Appendix C

Biological Technical Report for the Elephant Hill Project

BIOLOGICAL TECHNICAL REPORT

Elephant Hill Project



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ACRONYMS, ABBREVIATIONS, AND GLOSSARY OF TERMS

APN	Assessor Parcel Number
BCC	Bird of Conservation Concern
BMPs	Best Management Practices
BLM	Bureau of Land Management
CAGN	California gnatcatcher
CDFW	California Department of Fish and Wildlife
CE	Candidate Endangered Species
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
City	City of Pomona
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
County	County of Los Angeles
CRPR	California Rare Plant Rank
CSS	Coastal Sage Scrub
CWA	federal Clean Water Act
e.g.	for example
ESA	Federal Endangered Species Act
etc.	et cetera
FGC	Fish and Game Code
FP	Fully Protected
FSS	Forest Service Sensitive
GIS	Geographic Information System
i.e.	in other words
KBI	Kidd Biological, Inc.
MBTA	Migratory Bird Treaty Act
MCV	Manual of California Vegetation
MSL	mean sea level
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
NWP	Nationwide Permit
OHWM	Ordinary High-Water Mark
OC	Orange County
O	Open space
PRD	Planned Residential Development
RAFSS	Riversidian Alluvial Fan Sage Scrub
RWQCB	Regional Water Quality Control Board
SEA	Significant Ecological Area
sp.	species
spp.	subspecies

SSC	Species of Special Concern
U.S.	United States
USACE	United States Army Corps of Engineers
USDA	United States Department of Agriculture
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
VCS	VCS Environmental
WL	Watch List Species

1.0 INTRODUCTION

On behalf of Trumark Companies, VCS Environmental (VCS) prepared this Biological Technical Report, which incorporates the findings from general biological and jurisdictional delineation surveys conducted by VCS on April 15 and August 4, 2020, and May 24, 2021. Post-fire conditions within the Project site were assessed during the 2021 biological survey. No changes were made on the jurisdictional delineation conducted in April 2020 as similar conditions were observed.

Protocol level surveys for California gnatcatcher (CAGN) were completed in spring 2020, 2021, and fall/winter of 2023 and 2024. Rare plant surveys were conducted on March 27 and 29, and June 8, 2020, by Kidd Biological, Inc., April 29, 2020 by VCS, and between May-June 2021, by botanist CJ Fotheringham. A fairy shrimp habitat assessment was conducted by Glenn Lukos Associates, Inc in 2005 and again in July and November 2021 and surveyed during the wet season of 2021/2022. Dudek conducted an arborist survey on May 24, 2022. A Crotch's bumblebee (CBB) survey was conducted on April 29, 2024 by Osborne Biological Consulting.

VCS prepared this report for the Elephant Hill Project, with an approximately 120-acre site.

1.1 Purpose and Approach

This report provides a summary of the conditions present during Summer 2020 and Spring 2021 biological field surveys, subsequent focused species surveys, an assessment of the potential presence of sensitive biological resources, and an analysis of the potential impacts to those resources within the Project site. This report identifies the current biological resources present within the Project site including habitat communities, potential jurisdictional waters, and the potential for the occurrence of special status plant and wildlife species. The potential biological impacts in view of federal, state, and local laws and regulations are also identified in this report. While general biological resources are discussed, the focus of this assessment is on those resources considered to be sensitive. The report also recommends, as appropriate, Best Management Practices (BMPs), avoidance, minimization, and mitigation measures to reduce or avoid potential impacts. This report was prepared based upon results of a literature review and field surveys.

1.2 Terms

The following terms will be used throughout this document and are defined as follows:

- Project Site: the approximately 120.61-acre property assessed during the biological surveys.
- Development Area: the approximately 51.83 acres that consist of the Impact Area, which incorporates the site plan, fuel modification, and approximately 6.24 acres of avoided natural open space not subject to impacts.
- Impact Area: the approximately 45.59 acres that will be developed and/or graded within the Project site. Of this area, approximately 42.28 acres are comprised of permanent impact areas and 3.31 acres of temporary impact areas.
- Mitigation Site: the approximately 68.80-acre onsite area for mitigation of impacts to sensitive species, and potentially, jurisdictional waters.
- Natural Open Space: the 6.24-acre area within the Development Area that will remain as open space.

1.3 Project Site Location

The approximately 120-acre Project Site is located at Elephant Hill, a largely undeveloped foothill within the City of Pomona (see Figure 1, Project Location). Specifically, the Project site is located directly to the east of State Route (SR)-57, south of the Union Pacific Railroad tracks right-of-way, north of Mission Boulevard, and approximately 370 feet west of Humane Way. The Project site consists of three parcels (Assessors' Parcel Numbers 8707-020-001, 8707-020-008, and 8708-021-058). The Project site is designated by the General Plan as Open Space and Urban Neighborhood (City of Pomona 2022). The northern portion of the Project site is zoned as Open Space (O) while the southern portion of the site is zoned as Planned Residential Development (PRD). A small portion of the site adjacent to Mission Road is within the Phillips Ranch Specific Plan - Multiple Family Residential (PRSP). The proposed Project would be consistent with this zoning. While the Project site is primarily undeveloped, the site is surrounded by residential uses to the south and southwest, industrial and commercial uses to the west past SR-57, public facilities to the southeast, and the Union Pacific Railroad right-of-way, Spadra Cemetery and the Pomona Water Reclamation Plant to the north. Development further north of the Southern Pacific Railroad tracks consists of largely commercial uses. [Figures 1 and 2, Regional and Aerial Vicinity Map, respectively].

The site is found on San Dimas United States Geologic Survey (USGS) 7.5-minute quadrangle, Section 26, Township 1 South, Range 9 West (Figure 3, USGS Map). The Assessor Parcel Numbers (APN) are 8707-020-008 and 8707-020-001.

2.0 PROJECT DESCRIPTION

The proposed Elephant Hill residential project (project) would be focused within the 45.59-acre southwestern area of the site (Impact Area) that is designated as Urban Neighborhood (Figure 4, Site Plan). The Impact Area would include residences, recreational areas, infrastructure, graded areas, remaining space (including landscaped slopes and fuel modification areas; Figure 5, Fuel Modification Map), and brush management areas. Biological habitat mitigation is expected to occur within the north and eastern proposed Mitigation Site of the Project site and would include at least 23.74 acres of coastal sage scrub habitat preserve areas, subject to agency review and approval.

The proposed 11.57-acre residential component would include 228 residential dwelling units, with 68 single-family units and 160 multi-family units. The proposed multi-family residential units would be comprised of 94 two-story duplexes and 66 three-story townhomes. The overall gross density would be 4.40 dwelling units per acre (du/ac) with a net density of 20.0 du/ac. The supporting recreational amenities would include a 1.02-acre central community area with a pool, multi-purpose room, various courtyard and event areas, restrooms, a dining and sun deck area, a cabana terrace, and an event lawn area. In addition, 14.96 acres of remaining space would consist of landscaped slopes and fuel modification areas, onsite roads, a new signal at the intersection of Sorrento Drive and Mission Boulevard, utility infrastructure, and a trail with outlooks along the western perimeter of the Impact Area. The project would include a series of internal private streets that would connect to the public street system at Sorrento Drive and Mission Boulevard, both located to the south of the Impact Area. On-site parking would total 666 parking spaces, and would include surface head-in parking, garage parking, and on-street parking. On-site utility improvements would include stormwater, water, sewer, electrical, and other dry utilities, to be located within the Impact Area. In addition, off-site utility connections would be required within the nearby Mission Boulevard and Sorrento Drive, as well as an off-site sewer connection to the Humane Society property, located to the southeast of the Project site.

In order to build the proposed project, the project would grade approximately 36.86 acres. The Project proposes to cut into the hill area and utilize that material to create terraces at the base of the hillside. Excess fill materials would be exported to a nearby landfill or construction site in need of fill for reuse. Blasting would be required in order to cut into the hillside. Grading is anticipated to be completed within one phase and would be expected to begin in 2026. Terraces would be retained by a mechanically stabilized earth (MSE) retaining wall. The MSE will be constructed of precast concrete panels and the entire height of the retaining walls will measure between 22 and 25 feet in height. Equipment and material staging would be limited to the proposed 45.59-acre Impact Area. Construction activities would be phased over approximately 4 years.

2.1 Current Conditions

The Project site is surrounded by developed and urbanized areas in all directions. The Project site is generally bordered by Railroad and Spadra Cemetery to the north, industrial/commercial uses and Highway 57 to the west, Humane Way and a water treatment plant to the east, and Mission Boulevard and residential development to the south. There is an undeveloped hill to the southeast of the Project site.

The Project site supports 13 vegetation communities/land cover types. These vegetation communities/land cover types include California buckwheat scrub, Deer weed scrub, Bush monkey flower scrub, Laurel sumac scrub, Poison Oak scrub, California walnut groves, Coast live oak woodland, Ornamental/Non-native vegetation, Wild oats and annual brome grassland, Upland mustards, Peruvian peppertree woodland,

Fountain grass swards, and Disturbed/developed (Figure 6, Vegetation Map). Site photographs are attached as Appendix A.

A brush fire occurred in early June 2020, affecting some of the habitats including California buckwheat scrub, Bush monkey flower scrub, Coast live oak woodland, California walnut groves, Upland mustards, and Wild oats and annual brome grasses within the middle/northwestern portions of the Project site. Approximately 32 acres within the 120-acre Project site were estimated to be affected by the fire.

The Project site elevations range from approximately 730 – 1,160 feet (222-354 meters) above mean sea level (MSL).

3.0 REGULATORY CONTEXT

The following is a list of the relevant federal, state, and local laws and regulations that apply to protecting plant communities, plants, wildlife, and water quality from impacts within the Project site and Project Impact Area.

Agency/ Organization	Laws/Regulations	Notes
Federal	Clean Water Act (CWA) Section 404	An Approved Jurisdictional Determination (AJD) has been issued by the United States Army Corps of Engineers (USACE) stating that no Waters of the United States occur on the Project site. Therefore, a 404 permit will not be required.
	Nationwide Permit (NWP) Section 404	An Approved Jurisdictional Determination (AJD) has been issued by the United States Army Corps of Engineers (USACE) stating that no Waters of the United States occur on the Project site. Therefore, a 404 permit will not be required.
	CWA Section 401	Jurisdictional Waters of the State are present on the Project site and will be impacted during Project activities; therefore, a Section 401 Waste Discharge Requirements (WDR) from the Regional Water Quality Control Board (RWQCB) will be required.
	CWA Section 408	No facilities subject to Section 408 occur within the Project.
	Migratory Bird Treaty Act (MBTA)	Compliance with the MBTA will be achieved with pre-construction surveys for nesting birds within three days prior to initiation of work.
	Endangered Species Act (ESA)	Coastal California gnatcatcher (*Polioptilla californica californica* [CAGN]) was observed using suitable habitat on the Project site. The CAGN habitat is not within the USACE Action Area; therefore, a United States Fish and Wildlife Service (USFWS) Section 10 will be required, which may result in obtaining an Incidental Take Permit and Habitat Conservation Plan (HCP) for impacts to CAGN.
State	Section 1600 of the Fish and Game Code (FGC)	Jurisdictional waters of the State are present within the Project site and 1.17 acres of waters of the State will be impacted during Project activities; therefore, a Section 1600 Permit through the California Department of Fish and Wildlife (CDFW) is required.
	Sections 3503, 3503.5, and 3513 of the FGC	These FGC sections offer protection of nesting birds, birds-of-prey, and migratory birds. Compliance will be maintained with a pre-construction survey for nesting birds (including birds-of-prey and migratory birds) within three days prior to initiation of work.
	Section 4150 of the FGC	Prohibits incidental or deliberate "take" of non-game mammals, including bats. Potential impacts to bats will be avoided with pre-construction surveys conducted 12-6 months prior to the initiation of work and again within two weeks prior to the initiation of work.

Agency/ Organization	Laws/Regulations	Notes
City of Pomona	The City of Pomona's Tree Protection and Preservation Program (Resolution No. 2000-72)	The resolution states that removing mature significant trees or specimen (heritage) trees would be considered a 'Major Project' under the plan and therefore subject to administrative review under the provisions of the Historic Preservation Ordinance. There are qualifying mature significant trees within the Project site, therefore, the Project will be subject to review of the Tree Protection and Preservation Resolution.
Los Angeles County	Significant Ecological Area (SEA) SEA Ordinance	The Project site is located within the East San Gabriel Valley SEA. Although the site has an SEA Designation, the ordinance only applies to unincorporated areas as also stated in the GIS Web Application tool provided by Los Angeles County and depicted on Figure 7. Therefore, it is our understanding that this Project site is not subject to the County requirements of the SEA and that a Conditional Use Permit from the County of Los Angeles (County) is not anticipated to be required to implement the Project.

3.1 Impacts Terminology

Potential impacts to biological resources that could result from implementation of the proposed Project are discussed in each of the Vegetation, Wildlife, and Jurisdictional Waters sections presented in this report.

Biological resources may be either directly or indirectly impacted by a project. Furthermore, direct and indirect impacts may be either permanent or temporary in nature. These impact categories are defined below. These terms will be used throughout the document.

- Direct Impact: Any loss, alteration, disturbance, or destruction of biological resources that would result from project-related activities is a direct impact. Examples include vegetation clearing, encroaching into wetlands, diverting natural surface water flows, and the loss of individual species and/or their habitats. Direct impacts are long-term.
- Indirect Impact: As a result of project-related activities, biological resources may also be affected in a manner that is not direct. Examples of indirect impacts include elevated noise, light, and dust levels, increased human activity, decreased water quality, erosion created by the removal of vegetation, and the introduction of invasive plants and unnatural predators (e.g., domestic cats and dogs). These indirect impacts may be both short-term and long-term in their extent.
- Permanent Impacts: All impacts that result in the long-term or irreversible removal of biological resources are considered permanent. Examples include constructing a building or permanent road on an area containing biological resources.
- Temporary Impacts: Any impacts considered to have reversible effects on biological resources can be viewed as temporary. Examples include the generation of fugitive dust during construction, removing vegetation, and either allowing the natural vegetation to recolonize or actively revegetating the Impact Area.

Under each section, potential impacts are discussed.

4.0 VEGETATION

4.1 Literature Review

4.1.1 Sensitive Plant Communities

Sensitive plant communities (sensitive habitats) as defined below, are of limited distribution statewide or within a county or region and are often vulnerable to environmental effects of projects. Sensitive habitats are often threatened with local extirpation and are therefore considered as valuable biological resources. Plant communities are considered "sensitive" by the California Native Plant Society (CNPS) and CDFW if they meet any of the following criteria listed below:

- The habitat is recognized and considered sensitive by CDFW, USFWS, and/or special interest groups such as CNPS.
- The habitat is under the jurisdiction of the USACE pursuant to Section 404 of the CWA.
- The habitat is under the jurisdiction of CDFW pursuant to Sections 1600 through 1612 of the FGC.
- The habitat is known or believed to be of high priority for inventory in the California Natural Diversity Database (CNDDB).
- The habitat is considered regionally rare.
- The habitat has undergone a large-scale reduction due to increased encroachment and development.
- The habitat supports special status plant and/or wildlife species (defined below).
- The habitat functions as an important corridor for wildlife movement.

CDFW's List of California Sensitive Natural Communities indicates which natural communities are sensitive given the current state of the California classification (CDFW 2021b).

4.1.2 Special Status Plants

Species of plants are afforded "special status" by federal agencies, state agencies, and/or non-governmental organizations (e.g., USFWS, CDFW, CNPS, and United States Forest Service [USFS]) because of their recognized rarity, potential vulnerability to extinction, and local importance. These species typically have a limited geographic range and/or limited habitat and are referred to collectively as "special status" species. Plant species are considered "special status" species if they meet any of the following criteria:

- Taxa with official status under ESA, California Endangered Species Act (CESA), and/or the Native Plant Protection Act (NPPA).
- Taxa proposed for listing under ESA and/or CESA.
- Taxa identified as sensitive, unique or rare, by the USFWS, CDFW, USFS, and/or the Bureau of Land Management (BLM).
- Plants that meet the definition of rare or endangered under the California Environmental Quality Act (CEQA) §15380(b) and (d). Species that may meet the definition of rare or endangered include the following:

  - Species considered by CNPS and CDFW to be "rare, threatened or endangered in California" (California Rare Plant Rank [CRPR] 1A, 1B and 2; CNPS 2019). A majority of the CRPR 3 and CRPR 4 plant species generally do not qualify for protection under CESA and NPPA.
  - Species that may warrant consideration on the basis of local significance or recent biological information.
  - Some species included on the CNDDB Special Vascular Plants, Bryophytes, and Lichens List (CDFW 2021c).

- Considered a locally significant species, that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA §15125 (c)) or is so designated in local or regional plans, policies, or ordinances. Examples include a species at the outer limits of its known range or a species occurring on an uncommon soil type.

Available literature and databases were reviewed regarding sensitive habitats and special status plant species. Special status plant species that have the potential to occur within the immediate region of the Project site were identified. Several agencies, including the USFWS, CDFW, and CNPS publish lists of particular taxa (species and subspecies) and the associated level of protection or concern associated with each. Reviewed and consulted literature and databases focused on the Project site and included the following sources listed below:

- The CNDDB, a CDFW species account database that inventories status and locations of rare plants and wildlife in California, was used to identify any sensitive plant communities and special status plants that may exist within a five-mile radius of the Project site, which includes San Dimas Quad and portions of Glendora, Ontario, Prado Dam, Yorba Linda, and Baldwin Park Quads (CDFW 2021a).
- Online CNPS Inventory of Rare and Endangered Plants of California (CNPS 2021). A search for the USGS 7.5-Minute Topographic Map San Dimas Quadrangle within a range of 0 – 600 meters elevation provided information regarding the distribution and habitats of special status vascular plants in the vicinity of the Project.
- A map of USFWS critical habitat to determine species with critical habitat mapped in the general vicinity of the Project (USFWS 2021a).
- Natural Resources Conservation Service NRCS (2020) soil map of the Project site.
- Pertinent maps, scientific literature, websites, and regional flora and fauna field guides.

As noted previously, species occurrence and distribution information are often based on documented occurrences where opportunistic surveys have taken place; therefore, a lack of records does not necessarily indicate that a given species is absent from the Project site. Plant species occurrences observed during the Sensitive Plant Surveys conducted for the Project site in Spring 2020 and 2021 are included in this report.

4.2 Field Methodology

A general biological survey was conducted within the Project site on August 4, 2020, by VCS biologists Carla Marriner and Chris Eljenholm. Another biological survey was conducted on May 24, 2021, by VCS biologist Carla Marriner and botanist CJ Fotheringham, a nesting bird survey on April 14, 2022 by VCS biologist Darcy Hardwick, and an arborist survey was conducted by Dudek on May 24, 2022. During the biological surveys,

the biologists walked the entirety of the Project site, paying special attention to those areas that could host sensitive vegetation communities or had the potential to provide suitable habitat for special status plant species. Plant species were identified using plant field and taxonomical guides, such as The Jepson Manual: Vascular Plants of California, second edition (Baldwin et al. 2012). All plant species encountered during the field survey were identified and recorded in field notes.

The vegetation communities and habitat conditions were inspected to confirm presence and habitat quality of the vegetation found onsite. Where appropriate, descriptions of vegetation communities from the Manual of California Vegetation (MCV) second edition (Sawyer et al. 2009) were also utilized. Any deviations from standard vegetation classifications were made on best professional judgment when areas did not fit into a specific habitat description provided by the Manual. Vegetation communities were mapped using field observations and utilizing aerial imagery.

Limitations during the surveys included unsafe access to some areas of the site due to dense vegetation cover and uneven and/or extremely steep terrain. Dense cover of non-native invasive species such as mustard and thistle were also observed in some portions of the Project site.

4.2.1 Rare Plant Survey

In 2020, three separate rare plant surveys were conducted within the Project site on March 27 and 29, April 29, and June 8, 2020, by botanist Jordan Zyltsra (Kidd Biological, Inc.). During 2021, focused rare plant surveys were conducted between May and June by botanist CJ Fotheringham to identify any emergent and/or sensitive species within the fire-affected area and within the Project site. Survey methodology and results of the surveys are further detailed in the Sensitive Plant Survey Reports (2020 and 2021) included as Appendix B.

4.3 Results

4.3.1 Vegetation Communities

Vegetation/land cover mapping and acreages for each vegetation community and land type within the Project site can be found in Table 1 and are depicted in Figure 6, Vegetation Map. California buckwheat scrub, Bush monkey flower scrub, and Deer weed scrub habitats present within the Project site present some levels of disturbance due to moderate densities of non-native species. Due to the difficulties of accessing portions of the site, the boundaries of the vegetation communities identified are approximate. Approximately 32 acres within the 120-acre Project site were estimated to be affected by the June 2020 fire onsite. The vegetation communities that were affected included California buckwheat scrub, Bush monkey flower scrub, Coast live oak woodland, California walnut groves and Wild oats and annual brome grassland. During the biological surveys conducted in Spring 2021, biologists observed that many of the native species have resprouted from their burls and look healthy. However, as mentioned in the rare plan survey report by CJ Fotheringham, both the shrublands and woodlands within this area are adapted to recurring fire. Some species, such as oak trees, elderberry, toyon, etc., resprout either epicormic buds under the bark along the branches or from the base near the root crown. Generally, the site is growing back well and herbaceous/shrub cover is dominant in the majority of the fire-affected areas.

The definition of vegetation alliances and associations follow the MCV. The vegetation “alliance” describes the unit of classification best suited to define vegetation on a regional or statewide level, based on floristic categories defined by the dominant plant. Rarity rankings are also provided including Global (G) and State (S) ranks from 1 to 5. Substantial impacts to vegetation alliances with a State ranking of 1, 2 or 3 may be

considered significant under CEQA; vegetation alliances with a State ranking of 4 and 5 may or may not be endemic to the state, are considered "secured" statewide and impacts are not considered significant.

Representative photographs of the Project site are included as Appendix A.

Table 1. Vegetation Communities/Land Cover Observed within the Project site

Vegetation Community/ Land Cover Type	Project Site (acres)
Bush Monkey Flower Scrub (S3?/G3)	7.94
California Buckwheat Scrub (S5/G5)	19.50
California Walnut Groves (S3.2/G3)	11.51
Coast Live Oak Woodland (S4/G5)	12.43
Deer Weed Scrub (S5/G5)	18.46
Disturbed/Developed	3.14
Fountain Grass Swards	0.39
Laurel Sumac Scrub (S4/G4)	0.99
Ornamental/Non-native	0.20
Pepper Tree Groves	0.52
Poison Oak Scrub (S4/G4)	1.82
Upland Mustards	25.76
Wild Oats and Annual Brome Grassland	17.96
Total	**120.61**

4.3.1.1 Bush Monkey Flower Scrub *(State rarity: S3) – Diplacus aurantiacus* Shrubland Alliance

Approximately 7.94 acres of Bush monkey flower scrub were identified within the Project site. This is a sensitive vegetation group with a rarity ranking of S3 and G3. This vegetation is defined by the bush monkey flower having more than 50% relative cover in the shrub canopy; this community was found primarily on the steep northern slopes. This vegetation community is dominated by thick patches of bush monkey flower; other species observed include native California buckwheat and California sagebrush. Emergent vegetation observed after the fire during the biological survey within this vegetation community include scattered prickly pear (*Opuntia* sp.), California buckwheat, and narrow leaf milkweed (*Asclepias fascicularis)*.

A portion of this vegetation community was affected/burned during the June 2020 fire. Some patches of this vegetation on the northwestern were assessed and re-mapped in Spring – Summer 2021. Signs of regeneration were observed within this area. Many native species have resprouted and others have germinated and look healthy. There is emergent vegetation and intermixed patches of herbaceous species primarily deer weed and bush monkey flower seedlings. Other emergent species observed at a low cover include laurel sumac seedlings, California buckwheat, narrow leaf milk weed, California sagebrush, and prickly pear. Some portions of this vegetation community present a low to moderate level of disturbance due to the presence of non-native grasses and mustard.

4.3.1.2 California Buckwheat Scrub – *Eriogonum fasciculatum* Shrubland Alliance

Approximately 19.50 acres of California buckwheat scrub were mapped within the Project site as detailed in Table 1. This vegetation community is primarily comprised of native species including California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), moderate densities of bush monkey flower (*Diplacus aurantiacus*), laurel sumac (*Malosma laurina*), deer weed (*Acmispon glaber*), rod wire lettuce (*Stephanomeria virgate*), coyote brush (*Baccharis pilularis*), caterpillar phacelia (*Phacelia cicutaria*), and poison oak (*Toxicodendron diversilobum*). Small patches of toyon (*Heteromeles arbutifolia*) were also observed within this vegetation community mostly in the southern portion of the Project site; single scattered California walnut and elderberry trees were also observed within some portions of this community. The southern slope presents patches of bush monkey flower intermixed with California buckwheat, California sagebrush and poison oak. It was determined that the density of the bush monkey flower patches did not meet the definition of Bush monkey flower scrub, like the steeper northern slopes of the Project site.

Non-native species observed in this area included red brome (*Bromus rubens*), tree tobacco (*Nicotiana glauca*), white horehound (*Marrubium vulgare*), prickly lettuce (*Lactuca serriola*), castor bean (*Ricinus communis*), yellow star thistle (*Centaurea melitensis)*, brome grasses (*Bromus* sp.), and short-pod mustard (*Hirschfeldia incana*).

4.3.1.3 California Walnut Groves *(State Rarity: S3.2) – Juglans californica* Forest and Woodland Alliance

Approximately 11.51 acres of California walnut groves were mapped within the Project site. California walnut woodland alliance is a sensitive vegetation group with a rarity ranking of G3 S3.2. This vegetation is defined by California walnut having over 50% relative cover in the tree canopy, or over 30% relative cover where coast live oak is also present. On the Project site, this vegetation group is typically defined by a mix of California walnut and coast live oak with less cover from coast live oak. There are some portions of the onsite California walnut groves where California walnut is the fully dominant tree among grassland or chaparral species such as laurel sumac and elderberry trees. Many of the trees that are mapped as part of this vegetation community affected by the fire are still alive and appeared to be recovering at the time of the August 2020 and May 2021 biological surveys.

4.3.1.4 Coast Live Oak Woodland – *Quercus agrifolia* Forest and Woodland Alliance

Approximately 12.43 acres of Coast live oak woodland was mapped within the Project site. The area mapped as Coast live oak woodland within the Project site are characterized by almost full cover of coast live oak trees and low to no presence of California walnut. Other species observed within this community include patches of native poison oak. Non-native species include ripgut brome and mustard.

4.3.1.5 Deer Weed Scrub – *Lotus Scoparius* Shrubland Alliance

Approximately 18.46 acres of Deer weed scrub was identified within the Project site. This vegetation community occurs mostly on the western slopes of the Project site. Native species observed within this community include deer weed, California buckwheat, caterpillar phacelia, coast prickly pear (*Opuntia littoralis*), and rod wire lettuce. This community presents a moderate level of disturbance due to the presence of non-native species including short-pod mustard, rip gut brome, and wild oat (*Avena barbata*).

4.3.1.6 Disturbed/Developed

Approximately 3.14 acres of Disturbed/developed land cover occurs within the Project site. This area is located along the southern portion of the Project site and consists of bare ground with compacted soils that supports sparse non-native herbaceous vegetation.

4.3.1.7 Fountain Grass Swards – *Pennisetum setaceum – Pennisetum ciliare* Herbaceous Semi-Natural Alliance

Approximately 0.39 acres of Fountain grass swards occur on the steep south-facing slopes of the Project site. Invasive crimson fountain grass (*Pennisetum setaceum*) is the dominant species with low densities of other non-native and native forbs.

4.3.1.8 Laurel Sumac Scrub – *Malosma laurina* Shrubland Alliance

Approximately 0.99 acres of Laurel sumac scrub was mapped along the Project site boundary within the northern portion where the dominant shrub/tree species is laurel sumac. No other species were noted.

4.3.1.9 Ornamental/Non-native

Approximate 0.20 acres of Ornamental/non-native vegetation was mapped within a jurisdictional waters area found within the southern portion of the Project site. This area is highly disturbed by a large amount of debris from an apparently active homeless encampment. This habitat type is dominated by a mix of ornamental and non-native species including Shamel ash (*Fraxinum uhdei*), Peruvian peppertree (*Schinus molle*), castor bean, American century plant (*Agave americana*), tree tobacco, some scattered native toyon, and mulefat shrubs.

4.3.1.10 Pepper Tree Groves – Schinus (*molle, terebinthifolius*) – *Myoporum laetum* Forest and Woodland Semi-Natural Alliance

Approximately 0.52 acres of Pepper tree groves occur on the western portion of the Project site. This community is dominated by tall, mature Peruvian pepper trees (*Shinus molle*).

4.3.1.11 Poison Oak Scrub – *Toxicodendron diversilobum* Shrubland Alliance

Approximately 1.82 acres of Poison oak scrub were identified within the Project site. This vegetation community occurs mostly on the northeastern slopes of the Project site. The dominant species include poison oak with some California buckwheat and California sagebrush shrubs present at low cover.

4.3.1.12 Upland Mustards *(Brassica nigra*) – *Centaurea (solstitialis, melitensis)* Herbaceous Semi-Natural Alliance

Approximately 25.76 acres of Upland mustards were mapped within the Project site. This vegetation is typically present on ridgetops and slopes, with emergent trees and shrubs present in relatively low numbers. Species within this community include high densities of short-pod mustard and black mustard (*Brassica nigra*), brome grasses, yellow star thistle, milk thistle (*Silybum marianum*), and Italian thistle (*Carduus pycnocephalus*).

4.3.1.13 Wild Oats and Annual Brome Grasslands – *Avena* spp. – *Bromus* spp. Herbaceous Semi-Natural Alliance

Approximately 17.96 acres of Wild oats and annual brome grasslands were mapped within the Project site. Wild oat grasslands are predominant in the western portion of the Project site while the eastern and other areas are dominated by annual brome grasses including valley bottoms, slopes, and ridgetops. This area largely consists of a flat disturbed valley floor which appears to be frequently mowed due to fire hazard. Most of the valley floor is dominated by wild oat grass along with species such as perennial ryegrass (*Festuca perennis*) and field bindweed (*Convolvulus arvensis*). Individual shrubs and trees are present and scattered such as coast live oak and elderberry trees. Native herbs, such as common fiddleneck and dove weed (*Croton setigerus*), consist of less than 10% cover. Other common forbs include yellow star thistle (*Centaurea solstitialis*), castor bean, and shortpod mustard. The low seasonally wet basin adjacent to West Mission Boulevard dominated by non-native grasses also presents curly dock (*Rumex crispus*), common sunflower (*Helianthus annus*), a single arroyo willow (*Salix lasiolepis*), scattered mulefat (*Baccharis salicifolia*), and one coast live oak tree. There are some Peruvian peppertrees on the eastern side of the Project site within this vegetation/land cover.

4.3.2 City of Pomona's Tree Protection and Preservation Program (Resolution No. 2000-72)

The City of Pomona's Tree Protection and Preservation Program (Resolution No. 2000-72) states that removing mature significant trees or specimen (heritage) trees would be considered a 'major project' and therefore subject to administrative review under the provisions of the Historic Preservation Ordinance. The Resolution defines mature significant trees and specimen heritage trees as follows:

- Mature Significant Trees. Mature significant trees may be located on either public or private Project site and shall be defined consistent with the City of Pomona Tree Preservation ordinance and include:
  - Oak trees with trunks more than eight inches in diameter.
  - Other trees with trunks more than ten inches in diameter.
  - Multi-trunk trees with a total circumference of 38 inches or more.
  - Diameter or circumference of the tree trunk is measured at breast height.
- Specimen (Heritage) Trees. Specimen (heritage) trees shall be defined consistent with City Council Resolution No. 73-68 any rare or endangered species or any tree that is considered outstanding because of size, age, appearance, or relationship to historic events. Specimen (heritage) trees may be located on either public or private Project site.

The Resolution also states that the removal of any dead or dying trees are exempt projects. Identification of dead or dying trees must be determined by a certified arborist. A full field survey by an arborist was conducted by Dudek on May 24, 2022 as part of the CEQA Biological Technical Report. Dudek's arborist recorded 12 oak trees (Coast live oak) with protected zones within 50 feet of improvements proposed on the project site plan. Of the 12 oak trees found within the survey area only 11 oak trees (see Appendix C) meet the criteria (greater than 8- inches at 4.5 feet above ground level) for regulation under the City's Oak Tree Protection Ordinance. None of the protected oak trees are located within the Historic District and none are considered specimen trees per City Council Resolutions No. 62-65 and No. 73-68.

4.3.2.1 Special Status Vegetation Communities

Two sensitive vegetation communities were reported in the CNDDB within five miles of the Project site: California walnut woodland and Riversidian alluvial fan sage scrub (RAFSS) (Figure 8, CNDDB). RAFSS vegetation community does not occur onsite.

As noted above, vegetation alliances with a State Rarity Ranking of S3 or lower are considered to have special status due to the limited number of occurrences. California walnut groves occur within the Project site; this is a sensitive vegetation community with a rarity ranking of S3.2 G3. Additionally, another sensitive vegetation community, Bush monkey flower with a rarity raking of S3? G3 occurs onsite.

4.3.3 Plants

A total of 69 plant species were observed within the Project site during the general biological survey are listed in Appendix D. Additional plant species observed during the focused plant surveys are included in the plant survey report (Appendix B).

4.3.3.1 Sensitive Plant Species Occurring Onsite

Three sensitive plant species were observed during the focused rare plant surveys conducted in Spring 2020 and 2021 and include many-stemmed dudleya (*Dudleya multicaulis*), intermediate mariposa lily (*Calachortus weedii intermedius*) and California walnut (Figure 9, Special Status Plant Locations).

Many-stemmed Dudleya (*Dudleya multicaulis*)

Many-stemmed dudleya was found to be widespread among many of the bedrock outcroppings through all vegetation communities on the north-facing slopes and ridgetops of Elephant Hill. Many-stemmed dudleya is a succulently vernal, summer-deciduous perennial herb that persists through the dry season from a subsurface corm. It has yellow flowers on an upright peduncle up to 35 cm and can bloom between April and July. The CNPS gives this plant a rare plant rank of 1B.2.

During 2020 and 2021 rare plant surveys, several of the larger populations were estimated to contain at least 5,000 individuals and the total Project site population was estimated to be nearly 20,000 plants. Due to the steep site topography and some limits to practical survey coverage, it is assumed that some additional unmapped small or moderate populations may exist on the north slope of the site (Appendix B; Figure 9).

Intermediate Mariposa Lily (*Calochortus weedii* var. *intermedius*)

This species is a perennial bulbiferous herb which occurs in rocky open slopes in chaparral, coastal scrub, and valley and foothill grasslands. Its stem can be up to 90 cm, with 2-6 flowers consisting of yellow to purple petals bearded with hairs on the inner face out to the upper petal margin. This species can bloom between May and July, and it has a CNPS rare plant rank of 1B.2. A total of four individuals were observed, with one additional dead stem of a previous year's individual observed. There are likely more occurrences on site than were observed. They often present in high numbers following wildfires, so the 2020 fire at Elephant Hill may provide more suitable conditions to observe the site's population (Appendix B). During the 2021 focused rare plant survey intermediate mariposa lily was found at three locations on the Project site, at least one of which had been previously recorded. Location 1 [L-1] (the same as identified in the 2020 surveys) had 14 individuals in flower and bud when identified on May 23, 2021. Location 2 [L-2] had 11 individuals in bud and flower when identified on May 27, 2021. Location 3 [L-3] had 4 individuals in bud, flower and beginning fruit development when identified on June 7, 2021 (Figure 9).

