would easily have been found if it were present.

Chorizanthe parryi var. *parryi* Parry's Spineflower (CNPS 1B.1) is a species for which there is possible habitat on the study site. However, the high degree of degradation and disturbance make it unlikely to have persisted. This species was not found in three separate inventories of the flora of this study site, in 2014, 2016 and 2019. If present, it would be in the rocky uplands and not on the gentle slopes formerly in agriculture.

Horkelia cuneata var. *puberula* Mesa Horkelia (CNPS 1B.1) has always been scarce in this region. It was found in 1888 and 1890 "near Colton," in 1904 in Bloomington, and more recently, near Etiwanda in 1995. Generally this species grows in alluvial fans and chaparral hillsides near the coast (Los Angeles, Orange, Santa Barbara counties), in loose soil where water can penetrate to some depth. It does not tolerate chronically dry soil such as that found on the study site.

Calochortus plummerae is a perennial bulbiferous herb endemic to Southern California. It is found in granitic, rocky areas within chaparral, cismontane woodland, coastal scrub and foothill grassland habitats. This species is listed mainly because of its limited distribution which

corelates with the decline in native foothill grassland and coastal scrub habitats. These habitats and species that populate them, are threatened by development, fire suppression, foot traffic and recreational activities. We did not find the plant, but it occurs nearby in similar habitat at Riverside.

Centromadia pungens ssp. *laevis* Smooth Tarplant (CNPS 1B.1) is an annual herb that is found on seasonally wet alkaline soils near riparian areas, meadows and seeps and in grasslands. The project site does not have alkaline soils that would sustain this species and is generally unsuitable as habitat.

Deinandra paniculata Paniculate Tarplant (CNPS 4.2) is an annual herb known from three areas of San Bernardino County: Jurupa Hills, East Etiwanda Creek and San Timoteo Wash. Although it is found in annual grasslands and coastal sage scrub habitats, both of those habitats on the study site are highly disturbed and most common components of those plant communities were not found. It can persist on former agricultural lands, but we saw no sign of it here. It is more common in Riverside County.

Lepidium virginicum var. *robinsonii* Robinson's Pepper-grass (CNPS 4.3) is a delicate annual found between shrubs in coastal sage scrub. Most records of this species are from Riverside and San Diego counties and there are only four recent occurrences in San Bernardino County, all at lower elevations than the project site and associated with washes along the Santa Ana River.

Juglans californica Southern California Black Walnut (CNPS4.2) is a small deciduous tree that grows on alluvial plains and in canyons associated with washes and other seasonal waterways. There are many records of this species in San Bernardino County beginning in 1824 and continuing through 2011. One recent collection, just one mile west of the study site, is on a flood plain adjacent to the Santa Ana River. There is no suitable habitat on the parcels.

Section 6.0 Species List

A number of changes were made to the cumulative species list (see Appendix B) for the project site, mostly additions to the 2016 list but with several species deleted as well. In total, 89 species are here reported from the project site and surrounding hills, based on our observations and previous reports that we accept. Of these species, 50 are native to California and 39 are introduced species. Most of the native species were found in areas that will not be impacted by development on the flat portions of the two parcels, that is, the surrounding hillsides and the hill between the two parcels. Conversely, most of the weedy (introduced) species were seen on the flat portions of the two parcels that had been in agriculture.

The deletions from the 2016 species list are explained below.

Notholaena californica Cloak Fern

We believe that the previous report of this species was based on misidentification of *Cheilanthes newberryi.* Both are rock crevice inhabiting ferns, but *Notholaena californica* is very scarce and usually associated with limestone, so that it struck us as unlikely to be present at this granitic site even before we'd visited. The closest known locality for *Notholaena californica* is Slover Mountain in Colton, where it was present before the mountain was removed for cement production. After searching this site we found the previously unreported and somewhat similar *Cheilanthes newberryi* and feel certain that that species is the one that was seen previously.

Opuntia X vaseyi Coastal Prickly Pear

This taxon was considered a product of hybridization between *Opuntia littoralis* and *O. phaeacantha* (Parfitt & Baker, 1993) but more recently, and we believe correctly, local populations have been treated as an interior form of *O. littoralis* with no *O. phaeacantha* involved. We have recorded it as *O. littoralis*, which is simply a change of name

for the same population system previously identified. This is a classification issue, not an identification issue.

Opuntia basilaris Beavertail Prickly Pear

This report is almost certainly based on misidentification of escaped individuials of the cultivated cactus *Opuntia microdasys* which we found on the parcel. *O. microdasys* is a native plant in Mexico, but is commonly cultivated in cactus gardens and occasionally escapes into the wild, especially where garden waste has been dumped. This site is very unlikely, but not impossible, as habitat for *O. basilaris* but we are certain that the previous report is based on the similar (and related) *O. microdasys.*

Brickellia californica California Brickellbush

We believe this was a misidentification based on *B. desertorum* which we found at several locations among rocks on the parcel. The location is an extremely unlikely one for *B. californica* as that is usually a plant of somewhat higher elevation and moister sites in the neighboring mountain ranges (San Bernardino and San Gabriel). Conversely, *B. desertorum* is typically a fairly common shrub among rocks in the low hills of the Riverside-San Bernardino area.

Cryptantha microstachys Tejon Cryptantha

The spring of 2019 was a moist one and annuals were well developed, but we never saw this species with which members of our team are well familiar. It it not typically found in open sage-dominated habitats like this, but it is remotely possible it could be present. We suspect the report was based on misidentification of a dwarfed individual of some other species in the same family.

Eriogonum fasciculatum var. *foliolosum* California Buckwheat

We saw a number of individuals of *Eriogonum fasciculatum* on the hill between the two flat areas of the parcel, but they were all *Eriogonum fasciculatum* ssp. *polifolium.* It is not

impossible for *Eriogonum fasciculatum* var. *foliolosum* to be present as it is known to occur in the region, but we did not see it. The two taxa are probably best treated as separate species for a number of reasons, and one of those is habitat preference. *Eriogonum fasciculatum* ssp. *polifolium* prefers rockier exposed slopes while *Eriogonum fasciculatum* var. *foliolosum* is most prominent in deeper soils of alluvial slopes. The remaining intact habitat on the parcel is of the type preferred by *Eriogonum fasciculatum* ssp. *polifolium* and that is what we saw.

Pellaea mucronata Birds-foot Cliff Break is a fern that grows in rock crevices in various dry habitats. It is similar to *Pellaea andromedifolia* Coffee Fern, which we saw in the hills above the project site.