California Walnut (*Juglans californica*)

California walnut was observed throughout the Project site, though was more frequent on the ridgetops and north-facing slopes of the site. California walnut is a fairly small tree, growing to about 9 meters, and can be found on hillsides and canyons of southern California. It has a CNPS rare plant rank 4.2. California walnuts are the primary constituent of California walnut groves which is designated as a sensitive vegetation community (global and state rarity rank of G3 S3.2) and are found on the Project site.

California walnut was readily visible during all of the plant and biological surveys conducted in 2020 and 2021, though due to practical survey limitations some of the larger populations were estimated, and some additional individuals may have been obscured in areas of coast live oak woodland (Appendix B; Figure 9). In addition, several individuals of the similar looking English walnut (*Juglans regia*) were observed onsite. It is possible, that some of these, when viewed from a distance, were erroneously recorded as California walnut. However, the vast majority of walnuts on site are California walnut (Kidd Biological, Inc., 2020 and Fotheringham 2021).

4.3.3.2 Sensitive Plant Species with Potential to Occur

Sensitive plant species include federally, or state listed threatened or endangered species and those species listed on CNPS's rare and endangered plant inventory. Species with the potential to occur onsite were analyzed based on distribution, habitat requirements, and existing site conditions, and are listed in Appendix E.

Sensitive plant species observed within the Project site during the Spring 2020 and 2021 focused rare plant surveys included many-stemmed dudleya, intermediate mariposa lily, and California walnuts, as detailed in Section 4.3.3.1.

Based on the habitat found onsite, the special status plant species that have at least moderate potential to occur within the Project site or are reported in the immediate area of the site but were not identified during the biological and/or rare plant surveys, include California androsace (*Androsace elongata* ssp. *acuta)*, western spleenwort (*Asplenium vespertinum),* Catalina mariposa lily (*Calochortus catalinae)*, Plummer's mariposa lily (*Calochortus plummerae)*, Robinson's peppergrass (*Lepidium virginicum* var. *robinsonii*), Parry's spine flower (*Chorizanthe parryi* var. *parry*i), Hubby's phacelia (*Phacelia hubbyi)*, chaparral ragwort (*Senecio aphanactis),* and San Bernardino aster (*Symphyotrichum defoliatum)*. An assessment of sensitive plant species and their potential to occur, as well as their federal/state/local classifications, are listed in Appendices C and E.

California Androsace (*Androsace elongate* ssp. *acuta*)

California androsace is a small annual herbaceous plant in the Primrose family. It prefers dry grassy slopes below 4,000 feet of elevation but has been known to occur in a variety of habitats including woodlands and scrub. This species flowers between February and April. The Project site has dry grassy hillside habitats which would generally be considered suitable for this species; however, no individuals were observed during rare plant surveys. California androsace has a moderate potential to occur on the Project site.

Western Spleenwort (*Asplenium vespertinum*)

Western spleenwort is a fern native to Southern California and Baja California. This species grows in moist shady areas typically below overhanging rocks or cliff faces. It typically occurs in elevations ranging from 600 feet to 3,250 feet. The Project site supports overhanging cliffs and rocky outcroppings that could potentially support suitable habitat for western spleenwort. Due to the presence of suitable habitat, there

is a moderate potential for western spleenwort on the Project site; however, no individuals were identified during rare plant surveys.

Catalina Mariposa Lily (*Calochortus catalinae*)

Catalina mariposa lily is a perennial herb endemic to Southern California that typically blooms between March and June. It prefers habitats along the coastline and can be found from San Diego County to San Luis Obispo County. Catalina mariposa lily is found most often in chaparral, coastal scrub, and valley and foothill grasslands below 2,500 feet of elevation. The Project site supports grassland habitat that Catalina mariposa lily prefers and therefore, there is a moderate to high potential of occurrence; however, no individuals of this species were observed during the rare plant surveys.

Plummer's Mariposa Lily (*Calochortus plummerae*)

Plummer's mariposa lily is a perennial herb with a showy pink, lavender, or white flower that typically blooms between May and July. It is endemic to California and is typically found along the coast and inland hills within the chaparral plant community, although it can be found in cismontane woodland, coastal scrub, lower montane coniferous forest, and valley and foothill grassland. Plummer's mariposa lily is usually found within granitic rocky areas and is often within alluvial fans. The Project site supports granitic rocky areas surrounded by chaparral and various grassland habitats. Due to the presence of suitable habitat, this species has a moderate potential to occur; however, no individuals were observed during the rare plant surveys.

Robinson's Peppergrass (*Lepidium virginicum* ssp. *menziesii*)

Robinson's peppergrass is a small annual flowering plant in the family Brassicaceae that grows throughout California and blooms between March and June. This species typically grows in disturbed dry areas at elevations below 3,000 feet. It can be found in riverbanks, meadows, fields, pastures, cliffs, and scrub. This Project site supports grassland and meadow habitat that are potentially suitable for Robinson's peppergrass; therefore, there is a moderate potential for this species to occur on the Project site. Despite this moderate potential to occur, no individuals were observed during the rare plant surveys.

Parry's Spineflower (*Chorizanthe parryi* var. *parryi)*

Parry's spineflower is a species of flowering plant in the buckwheat family known by the common name Parry's spineflower and San Bernardino spineflower. The plant is endemic to Southern California, where it is found in the San Bernardino Mountains, San Gabriel Mountains and Western Transverse Ranges, the Colorado Desert, and along the southern coast. It is found mainly in chaparral scrub plant communities. This species is a small, sprawling herb with roughly hairy stems spreading along the ground or somewhat upright. There is a moderate potential for this species to occur on the Project site; however, no individuals were observed during the rare plant surveys.

Hubby's Phacelia (*Phacelia hubbyi*)

Hubby's phacelia is a small annual herb with a simple branched stem and small purple flowers. This species blooms between April and July and typically occupies open gravelly or rocky slopes within chaparral or grassland habitat below 3,500 feet of elevation. The Project site supports suitable chaparral and grassland habitats, and therefore Hubby's phacelia has a moderate potential to occur on the Project site. No individuals were observed during the rare plant surveys.

Chaparral ragwort (*Senecio aphanactis*)

Chaparral ragwort is a small annual herb in the aster family. It blooms from January to April and occurs in dry coastal areas, specifically alkali flats; however, it can occur in a variety of habitats including chaparral, cismontane woodland, and coastal scrub. The Project site supports suitable habitats for chaparral ragwort, and therefore the species has a moderate potential to occur on the Project site. Although the species has potential to occur, no individuals of this species were identified in the rare plant surveys.

San Bernardino aster (*Symphyotrichum defoliatum*)

San Bernardino aster is a perennial herb with a white to light purple flower that blooms from July to November. This species occurs in grasslands and disturbed places but has a tendency to grow near ditches, streams, springs and other vernally mesic habitats. It has been found in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows, and valley and foothill grasslands. The Project site supports vernally mesic habitats that include grasslands, cismontane woodland, meadows, and various grasslands; therefore, this species has a moderate to high potential to occur on the Project site. No individuals of this species were identified in the rare plant surveys.

4.4 Project Impacts

4.4.1 Potential Impacts to Vegetation Communities

Potential impacts to vegetation communities/land cover types due to implementation of the proposed 45.59-acre Project within the approximate 120-acre Project site are shown below in Table 2 and depicted in Figure 10, Vegetation Impacts.

Table 2. Potential Impacts to Vegetation Communities/Land Cover

Vegetation Communities/ Land Cover Type	Permanent Impact Area (acres)		Temporary Impact Area (acres)[2]	Avoided Area (acres)	
	Removal	Fuel Modification (Zone C)[1]		Natural Open Space	Mitigation Site
Bush Monkey Flower Scrub*	-	-	-	<0.01	7.93
California Buckwheat Scrub*	5.49	4.19	-	1.90	7.92
California Walnut Groves	0.71	0.08	-	0.96	9.76
Coast Live Oak Woodland	0.12	-	-	0.02	12.29
Deer Weed Scrub*	6.87	3.23	2.44	0.84	5.08
Disturbed/Developed	2.22	0.61	-	0.31	-
Fountain Grass Swards	-	-	-	<0.01	0.38
Laurel Sumac Scrub*	-	-	-	-	0.99
Ornamental / Non-native	0.20	-	-	-	-
Pepper Trees Groves	-	-	-	0.52	-
Poison Oak Scrub*	-	-	-	-	1.82
Upland Mustards	7.99	1.10	0.87	1.11	14.68
Wild Oats / Annual Brome Grassland	7.01	2.44	-	0.58	7.94
Subtotal CSS	*12.36*	*7.42*	*2.44*	*2.74*	*23.74*
***Total CSS**	**19.79****		**2.44**	**26.48**	
Subtotal All	*30.62***	*11.66*	-	*6.24*	*68.80***
TOTAL	**42.28**		**3.31**	**75.02****	

Notes:
[1] Fuel modification in Zone C is considered a permanent impact due to vegetation management that must occur but the impact is less significant because native vegetation will remain in this location.
[2] Temporary impacts required for slope grading will be revegetated with native CSS community species.
*Denotes a type of CSS community.
**Sum is 0.01 acre larger or smaller due to rounding. Total is correct.

Approximately 19.79 acres of direct permanent impacts to coastal sage scrub (CSS) habitat types are anticipated due to Project implementation (CSS habitat types within the Project Site include bush monkey flower scrub, California buckwheat scrub, deer weed scrub, laurel sumac scrub, and poison oak scrub). Approximately 12.36 acres of CSS would be permanently removed and approximately 7.42 acres would be permanently impacted by in-perpetuity fuel modification (i.e., thinning and partial removals) required for fire safety. The native vegetation community would still remain within portions of the fuel modification zones. An additional 2.44 acres of CSS habitat would be temporarily impacted during site grading and would be revegetated with CSS after grading. The temporary impact area is comprised of approximately 3.31 acres of deer weed scrub, upland mustard and other ruderal forbs, and is generally sparsely vegetated on south-facing slopes due to rocky terrain. Approximately 2.74 acres of CSS within the Natural Open Space area and 23.74 acres of CSS within the Mitigation Site would be avoided. Impacts to CSS habitats would be considered potentially significant. These habitats are dominated by native species and provide suitable habitat for wildlife including special status species such as CAGN.

Approximately 0.12 acres of direct impacts to coast live oak woodland and 0.80 acres of direct impacts to California walnut groves habitat due to Project implementation would be considered potentially significant because this community (California walnut groves) is vulnerable in the State. Additionally, these habitats are dominated by native tree species and provide suitable habitat for wildlife. California walnut groves outside the Impact Area will be avoided within the Natural Open Space and Mitigation Site.

Indirect impacts to plant communities can result in secondary consequences. Development/excavation activities within the Impact Area could result in indirect impacts to the vegetation communities surrounding the directly impacted areas. Examples of indirect temporary impacts to plant communities include the effects of fugitive dust created by construction activities and the spread of invasive species. With development, "edges" of vegetation communities may be exposed and more susceptible to invasion by invasive species (introduced by planted landscaping, seed dispersal from cars, people, and/or pets, and/or wind). Construction-related erosion, runoff, sedimentation, soil compaction, and alteration of drainage patterns that may affect plants by altering site conditions so that the location in which they are growing becomes unfavorable are prohibited by federal and state laws; compliance with the requirements under these federal and state laws will reduce the potential for significant indirect impacts to below significance.

Direct impacts to the Upland mustard and Wild oats and annual brome grassland communities in the Impact Area are considered less than significant due to the preponderance of non-native vegetation which provides marginal habitat value for wildlife.

Direct impacts to Peppertree groves, Ornamental/non-native vegetation, and Disturbed/developed vegetation/land cover types are considered less than significant because these habitats/land covers are either non-native or are common in the surrounding vicinity and do not represent CNDDB or CDFW sensitive plant communities.

As noted in Section 7.0, *Best Management Practices*, the Project proposes to implement standard BMPs which will further reduce indirect impacts to the vegetation communities.

4.4.2 Potential Impacts to Special Status Plants

The following special status plant species were considered to have at least moderate potential to occur based strictly on the habitat found onsite but were not observed during the focused rare plant surveys conducted in Spring 2020 and Spring 2021: California androsace, Catalina mariposa lily, western spleenwort, Plummer's mariposa lily, Parry's spine flower, Hubby's phacelia, chaparral ragwort, Robinson's peppergrass, and San Bernardino aster.

Additionally, special status species observed during the focused rare plant surveys within the Project site include approximately 20,000 many-stemmed dudleya plants. Roughly 950 many-stemmed dudleya plants were located within the Project Impact Area. Around 19,000 of the many-stemmed dudleya will not be impacted, which are within the natural open space. Additionally, 11 individuals (located within L-2) of intermediate mariposa lily were observed within the Project site, in the southwest portion of the Project Impact Area; however, these individuals will not be impacted or removed during construction activities or fuel modification activities as they have been removed from fuel modification zones (Figure 5). With the mitigation described in Section 8.0, *Mitigation Recommendations*, impacts to special status species will be reduced to less than significant.

California walnuts (and California walnut groves, which are a vulnerable state vegetation community) and coast live oak tree species individually can also be considered sensitive based on the City ordinance, if the individual tree's size and condition meet the qualifying standards. The City of Pomona's Tree Protection

and Preservation Program (Resolution No. 2000-72) states that removing mature significant trees or specimen (heritage) trees would be considered a 'major project', and therefore subject to administrative review under the provisions of the Historic Preservation Ordinance. With the mitigation described in Section 8.0, *Mitigation Recommendations*, impacts to sensitive vegetation communities and individuals will be reduced to less than significant.

5.0 WILDLIFE

5.1 Literature Review

Species of wildlife are afforded "special status" by federal agencies, state agencies, and/or non-governmental organizations because of their recognized rarity, potential vulnerability to extinction, and local importance. These species typically have a limited geographic range and/or limited habitat and are referred to collectively as "special status" species. Wildlife species were considered "special status" species if they meet any of the following criteria:

- Taxa with official status under ESA or CESA.
- Taxa proposed for listing under ESA and/or CESA.
- Taxa designated a species of special concern by CDFW.
- Taxa designated a state fully protected species by CDFW.
- Taxa identified as sensitive, unique or rare, by the USFWS, CDFW, USFS, and/or BLM.
- Taxa that meet the definition of rare or endangered under the CEQA §15380(b) and (d).
- Species considered locally significant; that is, a species that is not rare from a statewide perspective but is rare or uncommon in a local context such as within a county or region (CEQA §15125 (c)) or is so designated in local or regional plans, policies, or ordinances. Examples include a species at the outer limits of its known range.

Special status wildlife species that have the potential to occur within the immediate region of the Project site were identified. Several agencies, including the USFWS and CDFW publish lists of particular taxa (species and subspecies) and the associated level of protection or concern associated with each. Reviewed and consulted literature and databases focused on the Project site and included the following sources listed below:

- The CNDDB was used to identify any special status wildlife that may exist within a two-mile radius of the Project site (Figure 8, CDFW 2021a). CNDDB records are generally used as a starting point when determining what special status species, if any, may occur in a particular area. However, these records may be old, lack data not yet entered, and do not represent all the special status species that could be in that particular area.
- A map of USFWS critical habitat to determine species with critical habitat mapped in the general vicinity of the Project (USFWS 2021a).
- The USFWS Information for Planning and Consultation online tool, which identifies species and critical habitat under USFWS jurisdiction that are known or expected to be on or near the Project area (USFWS 2021b).
- Pertinent maps, scientific literature, websites, and regional flora and fauna field guides.

The literature review provided a baseline from which to inventory the biological resources potentially occurring within the Project site, as well as the surrounding area. Although the inventory list of special status wildlife species was not exhaustive of all species that might be of concern for the Project site, it provided a wide range of species that are representative of the wildland habitats in the area. Species occurrence and distribution information is often based on documented occurrences where opportunistic

surveys have taken place; therefore, a lack of records does not necessarily indicate that a given species is absent from the Project site.

5.2 Field Methodology

The location of the Project site is within the general distributional range of several special status wildlife species. The purpose of the 2020, 2021, 2023, and 2024 biological surveys was to note those species observed, ascertain general site conditions, and identify habitat areas that could be suitable for special status wildlife species.

All wildlife species encountered visually or audibly during the field survey were identified and recorded in field notes. Signs of wildlife species including wildlife tracks, burrows, nests, scat and remains, were also recorded. Binoculars were used to aid in the identification of observed wildlife and in areas not accessible on foot. Wildlife field guides and photographs were used to assist with identification of wildlife species during the field survey, as necessary. A one-day survey cannot be used to conclusively determine presence or absence of a species; therefore, assessments of presence/absence and potential for occurrence were made based on the presence of suitable habitat to support the species, diagnostic signs (burrows, scat, tracks, vocalizations, and nests), known records or occurrence within the area, known distribution and elevation range, and habitat utilization from the relevant literature.

5.2.1 Coastal California Gnatcatcher Breeding Protocol Surveys

Breeding season protocol surveys for the federally threatened CAGN were conducted by Kidd Biological, Inc. (KBI) within the Project site. The CAGN survey methodology is detailed in the CAGN survey reports (2020, 2021, and 2024) (Appendix F). Surveys were either conducted during the species' breeding or non-breeding seasons in accordance with USFWS guidance (USFWS 1997). A total of six breeding season protocol surveys for the CAGN were conducted by USFWS permitted biologist, Jason Berkley (USFWS 10a1A permit #009015-5), between March 26 and May 7, 2020. A second set of breeding season protocol surveys was conducted by KBI between May 15 and June 27, 2021. Surveys in 2020 observed coastal California gnatcatcher in the northwestern portion of the Project site, and two coastal California gnatcatchers were observed within the California buckwheat scrub habitat, south of the previous use area. Surveys in 2021 detected one pair of coastal California gnatcatcher and two nests in the southwestern portion of the Project site. In addition, in 2023/2024, protocol non-breeding season surveys for the CAGN were conducted by permitted biologist Jason Berkley (USFWS 10a1A permit #009015-5). Methods employed were in conformance with USFWS CAGN presence/absence survey guidelines for conducting non-breeding season surveys (USFWS 1997). A total of nine (9) Coastal California gnatcatcher non-breeding season surveys were completed within suitable habitat within the 120-acre site. Surveys completed in 2024 detected up to two pairs of coastal California gnatcatcher in the southwestern portion of the Project site. More details from the 2020, 2021, and 2023/2024 surveys can be found in Appendix F.

5.2.2 Fairy Shrimp Habitat Assessment

A habitat assessment for listed fairy shrimp species was conducted by Glenn Lukos Associates, Inc (GLA) within suitable locations on the Project site during both wet and dry seasons. Listed fairy shrimp species subject to the habitat assessment include Riverside fairy shrimp (*Streptocephalus woottonii*), vernal pool fairy shrimp (*Branchinecta lynchi*), and San Diego fairy shrimp (*Branchinecta sandiegonensis*). Methodology to conduct the habitat assessment included first reviewing historical aerial imagery, topographic maps, and previous reports. The location of potentially suitable habitat was then also visited by GLA during the wet season to note any vernal pool or fairy shrimp indicators (e.g., soil cracks).

5.2.3 Crotch's Bumble Bee

This species, which is a candidate endangered species under the CESA, lives in grassland and scrub habitats in coastal California and Baja California, Mexico. CBB was observed on April 29, 2024 during a focus survey by Osborne Biological Consulting. The results of the survey are included in Appendix G. Crotch's Bumblebee was found foraging at floral resources on the Project site. CBB are known to be generalist foragers, meaning they do not have a specific food preference and will visit a wide variety of flowering plants to collect nectar and pollen. Nesting CBB have the potential to occur on any undeveloped portion of the site where rodent burrows, thatched grasses, or other soil cavities are present.

5.3 Results

A total of 29 wildlife species or signs thereof were observed during field surveys. The wildlife species or signs thereof observed during the field surveys are listed in Appendix D. Wildlife species observed during the biological surveys include, but were not limited to: red-tailed hawk (*Buteo jamaicensis),* bushtit *(Psaltriparus minimus),* western scrub jay *(*song sparrow *(Melospiza melodia),* California thrasher *(Toxostoma redivivum),* mourning dove *(Zenaida macroura),* house finch (*Haemorhous mexicanus),* lesser goldfinch (*Spinus psaltria),* Bewick's wren *(Thryomanes bewickii),* Anna's Hummingbird (*Calypte anna),* Allen's Hummingbird (*Selasphorus sasin),* and black-headed grosbeak (*Pheucticus melanocephalus*).

5.3.1 Sensitive Wildlife Species with Potential to Occur

Sensitive wildlife species include the following classifications: federally or state listed threatened or endangered species, California species of special concern, and fully protected and protected species (as designated by CDFW). Species with the potential to occur onsite were analyzed based on distribution, habitat requirements, and existing site conditions.

Three sensitive wildlife species, the federally threatened coastal California gnatcatcher, the California watch list species Cooper's hawk (CDFW 2021), and the Crotch's bumble bee were observed during the general and focused surveys.

Sensitive wildlife species with at least moderate (or low to moderate) potential to occur but not observed during the general and/or focused surveys include:

- Western spadefoot toad (*Spea hammondii)*, a CDFW species of special concern (SSC).
- Southern California legless lizard (*Anniella stebbinsi)*, a CDFW SSC and United States Forest Service (USFS) Forest service sensitive (FSS).
- California glossy snake (*Arizona elegans occidentalis)*, a CDFW SSC.
- Coastal whiptail (*Aspidoscelis tigris stejnegeri)*, a CDFW SSC.
- Red diamond rattlesnake (*Crotalus ruber)*, a CDFW SSC and USFS FSS.
- Coast horned lizard (*Phrynosoma blainvillii*), a CDFW SSC and a Bureau of Land Management Sensitive Species (BLMS).
- Golden eagle (*Aquila chrysaetos*), a CDFW watch list species (WL), BLMS, CDFW fully protected (FP) species, and USFWS bird of conservation concern (BCC).
- Merlin (*Falco columbarius),* a CDFW WL.

- Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), a CDFW WL.
- Pallid bat – foraging (*Antrazous pallidus*), a CDFW SSC, BLMS and FSS.
- Pocketed free-tailed bat (*Nyctinomops femorosaccus*), a CDFW SSC.
- Western mastiff bat (*Eumops peratis californicus*), a CDFW SSC and BLMS.
- Big free-tailed bat – foraging (*Nyctinomops macrotis*), a CDFW SSC.
- American badger (*Taxidea taxus),* a CDFW SSC.

A complete list of sensitive wildlife species analyzed with potential to occur within the Project site are included in Appendix E. The sensitive species noted above with at least moderate potential to occur are described in further detail below. The CAGN, CBB, and fairy shrimp focused survey results are also described below.

Western Spadefoot Toad

Western spadefoot toad adults are essentially terrestrial, only entering aquatic habitats for breeding. This species prefers areas of open scrub and/or woodlands with limited ground cover, where the soil is sandy or gravelly. They occur in washes, floodplains of rivers, alluvial fans, and playas, but also range into the foothills and mountains (Stebbins 1985). They spend most of the year in a dormant to semi-dormant state burrowed in upland habitat adjacent to the rainpool sites, emerging only for periodic feeding. This species requires seasonal rainpools that last a minimum of four weeks as eggs take from 1 to 6 days to hatch and metamorphosis can be completed within 3 to 11 weeks (Jennings and Hayes 1994). Breeding habitat must be seasonal such that predators, including bullfrogs and predatory fish, do not become established. Breeding adults typically emerge during and/or immediately following relatively warm rains in late winter to early spring. Female western spadefoot toads deposit small clusters of 10 to 42 eggs to plant stems or other debris in the pool (Jennings and Hayes 1994). Somewhat suitable habitat primarily exists on the Coastal sage scrub considered to be primarily the California buckwheat scrub and grassland habitats within the Project site. Seasonal rainpools were also detected within the southern portion of the Project site.

Southern California Legless Lizard

The Southern California legless lizard is a fossorial (burrowing) species that typically inhabits sandy or loose (friable) soils. Habitats known to support this species include (but are not limited to) coastal dunes, valley and foothill grasslands, chaparral, and coastal scrub. Southern California legless lizards have the potential to occur within the California buckwheat scrub, open foothill grassland, and Coast live oak woodland within the Project site, where sandy soils are present.

California Glossy Snake

This species occurs primarily throughout Southern California in deserts and interior Coast Ranges. It is most often found in desert habitats but also occurs in chaparral, sagebrush and annual grasslands. The glossy snake prefers open, sandy areas, but is also found in rocky areas. It takes cover in abandoned animals' burrows, in rock outcrops and, less often, beneath debris. Its primary source of food is lizards, including juvenile desert iguanas, side-blotched lizards, and zebra-tailed lizards. Suitable habitat exists on the Project site considered to be primarily the California buckwheat scrub and annual grasslands.

Coastal Whiptail

This species generally occurs within sparse scrub-type habitats such as open-canopy coastal sage scrub and chaparral, in addition to woodland and riparian habitats. Suitable coastal sage scrub, California walnut, and Coast live oak woodland habitats occur within the Project site.

Red Diamond Rattlesnake

This species generally occurs in dense scrub, chaparral, woodland, and arid desert habitats, especially within areas supported by rocky substrates and boulder outcrops. Coastal sage scrub and woodland habitats containing rocky outcroppings occur within the Project site and could be suitable for this species.

Coast Horned Lizard

The species can be found in various scrublands, grasslands, coniferous and broadleaf forests, and woodlands. It can range from the coast to elevations of 2,000 meters in the Southern California mountains. It is most common in mid-elevations of the coastal mountains and valleys within open habitats that offer good opportunities for sunning. The Project site has suitable grasslands and woodland habitats, although the species was not observed during the surveys.

Golden Eagle – Foraging

This species occurs locally in open country (e.g., tundra, open coniferous forest, desert, barren areas), especially in hills and mountainous regions. Usually observed in western North America, soaring on steady wings or diving in pursuit of the jackrabbits and other small mammals that are its main prey. The Project site provides suitable foraging habitat for the species; however, it does not provide suitable nesting habitat.

Merlin – Foraging

This species occurs in open conifer woodland, prairie groves; in migration, also foothills, marshes, and open country. Generally, breeds in semi-open terrain having trees for nest sites and open areas for hunting. Habitat varies from coniferous forest in north and on northwest coast to isolated deciduous groves and suburban yards on prairies. May winter in more open areas, such as grasslands, coastal marshes. The Project site provides suitable foraging habitat for the species but is not expected to provide a suitable nesting habitat.

Southern California Rufous-Crowned Sparrow

This subspecies of rufous-crowned sparrow ranges throughout Southern California from Los Angeles County to Baja California, Mexico. Southern California rufous-crowned sparrows are found in sage scrub, broken or burned chaparral habitats, and grasslands with scattered shrubs. The species exhibits a strong preference for moderate to steep, south-facing, dry, rocky slopes with a 50 percent cover of low shrubs (Unitt 2004). Breeding occurs from March through June. Loss of habitat due to urbanization and habitat fragmentation has decreased the amount of suitable habitat for Southern California rufous-crowned sparrows (Unitt 2004). Although this species was not detected during the biological surveys, suitable habitat is present primarily within the California buckwheat scrub. Therefore, there is moderate potential for this species to occur onsite.

Pallid Bat – Foraging

This bat species occurs in deserts, grasslands, shrublands, woodlands and forests but is most common in open, dry habitats. Commonly roosts in rock crevices, caves, and mine tunnels but also roosts in the attics of houses, under the eaves of barns, in hollow trees. Roosts must protect bats from high temperatures.

This species is very sensitive to disturbance of roosting sites. This species was not observed during the surveys. The Project site lacks primary roosting habitat but supports foraging habitat.

Pocketed Free-Tailed Bat

This species is a year-round resident of Southern California. Habitats used include pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis. Roosts in rock crevices, caverns, or buildings. The Project site may provide suitable roosting habitat and foraging within rock crevices.

Western Mastiff Bat

This bat species is found in open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban areas. The western mastiff bat needs at least 3 meters (9.8 feet) of empty space under its roosting spot for takeoff. Its echolocation squeaks can be heard from up to 300 meters (980 feet) away. This is unusual as most bat species produce calls in a kHz range far above that of which is audible to humans. During the day, they form colonies of less than 100. Although the species was not observed during the surveys, the Project site has suitable roosting and foraging habitat including California buckwheat scrub and woodlands.

Big Free-Tailed Bat

This species roosts in buildings, caves, and occasionally in holes in trees. They also roost in crevices in high cliffs or rock outcrops. The Project site lacks primary roosting habitat including buildings and caves but may provide suitable roosting habitat and foraging within rock outcrops and tree holes. Nearby buildings may also provide roosting habitat.

American Badger

Badgers are normally solitary animals but are thought to expand their territories during the breeding season to seek out mates. Mating occurs in late summer and early fall, with some males breeding with more than one female. American badgers prefer grasslands and open areas with grasslands including farms, and treeless areas with friable soil and a supply of rodent prey. They may also be found in forest glades and meadows, marshes, brushy areas, hot deserts, and mountain meadows. As of 2014, overdevelopment of American Badger habitat had resulted in reduced range, decreased prey, and forced badgers into contact with humans when foraging between fragments. Direct observations in Sonoma County, documenting habitat and badger sightings and foraging, reflect various ranges within the fragmented habitat areas from less than half a mile to approximately four miles. Although this species was not detected during the biological surveys, suitable habitat may be present primarily in the Wild oats and annual brome grasses habitat within the Project site. However, the Project site is surrounded by developed and urbanized areas in all directions which significantly reduce its potential for occurring on the site.

5.3.1.1 Coastal California Gnatcatcher

CAGN Results 2020

As noted above, the first set of CAGN protocol surveys were conducted in March and May 2020. A pair of CAGN were observed using very marginal habitat in the northwestern portion of the Project site. Additionally, a nest was observed in a non-native plant. The results of the protocol surveys are further detailed in the focused survey report, Appendix F. The protocol level CAGN surveys were conducted prior to the fire that occurred within the Project site in June 2020. The general CAGN use area identified during the protocol level surveys, which was in the northern portion of the Project site, was determined to be

mostly removed during the fire. Two CAGN individuals were incidentally observed using California buckwheat scrub habitat to the south of their previously identified use area during a July 1, 2020, site assessment by a VCS biologist, and therefore the pair identified during the focused surveys are presumed to still be occupying the Project site.

CAGN Results 2021

The second set of CAGN protocol surveys were conducted by KBI between May 15 and June 27, 2021. One pair was detected during each of the breeding season surveys. This pair was consistently observed using habitat in the southwestern portion of the survey area and was observed with two separate nests during the surveys. The surveys were conducted after the June 2020 fire that occurred on the Project site. The results of the protocol surveys are further detailed in the focused survey report (Appendix F).

CAGN Results 2024

The third set of protocol surveys were conducted by KBI between September 7, 2023, and January 24, 2024. CAGN were detected on 6 of 9 surveys. Surveys completed in 2024 detected up to two pairs of CAGN in the southwestern portion of the Project site. As discussed in the 2020 and 2021 survey results, no two birds were observed in the either territory at the same time, but due to the distance between detections, it is likely that there were two pairs on the survey site. It is known that CAGN's territories do expand during the non-breeding season, so it is possible that these birds are a single pair/territory. The results of the protocol surveys are further detailed in the focused survey report (Appendix F).

5.3.1.2 Crotch's Bumble Bee

CBB was observed on April 29, 2024 during a focus survey. The results of the survey are included in Appendix G. Crotch's Bumblebee was found foraging at floral resources on the Project site. CBB are known to be generalist foragers, meaning they do not have a specific food preference and will visit a wide variety of flowering plants to collect nectar and pollen. Nesting CBB have the potential to occur on any undeveloped portion of the site where rodent burrows, thatched grasses, or other soil cavities are present. If the species remains protected under CESA when project activities are anticipated to begin, then a Section 2081 Incidental Take Permit issued by CDFW may be required if take avoidance cannot be achieved.

5.3.1.3 Fairy Shrimp Results

The fairy shrimp habitat assessment conducted by GLA determined that the Project site is not expected to have listed fairy shrimp species based on the natural history of the Project site, the typical required habitat, and the known distributions of species. GLA conducted surveys during the wet season of 2021/2022 and concluded that the Project site does not provide sufficient ponding to support fairy shrimp. Further information regarding this determination can be found in the Fairy Shrimp Habitat Assessment Memo (Appendix H).

5.3.2 Critical Habitat

The USFWS's online service for information regarding Threatened and Endangered Species Final Critical Habitat designation within California was reviewed to determine if the Project site occurs within any species designated Critical Habitat. No Critical Habitat exists within the Project site and/or Project Impact Area. The nearest Critical Habitat is for CAGN, located more than one mile north and west from the Project site (Figure 11, USFWS Critical Habitat Map).

5.3.3 Wildlife Movement

Wildlife corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. Corridors effectively act as links between different populations of a species. An increase in a population's genetic variability is generally associated with an increase in a population's health.

Corridors mitigate the effects of habitat fragmentation by:

- Allowing wildlife to move between remaining habitats, which allows depleted populations to be replenished and promotes genetic diversity;
- Providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (such as fires or disease) will result in population or local species extinction; and
- Serving as travel routes for individual wildlife species as they move within their home ranges in search of food, water, mates, and other needs (Fahrig and Merriam 1985, Simberloff and Cox 1987, Harris and Gallagher 1989).

Wildlife movement activities usually fall into one of three movement categories:

- Dispersal (e.g., juvenile animals from natal areas, individuals extending range distributions);
- Seasonal migration; and
- Movements related to home range activities (foraging for food or water, defending territories, searching for mates, breeding areas, or cover).

Regionally, the Project site is located between Chino Hills State Park and the Angeles National Forest Although the Project site may serve as a steppingstone for wildlife capable of traversing disconnected habitats by connecting Chino Hills State Park, Frank G. Bonelli Regional Park, and the Angeles National Forest, the Project site is bordered by residential development north, east, and west. A minimum of 68.80 acres will be avoided and zoned as natural open space. Additionally, there is an undeveloped hill to the southeast of the Project site that could facilitate in similar steppingstone wildlife movement, however, this area to the southeast of the Project site is also confined by residential development.

No known wildlife corridors or linkages occur on or in the immediate vicinity of the Project site. The Project site is highly urbanized and does not contain any resources that would contribute to the assembly and function of any regional wildlife corridors or linkages.

Avian Nesting and Bat Roosts

There is potential for avian nesting and foraging within the Project site. There is also potential for bat roosting to occur within the Project site. Biologists did not observe signs of nesting activity within the Project site during the general biological survey. Furthermore, while a focused survey for bat roosting was not conducted at the time of the general biological survey, no active bat roosts were incidentally observed during the August 2020 or May 2021 surveys.

5.4 Project Impacts to Wildlife

5.4.1 Potential Impacts to Special Status Wildlife

Three sensitive wildlife species were observed within suitable habitat on the Project site during the surveys, coastal California gnatcatcher, Crotch's bumble bee, and Cooper's hawk. Fifteen additional wildlife species have at least moderate (or low to moderate) potential to exist on the Project site.

Coastal California Gnatcatcher

As noted above, a pair of CAGN were observed nesting during focused CAGN surveys. Direct impacts from Project activities could include harassment, injury to or mortality of individuals, destruction of active nests during vegetation trimming, or through nest failure from noise and other disturbance in the vicinity of a nest. Although the primary location of the CAGN observations identified in the 2020 Focused CAGN Survey Report (Appendix F) was mostly removed by the June 2020 brush fire, the same CAGN pair is still presumed to be present on the Project site. The extent of the CAGN Use Area seems to have shifted to the southwestern portion of the site based on the 2021 breeding season surveys and fall/winter of 2023 and 2024 surveys. Direct impacts would be considered "take" of a listed species and would be significant. Indirect impacts to this species include the loss of approximately 19.79 acres of CSS habitat type communities. Direct impacts are not expected to occur. Indirect impacts to the coastal California gnatcatcher would be considered less than significant with mitigation.

A majority of the CSS *type* habitats within the Project site will be impacted, however, the majority of the CSS habitat *acreage* will be avoided, which will continue to provide suitable habitat for the CAGN to use. Additionally, implementation of mitigation measures as outlined in Section 8.0, *Mitigation Recommendations*, would reduce potential impacts to CAGN and occupied California gnatcatcher habitat loss to a less than significant level.

Crotch's Bumble Bee

As noted above, CBB was observed during a CBB focus survey. Crotch's Bumblebee was found foraging at floral resources on the Project site. Foraging and/or nesting CBB have the potential to occur on any undeveloped portion of the site where rodent burrows, thatched grasses, or other soil cavities are present. Therefore, short-term impacts from Project activities could include harassment, injury to or mortality of individuals, destruction of active nests, and removal of floral resources and habitat. However, long-term impacts are anticipated to be less than significant because CBB are known to be generalist foragers and will visit a wide variety of flowering plants to collect nectar and pollen. This would include plants within the proposed Mitigation Site as well as ornamentals (for example) within the new development area. Long-term impacts to nesting habitat are also anticipated to be less than significant as nesting could continue to occur within the Mitigation Site or other opportunistic areas within the development area. Implementation of mitigation measures as outlined in Section 8.0, *Mitigation Recommendations*, would further help reduce potential impacts to CBB to a less than significant level.

Cooper's Hawk

Cooper's hawk was observed during the focused CAGN surveys; both foraging habitat and nesting habitat occur within the Project site. Impacts from Project activities could include harassment, injury to or mortality of individuals, destruction of active nests during vegetation trimming, or through nest failure from noise and other disturbance in the vicinity of a nest.

Other Sensitive Species with Potential to Occur

Other sensitive species including the California glossy snake, southern California legless lizard, coastal whiptail, coast horned lizard, red diamond rattlesnake, southern California rufous-crowned sparrow, and American badger are considered to have at least moderate (or low to moderate) potential to occur on the Project site, primarily within the California buckwheat scrub, Upland mustards, Wild oats and annual brome grasses, and California walnut and Coast live oak woodland habitats. However, those species were not detected within the Project site during the biological surveys.

Sensitive avian species not observed during the general biological or focused surveys, including the southern California rufous-crowned sparrow, golden eagle, and merlin, have the potential to be present on the Project site for foraging and/or nesting purposes. Impacts to these species could include harassment, injury to or mortality of individuals, destruction of active nests during vegetation trimming, or through nest failure from noise and other disturbance in the vicinity of a nest.

Western spadefoot toad has potential to occur in open areas and in the seasonal rain pools detected within the southern portion of the site; filling and grading seasonal rain pools and adjacent grassland habitat could result in the loss of individual western spadefoot toads and/or their habitat. Although this species was not detected during the general biological surveys, potential still exists.

Sensitive bat species including pallid bat, Western mastiff bat, pocketed free-tailed bat, and big free-tailed bat have potential to occur within the Project site primarily within the trees and rock crevices. Although these species have not been detected during the general biological surveys conducted thus far, potential still exists.

With the inclusion of standard BMPs as noted in Section 7.0, *Best Management Practices*, and mitigation recommendations in Section 8.0, *Mitigation Recommendations*, potential impacts to these special status wildlife species would be considered less than significant.

5.4.2 Potential Impacts to Critical Habitat

The Project site does not fall within any Critical Habitat.

5.4.3 Potential Impacts to Wildlife Movement/Nesting Birds/Bat Roosts

Wildlife Movement

As described earlier, the Project site may serve a function in local wildlife dispersal and foraging; however, due to the obstruction of the surrounding infrastructure and development, it is not expected that the Project site functions as a regional wildlife movement corridor. With avoidance of approximately 68.80 acres of natural open space onsite and control of homeless encampments, any role the Project site plays in local wildlife dispersal and foraging is expected to continue. Therefore, no long-term or significant effects to wildlife movement are anticipated due to Project implementation.

Nesting Birds

Due to the potential for onsite bird nesting, Project construction could result in impacts to nesting birds including raptors species that would be in violation of the MBTA and California FGC if construction activities are to take place during nesting season or if a pre-construction nesting bird survey is not performed to clear the site prior to start of work. Recommended measures include a pre-construction nesting bird survey to avoid impacts and are outlined in Section 8.0, *Mitigation Recommendations,* of this report. This measure would reduce potential impacts to nesting birds to less than significant.

Bat Roosting

There is moderate potential for bat roosting within the Project site primarily within the trees and rock crevices. There is also moderate potential for bats to roost directly adjacent to the Project site within large offsite culverts and forage throughout the riparian habitat and seasonally ponded areas. Recommended measures to avoid impacts to bats, including preconstruction surveys, are outlined in Section 8.0 of this report. These measures would reduce potential impacts to roosting bats to less than significant.

6.0 JURISDICTIONAL WATERS

6.1 Methodology

The following methods were used to delineate jurisdictional wetland and non-wetland waters of the U.S. and streambed and riparian waters of the State.

6.1.1 Delineation Statement

Waters of the United States

The Survey Area, which encompassed the entire 120-acre Project site, was assessed for jurisdictional wetland and non-wetland waters of the U.S. To determine the presence of a wetland, three indicators are required: (1) hydrophytic vegetation, (2) hydric soils, and (3) wetland hydrology. The methodology published in the USACE 1987 Wetland Delineation Manual and the Arid West Supplement sets the standards for meeting each of the three indicators, which normally require that 50 percent or more dominant plant species typical of a wetland, soils exhibiting characteristics of saturation, and hydrological indicators be present.

Jurisdictional non-wetland waters of the U.S. are typically determined through the observation of an Ordinary High Water Mark (OHWM), which is defined as the "line on the shore established by the fluctuation of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas." The following guidance documents were utilized in making this determination:

- Field Guide to OHWM Determinations in the Arid West (August 2008);
- Updated OHWM Datasheet for the Field Guide to OHWM Determinations in the Arid West (July 2010); and
- Ordinary High Flows and the Stage-Discharge Relationship in the Arid West Region (2011).

Projects with impacts to waters of the U.S. are regulated under Sections 401 and 404 of the Clean Water Act and by connectivity with adjacent watersheds. Note, the RWQCB has updated their definition of a wetland to include areas that have hydric soils and wetland hydrology but lack hydric vegetation (e.g., vernal pools). This update took effect May 28, 2020.

Waters of the State

The Survey area was also assessed for Jurisdictional streambed and riparian waters of the State. The CDFW and the RWQCB take jurisdiction over waters of the State and Riparian/Riverine resources (California Fish and Game Code §§1600 et seq.; California Code of Regulations, Title 14, §720). Section 1602 of the California Fish and Game Code applies to natural rivers, streams, and lakes:

> "An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake."

CDFW defines a stream as "a body of water that flows perennially or episodically and that is defined by the area in which water currently flows, or has flowed, over a given course during the historic hydrologic course

regime, and where the width of its course can reasonably be identified by physical or biological indicators". CDFW regulates wetland areas only to the extent that those wetlands are part of a stream, river, or lake as defined by the CDFW.

CDFW jurisdiction includes ephemeral, intermittent and perennial watercourses and extends to the top of the bank of a stream or lake if unvegetated, or to the limit of the adjacent riparian habitat located contiguous to the watercourse if the stream or lake is vegetated.

6.1.2 Field Methodology

The approximately 120-acre Project site was assessed for jurisdictional wetland and non-wetland waters of the U.S. and streambed and riparian waters of the State on April 15, 2020, by Darcy Hardwick and Chris Eljenholm of VCS. In addition, the site was assessed by VCS and the USACE on August 9, 2024. Accessible areas of the Project site were walked and jurisdictional features, including their approximate location, length, width, and associated vegetation, were recorded using ESRI ArcCollector on an iPhone. Soil pits were taken within features that exhibited potential to be a wetland, including those with evidence of hydrology and/or hydric plants.

6.1.3 Mapping Techniques

Prior to the field surveys, Google Earth and the National Wetlands Inventory (NWI) Online Mapper were used to review aerials of the Project site and identify any potential jurisdictional waters of the U.S. features. Following the field surveys, ESRI ArcMap and Google Earth were used in combination with the field survey results to delineate and map relevant habitats and jurisdictional waters. The resulting Geographic Information System (GIS) data was then used to quantify the extent of each feature.

6.2 Results

An Approved Jurisdictional Determination (AJD) has been issued by the United States Army Corps of Engineers (USACE) stating that no Waters of the United States occur on the Project site. A total of 1.85 acres (9,323 linear feet) of streambed waters of the State and 0.75 acre (668 linear feet) of riparian waters of the State were identified on the Project site, as shown in Figure 12, Jurisdictional Waters. Riparian waters of the State features include areas with vegetation such as curly dock, mulefat, rabbitsfoot grass (*Polypogon monspeliensis),* and San Diego Marsh Elder *(Iva hayesiana).*

Several jurisdictional features flow and dissipate into open fields or disturbed areas that lacked an OHWM, drainage patterns, hydrologic vegetation, saturation, or any other indicators of water flow. In addition, no drainages are visible in these areas on historic aerial imagery dating back to 1946. Non-jurisdictional connectivity features (Figure 12) are used to connect the jurisdictional onsite features to the nearest culvert, where appropriate.

The Project site contains six drainage complexes that have jurisdictional indicators including an OHWM and evidence of water flow. Details for each drainage complex are as follows:

- Drainage Complex 1 is comprised of two separate ephemeral features that converge together and flow generally northwest off the Project site. This complex contains streambed waters of the State.
- Drainage Complex 2 is comprised of five separate features that flow generally south and then west before dissipating in an open non-native grassland field. Water conveyed from these features is presumed to exit the Project site at the western boundary before entering an offsite culvert. A majority of the features within Drainage Complex 2 are ephemeral or potentially dry intermittent

earthen features, however, a small portion (middle of Feature 2) is a concrete storm drain structure which was observed outletting water onto the Project site and down the remainder of Feature 2 (heading west) until dissipating into the non-native grassland field. This complex contains both streambed and riparian waters of the State.

- Drainage Complex 3 is comprised of seven to nine separate earthen features generally flowing south and east eventually into a culvert onsite that passes underneath Mission Boulevard. A majority of these features were ephemeral or potentially dry intermittent due to ponding, saturation, and seepage that was observed. This complex contains both streambed and riparian waters of the State.
- Drainage Complex 4 is comprised of four separate ephemeral features that flow generally west before dissipating in the open non-native grassland field. Water conveyed from these features is presumed to exit the Project site at the western boundary before entering an offsite culvert. This complex contains both streambed and riparian waters of the State.
- Drainage Complex 5 is comprised of five separate earthen ephemeral features. Of the five features, four generally flow northwest before dissipating in a previously disturbed area and are presumed to eventually converge together into the fifth feature. This feature flows generally northwest until reaching a culvert that flows underneath the adjacent railroad. This complex contains streambed waters of the State.
- Drainage Complex 6 is comprised of two separate ephemeral features; one that flows east and one that flows north until reaching an offsite culvert that flows underneath the adjacent railroad. This complex contains streambed waters of the State.

6.2.1 National Wetland Inventory

The USFWS is the principal Federal agency that provides information to the public on the extent and status of the Nation's wetlands. The USFWS has developed a series of maps, known as the National Wetland Inventory (NWI) to show wetlands and deepwater habitat. This geospatial information is used by federal, state, and local agencies, academic institutions, and private industry for management, research, policy development, education, and planning activities. The NWI program was neither designed nor intended to produce legal or regulatory products; therefore, wetlands identified by the NWI program are not the same as wetlands defined by the USACE.

The NWI Mapper (USFWS 2021) was accessed online to review mapped wetlands within the Project site (Figure 13, National Wetland Inventory Map). The NWI mapper identifies two features on the Project site, defined as follows:

- NWI Feature 1: Freshwater Forested/Shrub Wetland habitat classified as a PFOA (Palustrine, Forested, and Temporarily Flooded).
- NWI Feature 2: Freshwater Emergent Wetland classified as PEM1A (Palustrine, Emergent, Persistent (1), and Temporarily Flooded).

NWI Features 1 and 2 (Figure 13) are connected and comprise the main segment of Feature 2 described in this report and shown on Figure 12. The description given above for NWI Feature 1 is primarily accurate based on the field review; however, it was determined not to be a wetland per USACE's definition identified in Section 3.1 due to a lack of wetland vegetation. NWI Feature 2 was also considered to have a primarily

accurate description per the NWI website. Note, an AJD has been issued by the USACE stating that no Waters of the United States occur on the Project site.

6.2.2 Hydrology

The Project site is located in the San Gabriel River Watershed. Rainfall on the Project site primarily drains north and west and is assumed to reach the South San Jose Creek via storm drains. Rainfall that drains to the south of the site is also assumed to eventually drain into South San Jose Creek. The San Jose Creek flows generally south/southwest before reaching the San Gabriel River and heading south toward the Pacific Ocean.

Natural onsite drainages flow generally to five separate culverts; three of which are located within the Project site and three that are offsite. One culvert flows south underneath Mission Boulevard to the south, two culverts flow west underneath the existing freeway, and two culvert flow north under the adjacent railroad.

6.2.3 Soils

The U.S. Department of Agriculture NRCS Web Soil Survey lists four soil types for the Project site (Figure 14, Soil Map). The soil types within the Project site are listed below:

- Urban Land-Biscailuz-Pico Complex [1007] – 0 - 2% Slopes: This soil complex is usually found on alluvial fans at elevations from 60 to 1,140 feet. It is non-saline to very slightly saline and somewhat poorly drained. Its distribution profile ranges from loam to sandy loam.
- Urban Land-Pico-Metz Complex [1008] – 0 to 2% Slopes: This soil complex is typically found on alluvial fans. The Metz soil series consist of very deep, somewhat excessively drained soils formed from dominantly sedimentary rocks.
- Lithic Haploxerolls-Lithic Argixerolls Complex [1146] – 20 to 55% Slopes: This soil complex comprises a majority of the Project site and is typically formed on hillslopes. This soil series is considered to be well drained with a high runoff class.
- Counterfeit-Urban Land Complex [1232] – 10 to 35% Slopes, Terraced: This soil complex is usually found on hillslopes at elevations from 160 to 1,330 feet. It is non-saline to very slightly saline and somewhat poorly drained. Its distribution profile ranges mainly from clay loam to clay.

The U.S. Department of Agriculture (USDA) Natural Resources Conservation Service does not list any of the above as hydric soils (USDA 2020).

6.3 Impacts to Jurisdictional Waters

Waters of the State under the jurisdiction of CDFW and RWQCB were found within the Project Site. Impacts are identified in Table 3 below, and in Figure 15, Impacts to Jurisdictional Waters. Approximately 1.43 acres (5,389 linear feet) of Streamed waters of the State will be avoided as shown on Figure 15. With the mitigation described in Section 8.0, *Mitigation Recommendations*, impacts to jurisdictional waters will be reduced to less than significant.

Table 3
Proposed Permanent Impacts to Waters of the State within the Project Site*

Feature	Permanent Impacts (acres)	Total Impacts (acres)
Riparian Waters of the State	0.75	0.75
Streambed Waters of the State	0.42	0.42
Total Waters of the State Impacts		**1.17**
*An AJD has been issued by the USACE stating that no Waters of the United States occur on the Project site		

7.0 SIGNIFICANCE DETERMINATION (CEQA APPENDIX G CHECKLIST)

7.1 Regulatory Setting

As mentioned above in Sections 4, 5, and 6 of this report, sensitive species are provided protection by either Federal or State resource management agencies, or both, under provisions of the ESA and CESA.

There are a number of performance criteria and standard conditions that must be met as part of any review and approval of the proposed Project. These include compliance with all of the terms, provisions, and requirements with applicable laws that relate to Federal, State, and local regulating agencies related to potential impacts to sensitive plant and wildlife species, wetlands, riparian habitats, and blue lined stream courses. Impacts are sometimes locally important but not significant because, although they would result in an adverse alteration of existing local conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population-wide or region-wide basis.

7.2 Threshold BIO-A

Would the Project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant With Mitigation Incorporated

Sensitive species subject to the California Department of Fish and Wildlife and U.S. Fish and Wildlife Service are present onsite or have a moderate or higher potential of occurring onsite. These include nesting birds, roosting bats, the American badger, the western spadefoot toad, Crotch's bumble bee, and the coastal California gnatcatcher. With the implementation of mitigation measures BIO-1a through BIO-9 and BIO-11, the Project would not have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

7.3 Threshold BIO-B

Would the Project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant With Mitigation Incorporated

Sensitive vegetation communities described in Section 4.4.2 above and Waters of the State will be impacted with implementation of the Project. With the implementation of mitigation measures BIO-1, BIO-3, BIO-10, BIO-11, BIO-13, BIO-14 the Project would not have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service.

7.4 Threshold BIO – C

Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact

While jurisdictional waters impacts are anticipated to occur, with the implementation of mitigation measure BIO-10, the Project would not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means. An Approved Jurisdictional Determination (AJD) has been issued by the United States Army Corps of Engineers (USACE) stating that no Waters of the United States occur on the Project site.

7.5 Threshold BIO - D

Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory corridors, or impede the use of native wildlife nursery sites?

No Impact

No migratory corridors or native wildlife nurseries are situated on the Project site. Regionally, the Project site is located between Chino Hills State Park and the Angeles National Forest. Although the Project site may serve as a steppingstone for wildlife capable of traversing disconnected habitats by connecting Chino Hills State Park, Frank G. Bonelli Regional Park, and the Angeles National Forest, the Project site is bordered by residential development north, east, and west. A minimum of 68.80 acres will be avoided and zoned as natural open space. Additionally, there is an undeveloped hill to the southeast of the Project site that could facilitate in similar steppingstone wildlife movement, however, this area to the southeast of the Project site is also confined by residential development. No known wildlife corridors or linkages occur on or in the immediate vicinity of the Project site. The Project site is highly urbanized and does not contain any resources that would contribute to the assembly and function of any regional wildlife corridors or linkages.

7.6 Threshold BIO – E

Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant With Mitigation Incorporated

The Project site is located within the East San Gabriel Valley SEA. Although the site has an SEA Designation, the ordinance only applies to unincorporated areas as also stated in the GIS Web Application tool provided by Los Angeles County and depicted on Figure 7. Therefore, it is our understanding that this Project site is not subject to the County requirements of the SEA and that a Conditional Use Permit from the County of Los Angeles (County) is not anticipated to be required to implement the Project. With the implementation of mitigation measures BIO-12, BIO-13, and BIO-14 a and b, the Project would not conflict with any tree preservation ordinances or any other ordinances protecting biological resources.

7.7 Threshold BIO – F

Would the Project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local regional or state habitat conservation plan?

No Impact

The Project is not within the jurisdiction of an adopted Habitat Conservation Plan or Natural Community Conservation Plan. The Project will obtain all required Local, State, and Federal permits governing natural resources and will therefore be in compliance with the provisions of approved local regional or state habitat conservation plans.

8.0 BEST MANAGEMENT PRACTICES

Implementation of general BMPs are recommended to the extent practical. Key aspects of the BMPs are to clearly delineate the limits of disturbance, use properly maintained equipment, properly implement and monitor water quality BMPs, avoid use of chemicals near sensitive areas, develop procedures for minimizing the likelihood of spills and to control sediment, ensure worker safety, and minimize impacts to sensitive biological resources onsite including sensitive plant communities, jurisdictional waters, and sensitive wildlife species. Standard BMPs will be implemented including compliance with the South Coast Air Quality Management District and State Water Resources Control Board Stormwater requirements for the control of fugitive dust and management of water quality.

9.0 CUMULATIVE IMPACTS

Cumulative impacts are defined as the direct and indirect effects of a proposed project which, when considered alone, would not be deemed a substantial impact, but when considered in addition to the impacts of related projects in the area, would be considered significant. “Related projects” refers to past, present, and reasonably foreseeable probable future projects, which would have similar impacts to the proposed Project. CEQA deems a cumulative impact analysis to be adequate if a list of “related projects” is included in the EIR or the proposed project is consistent with an adopted general, specific, master, or comparable programmatic plan [Section 15130(b)(1)(B)]. CEQA also states that no further cumulative impact analysis is necessary for impacts of a proposed project consistent with an adopted general, specific, master, or comparable programmatic plan [Section 15130(d)].

The majority of the cumulative impact study area consists of developed areas surrounding the Project site. Due to the relatively disturbed nature of a portion of the Project site, its proximity to residential development, avoidance of the larger open space to the northeast, and compliance with local and City of Pomona codes and regulations, impacts are not considered to be cumulatively significant.

10.0 MITIGATION MEASURES

In order to facilitate the correct implementation of the mitigation efforts outlined in this section, three professional categories are referenced: qualified bat biologists, qualified biologists, and biological monitors. Those terms are further defined below.

- Qualified Bat Biologist: The qualified bat biologist will have: 1) a familiarity with local species and their typical habitat and behavior; and 2) experience conducting night emergence surveys.
- Qualified Biologist: One who has met all of the following minimum qualifications: (a) bachelor's degree in biological sciences, zoology, botany, ecology, or a closely related field; (b) at least 3 years of experience in field biology or current certification of a nationally recognized biological society; and (c) at least 1 year of field experience with biological resources found in or near the project region.
- Biological Monitor: A biological monitor is an individual experienced with construction level biological monitoring and who is able to recognize species in the project area and who is familiar with the habits and behavior of those species. Biological monitors shall have academic and professional experience in biological sciences and related resource management activities as it pertains to this project.

BIO-1a: Take of approximately 950 many-stemmed dudleya plants present within the Project Impact Area shall require mitigation for the species due to potential impacts. Mitigation will occur as preservation at a 2:1 ratio; a minimum of 1,900 many-stemmed dudleya plants will be preserved within the unimpacted areas on the Project site or as otherwise approved by applicable regulatory agency permits. As of 2021, approximately 19,000 many-stemmed dudleya plants were identified within the open space of the Project site. The area proposed for preservation consist of many-stemmed dudleya generally within a coast live oak woodland vegetation community.

BIO-1b: The open space area not directly impacted by the proposed project could face future threats to sensitive species due to the proximity of development, including increased foot traffic, predation on native species by urban pets, and increased fire risk. To avoid potential impacts to native or sensitive species, access to the conservation area/open space shall be limited from the development; any proposed and/or maintained trails that would minimize impacts to sensitive areas are recommended include interpretive stations along the trail to increase public awareness of the natural environment and increase the value of recreation for area residents.

BIO-2: If the Crotch's bumble bee (CBB) is no longer a candidate or listed species under the California Endangered Species Act (CESA), then this mitigation measure shall not be required. If CBB is a candidate or listed species, it shall be demonstrated that CESA-required consultation with CDFW regarding the Project's potential effects on CBB has occurred, prior to issuance of a grading permit or ground disturbance.

If take of CBB is expected, an incidental take permit (ITP) shall be obtained from CDFW. An ITP may require compensatory mitigation, which may include, but is not necessarily limited to, on-site or off-site habitat preservation, enhancement, restoration, and/or creation. For purposes of CEQA, implementation of the proposed Mitigation Site is considered sufficient compensatory mitigation. However, if an incidental take permit is issued for the Project that covers CBB, the ITP shall supersede any measures and mitigation provided in this measure.

BIO 3: The biological monitor shall be onsite during all initial vegetation removal, blasting, and all initial ground-disturbance activities to implement avoidance/minimization measures to protect sensitive resources potentially onsite, such as Southern California legless lizard (*Anniella stebbinsi*), coast horned lizard (*Phrynosoma blainvillii*), and red diamond rattlesnake (*Crotalus ruber*). The qualified biologist shall identify and explain the protection methods during the Employer Education Program. These methods could include, but are not limited to, stopping work in the area where the animal is encountered until it has moved on its own outside of the site or moving individuals outside of the site to adjacent appropriate habitat.

BIO-4: Pre-construction survey for nesting birds: Blasting activities and removal of any trees, shrubs or any other potential nesting and foraging habitat for avian and/or sensitive avian species will be conducted outside of the nesting season (September 1 to December 31) to the extent practical. A nesting bird survey shall be conducted within three days prior to start of work if work occurs during the nesting bird season (January 1 – August 31). If vegetation removal or blasting occurs outside of nesting season or if no nesting birds are found, no further action is required. If active nests are identified, the biologist shall establish appropriate buffers around the area (typically 500 feet for raptors and sensitive species, 200 feet for non-raptors/non-sensitive species). All work within these buffers will be halted until the nesting effort is finished (i.e., the juveniles are surviving independent from the nest). The onsite biologist will review and verify compliance with these nesting boundaries and will verify the nesting effort has finished. Work can resume within the buffer area when no other active nests are found. Alternatively, a qualified biologist may determine that certain work can be permitted within the buffer areas and shall develop a monitoring plan to prevent any impacts while the nest continues to be active (eggs, chicks, etc.). If vegetation clearing or blasting is not initiated within 72 hours of a negative survey during nesting season, the nesting survey must be repeated to confirm the absence of nesting birds.

BIO-5a: Pre-construction survey for bats: All suitable areas within the Project site shall be surveyed for the presence of bat roosts by a qualified bat biologist. Initial surveys are recommended to be conducted between one year to six months prior to the initiation of blasting, vegetation removal, and ground disturbing activities, ideally during the maternity season (typically March 1 to August 31), to allow for exclusion if needed. Surveys may entail direct inspection of the trees or nighttime surveys. If active bat roosts are present, a qualified bat biologist shall determine the species of bats present and the type of roost (i.e., day roost, night roost, maternity roost). If the biologist determines that the roosting bats are not a special-status species and the roost is not being used as a maternity roost, then the bats may be evicted from the roost by the qualified bat biologist.

- If special-status bat species or a maternity roost of any bat species is present, but no direct removal of active roosts will occur, a qualified bat biologist shall determine appropriate avoidance measures, which may include implementation of a construction-free buffer around the active roost.
- If special-status bat species or a maternity roost of any bat species is observed during the preconstruction survey within 500 feet of an active construction area, then a qualified bat biologist shall develop a construction buffer and/or implement the avoidance and minimization measures described below. Removal of the roost shall only occur when the exclusionary, avoidance, and/or minimization measures have been approved by the City and only when bats are not present in the roost. The

measures shall include: (1) a description of the species observed; (2) a description of the existing roost or roost sites; (3) methods to be used to exclude the bats if necessary; (4) methods to be used to secure the existing roost site to prevent its reuse prior to removal; (5) the location for a replacement roost structure; (6) design details for the construction of the replacement roost; (7) monitoring protocols for assessing replacement roost use; (8) a schedule for excluding bats, demolishing of the existing roost, and construction of the replacement roost; and (9) contingency measures to be implemented if the replacement roosts do not function as designed.

BIO-5b: Pre-construction surveys shall be conducted by a qualified bat biologist no more than two weeks prior to the initiation of blasting, vegetation removal, and ground disturbing activities. If no active roosts are present, then trees shall be removed within two weeks following the survey.

BIO-5c: All potential roost trees shall be removed in a manner approved by a qualified bat biologist, which may include presence of a biological monitor at the discretion of the qualified bat biologist.

BIO-5d: All construction activity within 500 feet of an active roost shall be limited to daylight hours.

BIO-6: Pre-construction survey for the American badger: A qualified biologist shall conduct a pre-construction survey within the work area for American badger no less than 14 days and no more than 30 days prior to the beginning of ground disturbance and/or construction activities to determine presence or absence of American badger on the Project site. If badger dens are detected within the work area, they will be monitored for badger activity. If the dens are determined to be active, the entrances will be blocked (partially) with soil, sticks, and debris for three to five days to discourage the use of these dens prior to project disturbance activities. The den entrances will be blocked to an incrementally greater degree over the three to five-day period. After the qualified biologist has determined badgers have stopped using active dens, the dens will be hand-excavated with a shovel to prevent re-use during construction. No disturbance of active dens will take place when cubs may be present and dependent on parental care, as determined by a qualified biologist. Dens that are determined to be inactive by the qualified biologist shall be collapsed by hand to prevent occupation between the time of the survey and construction activities.

BIO-7: Pre-construction survey for the western spadefoot toad: A qualified biologist shall conduct a pre-construction survey for western spadefoot toad no more than seven days prior to construction in work areas in or near appropriate suitable habitat including seasonal ponds or rain pools plus an appropriate buffer. If occupied habitat can be avoided, an exclusion zone shall be established around the habitat and temporary fencing shall be installed around the buffer area. If avoidance is not possible and the species is determined to be present in work areas, a biologist possessing a CDFW Scientific Collecting permit shall capture individuals prior to construction activities and relocate them to nearby, suitable habitat out of harm's way.

Exclusion fencing shall be installed to prevent special-status amphibians from re-entering the work area, if determined necessary by the qualified biologist. For the duration of work in these areas, where relocation has occurred, the biologist shall conduct at least weekly visits to monitor effectiveness and take appropriate corrective action if protection measures are not adequate.

BIO-8: To avoid attracting predators of the species of concern, the Project site shall be kept as clean of debris as possible. All food related trash items shall be enclosed in sealed containers and regularly removed from the site(s).

BIO-9: To address impacts to the California gnatcatcher, Section 10 consultation with USFWS is necessary And may result in the issuance of an Incidental Take Permit and Habitat Conservation Plan (HCP) for impacts to California gnatcatcher. Impacts to CAGN CSS Habitat will be mitigated through the preservation, enhancement, restoration, and/or creation of a minimum of a 1:1 ratio of CSS habitat types dominated by native species within the unimpacted areas on the Project site, onsite as detailed in BIO-11.

BIO-10: Permanent impacts to jurisdictional waters of the State (1.17 acres) shall be compensated for at a minimum ratio of 2:1 at an agency-approved mitigation bank, such as Soquel Canyon Mitigation Bank, with an in-lieu fee program, onsite, or at an offsite permittee sponsored location. Therefore, the total recommended mitigation is at minimum 2.34 acres.

BIO-11: Coastal sage scrub habitat types provide suitable habitat for sensitive wildlife species known to occupy the site including CAGN. Mitigation for impacts to 19.79 acres of CSS habitat types including California buckwheat scrub and deer weed scrub is proposed to occur within the Project site through a 1:1 ratio of preservation, enhancement, restoration, and/or creation of CSS habitat and through preservation of the Mitigation Site (Figure 16). Preservation, enhancement and/or restoration of CSS habitat would be proposed where California buckwheat scrub, deer weed scrub, bush monkey flower scrub, poison oak scrub, and/or laurel sumac scrub vegetation communities dominate the area. Creation of CSS habitat, if applicable, would be proposed in wild oats and annual brome grassland, upland mustards, and/or fountain grass swards vegetation communities. If an alternative preservation, enhancement, restoration, and/or creation configuration is determined more preferrable by USFWS during the permitting process, it will be incorporated into the landscape plan and shall supersede any measures and mitigation provided in this measure, subject to City and USFWS approval. In-perpetuity preservation via a deed restriction, conservation easement, or other protective instrument and management by a qualified entity (HOA-hired qualified biologist, conservancy, etc.), subject to the review and approval of USFWS, shall be required.

BIO-12: The City of Pomona's Tree Protection and Preservation Program (Resolution No. 2000-72) states that removing mature significant trees or specimen (heritage) trees would be considered a major project, and therefore subject to administrative review under the provisions of the Historic Preservation Ordinance. Prior to tree removal, a Major Oak Tree Permit will be obtained and tree replacement will be consistent with BIO-15.

BIO-13: Removal of approximately 0.80 acres of California walnut groves, a sensitive vegetation community, will occur within the Project Impact Area. Compensation for this loss shall occur through preservation of comparable habitat at a 2:1 ratio, including at least 1.6 acres of onsite preservation in the Mitigation Site where California walnut is the fully dominant tree among grassland, CSS, or chaparral species such as laurel sumac. If the project is able to reduce impacts, then the mitigation required would be reduced accordingly.

BIO-14: Prior to the issuance of a grading permit, the Applicant shall provide evidence to the City that the following permits have been obtained: a RWQCB Section 401 Waste Discharges Requirements (WDR) Permit, a Section 1602 Streambed Alteration Agreement, and a U.S. Fish

and Wildlife Section 10 Consultation to obtain a potential Incidental Take Permit and Habitat Conservation Plan (HCP) for impacts to California gnatcatcher.

BIO-15: The Project shall obtain a Minor Oak Tree Permit for pruning and a Major Oak Tree Permit for the removal of 11 protected oak trees. Mitigation will be implemented consistent with the City's Municipal Code replacement requirements for tree removals associated with development projects. These requirements are summarized as follows (Section 5809.23 – Oak tree preservation): "One 24-inch box oak tree to be planted for each oak tree removed". The Major Oak Tree Permit will be subject to review by the planning commission. A copy of this Project biological technical report and the final project site plan should accompany the application.

BIO-16: The project applicant shall provide funding to conserve and manage the Mitigation Site in-perpetuity. The funding source will be subject to USFWS review/approval and will be determined through a property analysis record (PAR) type of analysis. The funding mechanism may include payment into an endowment, annual funding by the HOA, or payment to a conservancy. The PAR will incorporate trash removal and annual reporting.

11.0 REFERENCES

Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. J. Rosatti, and D. H. Wilken, editors. 2012. The Jepson Manual: Vascular Plants of California, second edition. University California Press, Berkeley.

Brady, Roland H. III and Kris Vyverberg. 2013. Methods to Describe and Delineate Episodic Stream Processes on Arid Landscapes for Permitting Utility-Scale Solar Power Plants. California Energy Commission. Publication Number: CEC-500-2014-013.

CDFW (California Department of Fish and Wildlife). 2021a. RareFind, California Department of Fish and Wildlife, California Natural Diversity Database (CNDDB). Retrieved from <https://map.dfg.ca.gov/rarefind/view/ RareFind.aspx>.

2021b. Natural Communities. VegCAMP, Biogeographic Data Branch. Accessed September 2021 from <https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities>.

2021c. Special Vascular Plants, Bryophytes, and Lichens List. Natural Diversity Database. Dated October 2021.

2021d. Fish and Game Code Section 1600-1616. Retrieved from <http://leginfo.legislature.ca.gov/faces/codes_displaySection.xhtml?lawCode=FGC&sectionNum=1602>.

2021e State and federally listed endangered, threatened, and rare plants of California. Natural Diversity Database. Dated October 2021.

2021f. Special Animals List. Natural Diversity Database. Dated April 2021.

City of Pomona. 2014. City of Pomona 2014 General Plan Update. Adopted March 2014. Accessed April 19, 2022. https://www.pomonaca.gov/home/showpublisheddocument/2402/637521057423830000

CNPS (California Native Plant Society). 2021. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Retrieved in March 2020 and May 2021 from <http://www.rareplants.cnps.org>.

Fahrig, L., and G. Merriam. 1985. Habitat patch connectivity and population survival. Ecology 66:1762-1768.

Google. 2020. Google Earth© website.

Historic Aerials. Accessed March 2020. https://www.historicaerials.com/viewer.