SECTION 7.0 REFERENCES

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Figure 1: Regional Locality, Colton 49 acre Parcel (from Klinefelter 2014)

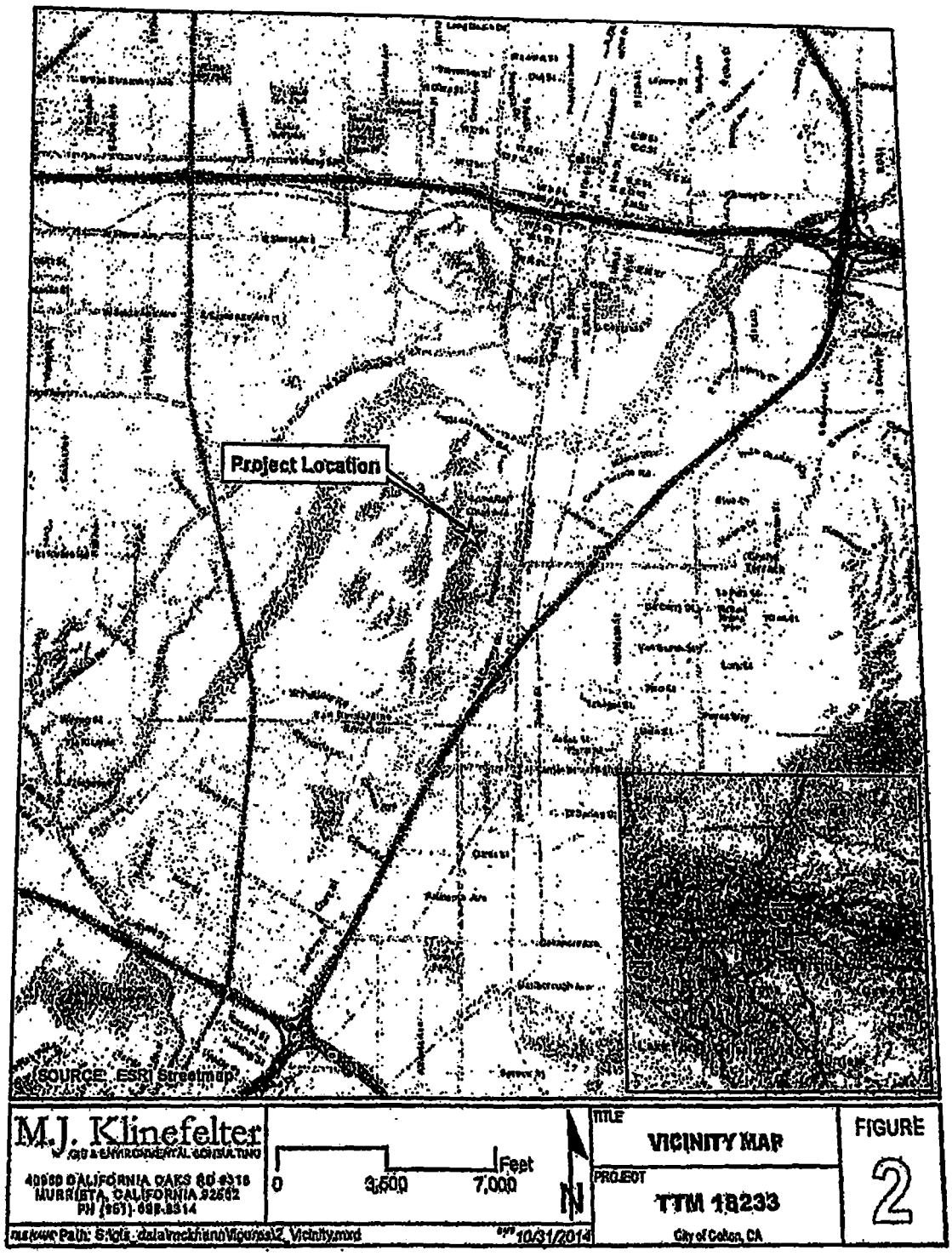


Figure 2: Topographic Map, Colton 49 acre Parcel

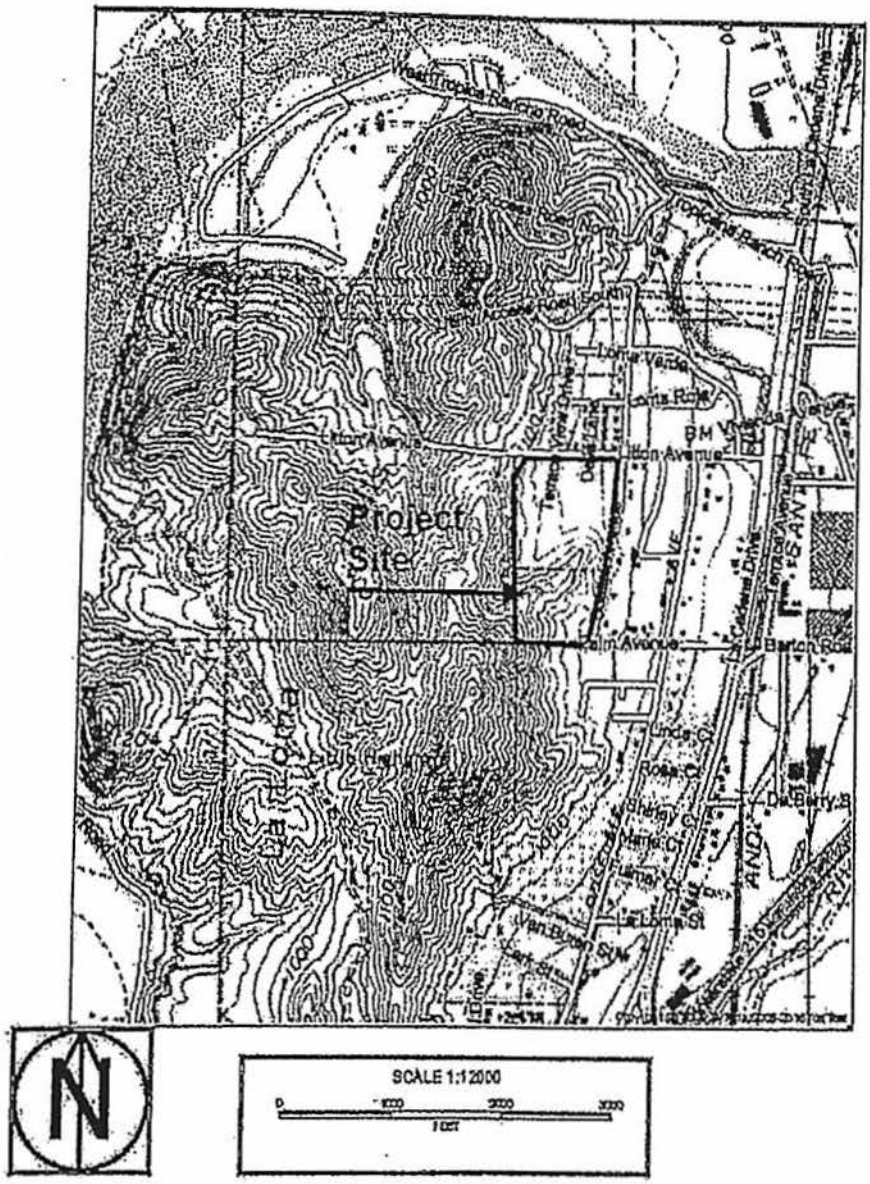


Figure 3: Aerial Photo and Photo Location Map

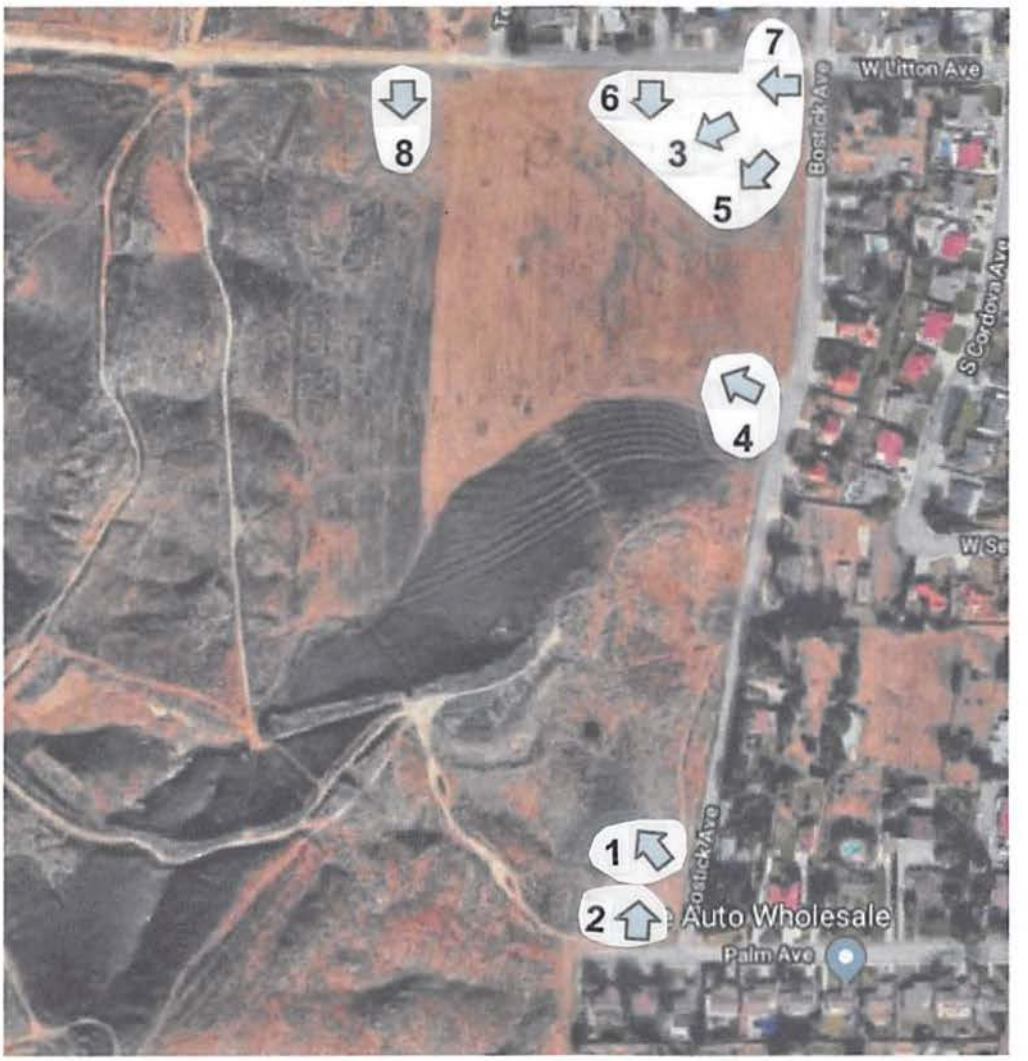


Figure 4: Development Plan--Colton 49 Acre Parcel

STATE OF CALIFORNIA, COUNTY OF SAN BERNARDINO
CITY OF COLTON

TENTATIVE TRACT MAP NO. 18233

STATE OF CALIFORNIA
MAYERS & ASSOCIATES CIVIL ENGINEERING, INC.
JULY 2019

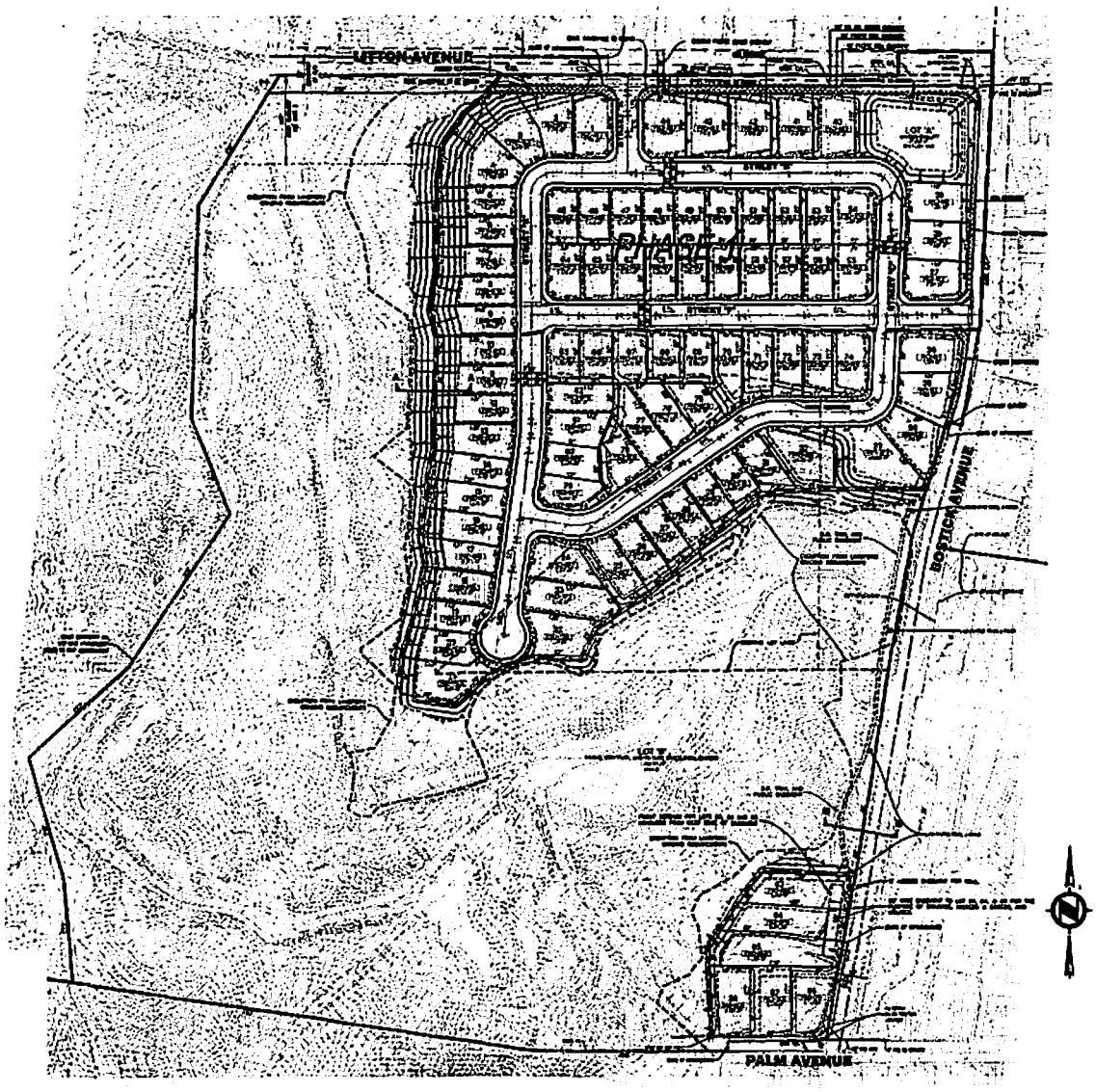


Figure 5: Soils Map, Colton 49 Acre Parcel



APPENDIX A

8 Photographs illustrating site conditions
of the two parcels in May, 2019

Photo 1: Hill between 2 parcels, looking west-northwest



Photo 2: Smaller parcel, looking northwest from corner of Palm and Bostick Ave



Photo 3: Across large parcel looking southwest from Litton Ave



Photo 4: Across large parcel looking northwest from Bostick Ave



Photo 5: Across large parcel, looking southwest from Bostick Ave

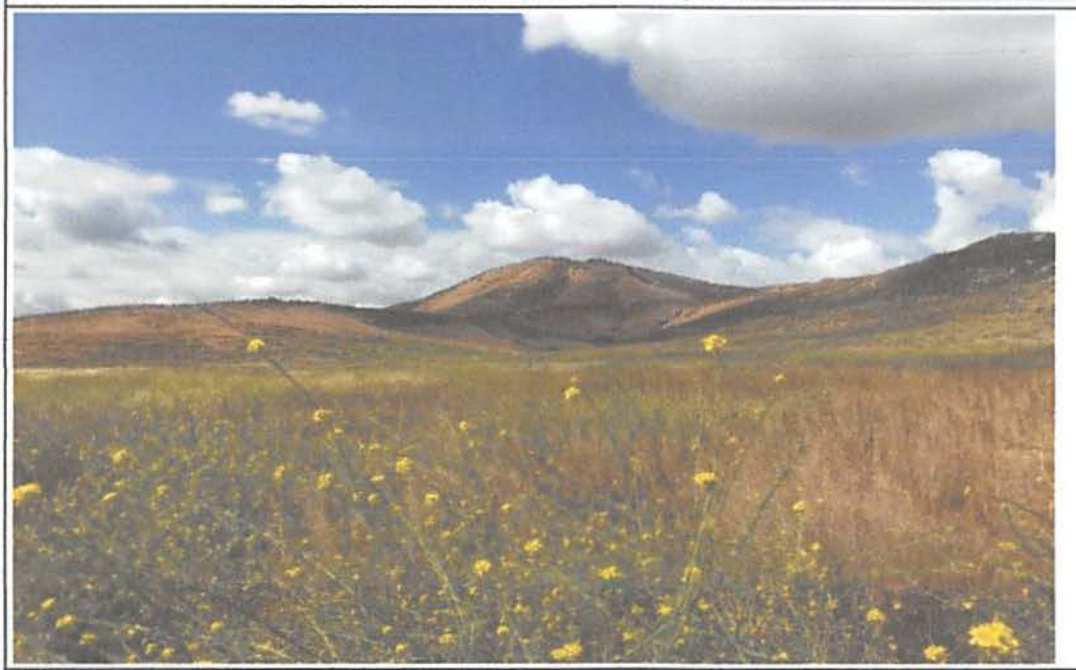


Photo 6: Across large parcel, looking south from Litton Ave



Photo 7: large parcel, looking west from Litton Ave



Photo 8: Across large parcel, looking south from Litton Ave



APPENDIX B

COLTON PARCEL CUMULATIVE SPECIES LIST 2019

Colton Parcel

Fam.	Scientific Name	Habit	CA	Abundance	Notes