NRCS (Natural Resource Conservation Service). 2020. Web Soil Survey. U.S. Department of Agriculture Natural Resources Conservation Service. Retrieved from: <http://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>.

Sawyer, John O., Todd Keeler-Wolf, and Julie M. Evens. 2008. A Manual of California Vegetation. 2nd ed. California Native Plant Society and California Department of Fish and Game. Sacramento, California.

Unitt, Philip. 2004. San Diego County Bird Atlas, by Philip Unitt. 31 October 2004. 645 p.

USACE (United States Army Corps of Engineers). 1987. Corps of Engineers Wetlands Delineation Manual. Wetland Research Program Technical Report Y-87-1. Vicksburg, MS: Environmental Laboratory.

2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

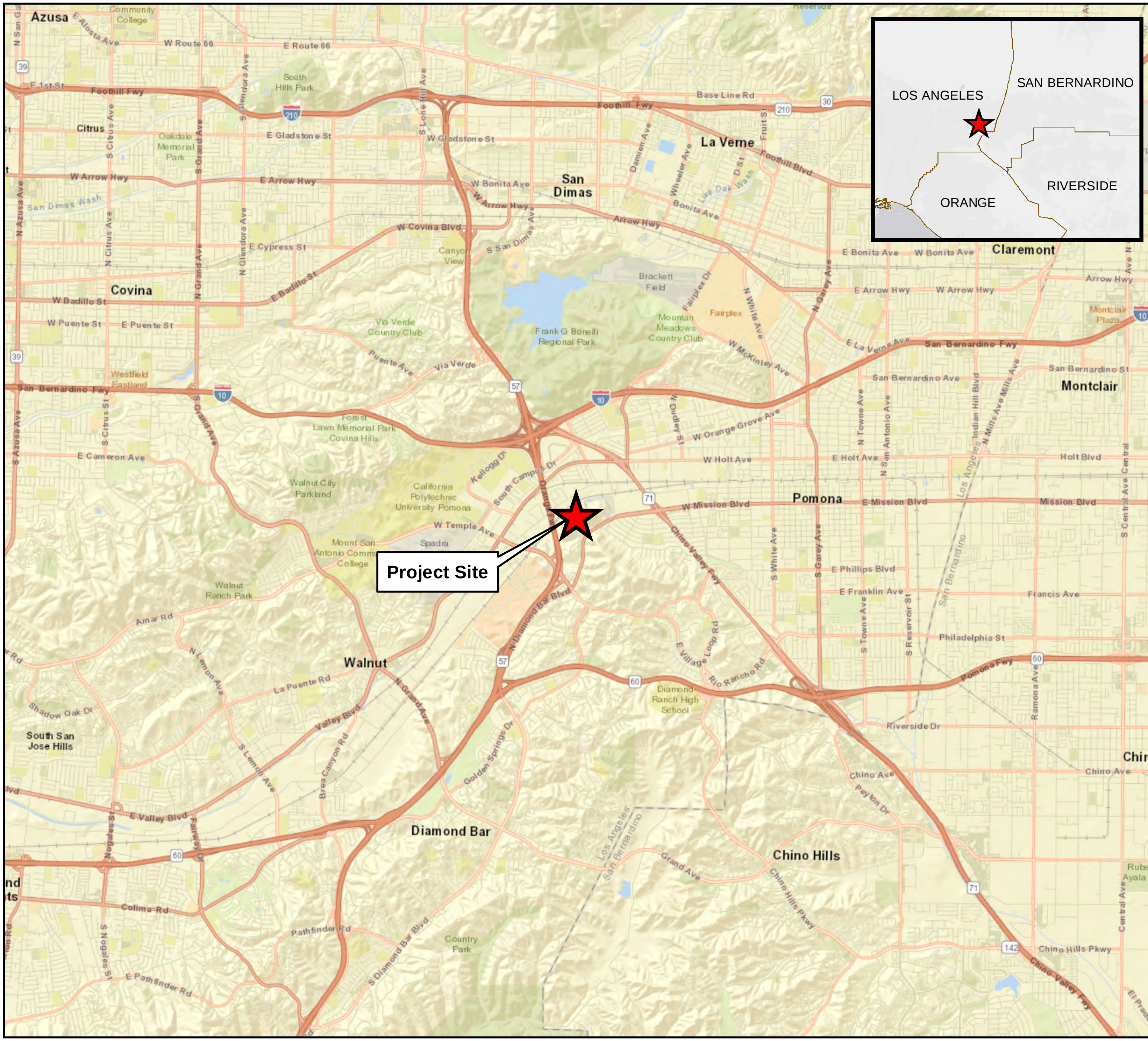
USFWS (United States Fish and Wildlife Service). 1997. Coastal California Gnatcatcher (Polioptila californica californica) Presence/Absence Survey Guidelines. February 28, 1997.

USWFS 2021a. Critical Habitat for Threatened and Endangered Species. Retrieved from <https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77>.

2021b. Information for Planning and Consultation. Retrieved from <https://ecos.fws.gov/ipac/>.

2021c. National Wetlands Inventory. Wetlands Mapper. Retrieved from <http://www.fws.gov/wetlands/Data/mapper.html>.

FIGURES



Elephant Hill

Figure 1

Regional Location Map

N
W E
S

0 1 2
Miles

Map Date: July 2020
Data Source: ESRI



VCS Environmental
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Elephant Hill

Figure 2

Aerial Vicinity Map

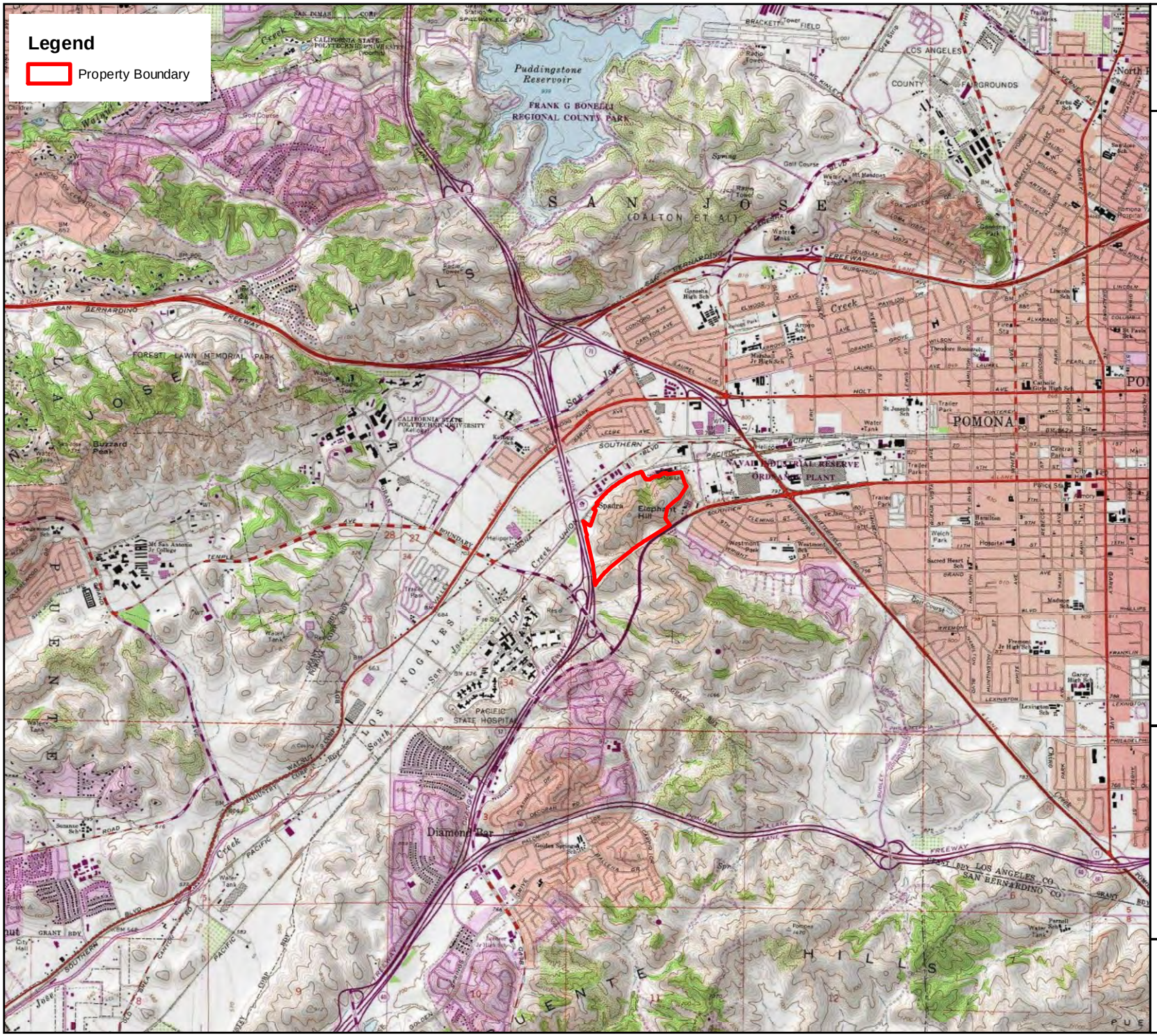
N
W E
S

0 250 500
Feet

1:6,000

Map Date: May 2025
Data Sources: ESRI, Hunsaker, Architerra

Service Layer Credits: World Imagery: County of San Bernardino, Maxar, Microsoft World Transportation (for Export) - ae2s: Esri, HERE, Garmin, (c) OpenStreetMap contributors



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Elephant Hill

Figure 3
USGS Map

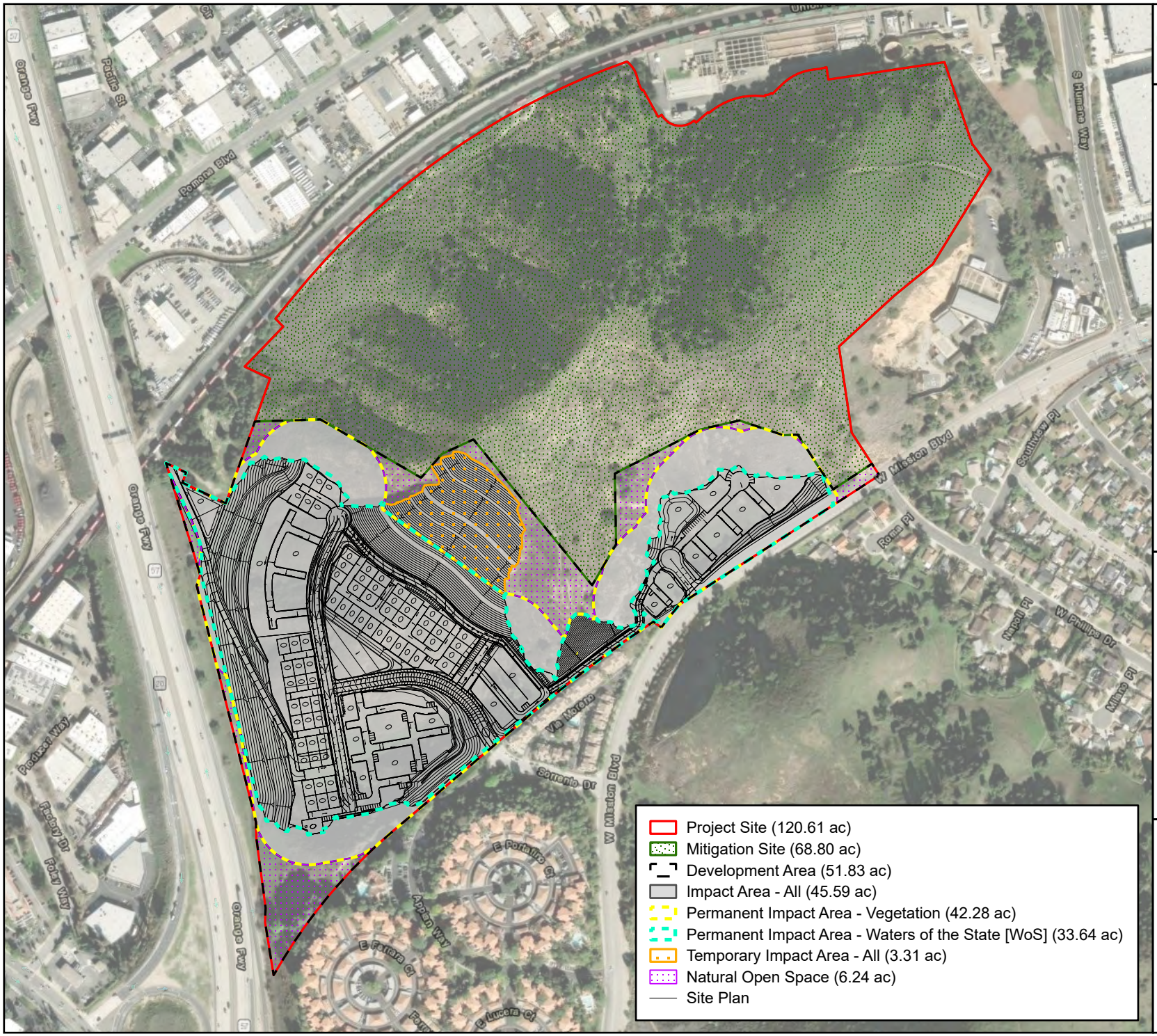
7.5 min Quadrangle:
San Dimas

CA DPR Township:
T1S R9W
State: California
County: Los Angeles

N
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0 2,000 4,000
Feet

Map Date: July 2020
Data Source: CA DPR, ESRI,



VCS Environmental
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Elephant Hill

Figure 4

Site Plan

N
W E
S

0 250 500
Feet

1:6,000

Map Date: May 2025
Data Sources: Dudek, Hunsaker, Architerra

Service Layer Credits: World Imagery: County of San Bernardino, Maxar, Microsoft World Transportation (for Export) - ae2s: Esri, HERE, Garmin, (c) OpenStreetMap contributors



FUEL MOD ZONE 'C' NATIVE PLANTING NOTE:

- WITHIN THE CROSSHATCH AREA OF FUEL MOD ZONE 'C' AND OUTWARD FROM THE COMMUNITY SHALL BE NATIVE PLANTING ONLY.

CONCEPTUAL FUEL MODIFICATION ZONE LEGEND:

EMBER RESISTANCE ZONE: 5'-0"
- EXTENDS 5 FEET BEYOND THE EDGE OF ANY COMBUSTIBLE STRUCTURE, ACCESSORY STRUCTURE, APPENDAGE, OR PROJECTION. THE AREAS BENEATH EAVES, OVERHANGS OR PARTS OF STRUCTURES INCLUDING ATTACHED DECKS AND PERGOLAS SHALL BE INCLUDED IN THE EMBER RESISTANT ZONE.
- THIS AREA SHALL BE FREE OF MATERIALS OR LANDSCAPING KNOWN TO BE RECEPTIVE TO FLYING EMBERS.
- 5'-0" ZONE IS INCLUDED WITHIN THE ZONE 'A' 30'-0" DISTANCE.

ZONE 'A': 30'-0"
- EXTENDS 30 FEET BEYOND THE EDGE OF ANY COMBUSTIBLE STRUCTURE, ACCESSORY STRUCTURE, APPENDAGE, OR PROJECTION. PROJECTIONS SUCH AS EAVES, COVERED ENTRYWAYS, ATTACHED PERGOLAS, DECKS ETC. SHALL BE THE POINT AT WHICH THIS DISTANCE IS MEASURED.
- IRRIGATION SHALL BE PROVIDED TO MAINTAIN HEALTHY VEGETATION AND FIRE RESISTANCE.
- VEGETATION IN THIS ZONE SHALL CONSIST PRIMARILY OF MOWED GRASSES, LOW GROWING GROUND COVERS AND ADEQUATELY SPACED SHRUBS. THE OVERALL DENSITY AND ARRANGEMENT SHALL PROVIDE ADEQUATE DEFENSIBLE SPACE AND SIGNIFICANTLY REDUCE FIRE INTENSITY.
- PLANT SPECIES SELECTED FOR ZONE 'A' SHALL POSSESS CHARACTERISTICS WHICH INCREASE FIRE RESISTANCE. SUCH CHARACTERISTICS ARE HIGH MOISTURE CONTENT, PLANTS PRODUCING LITTLE LEAF LITTER, SLOW GROWING PLANTS AND PLANTS THAT DO NOT REQUIRE PRUNING TO REDUCE THEIR SIZE AT MATURITY. SPECIES SELECTION SHOULD REFERENCE THE FUEL MODIFICATION PLANT LIST. THE LIST IS NOT A PRE-APPROVED PLANT LIST. OTHER SPECIES MAY BE USED SUBJECT TO APPROVAL AFTER REVIEW.
- TREES ARE GENERALLY NOT RECOMMENDED EXCEPT FOR DWARF VARIETIES OR MATURE TREES LESS THAN 25' TALL AND WIDE AT MATURITY. TREES SHALL BE POSITIONED SO THEIR CANOPIES DO NOT EXTEND OVER THE ROOF OF ANY STRUCTURE.
- VINES AND CLIMBING PLANTS ARE NOT ALLOWED ON ANY COMBUSTIBLE STRUCTURE REQUIRING REVIEW.

ZONE 'B': 70'-0"
- EXTENDS FROM THE OUTER EDGE OF ZONE 'A' AN ADDITIONAL 70 FEET FOR A TOTAL OF 100 FEET FROM THE STRUCTURE.
- IRRIGATION SHALL BE PROVIDED TO MAINTAIN HEALTHY VEGETATION AND FIRE RESISTANCE.
- VEGETATION IN THIS ZONE SHALL BE ARRANGED IN A MANNER THAT DOES NOT CREATE VERTICAL OR HORIZONTAL FUEL LADDERS. VEGETATION IN THIS ZONE CAN BE PLANTED AT A SLIGHTLY HIGHER DENSITY THAN ZONE 'A' BUT THE OVERALL DENSITY AND ARRANGEMENT SHALL PROVIDE ADEQUATE DEFENSIBLE SPACE AND SIGNIFICANTLY REDUCE FIRE INTENSITY.
- EXISTING CALIFORNIA NATIVE PLANTS MAY BE APPROVED TO REMAIN IF DETERMINED TO BE ACCEPTABLE UPON REVIEW AND ARE PROPERLY SPACED AND MAINTAINED.
- PLANT SPECIES SELECTED FOR ZONE B SHALL POSSESS CHARACTERISTICS WHICH INCREASE FIRE RESISTANCE. SUCH CHARACTERISTICS ARE HIGH MOISTURE CONTENT, PLANTS PRODUCING LITTLE LEAF LITTER, SLOW GROWING PLANTS AND PLANTS THAT DO NOT REQUIRE PRUNING TO REDUCE THEIR SIZE AT MATURITY. SPECIES SELECTION SHOULD REFERENCE THE FUEL MODIFICATION PLANT LIST. THE LIST IS NOT A PRE-APPROVED PLANT LIST. OTHER SPECIES MAY BE USED SUBJECT TO APPROVAL AFTER REVIEW.
- TREES IN ZONE 'B' MAY BE MEDIUM TO LARGE AT MATURITY PROVIDED THEY ARE PROPERLY POSITIONED AND DO NOT CREATE ANY VERTICAL OR HORIZONTAL FUEL LADDERS. TREE SELECTIONS ARE SUBJECT TO DENIAL UPON REVIEW.

ZONE 'C': 100'-0"
- EXTENDS FROM THE OUTER EDGE OF ZONE 'B' AN ADDITIONAL 100 FEET FOR A TOTAL OF 200 FEET FROM THE STRUCTURE.
- MAINTENANCE/MODIFICATION OF VEGETATION EXCEEDING 100 FEET BUT NOT TO EXCEED 200 FEET FROM STRUCTURES MAY BE DETERMINED NECESSARY. ANY REQUIRED MAINTENANCE/MODIFICATION IS TO BE DETERMINED UPON ON-SITE INSPECTION (FIRE CODE 325.2.2).
- ZONE 'C' 100' ZONE WILL BE MET EXCEPT WHERE ENCROACHING THE MITIGATION BOUNDARY. THERE WILL BE A 2' TO 22' VARIANCE AT THESE LOCATIONS.
- WITHIN THE CROSSHATCH AREA OF FUEL MOD ZONE 'C' AND OUTWARD FROM THE COMMUNITY SHALL BE NATIVE PLANTING ONLY.

FIRE ACCESS ROAD ZONE: 10'-0"
- EXTENDS A MINIMUM OF 10 FEET FROM THE EDGE OF ANY PUBLIC OR PRIVATE ROAD, DRIVEWAYS AND TURNAROUNDS USED BY FIREFIGHTING RESOURCES.
- CLEAR AND REMOVE FLAMMABLE VEGETATION ON EACH SIDE OF ACCESS ROADS (FIRE CODE 325.10).
- FIRE ACCESS ROADS SHALL HAVE AN UNOBSTRUCTED VERTICAL CLEARANCE A MINIMUM WIDTH OF 20' AND VERTICALLY CLEAR TO THE SKY (FIRE CODE 503.2.1).
- ADDITIONAL CLEARANCE BEYOND 10 FEET MAY BE REQUIRED UPON AN ON-SITE INSPECTION.
- ALL PROPOSED PLANTINGS, UNLESS OTHERWISE APPROVED, SHALL BE POSITIONED SO THEY DO NOT OBSTRUCT ACCESS AT MATURITY. PRUNING WILL NOT BE CONSIDERED AS AN ALTERNATIVE TO PLANT SELECTION.

SENSITIVE PLANT AREA
- CALOCHORTUS WEEDII INTERMEDIUS - INTERMEDIATE MARIPOSA LILY AREA WILL BE EXCLUDED FROM FUEL MODIFICATION AND RESTRICTIONS AND FROM FUEL MODIFICATION THINNING.

WATER QUALITY BASIN

JURISDICTIONAL WATER LINES
- AREAS WITHIN THE JURISDICTION WATER ARE EXEMPT FROM FUEL MODIFICATION AND ARE NOT TO BE IMPACTED.

SENSITIVE SPECIES AVOIDANCE NOTE:

- THREE SENSITIVE PLANT SPECIES OCCUR ONSITE: CALIFORNIA WALNUT, INTERMEDIATE MARIPOSA LILY, AND MANY-STEMMED DUDLEYA.
- ALL INDIVIDUAL OF THESE SPECIES SHALL BE LEFT UNTOUCHED EXCEPT FOR THE TRIMMING OF DEAD CALIFORNIA WALNUT LIMBS, AND INDIVIDUALS, WHICH MAY BE TRIMMED AND REMOVED SO LONG AS IS DOES NOT IMPACT A TREE'S HEALTH. THEY SHALL NOT BE REMOVED AS A PART OF THE VEGETATION MANAGEMENT.
- CARE SHALL BE TAKEN BY WORKERS TO AVOID TRAMPLING OF THESE PLANTS.
- CARE SHALL BE TAKEN TO ENSURE THAT OTHER VEGETATION MANAGEMENT ACTIVITIES DO NOT INDIRECTLY DAMAGE THESE SPECIES.

SENSITIVE PLANT AREA:

- CALOCHORTUS WEEDII INTERMEDIUS - INTERMEDIATE MARIPOSA LILY AREA WILL BE EXCLUDED FROM FUEL MODIFICATION AND RESTRICTIONS AND FROM FUEL MODIFICATION THINNING.
- FOR MORE SENSITIVE AREA INFORMATION, REFER TO BIOLOGIST AND ENVIRONMENTALIST REPORT.

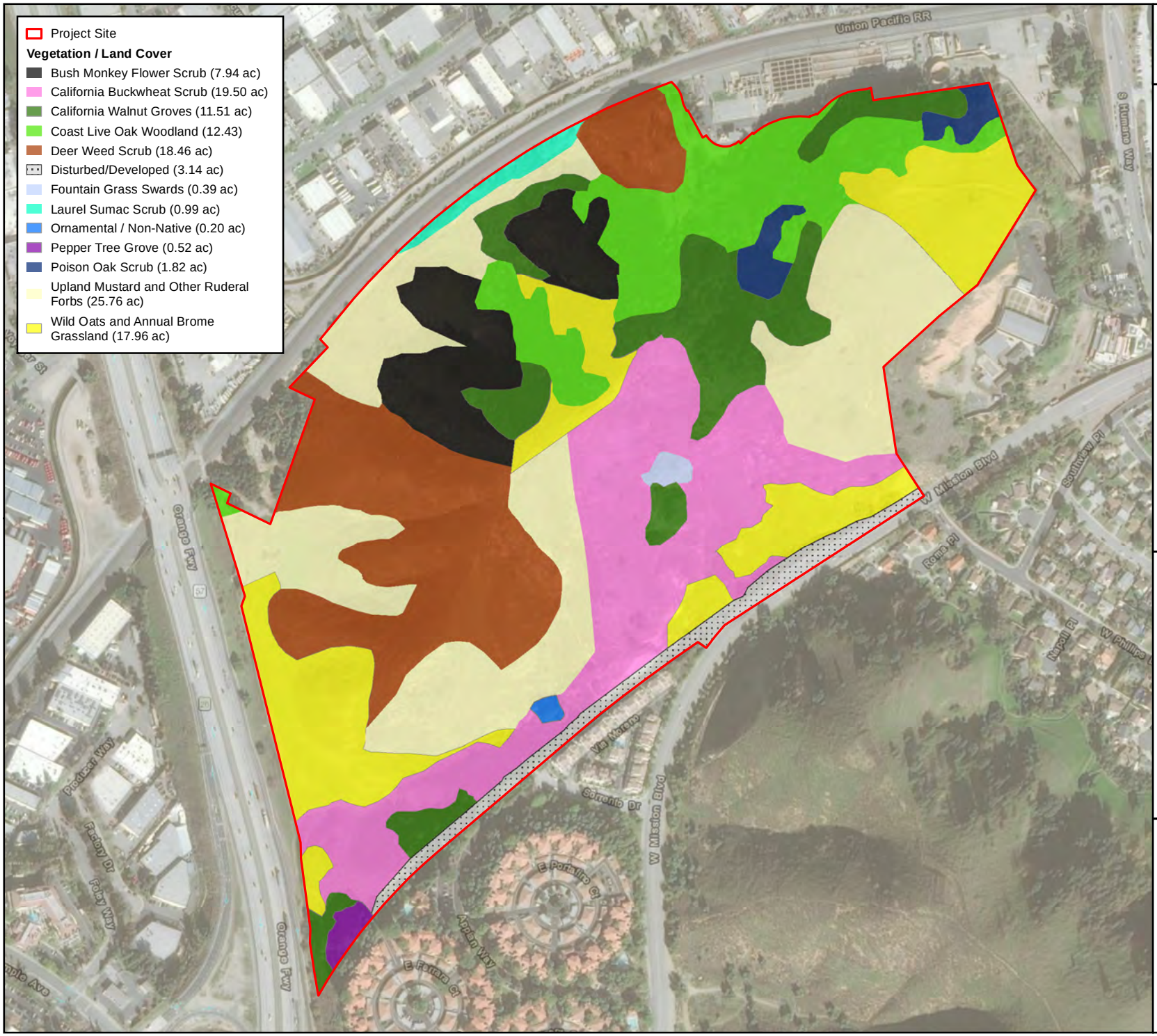
LIVE TRU
TRUMARK HOMES

ARCHITERRA DESIGN GROUP
LANDSCAPE ARCHITECTURE AND PLANNING
10221-A TRADEMARK ST., RANCHO CUCAMONGA, CALIFORNIA 91730 PH: (909) 484-2800

ELEPHANT HILL DEVELOPMENT
CONCEPTUAL FUEL MODIFICATION ZONE MAP
2889 WEST MISSION BOULEVARD, POMONA, CA

Figure 5

A.P.N.: 8708020001, 8708021058, & 8708020008
MAY 27, 2025



VCS Environmental
EXPERT SOLUTIONS · CEQA-NEPA · Biology · Regulatory

Elephant Hill

Figure 6

Vegetation / Land Cover

N
W E
S

0 300 600
Feet

1:6,000

Map Date: October 2022
Data Sources: ESRI, Hunsaker

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



VCS Environmental
EXPERT SOLUTIONS : CEQA-NEPA , Biology , Regulatory

Elephant Hill

Figure 7

Significant Ecological Area (SEA)*

**SEA Ordinance Does Not Apply – Incorporated City*

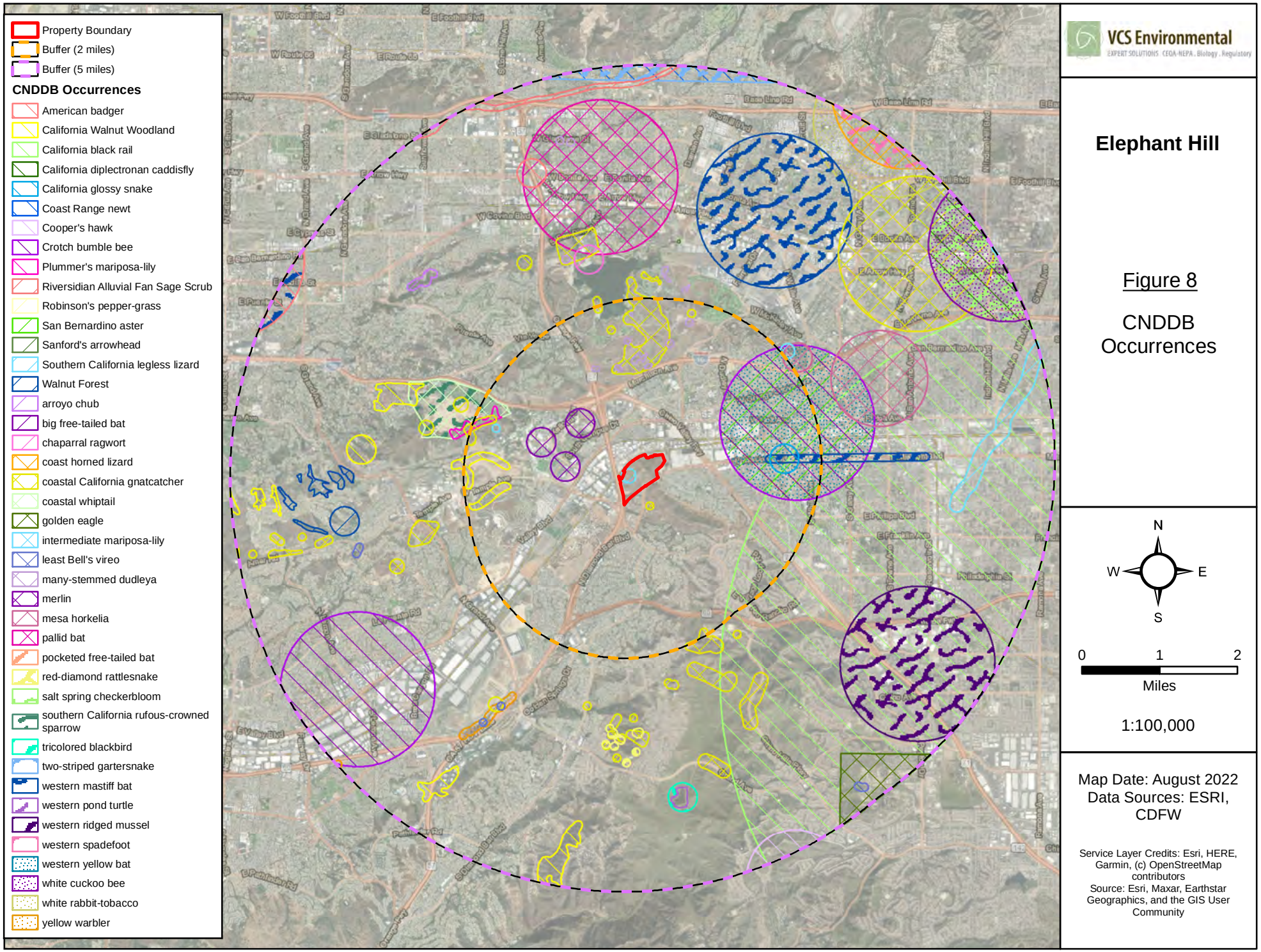
N
W E
S

0 250 500
Feet

1:6,000

Map Date: December 2022
Data Sources: ESRI, County of Los Angeles, Hunsaker

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



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Elephant Hill

Figure 8

CNDDB Occurrences

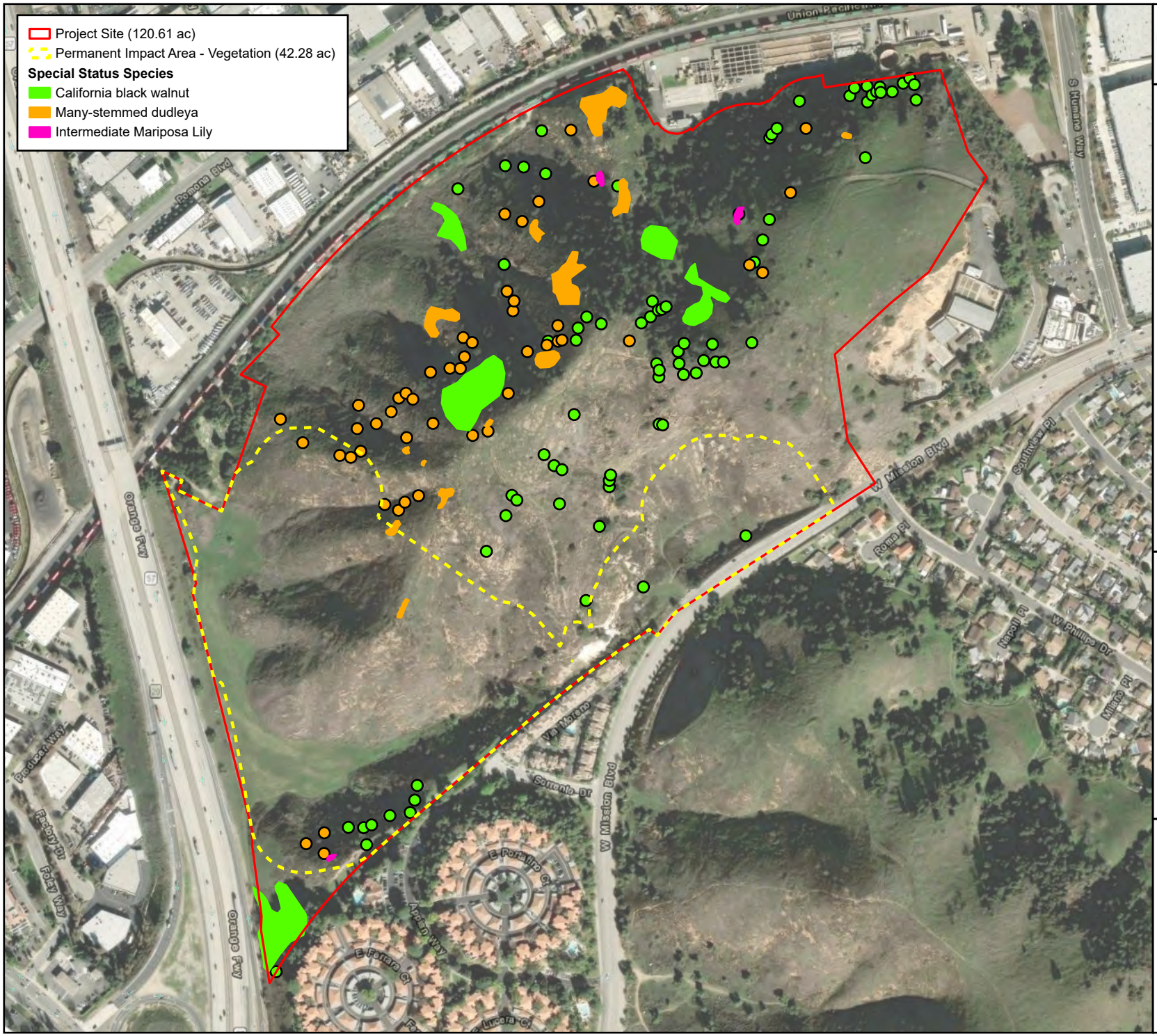
N
W E
S

0 1 2
Miles

1:100,000

Map Date: August 2022
Data Sources: ESRI, CDFW

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



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Elephant Hill

Figure 9

2021 Survey Results Special Status Plants

N
W E
S

0 250 500
Feet

1:6,000

Map Date: May 2025
Data Sources: ESRI, Hunsaker, Architerra

Service Layer Credits: World Imagery: County of San Bernardino, Maxar, Microsoft
World Transportation (for Export) - ae2s: Esri, HERE, Garmin, (c) OpenStreetMap contributors