PTER	Cheilanthes newberryi (D.C. Eat.) Domin.	perennial	N		2019
PTER	Pellaea andromedifolia (Kaulf.) Fée	perennial	N		2019
SELL	Selaginella bigelovii Underw.	perennial	N		2016, 2019
ADOX	Sambucus nigra L. ssp. caerulea (Raf.) R. Bolli	tree	N		2016, 2019
AMAR	Amaranthus albus L.	annual	I		2016
ANAC	Schinus molle L.	tree	I		2016, 2019
API+	Daucus pusillus Michx.	annual	N		2019
ASTE	Ambrosia acanthicarpa Hook.	annual	N		2016
ASTE	Artemisia californica Less.	shrub	N		2016, 2019
ASTE	Brickellia desertorum Coville	shrub	N		2019
ASTE	Centaurea melitensis L.	annual	I		2016, 2019
ASTE	Corethrogyne filaginifolia (H. & A.) Nutt.	perennial	N		2016, 2019
ASTE	Encelia farinosa A. Gray ex Torr.	shrub	N		2016, 2019
ASTE	Erigeron canadensis L.	annual	I		2019
ASTE	Eriophyllum confertiflorum (DC.) A. Gray	subshrub	N		2016, 2019
ASTE	Gutierrezia californica (DC.) T. & G.	subshrub	N		2019
ASTE	Hedypnois cretica (L.) Dum.-Cours.	annual	I		2016, 2019
ASTE	Helianthus annuus L.	annual	I		2016, 2019
ASTE	Heterotheca grandiflora Nutt.	biennial	N		2016
ASTE	Hypochaeris glabra L.	annual	I		2016, 2019
ASTE	Lactuca serriola L.	annual	I		2016, 2019
ASTE	Lasthenia gracilis (DC.) Greene	annual	N		2016
ASTE	Logfia filaginoides (Hook. & Arn.) Morefield	annual	N		2016, 2019
ASTE	Microseris lindleyi (DC.) A. Gray	annual	N		2016, 2019
ASTE	Oncosiphon piluliferum (L.f.) Källersjö	annual	I		2016, 2019

Observers: T.B. Salvato, A.C. Sanders, Paul Markley **16 Mar, 2019**