VCS Environmental
EXPERT SOLUTIONS : CEQA-NEPA : Biology : Regulatory

Elephant Hill

Figure 10
Impacts to Vegetation / Land Cover

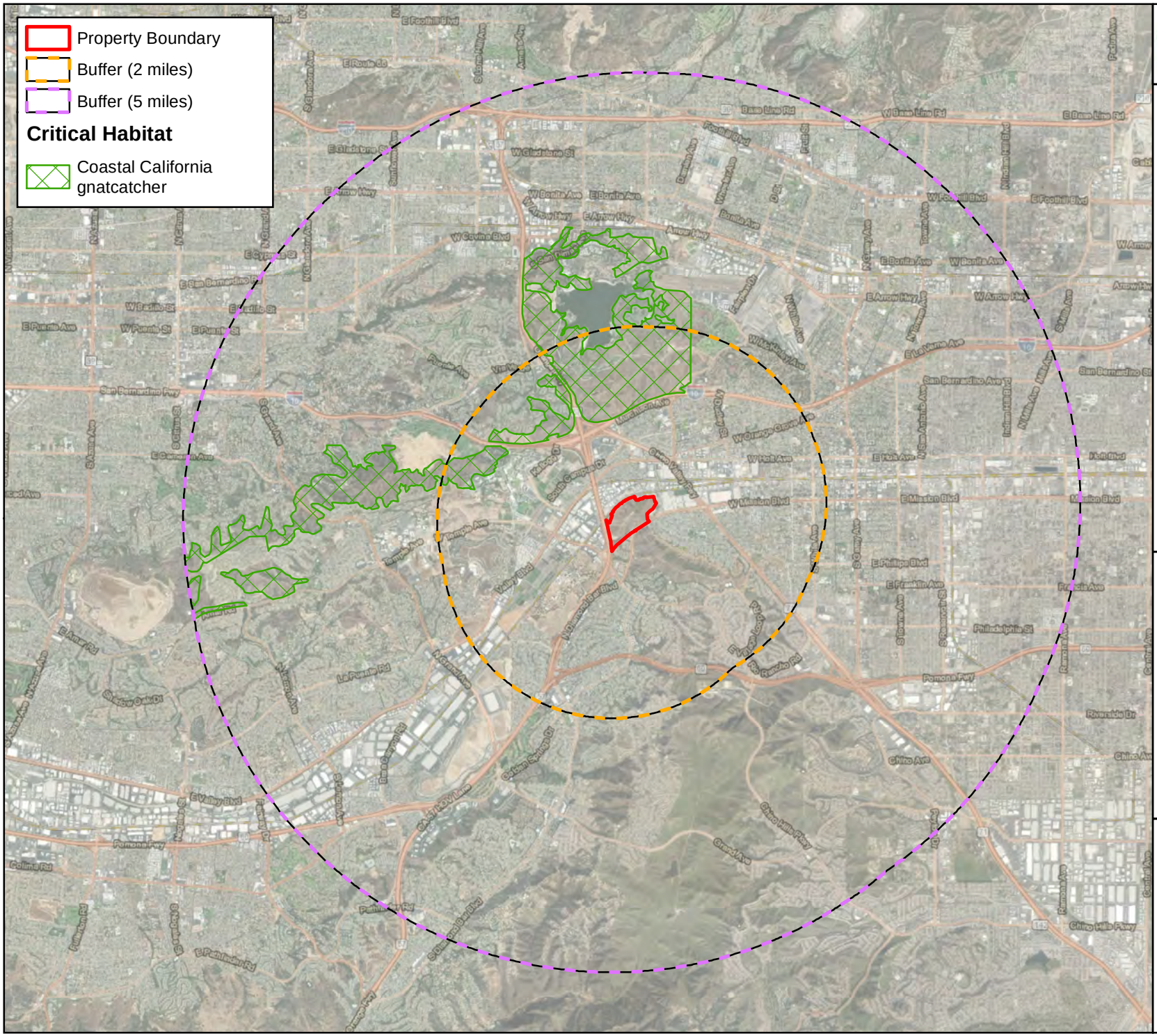
N
W E
S

0 250 500
Feet

1:6,000

Map Date: May 2025
Data Sources: ESRI, Hunsaker, Architerra

Service Layer Credits: World Imagery: County of San Bernardino, Maxar, Microsoft World Transportation (for Export) - ae2s: Esri, HERE, Garmin, (c) OpenStreetMap contributors



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Elephant Hill

Figure 11

USFWS
Critical Habitat

N
W E
S

0 1 2
Miles

1:100,000

Map Date: August 2022
Data Sources: ESRI, USFWS

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



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Elephant Hill

Figure 12
Jurisdictional Waters of the State (WoS)

N
W E
S

0 250 500
Feet

1:6,000

Map Date: August 2022
Data Sources: ESRI, Hunsaker

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors Esri, HERE, Garmin, (c) OpenStreetMap contributors, and the GIS user community
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



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Elephant Hill

Figure 13

National Wetlands Inventory Map

N
W E
S

0 300 600
Feet

1:7,000

Map Date: August 2022
Data Sources: ESRI, USFWS NWI

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



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Elephant Hill

Figure 14

Soil Map

N
W E
S

0 300 600
Feet

1:7,000

Map Date: August 2022
Data Sources: ESRI, USDA NRCS

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



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Elephant Hill

Figure 15
Impacts to Waters of the State (WoS)

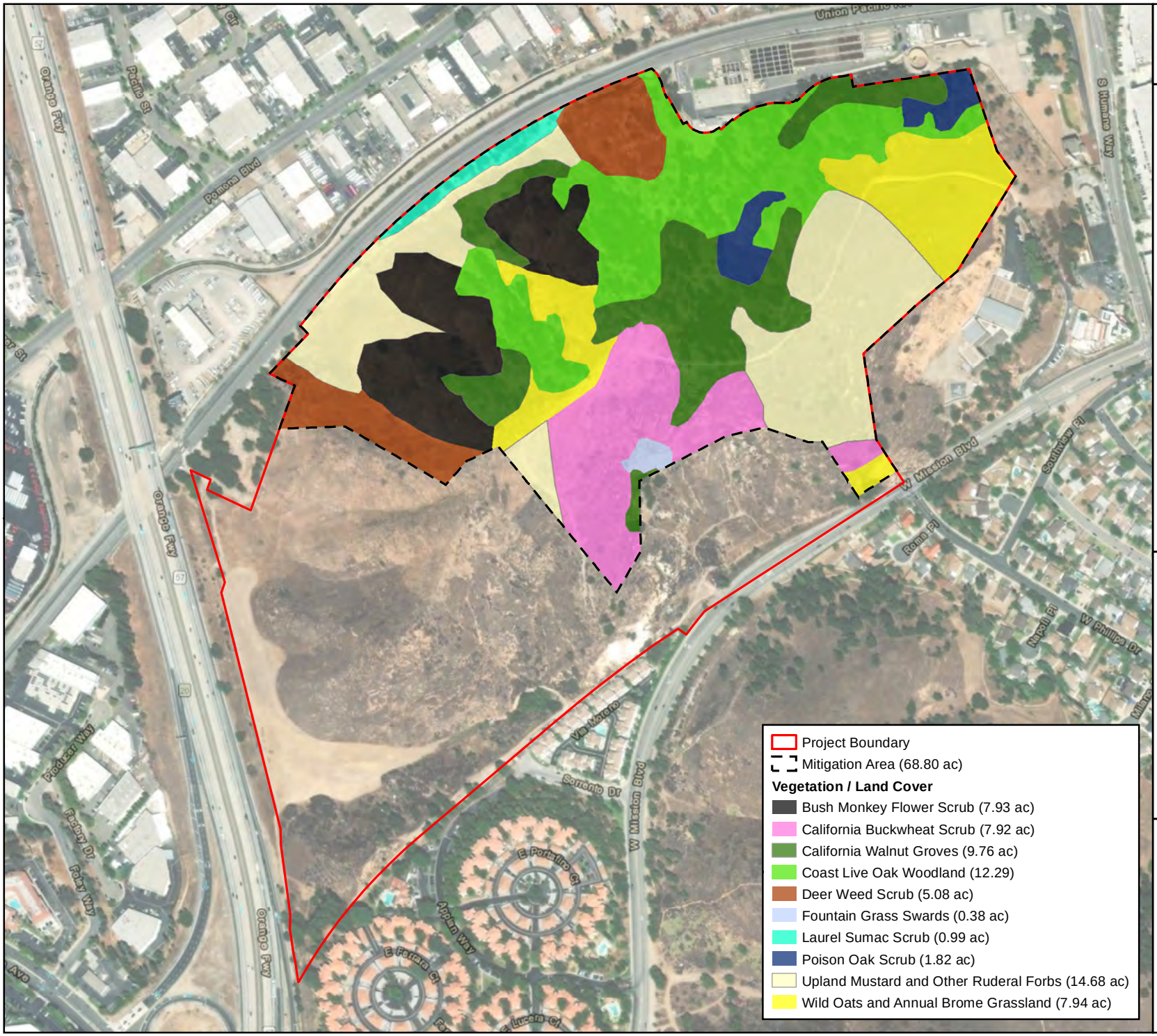
N
W E
S

0 250 500
Feet

1:6,000

Map Date: May 2025
Data Sources: ESRI, Hunsaker, Architerra

Service Layer Credits: World Imagery: County of San Bernardino, Maxar, Microsoft



VCS Environmental
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Elephant Hill

Figure 16

Mitigation Location Map

N
W E
S

0 250 500
Feet

1:6,000

Map Date: April 2023
Data Sources: ESRI, Hunsaker

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

APPENDIX A

Site Photographs



Photo 1. General view of the Property, taken from the top of the slope near the southern boundary; facing west with the 57-Freeway in the background.



Photo 2. View of California buckwheat scrub habitat; facing west.



Photo 3. View of Coast live oak woodland habitat; facing south from the northern side of the Property boundary. Structure to the center and left a part of adjacent property.



Photo 4. View of trash/homeless encampment area within Feature 1a; facing east.



Photo 5. View of Wild oats and annual brome grasses habitat recently managed for brush; facing north.



Photo 6. View of a portion of Bush monkey flower scrub fire-affected area; facing south.



Photo 7. View of non-native vegetation including ash and pepper trees. California buckwheat scrub habitat in the background; facing north.



Photo 8. View of seasonally ponded feature 3a; facing north.



Photo 9. View of laurel sumac scrub on the northern edge of the Property; facing northeast.



Photo 10. View of the cliff on the southeastern portion of the Property; facing northeast.



Photo 11. View of Pepper tree groves to the left, and California walnut groves habitat in the background within the southwestern portion of the Property; facing west.



Photo 12. View of a portion of California buckwheat scrub habitat on the slopes within the southern portion of the Property; facing south.



Photo 13. View of Upland mustards within the eastern portion of the Property; facing northeast.



Photo 14. View of a portion of the Coast live oak woodland habitat (in the background) within the eastern portion of the Property; facing north.

APPENDIX B

Plant and Wildlife Species Observed within Elephant Hill Property

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Plant Species Observed within the Property

Scientific Name	Common Name
Adoxaceae	
Sambucus nigra ssp. caerulea	Blue elderberry
Agavaceae	
*Agave americana**	American century plant
Anacardiaceae	
Malosma laurina	Laurel sumac
*Schinus molle**	Peruvian pepper tree
Toxicodendron diversilobum	Poison oak
Apiaceae	
*Foeniculum vulgare**	Sweet fennel
Apocynaceae	
Asclepias fascicularis	Narrow leaf milkweed
Asteraceae	
Artemisia californica	California sagebrush
Baccharis pilularis	Coyote bush
Baccharis salicifolia	Mulefat
*Carduus pycnocephalus**	Italian thistle
*Centaurea solstitialis**	Yellow star thistle
Corethrogyne filaginifolia	California aster
Helianthus annuus	Sunflower
*Helminthotheca echioides**	Bristly ox-tongue
Heterotheca grandiflora	Telegraph weed
*Sonchus asper ssp. asper**	Prickly sow thistle
*Sonchus oleraceus**	Common sow thistle
Stephanomeria virgata	Rod wire lettuce
*Taraxacum officinale**	Common dandelion
Boraginaceae	
Amsinckia intermedia	Common fiddleneck
Phacelia cicutaria	Caterpillar phacelia
Brassicaceae	
*Brassica nigra**	Black mustard

Scientific Name	Common Name
*Brassica rapa var. rapa**	Field mustard
*Hirschfeldia incana**	Short-pod mustard
*Sisymbrium irio**	London rocket
Cactaceae	
Opuntia littoralis	Coast prickly pear
Chenopodiaceae	
Chenopodium californicum	California goosefoot
*Salsola australis**	Russian thistle
Convolvulaceae	
*Convolvulus arvensis**	Field bindweed
Cuscuta californica	Chaparral dodder
Cucurbitaceae	
Marah macrocarpa	Wild cucumber
Cyperaceae	
Cyperus eragrostis	Tall flatsedge
Dryopteridaceae	
Dryopteris arguta	Coastal wood fern
Euphorbiaceae	
Croton setiger	Turkey mullein
*Ricinus communis**	Castor bean
Fabaceae	
Acmispon glaber var. glaber	Common deerweed
*Melilotus indicus**	Annual yellow sweetclover
Fagaceae	
Quercus agrifolia	Coast live oak
Geraniaceae	
*Erodium cicutarium**	Common stork's bill
Juglandaceae	
Juglans californica	Southern California black walnut

Scientific Name	Common Name
*Juglans regia**	English walnut
Lamiaceae	
*Marrubium vulgare**	White horehound
Malvaceae	
*Malva parviflora**	Cheeseweed mallow
Moraceae	
*Ficus carica**	Common fig
Myrsinaceae	
*Lysimachia arvensis**	Scarlet pimpernel
Oleaceae	
*Fraxinus uhdei**	Shamel ash
Oxalidaceae	
Oxalis californica	California wood-sorrel
Phrymaceae	
Mimulus aurantiacus var. pubescens	Sticky monkeyflower
Poaceae	
*Avena barbata**	Slender oat
*Avena fatua**	Wild oat
*Brachypodium distachyon**	False brome
*Bromus diandrus**	Ripgut brome
*Bromus hordeaceus**	Soft brome
Bromus madritensis var. rubens	Red brome
Elymus condensatus	Giant wildrye
*Festuca myuros**	Rattail sixweeks grass
*Festuca perennis**	Italian rye grass
*Pennisetum setaceum**	Crimson fountaingrass
*Schismus barbatus**	Common mediterranean grass
*Stipa miliacea**	Smilo grass
Polygonaceae	
Eriogonum fasciculatum	California buckwheat
*Rumex crispus**	Curly dock

Scientific Name	Common Name
Rosaceae	
Heteromeles arbutifolia	Toyon
Rosa californica	California wildrose
Rubus ursinus	Pacific blackberry
Salicaceae	
Salix lasiolepis	Arroyo Willow
Solanaceae	
*Nicotiana glauca**	Tree tobacco

*Non-Native and/or Invasive Species.

Wildlife Species Observed/Detected within the Property

Scientific Name	Common Name
Aves	**Birds**
Accipitridae	**Hawks, Kites, Eagles, and Allies**
Buteo jamaicensis	Red-tailed hawk
Aegithalidae	**Bushtit**
Psaltriparus minimus	Bushtit
Apodidae	**Swifts**
Aeronautes saxatalis	White-throated swift
Cardinalidae	**Cardinals, Grosbeaks and Allies**
Pheucticus melanocephalus	Black-headed grosbeak
Columbidae	**Pigeons and Doves**
Columba livia	Rock pigeon
Zenaida macroura	Mourning dove
Corvidae	**Jays, Magpies and Crows**
Aphelocoma californica	Western scrub-jay
Corvus brachyrhynchos	American crow
Corvus corax	Common raven
Emberizidae	**Emberizines**
Chondestes grammacus	Lark sparrow
Melospiza melodia	Song sparrow
Melozone crissalis	California towhee
Fringillidae	**Finches**
Haemorhous mexicanus	House finch
Spinus psaltria	Lesser goldfinch
Hirundinidae	**Swallows**
Hirundo rustica	Barn swallow
Petrochelidon pyrrhonota	Cliff swallow
Stelgidopteryx serripennis	Northern rough-winged swallow
Mimidae	**Mockingbirds and Thrashers**
Mimus polyglottos	Northern mockingbird

Scientific Name	Common Name
Toxostoma redivivum	California thrasher
Polioptilidae	**Gnatcatchers**
Polioptila californica	California gnatcatcher
Sylviidae	**Sylviid Warblers**
Chamaea fasciata	Wrentit
Trochilidae	**Hummingbirds**
Calypte anna	Anna's hummingbird
Selasphorus sasin	Allen's hummingbird
Troglodytidae	**Wrens**
Thryomanes bewickii	Bewick's wren
Tyrannidae	**Tyrant Flycatchers**
Sayornis nigricans	Black phoebe
Tyrannus verticalis	Western kingbird
Mammalia	**Mammals**
Leporidae	**Rabbits and Hares**
Sylvilagus audubonii	Audubon’s cottontail
Sciuridae	**Squirrels, Chipmunks and Marmots**
Ostospermophilus beecheyi	California ground squirrel

APPENDIX C

Special Status Species
Potential Occurrence Determination

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APPENDIX C

Special Status Species Potential Occurrence Determination

This table summarizes conclusions from analysis and field surveys regarding the potential occurrence of special status species within the approximately 120-acre Property, which includes the Project site, the approximately 44-acres that will be developed and or/graded within the Property. During the field surveys, the potential for special status species to occur within the Property was assessed based on the following criteria:

- Present: observed on the site during the field surveys, or recorded on-site by other qualified biologists.

- High potential to occur: observed in similar habitat in the region by a qualified biologist, or habitat on the site is a type often utilized by the species and the site is within the known distribution and elevation range of the species.

- Moderate potential to occur: reported sightings in surrounding region, or the site is within the known distribution and elevation range of the species and habitat on the site is a type occasionally used by or typical of the species.

- Low potential to occur: the site is within the known distribution and elevation range of the species but habitat on the site is rarely used by the species or no suitable habitat is present, or there are no known recorded occurrences of the species within or adjacent to the site.

- Absent: a focused study failed to detect the species.

- Unknown: the species' distributional/elevation range and habitat are poorly known.

Even with field surveys, biologists assess the *probability* of occurrence rather than make a definitive conclusion about species' presence or absence. Failure to detect the presence of the species is not definitive and may be due to variable effects associated with fire, rainfall patterns, and/or season.

Special Status Species: Potential to Occur within the Property

Scientific Name	Common Name	Status	General Habitat Description	Potential for Occurrence within the Property
PLANTS				
Androsace elongata ssp. acuta	California androsace	CRPR: 4.2	A variety of habitats including woodlands, grasslands and scrub. Elevation: < 1200 meters Blooming period: March - June	Moderate potential to occur; however, not observed during the rare plant surveys.
Asplenium vespertinum	western spleenwort	CRPR: 4.2	Rocky areas within chaparral and sage scrub. Elevation: 200-1,000 meters Blooming period: February - June	Moderate potential to occur; however, not observed during the rare plant surveys.
Brodiaea filifolia	thread-leaved brodiaea	FT, SE, CRPR: 1B.1,	Found in chaparral (openings), cismontane woodland, and coastal scrub, playas, valley and foothill grassland, vernal pools. Requires very heavy clay soils. Elevation: 25 – 1120 meters Blooming period: March - June	Low potential to occur. No heavy clay soils present. Not observed during rare plant surveys.
Juglans californica Forest and Woodland Alliance	California Walnut Groves	State: S3.2 Global: G3	Riparian corridors but extending to cover all hillslopes.	Present on north-facing slopes and along the ridgeline of the Property.
Calochortus catalinae	Catalina mariposa lily	CRPR: 4.2	Chaparral, Coastal scrub, Valley and foothill grassland. Elevation: < 700 meters Blooming period: March - June	Moderate to high potential to occur; however, not observed during the rare plant surveys.
Calochortus plummerae	Plummer's mariposa lily	CRPR: 4.2	Granitic, rocky areas of Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland. Often in alluvial fans. Elevation: < 1700 meters Blooming period: May - July	Moderate potential to occur; however, not observed during the rare plant surveys.

Scientific Name	Common Name	Status	General Habitat Description	Potential for Occurrence within the Property
Calochortus weedii var. intermedius	Intermediate mariposa-lily	CRPR: 1B.2, FSS	Rocky hill and valley landscapes with chaparral, sage scrub, or grasslands. Elevation: 105 – 855 meters Blooming period: May - July	Present. Three locations were identified in 2021: Location 1: 14 individuals; Location 2: 11 individuals; Location 3: 4 Individuals. A total of 29 individuals were observed within the Property.
Chorizanthe parryi var. parryi	Parry's Spineflower	CRPR: 1B.1, BLMS, FSS	Parry's spineflower is a species of flowering plant in the buckwheat family known by the common name Parry's spineflower and San Bernardino spineflower. The plant is endemic to Southern California, where it is found in the San Bernardino Mountains, San Gabriel Mountains and Western Transverse Ranges, the Colorado Desert, and along the southern coast. It is found mainly in chaparral scrub plant communities. Elevation: 275 - 1,220 meters Blooming period: April - June	Moderate potential to occur; however, not observed during the rare plant surveys.
Dudleya multicaulis	many-stemmed dudleya	CRPR: 1B.2, BLMS, FSS.	Many-stemmed dudleya is often associated with clay soils in barrens, rocky places, and ridgelines as well as thinly vegetated openings in chaparral, coastal sage scrub, and southern needlegrass grasslands on clay soils. Elevation: 15 – 790 meters Blooming period: April - July Elevation: 15 – 790 meters Blooming period: April - July	Present. Observed during focused plant surveys. Approximate 20,000 plants within the Property and ~ 950 within the Project site/Impact area.
Horkelia cuneata var. puberula	mesa horkelia	CRPR: 1B.1, FSS	Perennial herb native and endemic to California. Occurs in sandy or gravelly habitat within chaparral, cismontane woodland and coastal scrub. Elevation: 70 - 810 meters Blooming period: February – July (Sep)	Low potential to occur. Marginal habitat onsite; species not observed during the rare plant surveys.

Scientific Name	Common Name	Status	General Habitat Description	Potential for Occurrence within the Property
Juglans Californica	Southern California black walnut	CRPR: 4.2	Perennial deciduous tree endemic to California. Habitat includes alluvial substrates, chaparral, cismontane woodland, coastal scrub, and riparian woodland. Threatened by urbanization, grazing, non-native plants, and possibly by lack of natural reproduction. Elevation: 50 - 900 meters Blooming period: March - August	Present. Observed during focused surveys and general biological surveys within the Property.
Lepidium virginicum var. robinsonii	Robinson's peppergrass	CRPR: 4.3	Chaparral, coastal scrub; dry soils, shrubland. Elevation: 1 – 885 meters Blooming period: January - July	Moderate potential to occur; however not observed during the rare plant surveys.
Phacelia hubbyi	Hubby's phacelia	CRPR: 4.2	Chaparral, Coastal scrub, Valley and foothill grassland Elevation: 0 - 1000 meters Blooming period: April - July	Moderate potential to occur; however, not observed during the rare plant surveys.
Pseudognaphali m leucocephalum	white rabbit-tobacco	CRPR: 2B.2	Sandy or gravelly. Chaparral, cismontane woodland, coastal scrub, riparian woodland. Prefers dry stream bottoms/canyon bottoms. Elevation: 0 - 2100 meters Blooming period: (July) August – November (December)	Low potential to occur. Property lacks suitable stream bottom/gravelly bench habitat.
Quercus engelmannii	Engelmann oak	CRPR: 4.2	Native to the foothills from eastern Los Angeles County south to eastern San Diego County. Found in pure stands and with coast live oak. Often found in chaparral, cismontane woodland, riparian woodland, and valley and foothill grassland. Elevation: 50 -1300 meters Blooming period: March - June	Absent.
Senecio aphanactis	chaparral ragwort	CRPR: 2B.2	Sometime alkaline. Chaparral, cismontane woodland, coastal scrub. Elevation: 15 – 800 meters Blooming period: January - April (May)	Moderate potential to occur; however, not observed during the rare plant surveys.
Sidalcea neomexicana	salt spring checkerbloom	CRPR: 2B.2	It can be found in a diverse number of habitat types including chaparral and coastal sage scrub, yellow Pine Forest, and riparian zones, creosote bush scrub, and alkali flats and other salty substrates. Elevation: 15 – 1530 meters	Low potential to occur. Property lacks suitable alkaline springs/marshes.

Scientific Name	Common Name	Status	General Habitat Description	Potential for Occurrence within the Property
Symphyotrichum defoliatum	San Bernardino aster	CRPR: 1B.2, BLMS, FSS	This plant is a perennial herb that grows near ditches, streams, springs, cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic). Elevation: 0 – 2,040 meters Blooming period: May (July) – October (January)	Moderate to high potential to occur; however, not observed during the rare plant surveys.
INVERTEBRATES				
Bombus crotchii	Crotch's bumble bee	CE, IUCN: EN~~CE~~	Uncommon species of coastal California east towards the Sierras; select food plant genera include *Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, Eriogonum*. The species also need burrows or similar to build their nests.	Moderate. *Eriogonum* ssp. identified on the Property which is a suitable food genera. CNDDB reports occurrences nearby in 1934.
FISH				
Gila orcuttii	Arroyo chub	SSC, FSS, AFS-VU	Found in southern California streams and rivers. Typically found in slow flowing or backwater areas with fine substrate however they are adapted to survive in areas with high fluctuations between winter and summer flow volumes.	No potential to occur due to the highly ephemeral nature of waters onsite.
AMPHIBIANS				
*Spea hammondii (*also *Scaphiopus hammondii)*	western spadefoot toad	SSC, BLMS	Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Rain pools which do not contain bullfrogs, fish, or crayfish are necessary for breeding.	Moderate potential to occur onsite. Property has suitable habitat.
Taricha torosa	Coast Range newt	SSC	The species can be found in coastal areas and coastal range mountains in oak forests, woodlands, or rolling grasslands. In the terrestrial phase they live in moist to dry habitats under woody or leafy debris, in rock crevices, and in animal burrows. In the aquatic phase they are found in ponds, reservoirs, lakes and slow-moving streams.	Low potential to occur. Property lacks suitable nearby aquatic habitat.
REPTILES				
Anniella stebbinsi	Southern California legless lizard	SSC, FSS	Occurs in moist warm loose soil with plant cover. Moisture is essential. Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with	Low to moderate potential to occur. Property has limited

Scientific Name	Common Name	Status	General Habitat Description	Potential for Occurrence within the Property
			sycamores, cottonwoods, or oaks. Leaf litter under trees and bushes in sunny areas and dunes stabilized with bush lupine and mock heather often indicate suitable habitat.	suitable habitat and most of the site lacks suitable soil moisture content.
Arizona elegans occidentalis	California glossy snake	SSC	Inhabits arid scrub, rocky washes, grasslands, chaparral.	Moderate potential to occur. Property has suitable habitat grassland/chaparral habitat.
Aspidoscelis tigris stejnegeri	Coastal whiptail	SSC	Found in a variety of ecosystems, primarily hot and dry open areas with sparse foliage - chaparral, woodland, and riparian areas. Generally, avoids areas of dense grass and thick shrubby growth. Requires warm and sunny areas for basking, friable soil for burrow construction and foraging, open areas for running, and cover of bushes, rocks, or both.	Moderate potential to occur. Property has suitable habitat.
Crotalus ruber	red-diamond rattlesnake	FSS, SSC	Chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	Moderate to high potential to occur. Property contains suitable woodland and grassland habitat with rocky areas.
Emys marmorata	western pond turtle	SSC, BLMS, FSS, IUCN: VU	A thoroughly aquatic turtle of ponds, marshes, rivers, streams & irrigation ditches, usually with aquatic vegetation, below 2000 meters in elevation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	Low potential to occur onsite. The Property lacks typical suitable habitat for the species.
Phrynosoma blainvillii	coast horned lizard	SSC, BLMS	The species can be found in various scrublands, grasslands, coniferous and broadleaf forests, and woodlands. It can range from the coast to elevations of 2,000 meters in the Southern California mountains. It is most common in mid-elevations of the coastal mountains and valleys within open habitat that offer good opportunities for sunning.	Low to moderate potential to occur onsite. Property has suitable habitat.
Thamnophis hammondii	two-striped gartersnake	SSC, FSS, BLMS	Highly aquatic species; prefer habitat adjacent to permanent or semi-permanent bodies of water.	Low potential to occur onsite. The Property lacks typical suitable habitat for the species.

Scientific Name	Common Name	Status	General Habitat Description	Potential for Occurrence within the Property
BIRDS				
Accipiter cooperii	Cooper's hawk	WL, IUCN:LC	Forest and woodland birds. These lanky hawks are a regular sight in parks, quiet neighborhoods, over fields, at backyard feeders, and even along busy streets if there are trees around.	Present. Species observed during CAGN focused surveys.
Agelaius tricolor	tricolor blackbird	CE, SSC, BLMS, BCC	Freshwater marshes. Suitable breeding habitat includes cattails and bulrushes.	Low. Project lacks suitable freshwater marsh habitat.
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	WL	Found on moderate to steep, dry, grass-covered hillsides, coastal sage scrub, and chaparral and often occur near the edges of the denser scrub and chaparral associations. Preference is shown for tracts of California sagebrush.	Moderate to high. Property has suitable habitat.
Aquila chrysaetos	golden eagle	WL, FP, BCC, BLMS, IUCN:LC	Range-wide, golden eagles occur locally in open country (*e.g.,* tundra, open coniferous forest, desert, barren areas), especially in hills and mountainous regions.	Moderate. Property supports suitable foraging (grassland) habitat.
Falco columbarius	merlin	WL, IUCN: LC	Open conifer woodland, prairie groves; in migration, also foothills, marshes, open country. Generally, breeds in semi-open terrain having trees for nest sites and open areas for hunting. Habitat varies from coniferous forest in north and on northwest coast to isolated deciduous groves and suburban yards on prairies. May winter in more open areas, such as grasslands, coastal marshes.	Moderate. Suitable foraging habitat. CNDDB recorded Merlin observations near the Property in 1993.
Laterallus jamaicensis coturniculus	California black rail	ST, FP, BLMS, BCC, IUCN: NT	Nests in Northern California in marshes and wet meadows including riparian marshes, coastal prairies, saltmarshes, and impounded wetlands. All of its habitats have stable shallow water, usually just 1.2 inches deep at most. In California, American glasswort, various bulrush (Scirpus) species, and the alkali seaheath are key plants for Black Rails. These plants, especially taller patches of seaheath at the marsh margins, may provide cover for the rails during periods of high tides. Away from tidal habitats, Black Rails nest in a variety of wet meadows, marsh edges (including along creeks and rivers), around farm ponds, and even in hayfields with standing water. Migrating birds and wintering birds select	Low potential to occur onsite. Property lacks suitable marsh habitat.

Scientific Name	Common Name	Status	General Habitat Description	Potential for Occurrence within the Property
			habitats with the same characteristics as breeding habitats, but some occur in dry rice fields, among other rail species, as well.	
Polioptila californica	coastal California gnatcatcher	FT, SSC	Obligate, permanent resident of coastal sage scrub below 835 meters in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	Present. Species observed during CAGN focused surveys.
Setophaga petechia	yellow warbler	SSC, BCC	Found in thickets and other disturbed or re-growing habitats, particularly along streams and wetlands. Nests in the vertical fork of a bush or small tree such as willow.	Low. Property lacks suitable riparian habitat.
Vireo bellii pusillus	least Bell's vireo	FE, SE,	Summer resident of Southern California in low riparian, in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, baccharis or, mesquite.	Low. Property lacks suitable riparian habitat.
MAMMALS				
Antrozous pallidus	pallid bat	SSC, BLMS, FSS, IUCN:LC WBWG (H)	Occurs in deserts, grasslands, shrublands, woodlands and forests but is most common in open, dry habitats. Commonly roost in rock crevices, caves, and mine tunnels but also roost in the attics of houses, under the eaves of barns, in hollow trees. Roosts must protect bats from high temperatures. This species is very sensitive to disturbance of roosting sites.	Low to moderate. Property lacks primary roosting habitat including caves and mine tunnels but may have suitable tree hollows and rock crevices. Nearby buildings may also provide roosting habitat. Site supports foraging habitat.
Eumops perotis californicus	Western mastiff bat	SSC, BLMS, WBWG (H)	Open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, annual and perennial grasslands, palm oases, chaparral, desert scrub, and urban.	Moderate. Property has suitable roosting and foraging habitat including scrub and woodlands.
Lasiurus xanthinus	Western yellow bat	SSC, IUCN: LC WBWG (H)	Year-round resident of southern CA, found below 2000 ft in or near riparian habitats. Roosts in trees, including palm trees, in and near palm oases and riparian habitats.	Low. Property lacks suitable habitat including palm trees

Scientific Name	Common Name	Status	General Habitat Description	Potential for Occurrence within the Property
				and large riparian habitats.
Nyctinomops femorosaccus	pocketed free-tailed bat	SSC, IUCN:LC WBWG (M)	Year-round resident of southern CA. Habitats used include pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oasis. Roosts in rock crevices, caverns, or buildings.	Low to moderate. Property lacks suitable habitat but may provide suitable roosting habitat within rock crevices.
Nyctinomops macrotis	big free-tailed bat	SCC, IUCN: LC WBWG (MH)	This species roosts in buildings, caves, and occasionally in holes in trees. They also roost in crevices in high cliffs or rock outcrops.	Low to moderate. Property lacks primary roosting habitat including buildings and caves but may provide suitable roosting habitat within rock outcrops and tree holes. Nearby buildings may also provide roosting habitat. Site could support foraging habitat.
Taxidea taxus	American badger	SCC, IUCN LC	Grasslands and open areas with grasslands. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats with friable soils. They may also be found in forest glades and meadows, marshes, brushy areas, hot deserts, and mountain meadows.	Low to moderate. Property has open areas with grasslands. However, the Property is surrounded by developed and urbanized areas in all directions.

Legend

Federal Endangered Species Act (ESA) Listing Codes: federal listing is pursuant to the Federal Endangered Species Act of 1973, as amended (ESA).
FE = federally listed as endangered: any species, subspecies, or variety of plant or animal that is in danger of extinction throughout all or a significant portion of their range.
FT = federally listed as threatened: any species, subspecies, or variety of plant or animal that is considered likely to become endangered throughout all or a significant portion of its range within the foreseeable future.

California Endangered Species Act (CESA) Listing Codes: state listing is pursuant to § 1904 (Native Plant Protection Act of 1977) and §2074.2 and §2075.5 (California Endangered Species Act of 1984) of the Fish and Game Code, relating to listing of Endangered, Threatened and Rare species of plants and animals.
SE = state listed as endangered: any species, subspecies, or variety of plant or animal that are in serious danger of becoming extinct throughout all, or a significant portion, of their range.
ST = state listed as threatened: any species, subspecies, or variety of plant or animal that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future.

California Department of Fish and Wildlife (CDFW):
SSC = species of special concern: status applies to animals which 1) are declining at a rate that could result in listing, or 2) historically occurred in low numbers and known threats to their persistence currently exist. The CDFW has designated certain vertebrate species as "species of special concern" because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.
CE= Candidate Endangered.
FP = fully protected: animal species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.
WL = watch list: these birds have been designated as "Taxa to Watch" in the *California Bird Species of Special Concern report* (Shuford and Gardali 2008). The report defines "Taxa to Watch" as those that are not on the current special concern list that (1) formerly were on the 1978 (Remsen 1978) or 1992 (CDFG 1992) special concern lists and are not currently listed as state threatened and endangered; (2) have been removed (delisted) from either the state or federal threatened and endangered lists (and remain on neither), or (3) are currently designated as "fully protected" in California.

United States Forest Service (USFS):
FSS = Forest Service sensitive: those plant and animal species identified by a Regional Forester that are not listed or proposed for listing under the ESA and for which population viability is a concern, as evidenced by: (a) significant current or predicted downward trends in

population numbers or density or (b) significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution."

United States Fish and Wildlife Service (USFWS):
BCC = USFWS bird of conservation concern: listed in the USFWS'S 2008 *Birds of Conservation Concern* report. The report identifies species, subspecies, and populations of all migratory non-game birds that, without additional conservation actions, are likely to become candidates for listing under the ESA. While all of the bird species included in the report are priorities for conservation action, the list makes no finding with regard to whether they warrant consideration for ESA listing.

United States Bureau of Land Management (BLM):
BLMS = BLM sensitive: those plant and animal species on BLM administered lands and that are (1) under status review by the USFWS/NMFS; or (2) whose numbers are declining so rapidly that federal listing may become necessary, or (3) with typically small and widely dispersed populations; or (4) those inhabiting ecological refugia or other specialized or unique habitats. BLM policy is to provide the same level of protection as USFWS candidate species.

American Fisheries Society: Listing of imperiled freshwater and diadromous fishes of North America prepared by the American Fisheries Society's Endangered Species Committee.
AFS-E= Endangered
AFS-TH= Threatened
AFS-V= Vulnerable

California Rare Plant Ranks (Formerly known as CNPS Lists): the CNPS is a statewide, non-profit organization that maintains, with CDFG, an Inventory of Rare and Endangered Plants of California. In the spring of 2011, CNPS and CDFG officially changed the name "CNPS List" or "CNPS Ranks" to "California Rare Plant Rank" (or CPRP). This was done to reduce confusion over the fact that CNPS and CDFG jointly manage the Rare Plant Status Review Groups and the rank assignments are the product of a collaborative effort and not solely a CNPS assignment.

CRPR 1A - California Rare Plant Rank 1A (formerly List 1A): Plants presumed extirpated in California and either rare or extinct elsewhere. All of the plants constituting California Rare Plant Rank 1A meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

CRPR: 1B - California Rare Plant Rank 1B (formerly List 1B): Plants Rare, Threatened, or Endangered in California and Elsewhere. All of the plants constituting California Rare Plant Rank 1B meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and

2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

CRPR: 2 - California Rare Plant Rank 2 (formerly List 2): Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere. All of the plants constituting California Rare Plant Rank 2 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and are eligible for state listing. It is mandatory that they be fully considered during preparation of environmental documents relating to CEQA.

CRPR: 4 - California Rare Plant Rank 4 (formerly List 4): Plants of Limited Distribution - A Watch List. Very few of the plants constituting California Rare Plant Rank 4 meet the definitions of Sec. 1901, Chapter 10 (Native Plant Protection Act) or Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code, and few, if any, are eligible for state listing. Nevertheless, many of them are significant locally, and CNPS and CDFG strongly recommend that California Rare Plant Rank 4 plants be evaluated for consideration during preparation of environmental documents relating to CEQA.

California Native Plant Society (CNPS) Threat Ranks: The CNPS Threat Rank is an extension added onto the California Rare Plant Rank (CRPR) and designates the level of endangerment by a 1 to 3 ranking with 1 being the most endangered and 3 being the least endangered. A Threat Rank is present for all California Rare Plant Rank 1B's, 2's, 4's, and the majority of California Rare Plant Rank 3's. California Rare Plant Rank 4 plants are seldom assigned a Threat Rank of 0.1, as they generally have large enough populations to not have significant threats to their continued existence in California; however, certain conditions exist to make the plant a species of concern and hence be assigned a California Rare Plant Rank. In addition, all California Rare Plant Rank 1A (presumed extinct in California), and some California Rare Plant Rank 3 (need more information) plants, which lack threat information, do not have a Threat Rank extension.
0.1 = seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2 = fairly endangered in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

Sources:

- CNPS Inventory of Rare and Endangered Plants (CNPS 2021)
- The Jepson Manual: *Vascular Plants of California,* second edition (Baldwin *et al.* 2012).
- RareFind, CDFW, California Natural Diversity Database (CNDDB) (CDFW 2021).
- State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW, September 2020).
- State and Federally Listed Endangered and Threatened Animals of California (CDFW, July 2020).
- Special Animals List (CDFW, April 2021).
- Life History Accounts (CDFW).
- Sensitive List (BLM)

Appendix D:
Results of 2020 and
2021 Breeding Season
Surveys for California
Gnatcatcher

RESULTS OF 2021 BREEDING SEASON SURVEYS FOR CALIFORNIA GNATCATCHER FOR THE ~120 ACRE "ELEPHANT HILL" PROJECT SITE

POMONA, LOS ANGELES COUNTY, CALIFORNIA

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JULY 15, 2021

INTRODUCTION

This report presents the results of the 2021 breeding season modified surveys for the federally threatened coastal California gnatcatcher (*Polioptila californica californica*) ("CAGN") on approximately 120 acres in Pomona, California ("site", Appendix A, Figures 1-3). The surveys were conducted by Kidd Biological, Inc. (KBI). Surveys were conducted in accordance with guidance from U.S. Fish and Wildlife Service (USFWS) CAGN survey protocol to cover breeding periods (USFWS 1997).

The required notification to conduct focused surveys was submitted by email to the permit coordinator at the Carlsbad U.S. Fish and Wildlife Service (USFWS) Office dated May 7, 2021 (Appendix B).

SITE LOCATION

The site is located in the City of Pomona in southeastern Los Angeles County, California. Generally, the site is located just to the east of Highway 57 (Orange County) south of Interstate 10, and west of Highway 71 (Chino Valley Freeway). More specifically the site is at the northwest corner of the intersection of Mission Boulevard and Humane Way (See Figure 1).

The project location can also be described as being located in Section 26 of Township 1 South, Range 9 West of the San Dimas, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map (see figure 2).

PROPOSED PROJECT

At this time there is no definitive project and the surveys were conducted as part of a due-diligence for a project that would consist of approximately 24 acres of permanently developed area and 13 acres of temporary grading area within the approximately 120-acre property.

NATURAL HISTORY OF THE COASTAL CALIFORNIA GNATCATCHER

The CAGN is a federally threatened species. It is most commonly found in the sage scrub communities of coastal southern California. According to J. Atwood and J. Bolsinger (1992), 99% of all CAGN observations are in areas with elevations below 950 feet. There are a few reported occurrences of CAGN at 1,600 feet elevation (500 meters) (Davis and McKernan, 1998). Elevation of this site is approximately 900 feet (300 meters) above mean sea level (MSL).

CAGN are ground and shrub-foraging insectivores. They feed on small insects and other arthropods. A CAGN's territory is highly variable in size and seems to be correlated with distance from the coast, ranging from less than 1 ha to over 9 ha (Mock, 2004). In a 1998 study, biologist Patrick Mock concluded that CAGN in the inland region require a larger territory than those on the coast in order to meet the nutritional requirements needed for survival and breeding.

The main threat to the CAGN is habitat loss, fragmentation, and degradation of habitat from invasive plant species and drought. Urban and agricultural development, livestock grazing, invasion of exotic grasses, off-road vehicles, pesticides, and military training activities all contribute to the destruction of CAGN habitat. Once locally common, CAGN have experienced widespread habitat loss and have lost most of their former range. By 1997, it was estimated that no more than 2,900 pairs remained in the United States. Remaining patches of coastal sage scrub are highly fragmented, and the majority is privately owned, making species recovery a difficult task.

Coastal Orange, Los Angeles and San Diego Counties have the highest densities of CAGN. It is not surprising that there are numerous reported occurrences of CAGN in the immediate area of the site. The nearby observations of CAGN are shown in Figure 4: *CNDDB Documented CAGN Locations*. These locations were obtained from the California Department of Wildlife's (CDFW) Natural Diversity Data Base (CNDDB) (2020).

Vegetation Communities/Habitat Types

During the survey vegetation communities were noted, however a detailed habitat evaluation was not conducted. The site is fairly steep with elevations ranging from 730-1,160 feet above mean sea level. The survey focused on areas with the most suitable habitat for CAGN. The majority of the site is comprised of disturbed fields of mustard and other non-native species. Small areas of disturbed Coastal Sage Scrub remain.

Upland Mustard and Other Ruderal Forbs

This vegetation is comprised primarily of non-native species including the following: high densities of short-pod mustard (*Hirschfeldia incana*), various non-native grasses (*Bromus and Festuca*), tocalote (*Centaurea melitensis*), and castor bean (*Ricinus communis*). Additionally, there are small patches of herbaceous native vegetation such as California sagebrush and California buckwheat.

Disturbed California Sagebrush Scrub

Vegetation observed within this community includes native California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), deerweed (*Acmipson glaber*), bush monkeyflower (*Diplacus aurantiacus*), and poison oak (*Toxicodendron diversilobum*). This community is scattered in patches over the site and the dominate plant species change from patch to patch.

Fire Recovery

In Summer of 2020, there was a fire that burned the northwest portion of the survey area. This area is recovering primarily with short-pod mustard with scattered deerweed and buckwheat.

Methodology

Protocol breeding season surveys for the coastal California gnatcatcher were conducted by permitted biologists **Jason Berkley (USFWS 10a1A permit #009015-5)**. Methods employed were in conformance with USFWS Coastal California Gnatcatcher Presence/Absence Survey Guidelines, issued July 28, 1997 (USFWS 1997). A total of 6 surveys were performed one week apart, between May 15 and June 27, 2021 generally between 0600 hours and 1200 hours. The surveys were conducted within all suitable habitat as well as marginal grassland habitat with remnant CSS.

The biologist slowly traversed the biological survey area, stopping at approximately 100-foot intervals to listen for CAGN. If no CAGN were detected within 5-10 minutes, the biologist made pishing sounds, and played an audio recording of CAGN vocalizations. The recording was played for several seconds at each interval, followed by a brief pause to listen for a response. If any CAGN individuals were detected, additional observations including sex, age, breeding status, and behavioral characteristics were documented, consistent with protocol requirements.

RESULTS

Breeding season surveys were conducted by the USFWS permitted biologist noted above, in accordance with USFWS guidelines within all suitable habitat on the site. Table 2, below, summarizes the results of each survey. This is an update to a survey that was conducted in 2020 which found two pairs of CAGN within the site.

It was noted that part of the 2020 survey area that was most densely covered in invasive plants had burned. It is estimated that 25 of the 120 acres were burned on June 12, 2020.

One pair was consistently detected during breeding season surveys conducted on the site. This pair was always observed using habitat in the southwestern portion of the survey area (Figures 4, 5 & 6). A nest was found during the first survey pass. The female was observed incubating during the first two surveys. The nest was empty on the third pass and it is not known if it failed or fledged. The nest was intact.

During the fifth survey pass, a second nest was found within the same general use area so it is assumed the nest was of the same pair. It was not known what the results of this nesting attempt were.

Brown-headed cowbirds (*Molothrus ater*), considered to be nest parasites for CAGNs, were not observed during the surveys.

Table 2. Survey Data

Survey	Surveyor	Date	Time		Temp (°F)	Cloud Cover (%)	Wind Speed (mph)	CAGN Detected
			Begin	End				
1	J. Berkley	5/14	0815	1100	57-59	100	0	Yes
2	J. Berkley	5/21	0630	0900	60-65	0	1-3	Yes
3	J. Berkley	6/6	0900	1200	64-76	100	1-3	Yes

4	J. Berkley	6/13	0900	1200	75-88	0	0	Yes
5	J. Berkley	6/20	0730	1100	66-75	0	0-3	Yes
6	J. Berkley	6/27	0700	1000	67-78	0	0-1	Yes

Additional Avian Species

Avian activity during the protocol surveys was relatively high considering the site's proximity to a heavily traveled thoroughfare from Highway 57. Bird diversity was high and species observed or otherwise detected during surveys are species commonly found in coastal sage scrub and wildland-urban interfaces. Bird observed included, but was not limited to house finch (*Haemorphous mexicanus*), bushtit (*Psaltriparus minimus*), song sparrow (*Melospiza melodia*), Anna's hummingbird (*Calypte anna*), Allen's hummingbird (*Selasphorus sasin*), California towhee (*Melozone crissalis*) and Northern mockingbird (*Mimus polyglottus*). A complete list of species observed can be found in Appendix B: Species Compendium.

Only one other sensitive wildlife species was detected other than the California gnatcatcher: the Southern California rufous-crowned sparrow. The rufous-crowned sparrow is a California Watch List species (CDFW 2021).

Conclusion

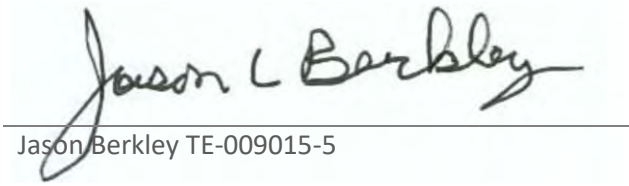
A total of six (6) Coastal California gnatcatcher breeding season surveys were completed within suitable habitat within the 120-acre site. California gnatcatchers were detected on all 6 surveys. One pair of CAGN was observed with two separate nests during the protocol surveys. The majority of the activity was located on the southwestern slope of Elephant Hills where there is sufficient California sagebrush (See Photo 6).

No brown-headed cowbirds (*Molothrus ater*) were observed during the surveys.

Recommendations

This site is not located within designated critical habitat for the CAGN, however the habitat is suitable, although very marginal in quality, and occupied by one pair of CAGN. There are larger areas of suitable habitat to the south, however these areas are islands of habitat in an otherwise heavily developed area of Los Angeles County. Regardless, these pockets of remnant native habitat may serve as a valuable linkage for CAGN and other birds between the San Jose Hills to the northwest and Chino Hills to the southwest.

CERTIFICATION: I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date: July 15, 2021 Signed: 

Jason Berkley TE-009015-5

REFERENCES

Atwood, J.L., and D.R. Bontrager. 2001. California Gnatcatcher (*Polioptila californica*). *In* The Birds of North America, No. 574 (A. Poole and F. Gill, eds.). The Birds of North America, Inc, Philadelphia, PA.

Atwood, J.L., and J.S. Bolsinger. 1992. Elevational distribution of California Gnatcatchers in the United States. J. Field Ornithol. 63: 159-168.

Baily, E.B., and P.J. Mock. 1998. Dispersal capability of the California gnatcatcher: a landscape analysis of distribution data. Western Birds 29: 351–360.

Bontrager, D.R. 1991. Habitat requirements, home range and breeding biology of the California gnatcatcher (*Polioptila californica*) in south Orange County, California. Unpublished technical report prepared for the Santa Margarita Company, Rancho Santa Margarita, CA. 19 pp.

California Natural Diversity Database (CNDDB). RareFind5. Wildlife & Habitat Data Analysis Branch, Department of Fish and Game. Accessed June 28, 2021

California Department of Fish and Wildlife (CDFW). 2021. Natural Diversity Database (CNDDB) Biogeographic Data Branch's *Special Animals list* (April 2021)

Clements, J. 2007. [Updated 2019] *The Clements Checklist of Birds of the World*, *6th Edition* . Published by Cornell Lab of Ornithology, Ithica, NY

Davis, L.H., R.L. McKernan, and J.S. Burns. 1998. History and status of the California Gnatcatcher in San Bernardino County, California. Western Birds 29: 361-365

Famolaro, P., and J. Newman. 1998 Occurrence and management considerations of California gnatcatchers along San Diego County highways. Western Birds 29: 447–452.

Galvin, J.P. 1998. Breeding and dispersal biology of the California gnatcatcher in central Orange County. Western Birds 29: 323–332.

Grishaver, M.A., P.J. Mock, and K.L. Preston. 1998. Breeding behavior of the California Gnatcatcher in southwestern San Diego County, California. Western Birds 29: 299-322.

Holland, R.F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California.* Nongame- Heritage Program. California Department of Fish and Game, Sacramento, California.

Moritz, Craig, James L. Patton Chris J. Conroy Juan L. Parra Gary C. WhiteSteven R. Beissinger, 2008. *Impact of a Century of Climate Change on Small-Mammal Communities in Yosemite National Park*, Science 10 October 2008: USA Vol. 322 no. 5899 pp. 261-264

Mock, P.J. 1998. *Energetic constraints to the distribution and abundance of the California Gnatcatcher*. Western Birds 29: 413-420

Mock, P. 2004. *California Gnatcatcher (Polioptila californica). In The Coastal Scrub and Chaparral Bird Conservation Plan: a strategy for protecting and managing coastal scrub and chaparral habitats and associated birds in California*. California Partners in Flight. http://www.prbo.org/calpif/htmldocs/scrub.html

Pounds, J. A., Fogden, M. P. L. & Campbell, J. H. *Biological response to climate change on a tropical mountain*. Nature 398, 611±615 (1999).

Preston K.L., P.J. Mock, M.A. Grishaver, E.A. Bailey, and D.F. King. 1998. *California Gnatcatcher territorial behavior.* Western Birds 29: 242-257.

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APPENDIX A- FIGURES

FIGURE 1. GENERAL SITE LOCATION ON THE SAN DIMAS, CA USGS TOPOGRAPHIC MAP

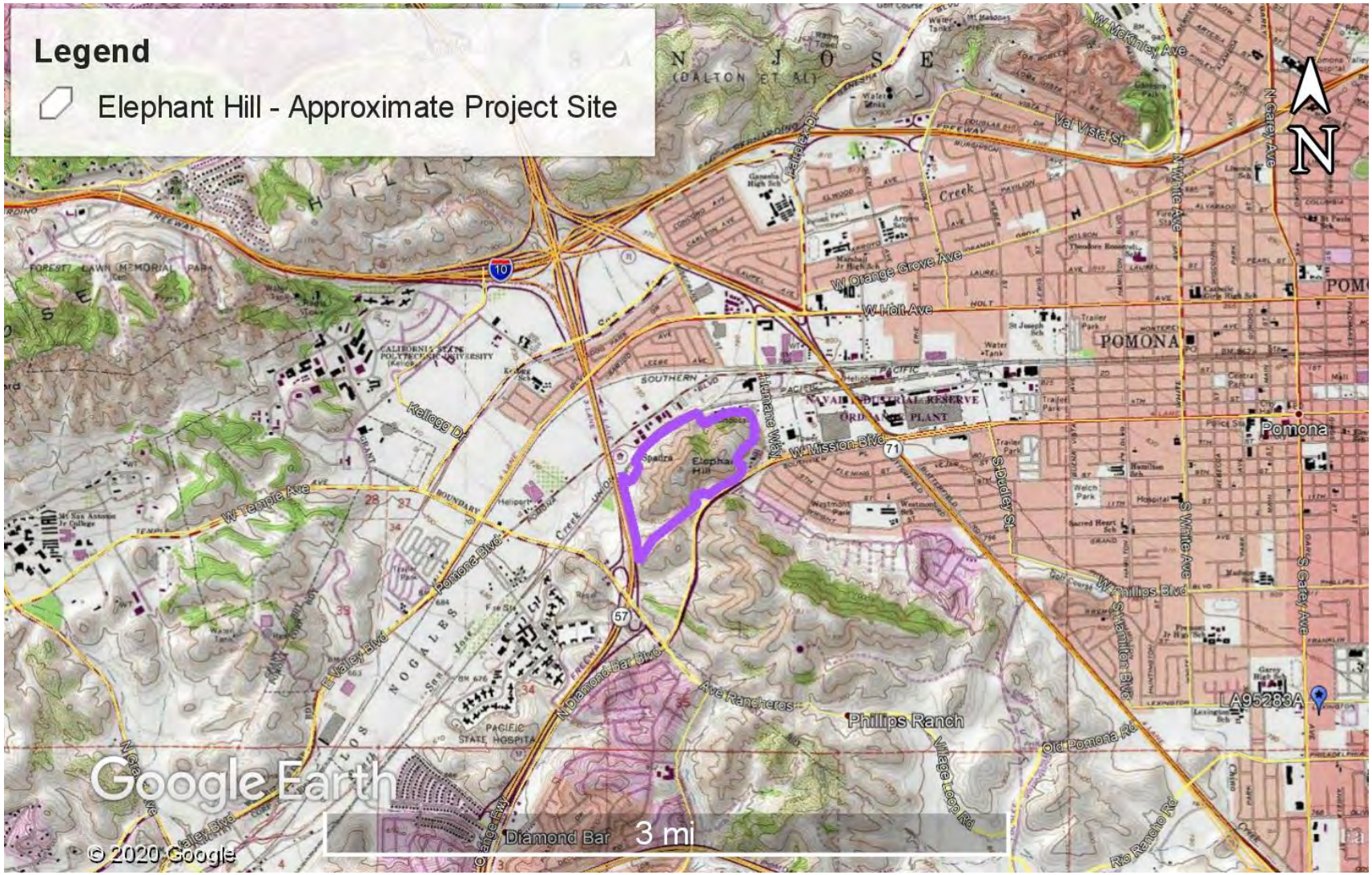


Figure 2. Aerial Photo of Survey Area



FIGURE 3. CNDDB REPORTED CAGN LOCATIONS

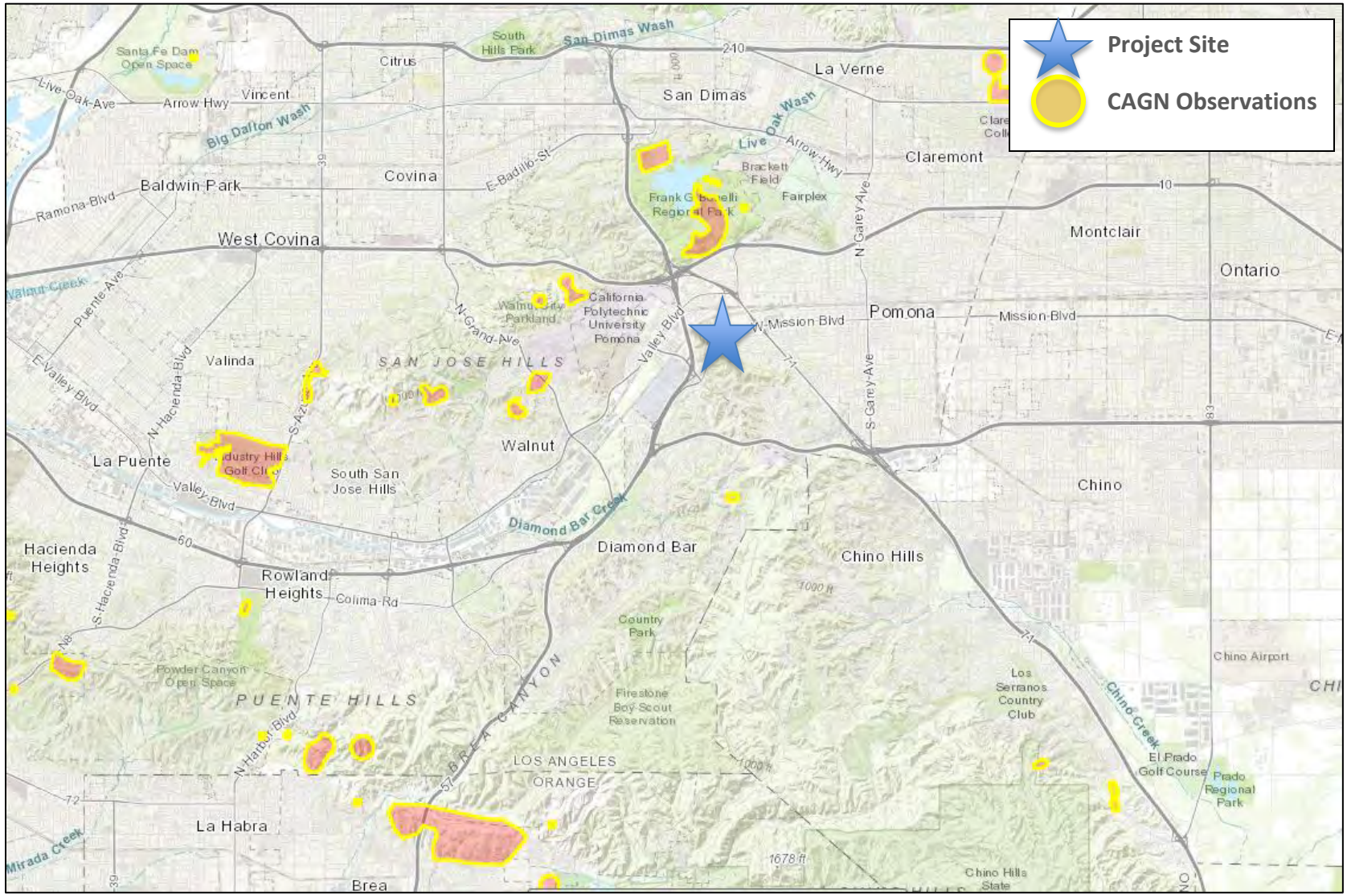


FIGURE 4. CAGN OBSERVATIONS



Figure 5. Looking West at occupied habitat



Figure 6. Looking North from Southeastern Boundary at Habitat



Figure 7. CAGN Nest in *Artemisia*



APPENDIX B: AVIAN COMPENDIUM

	Scientific Name	**Common Name**
	Accipitridae	**Hawks**
	Buteo jamaicensis	red-tailed hawk
	Cathartidea	**New World Vultures**
	Cathartes aura	Turkey vulture
	Columbidae	**Pigeons and Doves**
	Zenaida macroura	mourning dove
	Odontophoridea	**New World Quail**
	Callipepla californica	California Quail
	Apodidae	**Swifts**
	Aeronautes saxatalis	white-throated swift
	Trochilidae	**Hummingbirds**
	Calypte anna	Anna's hummingbird
	Selasphorus sasin	Allen's hummingbird
	Tyrannidae	**Tyrant Flycatchers**
	Sayornis nigricans	Black phoebe
	Sayornis saya	Say’s phoebe
	Myiarchus cinerascens	Ash-throated flycatcher
	Tyrannus verticalis	Western kingbird

	Corvidae	**Jays, Crows and Ravens**
	Aphelocoma californica	California scrub-jay
	Corvus corax	common raven
	Picidae	**Woodpeckers**
	Dryobates nuttallii	Nuttall's woodpecker
	Hirundinidae	**Swallows**
	Stelgidopteryx serripennis	northern rough-winged swallow
	Hirundo pyrrhonota	cliff swallow
	Aegithalidae	**Long-tailed tits and Bushtits**
	Psaltriparus minimus	bushtit
	Troglodytidae	**Wrens**
	Thryomanes bewickii	Bewick's wren
	Polioptilidae	**Gnatcatchers and Gnatwrens**
§	*Polioptila californica*	California gnatcatcher
	Timaliidae	**Sylvid Warblers**
	Chamaea fasciata	wrentit
	Mimidae	**Mockingbirds and Thrashers**
	Mimus polyglottos	northern mockingbird
	Toxostoma redivivum	California thrasher
	Parulidae	**Wood Warblers**
	Cardellina pusilla	Wilson's warbler

	Emberizidae	**Emberizids**
	Melozone crissalis	California towhee
	Piplio maculatus	Spotted towhee
	Aimophila ruficeps	Rufous crowned sparrow
	Melospiza melodia	song sparrow
	Icteridae	**Blackbirds and allies**
	Icterus bullockii	Bullock's oriole
	Fringillidae	**Finches and Allies**
	Haemorphous mexicanus	house finch
	Spinus psaltria	Lesser goldfinch

* Non-Native

§ Sensitive

Taxonomic nomenclature follows The Clements Checklist of Birds of the World, 6th Edition (Updated 2019) (published in 2007and released by Cornell University Press and all updates) for birds, and California Department of Fish and Game, Natural Diversity Database, April 2021 for special-status.

APPENDIX C: USFWS 15-DAY NOTICE & CORRESPONDANCE

**Please note- Project location is in Pomona, not Diamond Bar.*

Nina Kidd

From: Nina Kidd <nina@kiddbioinc.com>
Sent: Friday, May 07, 2021 8:43 AM
To: 'Love, Stacey'
Cc: Jason Berkley (jberkley@cereusenvironmental.com); 'Kelly Rios'; 'Scott'
Subject: Request to conduct CAGN surveys in Diamond Bar with only 5 days' notice (TE-009015-5, TE-036550-5, TE-018909-5).
Attachments: 15-day notice CAGN Elephant Hill 2021.pdf

Good morning Stacey

Due to the late request for these surveys, we are asking for permission to start the surveys within 5 days in order to ensure all 6 surveys are completed within the breeding season.
It is expected that Jason Berkley (TE-009015-5) will conduct the surveys at this site, however if scheduling conflicts occur it may be required to have Scott Thomas (TE-036550-5 sub permitee) or Kelly Rios (TE-018909-5) conduct some of the surveys.

We would appreciate your prompt response so that we may proceed with these surveys as soon as possible.
Thank you!

Thanks!

Nina J. Kidd

Kidd Biological, Inc.
Mobile: (949)632-2756
www.kiddbioinc.com

certified WBENC

**Please note- Project location is in Pomona, not Diamond Bar.*

Kidd Biological, Inc.
23046 Ave de la Carlotta,
Suite 600-66
Laguna Hills, CA 92653

May 7, 2021

Ms. Stacey Love
U.S. Fish and Wildlife Service, Carlsbad Field Office
2177 Salk Road, Suite 250
Carlsbad, California 93008

Subject: **Request to conduct protocol presence/absence surveys (breeding season) for the California Gnatcatcher on approxiamltey 120 acres in Diamond Bar, California with less than 15 day's notice.**

Dear Stacey,

A habitat assessment determined the proposed "Elephant Hill' Project site supported some habitat capable of supporting the federally threatened California gnatcatcher (*Polioptila californica californica*)(CAGN). Although the entire site is 120 acres, only a small area has coastal sage scrub habitat that can be surveyed in a single pass. Surveys at this site occurred in 2020, and one pair of CAGN were detected; however, the site burned in late 2020.

The site is located in Diamond Bar in southeastern Los Angeles County, California. Generally, the site is located just to the east of Highway 57 (Orange County) south of Interstate 10, and west of Highway 71 (Chino Valley Freeway). More specifically the site is at the northwest corner of the intersection of Mission Boulevard and Humane Way (See Figure 1). The project location can also be described as being located in Section 26 of Township 1 South, Range 9 West of the San Dimas, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map (see figure 2).

Surveys are to be performed per U.S. Fish and Wildlife (USFWS) California gnatcatcher protocol guidelines by **Jason Berkley (TE-009015-5).** Other biologists who may assist with the surveys are **Scott Thomas (TE-036550-5 sub permitee) or Kelly Rios (TE-018909-5).**

Due to the late request for thse surveys, we are asking for permission to start the surveys within 5 days in order to ensure all 6 surveys are completed within the breeding season.

If you have any questions or comments regarding this letter, please contact me directly at (949)632-2756. I appreciate your attention to this request and await your response.

Sincerely

Nina Jimerson-Kidd

RESULTS OF 2020 BREEDING SEASON SURVEYS FOR CALIFORNIA GNATCATCHER FOR THE ~120 ACRE "ELEPHANT HILL" PROJECT SITE

POMONA, LOS ANGELES COUNTY, CALIFORNIA

PREPARED FOR:

U.S. FISH & WILDLIFE SERVICE
CARLSBAD FIELD OFFICE
2177 SALK AVENUE, SUITE 250
CARLSBAD, CA 92008
CONTACT:
STACEY LOVE & JONATHAN SNYDER

VCS ENVIRONMENTAL,
30900 RANCHO VIEJO ROAD,
SUITE 100
SAN JUAN CAPISTRANO, CA 92675

CONTACT: ERIN HAYES
(949)234-6078

PREPARED BY:

KIDD BIOLOGICAL, INC.
23046 AVE DE LA CARLOTA, SUITE 600, PMB 66
LAGUNA HILLS, CA 92653

CONTACT: NINA KIDD OR JASON BERKLEY
949.632.2756

MAY 31, 2020

INTRODUCTION

This report presents the results of the 2020 breeding season modified surveys for the federally threatened coastal California gnatcatcher (*Polioptila californica californica*) ("CAGN") on approximately 120 acres in Pomona, California ("site", Appendix A, Figures 1-3). The surveys were conducted by Kidd Biological, Inc. (KBI). Surveys were conducted in accordance with guidance from U.S. Fish and Wildlife Service (USFWS) CAGN survey protocol to cover breeding periods (USFWS 1997).

The required notification to conduct focused surveys was submitted by email to the permit coordinator at the Carlsbad U.S. Fish and Wildlife Service (USFWS) Office dated March 12, 2020 (Appendix B).

SITE LOCATION

The site is located in the City of Pomona in southeastern Los Angeles County, California. Generally, the site is located just to the east of Highway 57 (Orange County) south of Interstate 10, and west of Highway 71 (Chino Valley Freeway). More specifically the site is at the northwest corner of the intersection of Mission Boulevard and Humane Way (See Figure 1).

The project location can also be described as being located in Section 26 of Township 1 South, Range 9 West of the San Dimas, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map (see figure 2).

PROPOSED PROJECT

At this time there is no definitive project and the surveys were conducted as part of a due-diligence for a project that would consist of approximately 24 acres of permanently developed area and 13 acres of temporary grading area within the approximately 120-acre property.

NATURAL HISTORY OF THE COASTAL CALIFORNIA GNATCATCHER

The CAGN is a federally threatened species. It is most commonly found in the sage scrub communities of coastal southern California. According to J. Atwood and J. Bolsinger (1992), 99% of all CAGN observations are in areas with elevations below 950 feet. There are a few reported occurrences of CAGN at 1,600 feet elevation (500 meters) (Davis and McKernan, 1998). Elevation of this site is approximately 900 feet (300 meters) above mean sea level (MSL).

CAGN are ground and shrub-foraging insectivores. They feed on small insects and other arthropods. A CAGN's territory is highly variable in size and seems to be correlated with distance from the coast, ranging from less than 1 ha to over 9 ha (Mock, 2004). In a 1998 study, biologist Patrick Mock concluded that CAGN in the inland region require a larger territory than those on the coast in order to meet the nutritional requirements needed for survival and breeding.