Fam.	Scientific Name	Habit	CA	Abundance	Notes
ASTE	Pseudognaphalium californicum (DC.) A. Anderb.	biennial	N		2019
ASTE	Rafinesquia californica Nutt.	annual	N		2019
ASTE	Senecio vulgaris L.	annual	I		2016, 2019
ASTE	Sonchus asper (L.) Hill	annual	I		2016, 2019
ASTE	Sonchus oleraceus L.	annual	I		2016, 2019
BORA	Amsinckia intermedia Fisch. & C.A. Mey.	annual	N		2016, 2019
BORA	Amsinckia retrorsa Suksd.	annual	N		2016, 2019
BORA	Cryptantha intermedia (A. Gray) Greene	annual	N		2016, 2019
BORA	Pectocarya linearis (R. & P.) DC.	annual	N		2016, 2019
BORA	Pectocarya penicillata (H. & A.) A. DC.	annual	N		2016, 2019
BRAS	Brassica geniculata (Desf.) Ball	annual/perennial	I		2016, 2019
BRAS	Brassica tournefortii Gouan	annual	I		2016, 2019
BRAS	Draba cuneifolia Nutt. ex T. & G.	annual	N		2019
BRAS	Sisymbrium erysimoides Desf.	annual	I		2019
BRAS	Sisymbrium irio L.	annual	I		2019
BRAS	Sisymbrium orientale L.	annual	I		2016, 2019
CACT	Opuntia littoralis (Engelm.) Cockerell	succulent shrub	N	solitary	2019
CACT	Opuntia microdasys (Lehmann) Pfeiffer	succulent shrub	I	solitary	2019
CARY	Herniaria hirsuta L.	annual	I		2016
CARY	Stellaria media (L.) Villars	annual	I		2019
CHEN	Chenopodium berlandieri Moq.	annual	N		2016
CHEN	Chenopodium murale L.	perennial	I		2016, 2019
CHEN	Salsola tragus L.	annual	I		2016, 2019
CONV	Cuscuta californica Hook. & Arn.	annual vine	N		2016
CRAS	Crassula connata (R. & P.) Berger	annual	N		2016, 2019