The main threat to the CAGN is habitat loss, fragmentation, and degradation of habitat from invasive plant species and drought. Urban and agricultural development, livestock grazing, invasion of exotic grasses, off-road vehicles, pesticides, and military training activities all contribute to the destruction of CAGN habitat. Once locally common, CAGN have experienced widespread habitat loss and have lost most of their former range. By 1997, it was estimated that no more than 2,900 pairs remained in the United States. Remaining patches of coastal sage scrub are highly fragmented, and the majority is privately owned, making species recovery a difficult task.

Coastal Orange, Los Angeles and San Diego Counties have the highest densities of CAGN. It is not surprising that there are numerous reported occurrences of CAGN in the immediate area of the site. The nearby observations of CAGN are shown in Figure 4: *CNDDB Documented CAGN Locations*. These locations were obtained from the California Department of Wildlife's (CDFW) Natural Diversity Data Base (CNDDB) (2020).

VEGETATION COMMUNITIES/HABITAT TYPES

During the survey vegetation communities were noted, however a detailed habitat evaluation was not conducted. The site is fairly steep with elevations ranging from 730-1,160 feet above mean sea level. The survey focused on areas with the most suitable habitat for CAGN. The majority of the site is comprised of disturbed fields of mustard and other non-native species. Small areas of disturbed Coastal Sage Scrub remain.

UPLAND MUSTARD AND OTHER RUDERAL FORBS

This vegetation is comprised primarily of non-native species including the following: high densities of short-pod mustard (*Hirschfeldia incana*), various non-native grasses (*Bromus and Festuca*), tocalote (*Centaurea melitensis*), and castor bean (*Ricinus communis*). Additionally, there are small patches of herbaceous native vegetation such as California sagebrush and California buckwheat.

DISTURBED CALIFORNIA SAGEBRUSH SCRUB

Vegetation observed within this community includes native California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), deerweed (*Acmipson glaber*), bush monkeyflower (*Diplacus aurantiacus*), and poison oak (*Toxicodendron diversilobum*). This community is scattered in patches over the site and the dominate plant species change from patch to patch.

METHODOLOGY

Protocol breeding season surveys for the coastal California gnatcatcher were conducted by permitted biologists **Jason Berkley (USFWS 10a1A permit #009015-5)**. Methods employed were in conformance with USFWS Coastal California Gnatcatcher Presence/Absence Survey Guidelines, issued July 28, 1997 (USFWS 1997). A total of 6 surveys were performed one week apart, between March 26 and May 7, 2020 generally between 0600 hours and 1200 hours. The surveys were conducted within all suitable habitat as well as marginal grassland habitat with remnant CSS.

The biologist slowly traversed the biological survey area, stopping at approximately 100-foot intervals to listen for CAGN. If no CAGN were detected within 5-10 minutes, the biologist made pishing sounds, and played an audio recording of CAGN vocalizations. The recording was played for several seconds at each interval, followed by a brief pause to listen for a response. If any CAGN individuals were detected, additional observations

including sex, age, breeding status, and behavioral characteristics were documented, consistent with protocol requirements.

RESULTS

Breeding season surveys were conducted by the USFWS permitted biologist noted above, in accordance with USFWS guidelines within all suitable habitat on the site. Table 2, below, summarizes the results of each survey.

One pair was consistently detected during breeding season surveys conducted on the site. This pair was always observed using very marginal habitat in the northwestern portion of the survey area (Figures 4, 5 & 6). A nest was observed in a non-native plant. The female was observed incubating during three of the surveys. It was not known if the nest fledged young, however during the last survey it was noted that there was a new homeless encampment on the property and the area where the nest had been located had been trampled by a new foot trail leading to the camp. The biologist attempted to locate the nest however it had been destroyed (Figure 7). No fledglings were detected in the area.

During the last survey pass only a single male was observed in the southern portion of the site. As no CAGN had been previously detected in this area and no CAGN were detected in the northern portion of the site, it was assumed that this lone male was the male from the pair to the north (Figure 4). However this may also be a male from a different pair that could be located in the larger island of habitat to the south (Eagle Scout Trail Area).

Brown-headed cowbirds (*Molothrus ater*), considered to be nest parasites for CAGNs, were not observed during the surveys.

Table 2. Survey Data

Survey	Surveyor	Date	Time		Temp (°F)	Cloud Cover (%)	Wind Speed (mph)	CAGN Detected
			Begin	End				
1	J. Berkley	3/26	0700	1100	46-60	50	0	No
2	J. Berkley	4/2	0730	1030	57-63	100	0	Yes
3	J. Berkley	4/16	0645	1030	58-68	0	1-3	Yes
4	J. Berkley	4/23	0700	0900	60-70	0	0	Yes
5	J. Berkley	4/30	1000	1200	70-72	0	1-3	Yes
6	J. Berkley	5/7	0930	1130	83-91	0	0-1	Yes

Additional Avian Species

Avian activity during the protocol surveys was relatively high considering the site's proximity to a heavily traveled thoroughfare from Highway 57. Bird diversity was high and species observed or otherwise detected during surveys are species commonly found in coastal sage scrub and wildland-urban interfaces. Bird observed included, but was not limited to house finch (*Haemorphous mexicanus*), bushtit (*Psaltriparus minimus*), song sparrow (*Melospiza melodia*), Anna's hummingbird (*Calypte anna*), Allen's hummingbird (*Selasphorus sasin*), California towhee (*Melozone crissalis*) and Northern mockingbird (*Mimus polyglottus*). A complete list of species observed can be found in Appendix B: Species Compendium.

Only one other sensitive wildlife species were detected other than the California gnatcatcher: the Cooper's hawk. The Cooper's hawk is a California Watch List species (CDFW 2019).

Conclusion

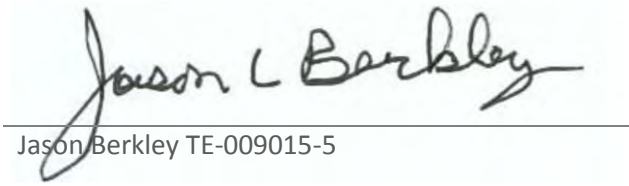
A total of six (6) Coastal California gnatcatcher breeding season surveys were completed within suitable habitat within the 120-acre site. California gnatcatchers were detected 5 out of the 6 surveys. One pair of CAGN was observed with a nest during the protocol surveys. The majority of the activity was located along the northern toe of the slope, in less steep terrain where the remnant CSS habitat was detected. A lone male CAGN was observed during the 6th survey pass on the southern portion of the survey area. This individual was assumed to be part of the pair whose nest failed prior to survey pass 6; however it could also be that this induvial is associated with an off-site pair to the south.

No brown-headed cowbirds (*Molothrus ater*) were observed during the surveys.

Recommendations

This site is not located within designated critical habitat for the CAGN, however the habitat is suitable, although very marginal in quality, and occupied by at least one pair of CAGN. There are larger areas of suitable habitat to the south, however these area are islands of habitat in an otherwise heavily developed area of Los Angeles County. Regardless these pockets of remnant native habitat may serve as a valuable linkage between the San Jose Hills to the northwest and Chino Hills to the southwest.

CERTIFICATION: I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Date: May 31, 2020 Signed: 

Jason Berkley TE-009015-5

REFERENCES

Atwood, J.L., and D.R. Bontrager. 2001. California Gnatcatcher (*Polioptila californica*). *In* The Birds of North America, No. 574 (A. Poole and F. Gill, eds.). The Birds of North America, Inc, Philadelphia, PA.

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California Natural Diversity Database (CNDDB). RareFind5. Wildlife & Habitat Data Analysis Branch, Department of Fish and Game. Accessed March 2, 2020

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APPENDIX A- FIGURES

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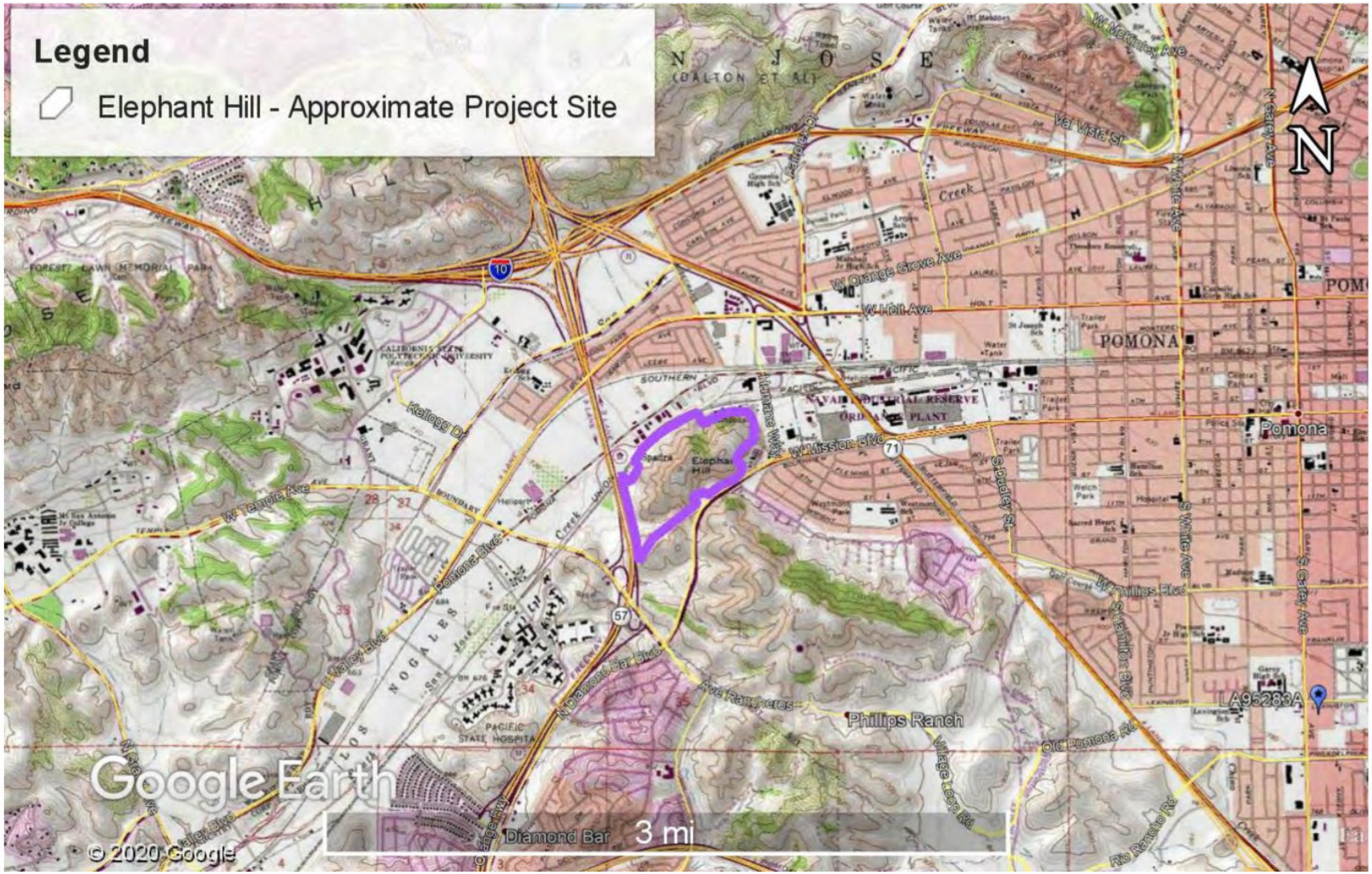


Figure 2. Aerial Photo of Survey Area



FIGURE 3. CNDDB REPORTED CAGN LOCATIONS

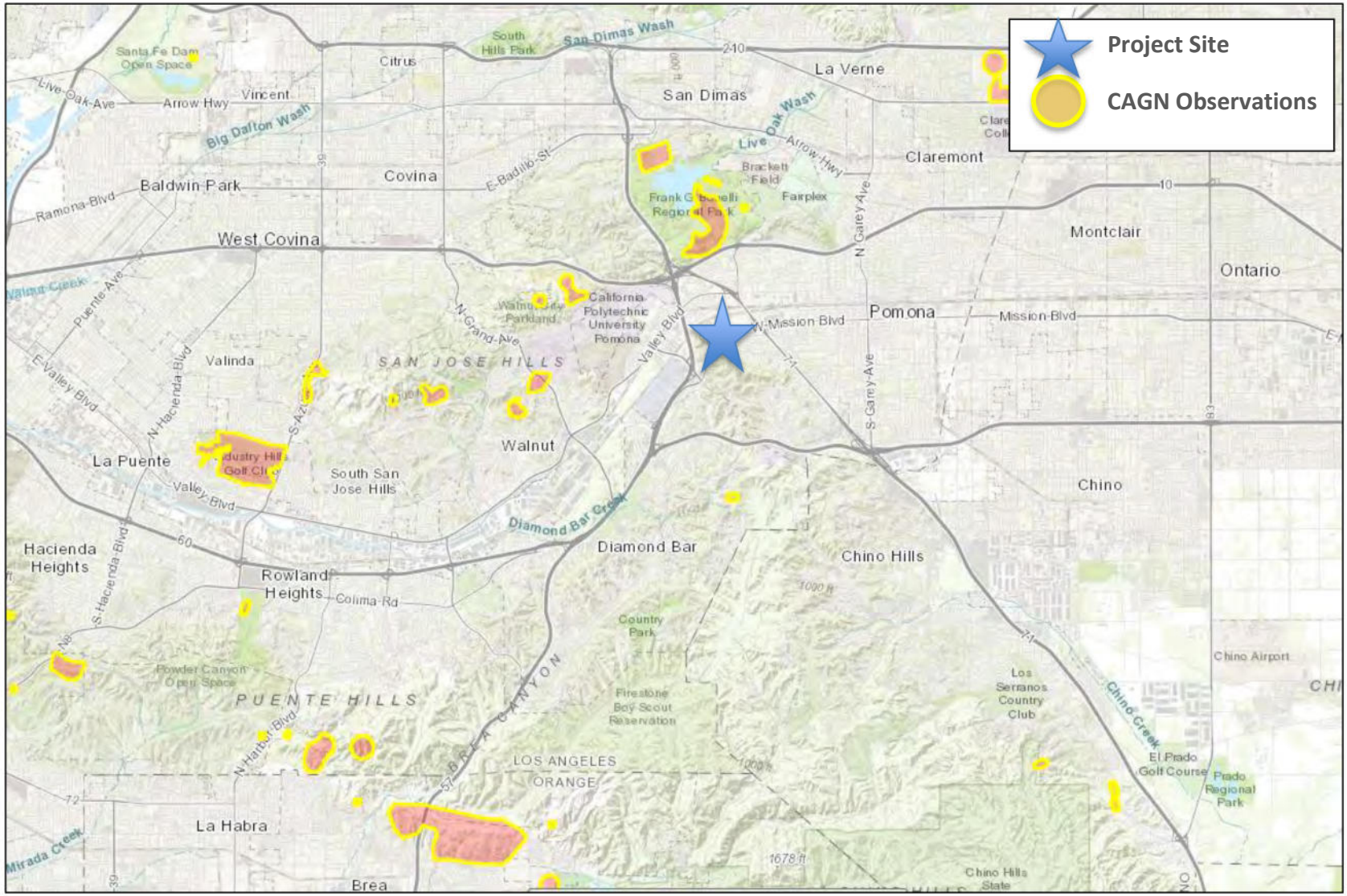


FIGURE 4. CAGN OBSERVATIONS



Figure 5. Looking Northwest at occupied habitat



Figure 6. Looking northeast at approximate nest area

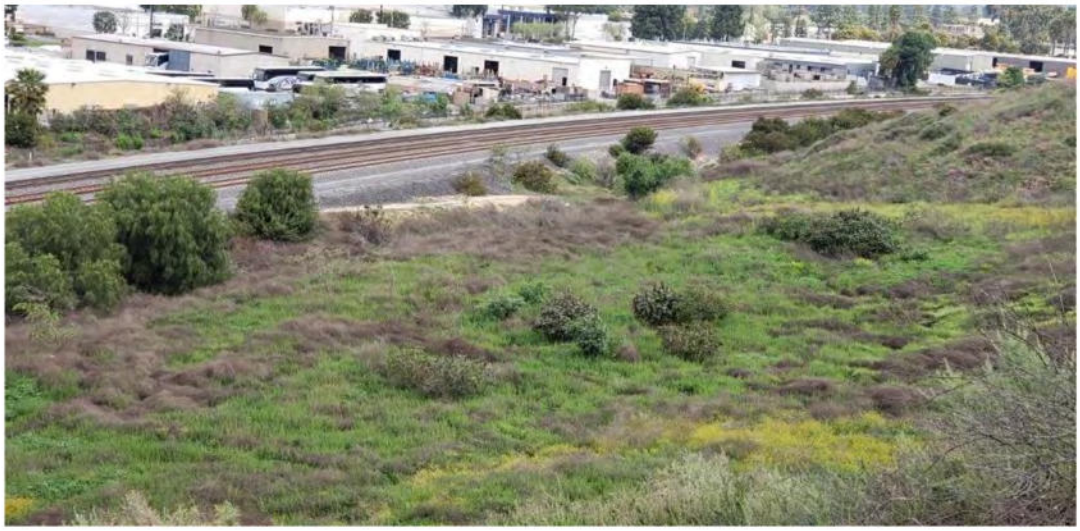


Figure 7. Trampled nest



APPENDIX B: AVIAN COMPENDIUM

	Scientific Name	**Common Name**
	Accipitridae	**Hawks**
§	*Accipiter cooperii*	Cooper's hawk
	Buteo jamaicensis	red-tailed hawk
	Columbidae	**Pigeons and Doves**
	**Columba livia*	rock pigeon
	Zenaida macroura	mourning dove
	Apodidae	**Swifts**
	Aeronautes saxatalis	white-throated swift
	Trochilidae	**Hummingbirds**
	Calypte anna	Anna's hummingbird
	Selasphorus sasin	Allen's hummingbird
	Tyrannidae	**Tyrant Flycatchers**
	Sayornis nigricans	Black phoebe
	Myiarchus cinerascens	Ash-throated flycatcher
	Tyrannus vociferans	Cassin's kingbird
	Tyrannus verticalis	Western kingbird
	Vireonidae	**Vireos**
	Vireo gilvus	Warbling vireo

	Corvidae	**Jays, Crows and Ravens**
	Aphelocoma californica	California scrub-jay
	Corvus brachyrhynchos	American crow
	Corvus corax	common raven
	Hirundinidae	**Swallows**
	Stelgidopteryx serripennis	northern rough-winged swallow
	Hirundo pyrrhonota	cliff swallow
	Hirundo rustica	barn swallow
	Aegithalidae	**Long-tailed tits and Bushtits**
	Psaltriparus minimus	bushtit
	Troglodytidae	**Wrens**
	Thryomanes bewickii	Bewick's wren
	Polioptilidae	**Gnatcatchers and Gnatwrens**
§	*Polioptila californica*	California gnatcatcher
	Timaliidae	**Sylvid Warblers**
	Chamaea fasciata	wrentit
	Mimidae	**Mockingbirds and Thrashers**
	Mimus polyglottos	northern mockingbird
	Toxostoma redivivum	California thrasher

	Parulidae	**Wood Warblers**
	Setophaga coronata	yellow-rumped warbler
	Emberizidae	**Emberizids**
	Melozone crissalis	California towhee
	Chondestes grammacus	Lark sparrow
	Melospiza melodia	song sparrow
	Zonotrichia leucophrys	white-crowned sparrow
	Cardinalidae	**Grosbeaks and Buntings**
	Pheucticus melanocephalus	Black-headed grosbeak
	Fringillidae	**Finches and Allies**
	Haemorphous mexicanus	house finch

* Non-Native

§ Sensitive

Taxonomic nomenclature follows American Ornithologists' Union 1998 and all updates for birds, and California Department of Fish and Game, Natural Diversity Database, August 2019 for special-status.

APPENDIX C: USFWS 15-DAY NOTICE & CORRESPONDANCE

**Please note- Project location is in Pomona, not Diamond Bar.*

Kidd Biological, Inc.
23046 Ave de la Carlotta,
Suite 600-66
Laguna Hills, CA 92653

March 12, 2020

Ms. Stacey Love
U.S. Fish and Wildlife Service, Carlsbad Field Office
2177 Salk Road, Suite 250
Carlsbad, California 93008

Subject: **Notification to conduct protocol presence/absence surveys (breeding season) for the California Gnatcatcher on approxiamltey 120 acres in Diamond Bar, California.**

Dear Stacey,

A habitat assessment determined the proposed "Elephant Hill' Project site supported some habitat capable of supporting the federally threatened California gnatcatcher (*Polioptila californica californica*)(CAGN). Although the entire site is 120 acres, only a small area has coastal sage scrub habitat that can be surveyed in a single pass.

The site is located in Diamond Bar in southeastern Los Angeles County, California. Generally, the site is located just to the east of Highway 57 (Orange County) south of Interstate 10, and west of Highway 71 (Chino Valley Freeway). More specifically the site is at the northwest corner of the intersection of Mission Boulevard and Humane Way (See Figure 1). The project location can also be described as being located in Section 26 of Township 1 South, Range 9 West of the San Dimas, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map (see figure 2).

Surveys are to be performed per U.S. Fish and Wildlife (USFWS) California gnatcatcher protocol guidelines by **Jason Berkley (TE-009015-5).** Other biologists who may assist with the surveys are **Karly Moore (TE-02484A-2) or Kelly Rios (TE-018909-5).**

If you have any questions or comments regarding this letter, please contact me directly at (949)632-2756. I appreciate your attention to this request and await your response.

Sincerely

Nina Jimerson-Kidd

Appendix E:

Sensitive Plant Survey Report 2020 and 2021, Elephant Hill, City of Pomona, Los Angeles County

General Botanical and Focused Rare Plant Report
for
Elephant Hill



CJ Fotheringham
Botanical Consultations

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1. Site description

The site is located in the City of Pomona in southeastern Los Angeles County, California. Generally, the site is located just to the east of Highway 57 (Orange County) south of Interstate 10, and west of Highway 71 (Chino Valley Freeway). More specifically the site is at the northwest corner of the intersection of Mission Boulevard and Humane Way (Figure 1).

The project location can also be described as being located in Section 26 of Township 1 South, Range 9 West of the San Dimas, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map (Figure 2).

Land use adjacent to the project site consists of dense suburban developments in all directions. There is an additional undeveloped hill to the southeast of the survey area.

1.1 Existing Conditions

1.1.1 Soils

Soils on site are mapped as Lithic Haploxerolls-Lithic Agrixerols complex. These are sandy loams derived from volcanic rock and are very shallow, with bedrock being found at approximately 10-inches or less below the surface. These soils are on hills and foothills of mountains. Slopes range from 20 to 55 percent with a clay content varying from 10-25 percent. These soils can be slightly to moderately acidic on the surface but alkaline in subsurface layers.

1.1.2 Precipitation

Rainfall totaled 4.25 inches for the 2020-2021 season (July-May) which was slightly more than ¼ normal at the Ontario Airport weather station with the average rainfall for this area being 15 inches. The first significant rainfall arrived in November 2020 with only one other rainfall event in December.

Drought conditions often limit annual plant germination throughout much of Southern California. Significant rainfall in January and March likely lead to moderate germination, while all other months were very dry with only a few widely scattered and light rain events. There were no further significant rain events after March. Temperatures were above- average leading to accelerated plant phenology and drying vegetation. This was offset somewhat by thick marine layers in May and June.

1.1.3 Topography

The survey area occurs on one fairly steep ridgeline hill that runs in an east-west orientation. Elevation ranges from approximately 730 feet (222 meters) above mean sea level (AMSL) at the southwest corner to 1,160 feet (354 meters) at the highest point in the center of the survey area.

2. Methodology

2.1 Databases review

Special status plant species include those plants listed by the state or federal governments as endangered, threatened or rare and species or those that are candidates for future listing. It also encompasses the species determined by the California Department of Fish and Wildlife (CDFW) to meet the CEQA (Section 15380) criteria as "rare and endangered", even though they have not been officially listed by any agency (CNDDB 2020a). Finally, the list considers those species noted by the California Native Plant Society (CNPS 2021).

The Manual of California Vegetation Online was consulted for delineating plant communities.

The USDA Web Soil Survey was also queried to determine soil types that occur on site. Many special status plants are restricted to specific soil types. Soils on site are loam and well drained on an alluvial fan formation (AppendixII).

2.2 Site visit

Four separate survey events were conducted. The first visit was on 11 May 2021 and the last on 7 June 2021. All surveys were conducted by botanist Dr. CJ Fotheringham. A total of approximately 40 hours were spent surveying the site for sensitive plants. Methods followed the California department of Fish and Wildlife's Protocol for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Senstiive Natural Communities (2018).

The surveys examined the project area by walking through the various habitats and noting all of the plant species observed during the site examination (see Appendix A). Field notes were taken to record these observations, and photos were taken with GPS enabled cameras to document the current conditions on the site at the time of the survey and special status species encountered during surveys (Appendix C). An android tablet My Trails software loaded with aerial imagery was used for navigation with track logs recorded to ensure appropriate survey coverage of potential rare plant habitat.

Points were recorded digitally, along with associated notes for all rare plant populations encountered.

The information collected on each special status plant locality included: the UTM coordinate of the locality, total number of plants observed, the plant community and associated species at the specific locality of these plants. In addition, photos were taken of each of the sites where the species were found. Scientific and common names generally follow the Jepson Manual (Baldwin et al. 2012). The names for the special status plant species follow the CNPS online Rare Plant Inventory (CNPS 2019).

There were limitations to the surveys that included unsafe access to some areas of the site due to dense vegetation cover and uneven and or extremely steep terrain. Some areas were also fenced and inaccessible. Dense cover of invasive mustard and thistle prevented thorough visual inspection of some areas; however these areas were unlikely to support rare plants due to competition with invasive species.

3. Vegetation Communities

3.1 Plant Communities

The approximately 120-acre site is a varying mosaic of native and naturalized habitats. The steeper and rockier areas are less affected by the invasive plant species, while the lower elevation areas and some ridgetops are dominated by non-native plant communities. The following section describes the plant communities observed on the project site. Aggregated habitat nomenclature generally follows California Plant Communities (Munz 1949) and (Holland 1986), with detailed alliance-level nomenclature following the California Manual of Vegetation (Sawyer et al 2009). Figure 1 illustrates the approximate distribution of these habitats. The figure approximates the boundaries of the habitats and does not represent an exact delineation of the habitats.

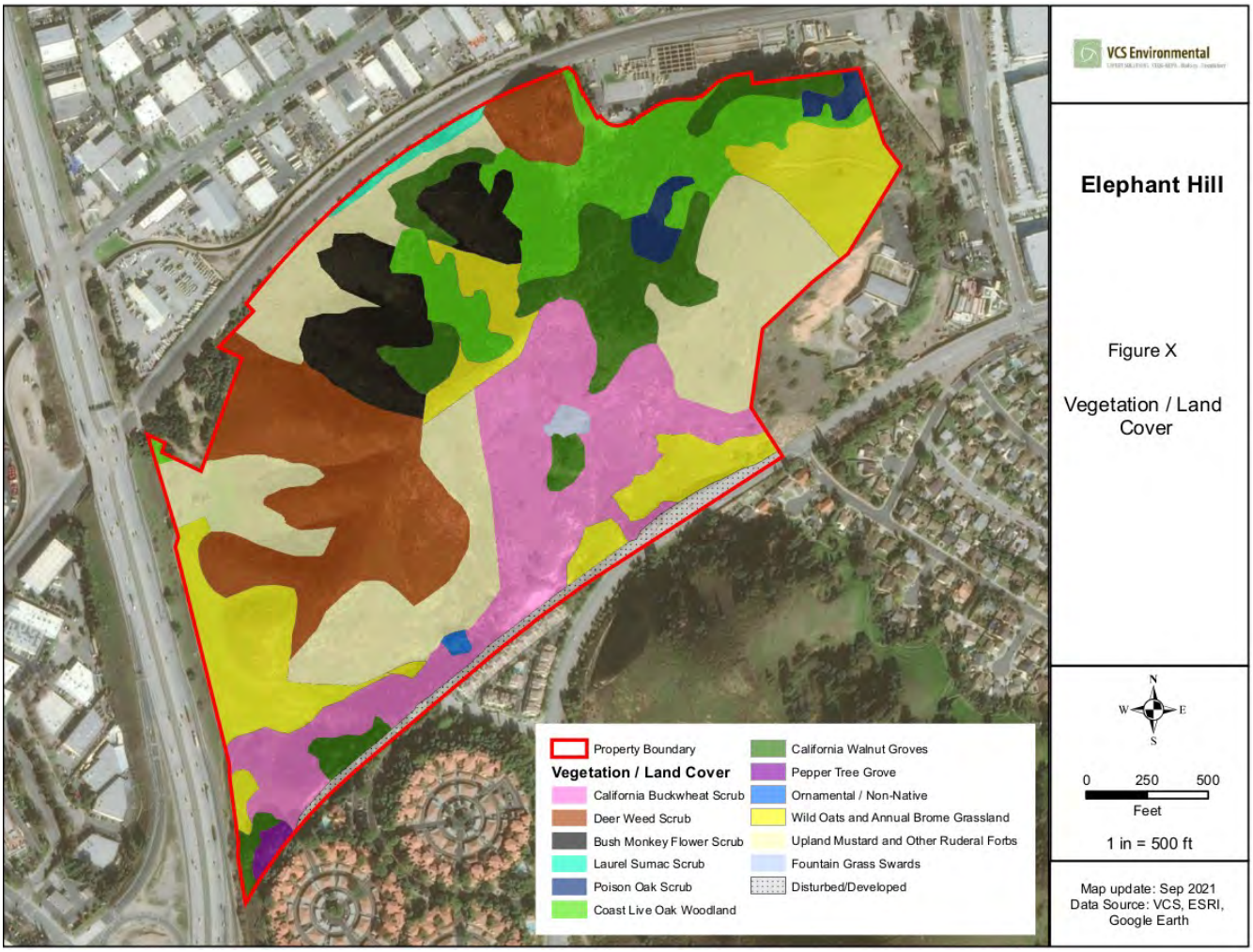


Figure 1. Vegetation map for Elephant Hill, Pamona, California

Vegetation communities on site did not differ substantially from a survey conducted in 2020 by Kidd Biological (Figure 2).

Table 1. Vegetation types found on the Elephant Hill site.

Manual of California Vegetation Classification	CA Rarity	Global Rarity	Acres
Diplacus aurantiacus Shrubland Alliance (Bush monkey flower scrub)	S3?	G3	8.1
Eriogonum fasciculatum Shrubland Alliance (California Buckwheat Scrub)	S5	G5	19.7
Juglans californica Forest & Woodland Alliance (California Walnut Groves)	S3.2	G3	11.5
Quercus agrifolia Forest & Woodland Alliance (Coast Live Oak Woodland)	S4	G5	12.4
Lotus scoparius Shrubland Alliance (Deer Weed Scrub)	S5	G5	18.7
Disturbed/Developed	N/A	N/A	2.5
Pennisetum setaceum Herbaceous Semi-Natural Alliance (Fountain Grass Swards)	N/A	N/A	0.4
Malosma laurina Shrubland Alliance (Laurel Sumac Scrub)	S4	G4	0.8
Non-Native Vegetation	N/A	N/A	0.2
Schinus molle Forest & Woodland Semi-Natural Alliance (Pepper Tree Grove)	N/A	N/A	0.5
Toxicodendron diversilobum Shrubland Alliance (Poison Oak Scrub)	S4	G4	1.7
Brassica nigra - Centaurea melitensis Herbaceous Semi-Natural Alliance (Upland Mustard and Other Ruderal Forbs)	N/A	N/A	25.7
Avena spp. - Bromus spp. Herbaceous Semi-Natural Alliance (Wild Oats and Annual Brome Grassland)	N/A	N/A	17.7
California Rarity Definitions	Global Rarity Definitions		
S1: Statewide <6 viable occurrences and/or <518 hectacres	G1 Worldwide <6 viable occurrences and/or <518 hectacres		
S2: 6–20 occurrences and/or 518–2,590 hectacres	G2 6–20 occurrences and/or 518–2,590 hectacres		
S3: 21–100 occurrences and/or 2,590–12,950 hectacres	G3 21–100 occurrences and/or 2,590–12,950 hectacres		
S4: >100 occurrences and/or > 12,950 hectacres	G4 >100 occurrences and/or > 12,950 hectacres		
S5: Demonstrably secure because of its worldwide abundance	G5 Demonstrably secure because of its worldwide abundance		

3.2 Fire effects

A fire occurred in August 2020 following plant surveys on the northern slope of Elephant hill. There were concerns that a fire that would have alter the extent and/or composition of affected plant communities. However, both the shrublands and woodlands within this area are adapted to recurring fire. Some species, such as oak trees, elderberry, toyon, etc. resprout either epicorminc buds under the bark along the branches or from the base near the root crown. Other species produce dormant seeds that remain in the soil until stimulated to germinate by fire related cues.

The areas affected by the fire have seedling recruitment of shrub species that were present before fire and mature species dominance is likely to be the same as pre-fire. *Quercus agrifolia* (coast live oak), *Sambucus nigra* (blue elderberry), and *Juglans californica* (California walnut) were robustly resprouting. In sage scrub areas seedling recruitment of shrub species such as *Artemisia californica* (california sage brush), *Acmispon glaber* (deerweed) and *Diplacus longiflorus* (monkey flower bush) was relatively good (for a drought year). There was also fair recruitment of native annual species, considering the low rainfall. Higher rain in the coming year will probably produce an even greater showing of native species.

4. Plant Species Observed

In the course of the surveys, a total 118 plant species were observed, of which 47 (40%) non native and three are special status species.

Table 2. Plant species identified at the Elephant Hill site.