Fam.	Scientific Name	Habit	CA	Abundance	Notes
CRAS	Dudleya lanceolata (Nutt.) Britt. & Rose	perennial	N		2019
CUCU	Marah macrocarpa (Greene) Greene	perennial vine	N		2016, 2019
EUPH	Croton setiger Hook.	annual	N		2016, 2019
FAB+	Medicago polymorpha L.	annual	I		2019
FAB+	Melilotus indicus (L.) All.	annual	I		2016, 2019
GERA	Erodium cicutarium (L.) L'Her. ex Ait.	annual	I		2016, 2019
GERA	Erodium moschatum (L.) L'Her. ex Ait.	annual	I		2016, 2019
HYDP	Eucrypta chrysanthemifolia (Benth.) E. Greene	annual	N		2016, 2019
HYDP	Phacelia cicutaria E. Greene	annual	N		2016
HYDP	Phacelia minor (Harv.) Thell.	annual	N		2016, 2019
LAMI	Marrubium vulgare L.	perennial	I		2016, 2019
LAMI	Salvia apiana Jeps.	shrub	N		2016, 2019
LAMI	Salvia columbariae Benth.	annual	N		2016, 2019
LAMI	Salvia mellifera E. Greene	shrub	N		2019
MALV	Malva parviflora L.	annual	I		2016, 2019
NYCT	Mirabilis laevis (Benth.) Curran var. crassifolia (Choisy) Spellenb.	perennial	N		2016, 2019
ONAG	Epilobium canum (Greene) Raven	perennial	N		2019
ONAG	Eulobus californicus Torr. & A. Gray	annual	N		2019
PHRY	Diplacus longiflorus Nutt.	perennial	N		2016, 2019
POLE	Gilia angelensis V. Grant	annual	N		2016, 2019
POLG	Eriogonum fasciculatum Benth. ssp. polifolium (Benth.) Stokes	shrub	N		2016, 2019
POLG	Polygonum arenastrum Jord. ex Boreau	annual	I		2019
RUBI	Galium angustifolium Nutt.	perennial	N		2016
RUBI	Galium aparine L.	annual	I		2019
SCRO	Scrophularia californica Cham. & Schldl.	perennial	N		2019

Fam.	Scientific Name	Habit	CA	Abundance	Notes
SOLA	Datura wrightii Regel	perennial	N		2016
SOLA	Nicotiana glauca Grah.	shrub	I		2016, 2019
SOLA	Solanum douglasii Dunal	perennial	N		2019
URTI	Parietaria hespera B. D. Hinton	annual	N		2016, 2019
LILI	Bloomeria crocea (Torr.) Coville	perennial	N		2019
LILI	Dichelostemma capitatum (Benth.) Alph. Wood	perennial	N		2016, 2019
PO++	Avena fatua L.	annual	I		2016, 2019
PO++	Bromus catharticus Vahl	perennial	I		2019
PO++	Bromus diandrus Roth	annual	I		2016, 2019
PO++	Bromus rubens L.	annual	I		2016, 2019
PO++	Festuca myuros L.	annual	I		2019
PO++	Hordeum murinum L.	annual	I		2016, 2019
PO++	Pennisetum setaceum (Forsskal) Chiov.	perennial	I		2016, 2019
PO++	Schismus barbatus (L.) Thell.	annual	I		2016, 2019

October 6, 2014

Modern Pacific Homes, LLC
P.O. Box 7538
Capistrano Beach, CA 92624

Re: RESULTS OF FOCUSED COASTAL CALIFORNIA GNATCATCHER SURVEYS FOR THE LITTON AND BOSTICK PROJECT SITE IN THE CITY OF COLTON, SAN BERNARDINO COUNTY, CALIFORNIA

This report is prepared in compliance with the conditions of authorized permit number TE09015-4 issued to wildlife biologist Jason Berkley of **Cereus Environmental** for the performance of protocol surveys for the coastal California gnatcatcher (*Polioptila californica californica*). As such, this letter report summarizes the methodology and findings of surveys for this species on Litton and Bostick project site in the city of Colton, San Bernardino County, California. The surveys were conducted to determine the presence and location or absence of the coastal California gnatcatcher on the project site.

STUDY AREA

The project site is an approximately 40 acre site located between Litton Road and Palm Road, south of Interstate 10 freeway, north of Interstate 60 freeway and west of Interstate 215 freeway (Regional Location and Vicinity Maps, Figures 1 and 2). The project site ranges in elevation from 1000 to 1200 feet above mean sea level (MSL) and is bordered by residential development in the north, south, and east with open space along the western boundary. The southern portion of the site was historically used as an orchard and several concrete irrigation lines are still present, dirt roads are located throughout and adjacent to the site and are utilized by neighboring pedestrians and off-road vehicles. The project site is mapped in Section 31 of Township 1 South and Range 6 West as depicted on the San Bernardino South, CA U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map.

VEGETATION

The project site supports one native plant community characteristic of gently sloping alluvial fans, and two non-native plant communities.

Riversidean sage scrub is the most xeric expression of the coastal sage scrub communities. Most often, the Riversidean habitat is distinguished from other forms of sage scrub in that it is dominated by brittlebush (*Encelia pharinosa*). The slopes of the site are covered with brittlebush and scattered California sagebrush and buckwheat throughout, with non-native grasses underneath.

Ruderal areas occupy the project site and consisted of mostly black mustard (*Brassica nigra*) and annual sunflower (*Helianthus annus*). Other plant species found in ruderal areas on the project site include non-native grasses and a high proportion of weedy species

including storksbill (*Erodium cicutarium*), telegraph weed (*Heterotheca grandiflora*), and wildoat (*Avena fatua*).

Disturbed areas of the project site and are mostly devoid of vegetation or contain predominately non-native, weedy species adapted to frequent disturbance. Types of disturbed areas found on the project site include cleared land, and dirt access roads.

METHODOLOGY

Surveys for the coastal California gnatcatcher were conducted by wildlife biologist Jason Berkley (Permit No. TE09015-4), in accordance with the *USFWS Coastal California Gnatcatcher Presence/Absence Survey Guidelines*, issued July 28, 1997.[1] Accordingly, six surveys were performed at least one week apart, between 5:00 A.M. and 12:00 P.M., within all portions of the study area containing suitable habitat. Temperatures during surveys ranged between 60 degrees Fahrenheit and 84 degrees Fahrenheit. Weather conditions were suitable for surveys, with skies ranging from 0 to 100 percent overcast, and winds ranging from 0-1 miles per hour.

The field investigator slowly walked through all potentially suitable habitat, stopping at approximately 200-foot intervals, uttering pishing sounds and playing a tape of recorded California gnatcatcher vocalizations. The tape was played for several seconds at each interval, followed by a brief pause to listen for a response. Surveys were conducted on May 18, 25, and June 8, 15, 22, and 29, 2014. Survey details are listed in Table 1, *Survey Data*, on page 3.

[1] *U.S. Fish and Wildlife Service. Department of the Interior. Coastal California Gnatcatcher (Polioptila californica californica):Presence/Absence Survey Guidelines. Unpublished paper. Sacramento, California.*

RESULTS

No coastal California gnatcatchers were observed within the study area during any of the focused surveys conducted. A list of all avian species observed within the study area during surveys is included in the *Avian Compendium*, attached.

Should you have any questions regarding the methodology or findings in this report, please do not hesitate to contact Jason Berkley at (714) 493-1120.

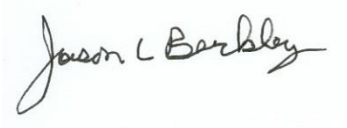
Table 1 – Summary of Survey Results La Loma Hills Inc. Project Site

Date	Time	Wind (Beaufort)/ Temperature (°F)	Weather (Start-End)	Results	Surveyor
05/18/14	0945-1100	0-1 /71°-73°	partly cloudy-partly cloudy	No CAGN Found	Berkley
05/25/14	1030-1130	0-1 /72°-75°	partly cloudy - cloudy	No CAGN Found	Berkley
06/08/14	0515-0615	0-1 /60°-60°	clear-clear	No CAGN Found	Berkley
06/15/14	1015-1130	0-1 /73°-86°	clear-cloudy	No CAGN Found	Berkley
06/22/14	1020-1120	0-1 /78°-82°	clear-clear	No CAGN Found	Berkley
06/29/14	1000-1100	0-1 /79°-84°	clear-clear	No CAGN Found	Berkley

Source: Jason Berkley, 2014

Sincerely,
CEREUS ENVIRONMENTAL

I certify that the information in this survey report and attached exhibits fully and accurately represent my work.



Jason L. Berkley
Wildlife Biologist

Attachments

Figure 1 – Regional Map
Figure 2 – Vicinity Map
Figure 3 – Aerial View of Project site and Location
Attachment A - Avian Compendium

Figure 1 – Regional Map

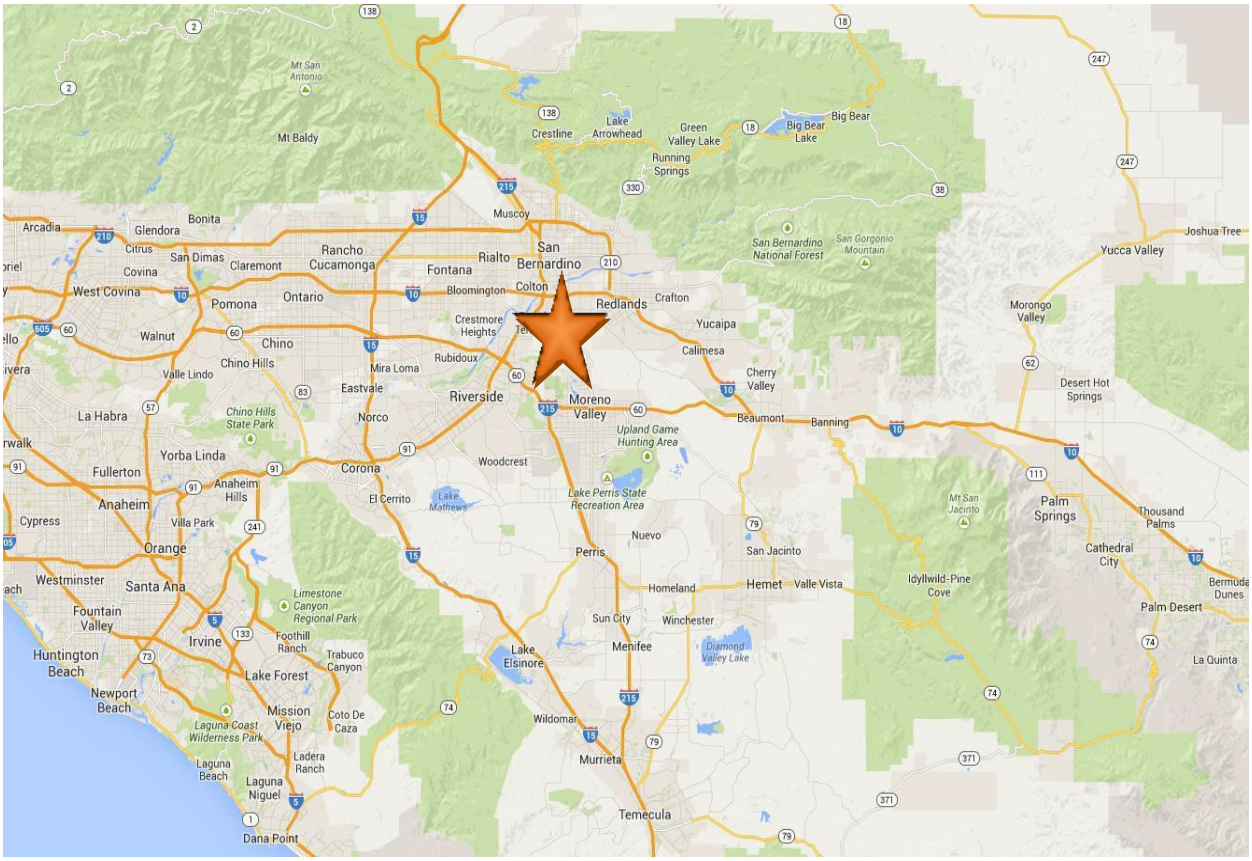


Figure 2 – Vicinity Map

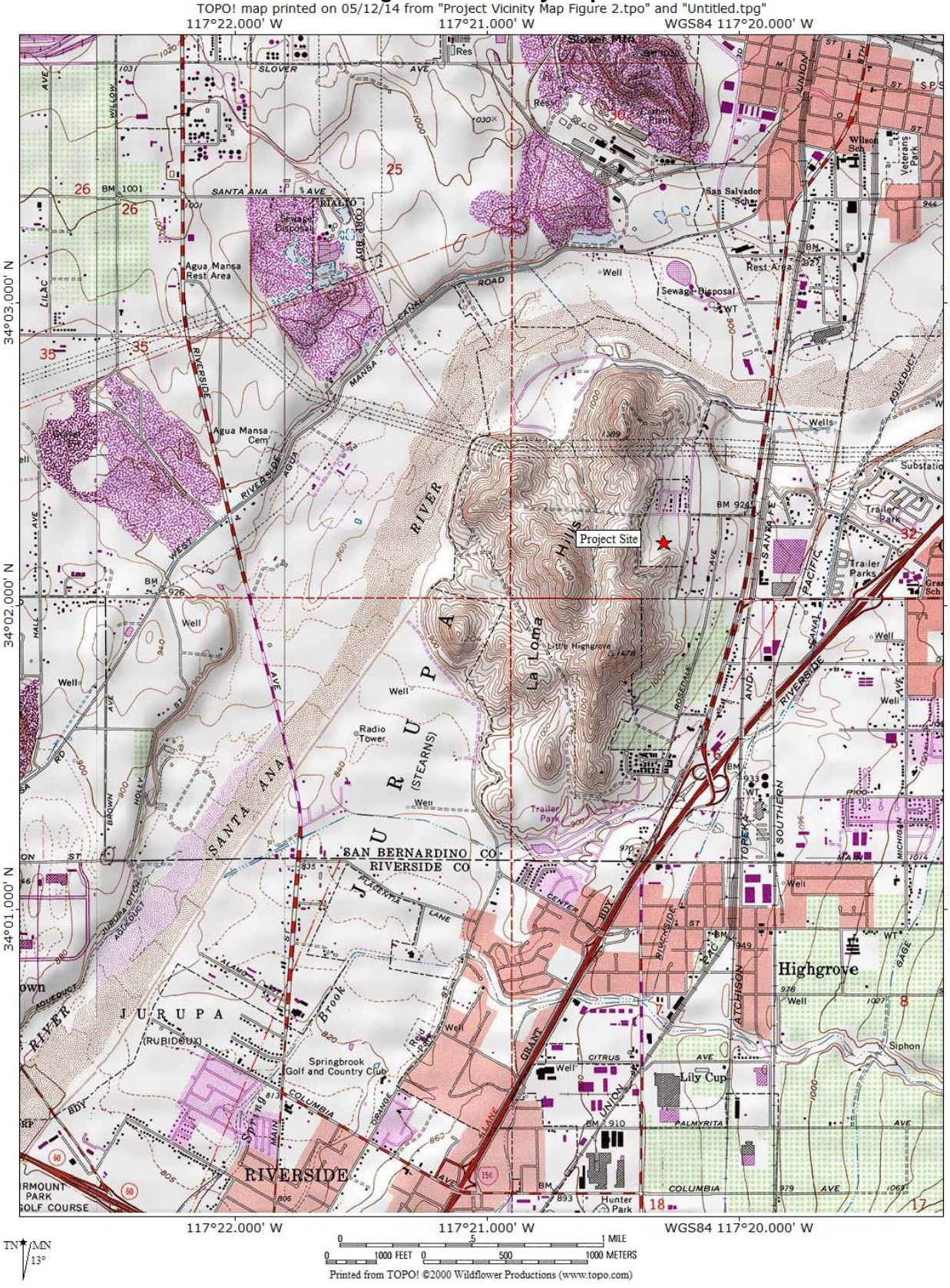


Figure 3 - Aerial View of Project site and Location



ATTACHMENT A

Avian Compendium

SCIENTIFIC NAME	***COMMON NAME***
Accipitridae	**Hawks**
Buteo jamaicensis	Red-tailed hawk
Falconidae	**Falcons**
Falco sparverius	American kestral
Odontophoridae	**Quails**
Callipepla californica	California quail
Columbidae	**Pigeons and Doves**
* *Columbia livia*	Rock dove
Zenaida macroura	mourning dove
Trochilidae	**Hummingbirds**
Calypte anna	Anna's hummingbird
Tyrannidae	**Tyrant Flycatchers**
Sayornis nigricans	black phoebe
Sayornis saya	Say's Phoebe
Tyrannus verticalis	Western kingbird
Corvidae	**Jays and Crows**
Aphelocoma californica	western scrub-jay
Corvus corax	common raven
Aegithalidae	**Bushtits**
Psaltriparus minimus	bushtit
Troglodytidae	**Wrens**
Thryomanes bewickii	Bewick's wren
Salpinctes obsoletus	Rock wren
Mimidae	**Thrashers**
Mimus polyglottos	northern mockingbird
Toxostoma redivivum	California thrasher
Sturnidae	**Starlings**
* *Sturnus vulgaris*	European starling
Emberizidae	**Emberizids**
Pipilo crissalis	California towhee
Pipilo maculatus	spotted towhee
Aimophila ruficeps canescens	California rufous-crowned sparrow

SCIENTIFIC NAME	*COMMON NAME*
Icteridae	**Icterids**
Sturnella neglecta	Western meadowlark
Euphagus cyanocephalus	Brewer's blackbird
Fringillidae	**Finches**
Carpodacus mexicanus	house finch
Carduelis psaltria	lesser goldfinch
Passeridae	**Old World Sparrow**
Passer domesticus	House sparrow

April 30, 2019

Modern Pacific Homes, LLC
P.O. Box 7538
Capistrano Beach, CA 92624

Re: RESULTS OF FOCUSED COASTAL CALIFORNIA GNATCATCHER SURVEYS FOR THE LITTON AND BOSTICK PROJECT SITE IN THE CITY OF COLTON, SAN BERNARDINO COUNTY, CALIFORNIA

This report is prepared in compliance with the conditions of authorized permit number TE09015-5 issued to wildlife biologist Jason Berkley of **Cereus Environmental** for the performance of protocol surveys for the coastal California gnatcatcher (*Polioptila californica californica*). As such, this letter report summarizes the methodology and findings of surveys for this species on Litton and Bostick project site in the city of Colton, San Bernardino County, California. The surveys were conducted to determine the presence and location or absence of the coastal California gnatcatcher on the project site.

STUDY AREA

The project site is an approximately 49 acre site located between Litton Road and Palm Road, south of Interstate 10 freeway, north of Interstate 60 freeway and west of Interstate 215 freeway (Regional Location and Vicinity Maps, Figures 1 and 2). The project site ranges in elevation from 1000 to 1200 feet above mean sea level (MSL) and is bordered by residential development in the north, south, and east with open space along the western boundary. The southern portion of the site was historically used as an orchard and several concrete irrigation lines are still present, dirt roads are located throughout and adjacent to the site and are utilized by neighboring pedestrians and off-road vehicles. The project site is mapped in Section 31 of Township 1 South and Range 6 West as depicted on the San Bernardino South, CA U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map.

VEGETATION

The project site supports one native plant community characteristic of gently sloping alluvial fans, and two non-native plant communities.

Riversidean sage scrub is the most xeric expression of the coastal sage scrub communities. Most often, the Riversidean habitat is distinguished from other forms of sage scrub in that it is dominated by brittlebush (*Encelia pharinosa*). The slopes of the site are covered with brittlebush and scattered California sagebrush and buckwheat throughout, with non-native grasses underneath.

Ruderal areas occupy the project site and consisted of mostly black mustard (*Brassica nigra*) and annual sunflower (*Helianthus annus*). Other plant species found in ruderal areas on the project site include non-native grasses and a high proportion of weedy species

including storksbill (*Erodium cicutarium*), telegraph weed (*Heterotheca grandiflora*), and wildoat (*Avena fatua*).

Disturbed areas of the project site and are mostly devoid of vegetation or contain predominately non-native, weedy species adapted to frequent disturbance. Types of disturbed areas found on the project site include cleared land, and dirt access roads.

METHODOLOGY

Surveys for the coastal California gnatcatcher were conducted by wildlife biologist Jason Berkley (Permit No. TE09015-4), in accordance with the *USFWS Coastal California Gnatcatcher Presence/Absence Survey Guidelines*, issued July 28, 1997.[1] Accordingly, six surveys were performed at least one week apart, between 5:00 A.M. and 12:00 P.M., within all portions of the study area containing suitable habitat. Temperatures during surveys ranged between 50 degrees Fahrenheit and 74 degrees Fahrenheit. Weather conditions were suitable for surveys, with skies ranging from 0 to 100 percent overcast, and winds ranging from 0-1 miles per hour.

The field investigator slowly walked through all potentially suitable habitat, stopping at approximately 200-foot intervals, uttering pishing sounds and playing a tape of recorded California gnatcatcher vocalizations. The tape was played for several seconds at each interval, followed by a brief pause to listen for a response. Surveys were conducted on March 15, 22, 29 and April 7, 14, and 21, 2019. Survey details are listed in Table 1, *Survey Data*, on page 3.

[1] *U.S. Fish and Wildlife Service. Department of the Interior. Coastal California Gnatcatcher (Polioptila californica californica):Presence/Absence Survey Guidelines. Unpublished paper. Sacramento, California.*

RESULTS

No coastal California gnatcatchers were observed within the study area during any of the focused surveys conducted. A list of all avian species observed within the study area during surveys is included in the *Avian Compendium*, attached.

Should you have any questions regarding the methodology or findings in this report, please do not hesitate to contact Jason Berkley at (714) 493-1120.

Table 1 – Summary of Survey Results La Loma Hills Inc. Project Site

Date	Time	Wind (Beaufort)/ Temperature (°F)	Weather (Start-End)	Results	Surveyor
03/15/19	0800-1000	0-2 /53°-66°	clear-clear	No CAGN Found	Berkley
03/22/19	0930-1130	0-1 /54°-64°	partly cloudy - clear	No CAGN Found	Berkley
03/29/19	0700-1000	0-1 /50°-60°	clear-clear	No CAGN Found	Berkley
04/07/19	0700-0900	0-1 /52°-61°	Partly cloudy-partly cloudy	No CAGN Found	Berkley
04/14/19	0930-1130	0-1 /70°-74°	clear-clear	No CAGN Found	Berkley
04/21/19	0630-0830	0-1 /55°-62°	cloudy-partly cloudy	No CAGN Found	Berkley

Source: Jason Berkley, 2019

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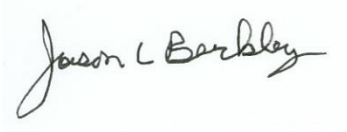

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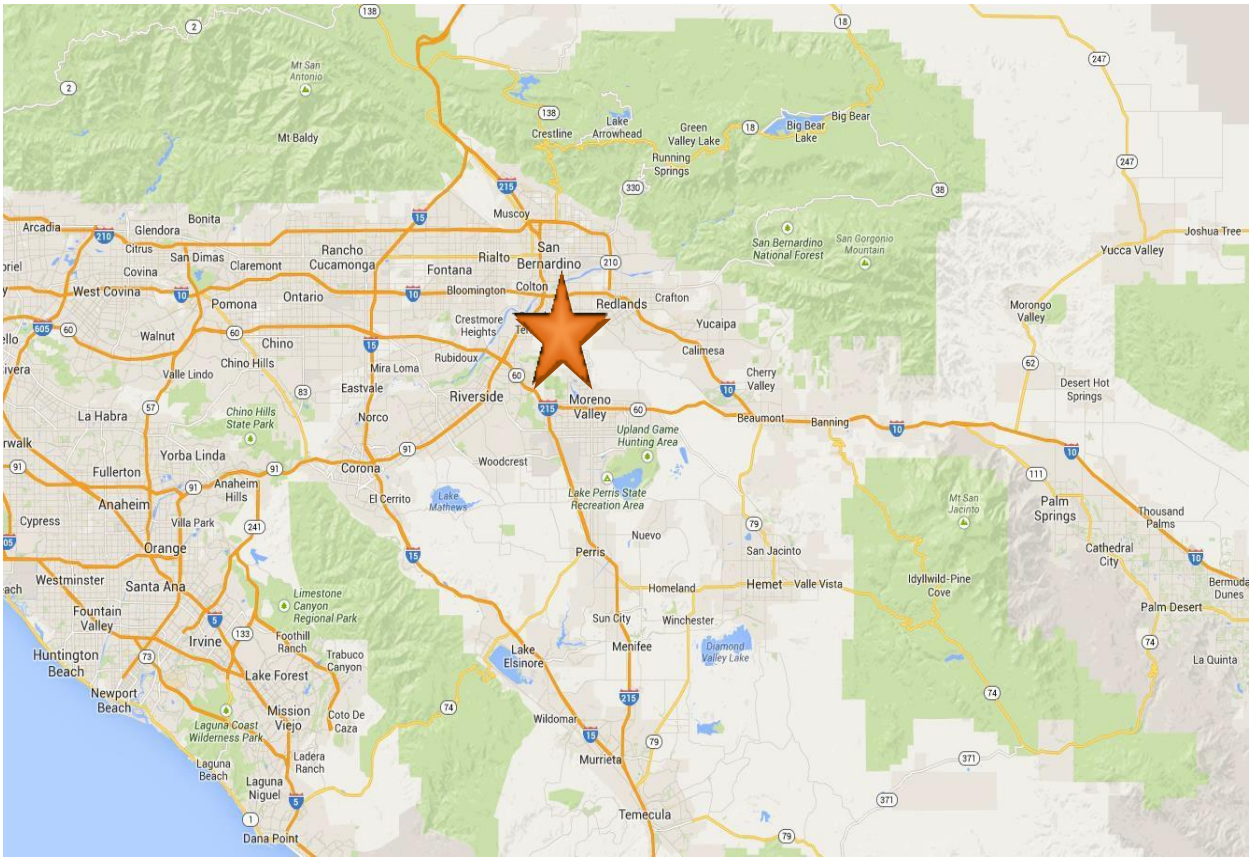

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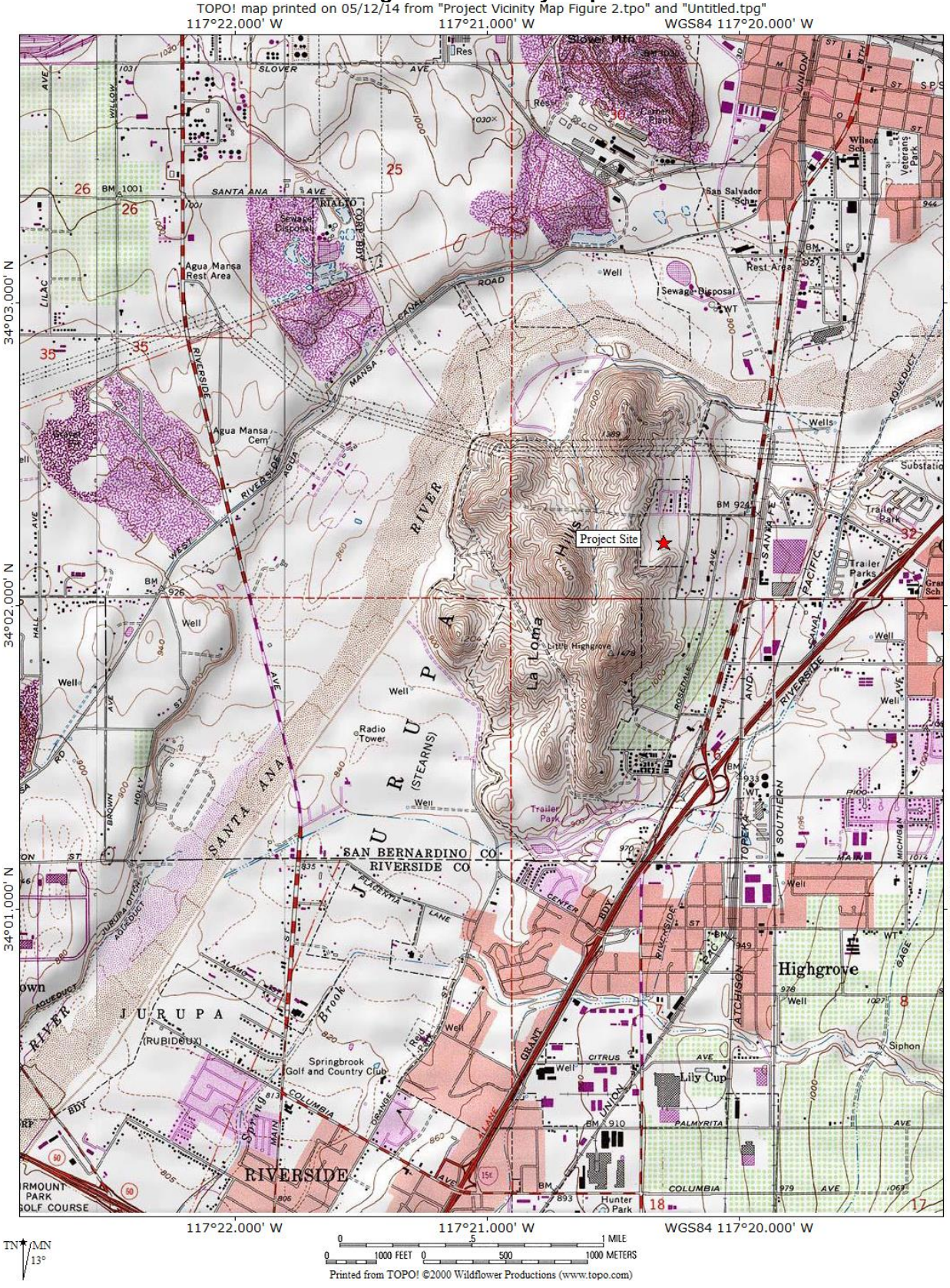

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