Latin Binomial	Vernacular Name	Lifeform	Native?	Family	Bloom Period
Sambucus nigra ssp. caerulea	Blue elderberry	Shrub	Y	Adovaceae	Mar-Jul
Agave americana	American century plant	Perennial herb, Shrub	N	Agavaceae	-
Chlorogalum parviflorum	Small flowered soaproot	Perennial herb	Y	Agavaceae	May-Aug
Chlorogalum pomeridianum var. pomeridianum	Common soaproot	Perennial herb	Y	Agavaceae	May-Jul
Amaranthus blitoides	Prostrate pigweed	Annual herb	Y	Amaranthaceae	May-Nov
Malosma laurina	Laurel sumac	Tree, Shrub	Y	Anacardiaceae	Feb-May
Schinus molle	Peruvian pepper tree	Tree	N	Anacardiaceae	Mar-Jun
Toxicodendron diversilobum	Poison oak	Vine, Shrub	Y	Anacardiaceae	Mar-Jun
Foeniculum vulgare	Fennel	Perennial herb	N	Apiaceae	May-Sep
Asclepias eriocarpa	Indian milkweed	Perennial herb	Y	Apocynaceae	Jun-Aug
Asclepias fascicularis	narrow leaf milkweed	Perennial herb	Y	Apocynaceae	Jun-Sep
Acourtia microcephala	Sacapellote	Perennial herb	Y	Asteraceae	Jun-Aug
Artemisia californica	Coastal sage brush	Shrub	Y	Asteraceae	Apr-Oct
Artemisia douglasiana	California mugwort	Perennial herb	Y	Asteraceae	May-Oct
Baccharis pilularis	Coyote brush	Shrub	Y	Asteraceae	Sep-Jan
Baccharis salicifolia	Mule fat	Shrub	Y	Asteraceae	Jan-Dec
Carduus pycnocephalus ssp. pycnocephalus	Italian thistle	Annual herb	N	Asteraceae	Feb-Jun
Centaurea melitensis	Tocalote	Annual herb	N	Asteraceae	Apr-Aug
Corethrogyne filaginifolia	Common sandaster	Perennial herb	Y	Asteraceae	Jun-Oct
Deinandra fasciculata	Clustered tarweed	Annual herb	Y	Asteraceae	May-Oct
Erigeron canadensis	Canada horseweed	Annual herb	Y	Asteraceae	Jun-Sep
Erigeron foliosus	Fleabane Daisy	Perennial herb	Y	Asteraceae	May-Sep
Helianthus annuus	Hairy leaved sunflower	Annual herb	Y	Asteraceae	Jun-Aug
Isocoma menziesii var. vernonioides	Green leaved dune goldenbush	Shrub	Y	Asteraceae	Apr-Nov
Lactuca serriola	Prickly lettuce	Annual herb	N	Asteraceae	May-Sep
Layia platyglossa	Tidy tips	Annual herb	Y	Asteraceae	Feb-May
Malacothrix saxatilis var. tenuifolia	Short leaved cliff aster	Perennial herb	Y	Asteraceae	Jan-Dec

Latin Binomial	Vernacular Name	Lifeform	Native?	Family	Bloom Period
Microseris douglasii ssp. platycarpha	Small flowered microseris	Annual herb	Y	Asteraceae	Mar-May
Pseudognaphalium biolettii	Two-color rabbit-tobacco	Perennial herb	Y	Asteraceae	Jan-May
Pseudognaphalium californicum	Ladies' tobacco	Annual, Perennial herb	Y	Asteraceae	Jan-Jul
Silybum marianum	Milk thistle	Annual, Perennial herb	N	Asteraceae	Apr-Jul
Sonchus asper	Spiny sowthistle	Annual herb	N	Asteraceae	Feb-Oct
Sonchus oleraceus	Sow thistle	Annual herb	N	Asteraceae	Jan-Dec
Stephanomeria virgata	Twiggy wreath plant	Annual herb	Y	Asteraceae	Jul-Oct
Amsinckia intermedia	Common fiddleneck	Annual herb	Y	Boraginaceae	Feb-Jun
Amsinckia menziesii	Fiddleneck	Annual herb	Y	Boraginaceae	Mar-May
Eucrypta chrysanthemifolia var. chrysanthemifolia	Common eucrypta	Annual herb	Y	Boraginaceae	Mar-Jun
Phacelia cicutaria var. hispida	Caterpillar phacelia	Annual herb	Y	Boraginaceae	Mar-May
Pholistoma auritum	Fiesta flower	Annual herb	Y	Boraginaceae	Mar-May
Brassica nigra	Black mustard	Annual herb	N	Brassicaceae	Apr-Jul
Brassica rapa	Common mustard	Annual herb	N	Brassicaceae	Jan-Jun
Hirschfeldia incana	Mustard	Perennial herb	N	Brassicaceae	Jan-Dec
Lepidium lasiocarpum ssp. lasiocarpum	Shaggyfruit pepperweed	Annual herb	Y	Brassicaceae	Feb-May
Raphanus raphanistrum	Jointed charlock	Annual, Perennial herb	N	Brassicaceae	Dec-Jul
Sisymbrium irio	London rocket	Annual herb	N	Brassicaceae	Jan-Apr
Opuntia ficus-indica	Mission cactus	Shrub (stem succulent)	N	Cactaceae	Jul-Aug
Opuntia oricola	Chaparral pricklypear	Shrub (stem succulent)	Y	Cactaceae	Apr-Jun
Spergularia villosa	Villous sand spurry	Perennial herb	N	Caryophyllaceae	Apr-May
Beta vulgaris ssp. maritima	Sea beet	Perennial herb	N	Chenopodiaceae	Feb-Sep
Chenopodium murale	Nettle leaf goosefoot	Annual herb	N	Chenopodiaceae	Jan-Dec
Dysphania ambrosioides	Mexican tea	Annual, Perennial herb	N	Chenopodiaceae	Jun-Oct
Salsola tragus	Russian thistle	Annual herb	N	Chenopodiaceae	Jul-Oct
Calystegia macrostegia ssp. intermedia	South coast morning glory	Perennial herb, Vine	Y	Convolvulaceae	Apr-Jul
Cuscuta indecora	Big seed alfalfa dodder	Annual herb, Vine (parasitic)	Y	Convolvulaceae	Jun-Nov
Dudleya multicaulis	Many stemmed dudleya	Perennial herb	Y	Crassulaceae	Apr-Jul

Latin Binomial	Vernacular Name	Lifeform	Native?	Family	Bloom Period
Isolepis cernua	Low bulrush	Annual grasslike herb	Y	Cyperaceae	-
Croton setiger	Turkey-mullein	Annual herb	Y	Euphorbiaceae	May-Oct
Euphorbia serpens	Matted sandmat	Annual herb	N	Euphorbiaceae	Jun-Sep
Ricinus communis	Castor bean	Shrub	N	Euphorbiaceae	Jan-Dec
Acmispon glaber var. glaber	Deerweed	Perennial herb	Y	Fabaceae	Mar-Jul
Lathyrus vestitus var. vestitus	Hillside pea	Perennial herb	Y	Fabaceae	Mar-May
Lupinus succulentus	Arroyo lupine	Annual herb	Y	Fabaceae	Feb-May
Medicago polymorpha	California burclover	Annual herb	N	Fabaceae	Feb-Jun
Melilotus albus	White sweetclover	Annual, Biennial herb	N	Fabaceae	May-Sep
Quercus agrifolia var. agrifolia	Coast live oak	Tree	Y	Fabaceae	Feb-Mar
Erodium cicutarium	Coastal heron's bill	Annual herb	N	Geraniaceae	Feb-Jun
Juglans californica	Southern california black walnut	Tree	Y	Juglandaceae	Mar-Jun
Juglans regia	English walnut	Tree	N	Juglandaceae	Apr-May
Marrubium vulgare	White horehound	Perennial herb	N	Lamiaceae	May-Aug
Trichostema lanceolatum	Vinegarweed	Annual herb	Y	Lamiaceae	Aug-Oct
Calochortus weedii var. intermedius	Intermediate mariposa lily	Perennial herb (bulb)	Y	Liliaceae	May-Jul
Malacothamnus fasciculatus	Chaparral bush mallow	Shrub	Y	Malvaceae	Apr-Jul
Malva parviflora	Cheeseweed	Annual herb	N	Malvaceae	Mar-Oct
Claytonia perfoliata ssp. mexicana	Southern miner's lettuce	Annual herb	Y	Montiaceae	Apr-May
Mirabilis laevis var. crassifolia	California four o'clock	Perennial herb	Y	Nyctaginaceae	Dec-Jun
Fraxinus uhdei	Shamel ash	Tree	N	Oleaceae	-
Epilobium canum ssp. Canum	California fuchsia	Perennial herb	Y	Onagraceae	Jun-Oct
Diplacus aurantiacus	Sticky monkeyflower	Shrub	Y	Phrymaceae	Mar-Jun
Diplacus longiflorus	southern bush monkeyflower	Shrub	Y	Phrymaceae	Mar-Jun
Erythranthe guttata	Yellow monkey flower	Annual herb	Y	Phrymaceae	Apr-Jun
Plantago major	Common plantain	Perennial herb	N	Plantaginaceae	Apr-Sep
Limonium perezii	Canarian sea lavender	Perennial herb	N	Plumbaginaceae	Mar-Sep
Avena barbata	Slim oat	Annual grass	N	Poaceae	Mar-Jun
Bromus catharticus	Rescue grass	Annual, Perennial grass	N	Poaceae	Feb-Mar
Bromus diandrus	Ripgut brome	Annual grass	N	Poaceae	Apr-Jun
Bromus madritensis	Foxtail chess, foxtail brome	Annual grass	N	Poaceae	Feb-Mar

Latin Binomial	Vernacular Name	Lifeform	Native?	Family	Bloom Period
Cynodon dactylon	Bermuda grass	Perennial grass	N	Poaceae	Apr-May
Echinochloa crus-galli	Barnyard grass	Annual grass	N	Poaceae	Jul-Oct
Elymus condensatus	Giant wild rye	Perennial grass	Y	Poaceae	May-Aug
Festuca arundinacea	Reed fescue	Perennial grass	N	Poaceae	May-Jun
Festuca myuros	Rattail sixweeks grass	Annual grass	N	Poaceae	Feb-May
Festuca perennis	Italian rye grass	Annual, Perennial grass	N	Poaceae	May-Sep
Hordeum murinum	Foxtail barley	Annual grass	N	Poaceae	Apr-May
Lamarckia aurea	Goldentop	Annual grass	N	Poaceae	Feb-May
Melica imperfecta	Coast range melic	Perennial grass	Y	Poaceae	Feb-Mar
Pennisetum setaceum	Fountaingrass	Perennial grass	N	Poaceae	Jul-Aug
Poa secunda	Pine bluegrass	Perennial grass	Y	Poaceae	May-Jun
Setaria parviflora	Marsh bristlegrass	Perennial grass	Y	Poaceae	May-Sep
Stipa miliacea	Smilo grass	Perennial grass	N	Poaceae	Mar-Sep
Stipa pulchra	Purple needle grass	Perennial grass	Y	Poaceae	Mar-May
Eriogonum fasciculatum	California buckwheat	Shrub	Y	Polygonaceae	Apr-Sep
Persicaria lapathifolia	Common knotweed	Annual herb	Y	Polygonaceae	Aug-Nov
Rumex crispus	Curly dock	Perennial herb	N	Polygonaceae	Jan-Dec
Polypodium californicum	California polypody	Fern	Y	Polypodiaceae	-
Rhamnus ilicifolia	Evergreen buckthorn	Shrub	Y	Rhamnaceae	Apr-Jun
Heteromeles arbutifolia	Toyon	Shrub	Y	Rosaceae	Jun-Aug
Rosa californica	California wild rose	Shrub	Y	Rosaceae	May-Aug
Galium angustifolium ssp. angustifolium	Narrow leaved bedstraw	Perennial herb	Y	Rubiaceae	Mar-Mar
Galium aparine	Cleavers	Annual herb	Y	Rubiaceae	Apr-May
Salix laevigata	Polished willow	Tree	Y	Salicaceae	Feb-May
Salix lasiolepis	Arroyo willow	Tree, Shrub	Y	Salicaceae	Feb-May
Verbascum virgatum	Wand mullein	Perennial herb	N	Scrophulariaceae	May-Sep
Selaginella bigelovii	Bigelow's moss fern	Fern (mosslike)	Y	Selaginellaceae	-
Datura wrightii	Jimsonweed	Perennial herb	Y	Solanaceae	Feb-Oct
Nicotiana glauca	Tree tobacco	Tree, Shrub	N	Solanaceae	Mar-Sep
Solanum douglasii	Douglas' nightshade	Perennial herb	Y	Solanaceae	Jan-Dec
Dipterostemon capitatus	Blue dicks	Perennial herb	Y	Themidaceae	Feb-Apr
Typha latifolia	Broadleaf cattail	Perennial herb (aquatic)	Y	Typhaceae	May-Jun
Viola pedunculata	California golden violet	Perennial herb	Y	Violaceae	Feb-Apr

5. Special status species

The plant species of concern reported as occurring within the project vicinity are found in Table 1 below. Some plants that are associated with the San Gabriel Mountains were not included on the list due to the extreme distance of the site to the known populations (>5 miles) and when elevational requirements were not met. The following section describes those species potentially occurring and the results of the surveys.

5.1 Potential Rare Species

Table 3. Sensitive plant species potentially occurring on the Elephant Hill site.

Latin Binomial	Vernacular Name	FWS	DFW	CNPS	Bloom Period	Habitat Requirements	Potential to Occur
Androsace elongata ssp.acuta	California androsace	None	None	4.2	Mar-June	A variety of habitats including woodlands and grasslands and scrub	** Potential to occur, however not observed on site.
Asplenium vespertinum	western spleenwort	None	None	4.2	Feb-June	Rocky areas within chaparral and sage scrub	** Potential to occur, however not observed on site.
Atriplex coulteri	Coulter's saltbush	None	None	1B.1	Mar-Oct	Found in coastal scrub habitats grasslands with alkaline or clay soils	Marginal potential to occur, however not observed on site.
Berberis nevinii	Nevin's barberry	FE	SE	1B.1	Mar-June	Found on gravelly or sandy sites in chaparral, cismontane woodland, coastal scrub and riparian scrub.	Marginal potential to occur, however not observed on site.
Brodiaea filifolia	thread-leaved brodiaea	FT	SE	1B.1	Mar-June	Often found in clay soils within openings in chaparral, coastal scrub, cismontane woodlands, vernal pools and playas	Marginal potential to occur, however not observed on site.
Calochortus catalinae	Catalina mariposa lily	None	None	4.2	Mar-June	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland	** Potential to occur, however not observed on site.
Calochortus clavatus var. gracilis	Slender mariposa lily	None	None	1B.2	Mar-June	Chaparral, Coastal scrub, Valley and foothill grassland	** Potential to occur, however not observed on site.
Calochortus plummerae	Plummer's mariposa lily	None	None	4.2	May-July	Granitic, rocky areas of Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland. Often in alluvial fans.	** Potential to occur, however not observed on site.
Calochortus weedii var. intermedius	intermediate mariposa lily	None	None	1B.2	May-Jul	Rocky, calcareous Chaparral, Coastal scrub, Valley/ foothill grassland	** Present. Three locations were identified for this species.
Calystegia felix	lucky morning-glory	None	None	1B.1	Mar-Sep	Meadows and seeps (sometimes alkaline), Riparian scrub (alluvial) Known from Chino Hills.	Marginal habitat, however not observed on site.

Latin Binomial	Vernacular Name	FWS	DFW	CNPS	Bloom Period	Habitat Requirements	Potential to Occur
Centromadia parryi ssp. australis	southern tarplant	None	None	1B.1	May-Nov	Marshes and swamps (margins), Valley and foothill grassland (vernally mesic), Vernal pools	Unlikely to occur.
Convolvulus simulans	small-flowered morning-glory	None	None	4.2	Mar-Jul	Open chaparral, Coastal scrub, Valley/foothill grassland within clay, serpentinite seeps	Marginal potential to occur, however not observed on site.
Chorizanthe parryi var. parryi	Parry's spineflower	None	None	1B.1	Apr-June	sandy or rocky, openings in Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland	Potential to occur, however not observed on site.
Dudleya multicaulis	many-stemmed dudleya	None	None	1B.2	Apr-Jul	Chaparral, Coastal scrub, Valley and foothill grassland, often in clay	** Present. Numerous locations of this species throughout the site.
Horkelia cuneata var. puberula	mesa horkelia	None	None	1B.1	Feb-Jul	Sandy or gravelly sites in maritime Chaparral, Cismontane woodland, Coastal scrub	Marginal potential to occur,however not observed on site.
Juglans californica	Southern California black walnut	None	None	4.2	N/A	Alluvial areas in various woodland and shrub habitat	**Present. Numerous location identified for this species.
Phacelia hubbyi	Hubby's phacelia	None	None	4.2	Apr-Jul	gravelly, rocky, talus Chaparral, Coastal scrub, Valley and foothill grassland	** Potential to occur, however not observed on site.
Pseudognaphalium leucocephalum	white rabbit-tobacco	None	None	2B.2	Jul-Dec	sandy, gravelly Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland. Often associated with alluvial fans	Marginal potential to occur, however not observed on site.
Quercus engelmannii	Engelmann oak	None	None	4.2	Mar-June	Valley and Foothill Grasslands, Cismontane & Riparian woodlands,	** Not observed on site
Senecio aphanactis	chaparral ragwort	None	None	2B.2	Jan-Apr	Chaparral, Cismontane woodland, Coastal scrub, sometimes alkaline soils	** Potential to occur, however not observed on site.
Sidalcea neomexicana	salt spring checkerbloom	None	None	2B.2	Mar-June	Alkaline, mesic sites in Chaparral, Coastal scrub, Lower coniferous forest, Mojavean desert scrub, Playas	No suitable habitat present. Unlikely to occur.
Symphyotrichum defoliatum	San Bernardino aster	None	None	1B.2	Jul-Nov	Near ditches, streams, meadows, seeps, marshes & vernally mesic Valley/ foothill grassland & other habitats	** Potential to occur, however not observed on site.

Latin Binomial	Vernacular Name	FWS	DFW	CNPS	Bloom Period	Habitat Requirements	Potential to Occur
Thysanocarpus rigidus	rigid fringepod	None	None	1B.2	Feb-May	Dry rocky slopes in Pinyon and Juniper woodlands	Site is outside elevational range and not expected to occur.

U.S. Fish and Wildlife Service
FT- Federal Threatened
FE- Federally Endangered
California Department of Fish and Wildlife
SE- State Endangered
ST-State Threatened
California Native Plant Society Rare Plant Rankings
1B Plants rare, threatened, or endangered in California and elsewhere
2B Plants rare, threatened or endangered in California but more common elsewhere.
4 Plants of limited distribution (a watch list)
.1 Seriously threatened in California (> 80% of occurrences threatened)
.2 Moderately threatened in California (20-80% occurrences threatened / moderate threat)
.3 Not very threatened in California (< 20% of occurrences threatened / low threat or no current threats known)
** Reported in immediate area of site

5.2 Detailed descriptions and discussion of moderate to high potential species

Three special status species were encountered during surveys in 2021 and are discussed below.

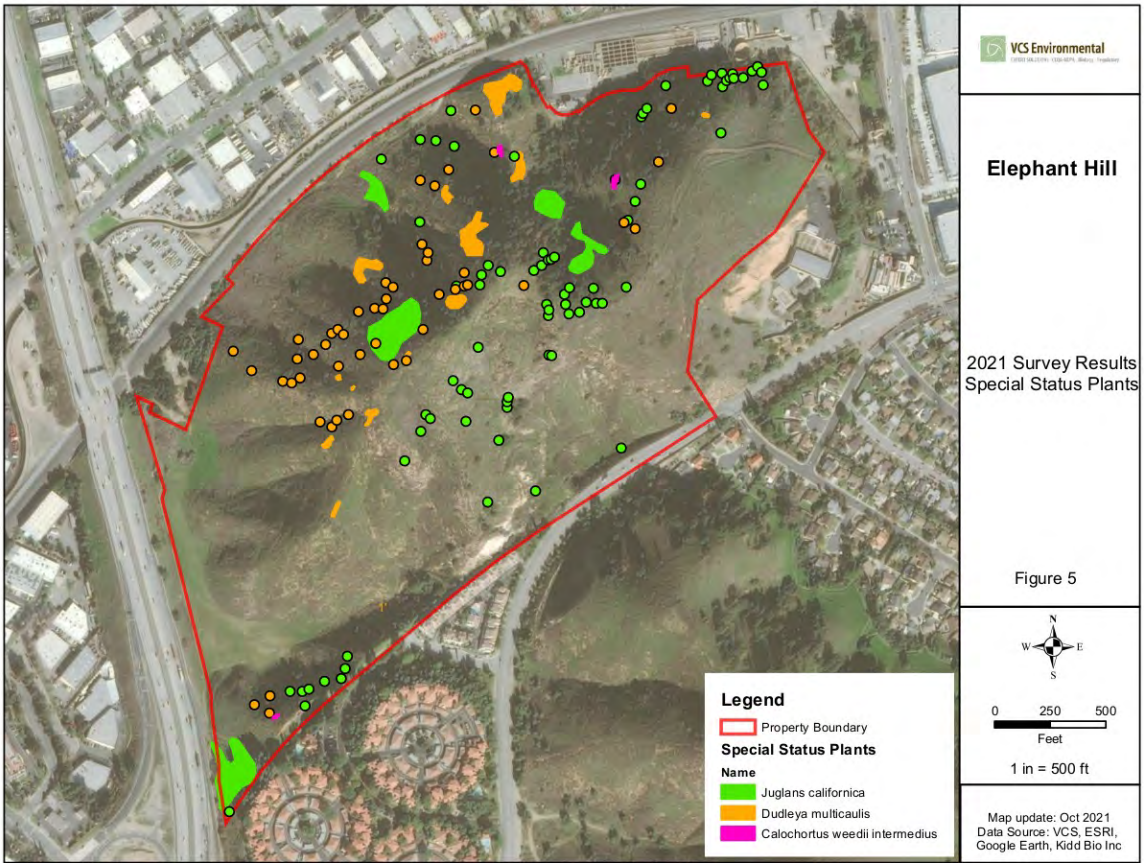


Figure 2. Locations of sensitive species on the Elephant Hill site.

5.2.1 *Calochortus weedii* var*. intermedius* (intermediate mariposa lily)



Calochortus weedii var. *intermedius* is a perennial geophyte (bulb-bearing) in the Liliaceae plant family. It is 1-stemmed at base and typically branched above growing to a height 30–90 cm with 1 basal leaf and several cauline leaves. Flowers typically occurin an open cyme of 2–6 flowers. Flowers are 45−70 mm across broadly bell-shaped three narrow sepals that are light purplish pink with darker parallel veins above middle 30 yellow with purplish tips hairs near base. There are three roughly round petal, deep reddish purple markings at base creamy white middle band rose lavender to light purple at the top with a cilliate or hairy margin. Fruit are dry capsule 60-70mm long with roundish tan, flat 3.5-4.3 mm seeds.

Ecology: *Calochortus weedii* var. *intermedius* occurs on dry, rocky, open slopes, often in or adjacent to rock outcrops at elevations below 680 meters.

Distribution: *Calochortus weedii* var. *intermedius* has a limited range and is only known to occur in Los Angeles, Orange and Western Riverside counties of southern California.

Calochortus weedii var. *intermedius* is threatened by development, non-native plants, road construction, and fuel modification. Potentially threatened by frequent wildfires and horticultural collecting.

Rarity: *Calochortus weedii* var. *intermedius* has no state or federal status but has a California Native Plant Society (CNPS) California rare plant rank of 1.B.2 which means the species is rare, threatened, or endangered in California and elsewhere

Status on Elephant Hill: *Calochortus weedii* var. *intermedius* was found at three locations on Elephant Hill, at least one of which had been previously recorded. Location 1 (the same as identified in the 2020 surveys) had 14 individuals in flower and bud when identified on 23 May 2021. Location 2 had four individuals in bud and flower when identified on 27 May 2021. Location 3 had 11 individuals in bud, flower and beginning fruit development when identified on 7 June 2021.

Recommendations: One of the three locations will be impacted by the proposed project. These individuals should be transplanted to an appropriate, unimpacted area of the site or possibly salvaged and conserved. One possibility for the latter is Rancho Santa Ana Botanical Gardens or the Theodore Payne foundation.

Calochortus weedii var. *intermedius* distribution. Red dots indicate herbaria specimens.

5.2.2 *Dudleya multicaulis* (Many-stemmed dudleya)



Description: *Dudleya multicaulis* is a small herbaceous perennial succulent species with rosettes of narrow leaves arising from a basal caudex. Leaves are cylindric 4-15 centimeters (inches) long, 2-6 millimeters (inches) wide with sharply acute tips and are deciduous in summer. Inflorescence are up to 35 centimeters (inches) tall cymes with 1 centimeter (inch) yellow, 5-petaled flowers petals.

Ecology: Heavy, often clay soils, coastal plains, rocky outcrops at elevations below 600 m.

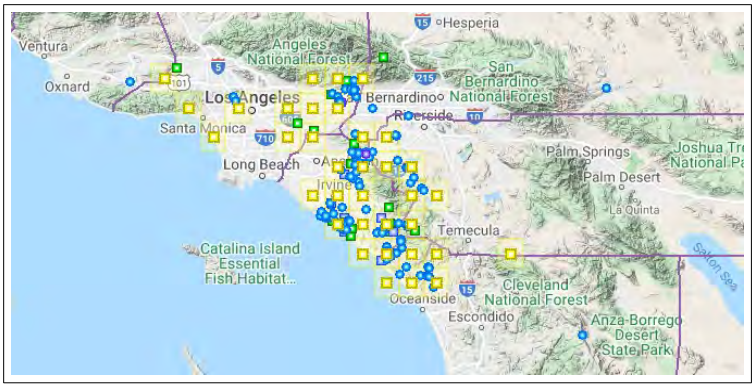
Distribution: *Dudleya multicaulis* is restricted to the foothills of coastal southern Californi.

Dudleya multicaulis seriously threatened by development, road construction and maintenance, fire suppression, non-native plants, mining, grazing, and recreation. Possibly threatened by military activities

Rarity: *Dudleya multicaulis* has no state or federal status but has a California Native Plant Society (CNPS) California rare plant rank of 1.B.2 which means the species is rare, threatened, or endangered in California and elsewhere.

Status on Elephant Hill: *Dudleya multicaulis* is locally common on north-facing slopes in areas of rocky outcrops, low herbaceous cover and thin soils. Population size estimate is on the order of tens of thousand individuals.

Recommendations: Less than 10% of the estimated *Dudleya multicaulis* individuals are within the proposed impact footprint. Conservation in perpetuity of the remainder of the population will do much to offset this loss.



Dudleya multicaulis distribution. Blue dots indicate herbaria specimens, yellow squares represent USGS quads containing *D. multicaulis*.

5.2.3 *Juglans californica* (Southern california black walnut)





Description: *Juglans californica* is a tree that can have a single or multiple trunks, largely dependent disturbance regimes. Threes reach a height of 6-9 meters. Leaves are pinnately compound generally with 11-15 narrow-elliptic leaflets 4-9.5 centimeters (inches) long with serrated margins. Walnuts are 2-3.5 centimeters (inches) in diameter with shallow grooves.

Ecology: *Juglans californica* is generally found on hillsides, canyons and alluvial areas in various woodland and shrub habitat at elevations of 30-900 meters (165 – 2955 feet).

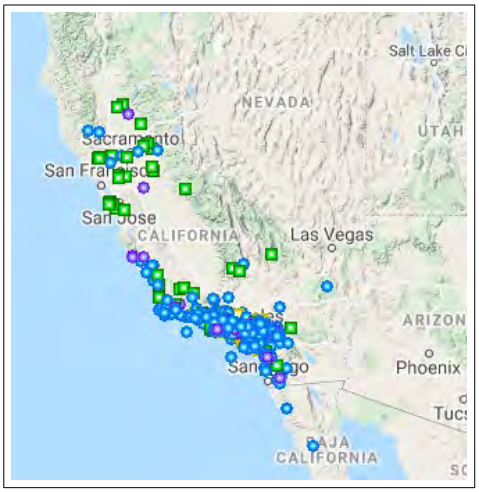
Distribution: Southern California coastal mountain ranges, San Gabriel and Peninsular mountain foothills.

Juglans californica is threatened by urbanization, grazing, non-native plants, and possibly by lack of natural reproduction. Possibly threatened by hybridization with horticultural varieties of walnut.

Rarity: *Juglans californica* has no federal or state status but has a California Rare Plant Rank of 4.2, which means it has a limited distribution.

Status on Elephant Hill: *Juglans californica* was found on north-facing slopes and along the ridgeline of Elephant Hill. Population size is estimated to be between 40-60 individuals. Only one non-native congeneric, *Juglans regis* (English walnut) was found on site and was remotely located from all other individuals.

Recommendations: One stand as well as several individuals of *Juglans californica* are within the project impact footprint. Conservation in perpetuity of the remainder of the population will go some way to offset this loss.



Juglans californica distribution. Blue dots indicate herbaria specimens, yellow squares represent USGS quads containing *J. californica*.

5.3 General Conservation Recommendations

The area not directly impacted by the project could face future threats due to the proximity of development, including increased foot traffic, predation on native species by urban pets, and increased fire risk. There are two somewhat overlapping recommendations in this regard:

1) Limiting access to the conservation area to planned maintained trails will minimize impacts to sensitive areas. Interpretive stations along the trail could increase public awareness of the natural environment and increase the value of recreation for area residents.

2) Limit potential for fire to enter the conservation area from the urban environment with appropriate ornamental plantings within the urban area. Flammable species such as fan palms, pines, eucalyptus, acacia, etc. should not be included in the urban plant pallette. A non-flammable barrier, such as brick or block walls between the conservation area and the built environment would mitigate flow of fire between the two.

6. Bibliography

CNPS. [2020]. A Manual of California Vegetation, Online Edition. http://www.cnps.org/cnps/vegetation/; searched on [08/18/2020]. California Native Plant Society, Sacramento, CA.

Calflora: Information on California plants for education, research and conservation. [web application]. 2020. Berkeley, California: The Calflora Database [a non-profit organization]. Available: http://www.calflora.org/.

California Natural Diversity Data Base (CNDDB). Annotated record search for special animals, plants and natural communities. Natural Heritage Division, Sacramento, California. Searched 27 March 2020.

Consortium of California Herbaria available at ucjeps.berkeley.edu/consortium/. Searches conducted during May, 2020.

SENSITIVE PLANT SURVEY REPORT
ELEPHANT HILL
CITY OF POMONA
LOS ANGELES COUNTY, CALIFORNIA

San Dimas, CA quadrangle, Section 26, Townships 1 South, Range 9 West



Dudleya multicaulis
Photo by J. Zylstra

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July 2020

This report summarizes the results of a special status plant survey on Elephant Hill during the 2020 blooming period in the City of Pomona, Los Angeles, California.

Project Description

The exact scope of the project has not been established at this time as the proponent is in the Due Diligence phase.

Project Location

The site is located in the City of Pomona in southeastern Los Angeles County, California. Generally, the site is located just to the east of Highway 57 (Orange County) south of Interstate 10, and west of Highway 71 (Chino Valley Freeway). More specifically the site is at the northwest corner of the intersection of Mission Boulevard and Humane Way (**Figure 1**).

The project location can also be described as being located in Section 26 of Township 1 South, Range 9 West of the San Dimas, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map (**Figure 2**).

Land use adjacent to the project site consists of dense suburban developments in all directions. There is an additional undeveloped hill to the southeast of the survey area.

METHODS

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

or plant communities. The sources reviewed for this study included:

- CNDDB Rarefind database of special status species and habitats for the San Dimas, Glednora, Mt. Baldy, Ontario CA 7.5' quadrangles (CNDDB 2020a);
- CNPS Rare Plant Inventory for the San Dimas, Azusa, Glednora, Mt. Baldy, Baldwin Park, Ontario, La Habra, and Yorba Linda 7.5' quadrangles (CNPS 2020);
- Documented plant collections from the Consortium of California Herbaria for the area (Consortium 2020);

- Biological Resources Assessment of the Proposed East San Gabriel Valley Significant Ecological Area. Prepared by PCR Services Corporation, Frank Hovore & Associates For Los Angeles County. 2000.
- City of Pomona. Master Environmental Assessment, April 1994.
- City of Pomona General Plan Update, Corridors Specific Plan, Active Transportaiton Plan and Green Plan. Draft EIR. Prepared by Rincon Consultants, Inc. 2013
- A review of aerial photos of the project site (Google Earth 2020);
- Information on precipitation during 2018-2019 (Los Angeles Almanac 2020)
  and;
- NRCS (2020) soil map of the project site and associated project areas.

Field Surveys

Three separate survey events were conducted. An early season survey was on 27 and 29 of March, 2020, a mid-spring survey on April 29, and a late-spring survey on June 8, 2020, All surveys were conducted by botanist Jordan Zyltsra. A total of approximately 22 hours were spent surveying the site for sensitive plants. Methods followed the California department of Fish and Wildlife's Protocol for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Senstiive Natural Communities (2018). The surveys examined the project area by walking through the various habitats and noting all of the plant species observed during the site examination (see Appendix A). Field notes were taken to record these observations, and photos were used to document the current conditions on the site at the time of the survey (Appendix C). A smartphone with ArcGIS collector loaded with aerial imagery was used for navigation with track logs recorded to ensure appropriate survey coverage of potential rare plant habitat. Points and polygons were recorded digitally, along with associated notes for all rare plant populations encountered.

The information collected on each special status plant locality included: the UTM coordinate of the locality, total number of plants observed, phenology of these plants, the plant community and associated species at the specific locality of these plants. In addition, photos were taken of each of the sites where the species were found.

Scientific and common names generally follow the Jepson Manual (Baldwin et al. 2012). The names for the special status plant species follow the CNPS online Rare Plant Inventory (CNPS 2019).

There were limitations to the surveys that included unsafe access to some areas of the site due to dense vegetation cover and uneven and or extrelmly steep terrain. Some areas were also fenced and inaccessable. Dense cover of invasive mustard and thistle prevented thorough visual inspection of some areas; however these areas were unlilkey to support rare plants due to competition with invasive species.

EXISTING CONDITIONS

Soils

Soils on site are mapped as Lithic Haploxerolls-Lithic Agrixerols complex. These are sandy loams derived from volcanic rock and are very shallow, with bedrock being found at approximately 10-inches below the surface. These soils are on hills and foothills of mountains. Slopes range from 20 to 55 percent with a clay content varying from 10-25 percent. These soils can be slightly to moderately acidic on the surface but alkaline in subsurface layers. **Figure 3** illustrates the mapped soils on site.

Precipitation

Rainfall totaled 14.86 inches for the 2019-2020 season (July-May) which was just above normal (0.02 inches)(LA Almanac 2020) with the average rainfall for this area being 14 inches. The first significant rainfall arrived in November 2019 with typical winter storms continuing through December. These widespread rains resulted in good annual plant germination throughout much of Southern California. January and February were very dry with only a few widely scattered and light rain events. March and early April were very wet with multiple heavy precipitation events, raising the total precipitation to about average for the season. There were no further significant rain events after mid-April. May brought above-average temperatures and a largely absent marine layer, leading to accelerated plant phenology and drying vegetation.

Topography

The survey area occurs on one fairly steep ridgeline hill that runs in an east-west orientation. Elevation ranges from approximately 730 feet (222 meters) above mean sea level (AMSL) at the southwest corner to 1,160 feet (354 meters) at the highest point in the center of the survey area.

Plant Communities

The approximately 120-acre site is a varying mosaic of native and naturalized habitats. The steeper areas are less affected by the invasive plant species, while the lower elevation areas and some ridgetops are dominated by non-native plant communities. The following section describes the plant communities observed on the project site. Aggregated habitat nomenclature generally follows California Plant Communities (Munz 1949) and (Holland 1986), with detailed alliance-level nomenclature following the California Manual of Vegetation (Sawyer et al 2009). **Figure 4** illustrates the approximate distribution of these habitats. The figure approximates the boundaries of the habitats and does not represent an exact delineation of the habitats. The list of all of the plant species noted during the field surveys is found in Appendix A.

Coastal Sage Scrub

This vegetation typically occurs on dry rocky or gravelly slopes under 3,000 ft and below chaparral in the Southern Californian coast ranges. There are four distinct coastal sage scrub (CSS) alliances within the project site, though their boundaries are often amorphous and intermixed. All four alliances suffer from varying levels of degradation likely due to fire frequency and invasion of non-native mustards, thistles, and grasses. The alliances vary by the dominance of species in each area and are defined as the following:

- Bush monkeyflower (*Diplacus aurantiacus*) Shrubland Alliance
- California buckwheat (*Eriogonum fasciculatum*) Shrubland Alliance
- Deerweed (*Acmipson glaber*) Shrubland Alliance (previously *Lotus scoparius*)
- Poison Oak (*Toxicodendron diversilobum*) Shrubland Alliance

Bush monkeyflower and Poison oak shrubland alliances generally present on the steeper northern slopes of the site. These alliances are often similar in structure and species composition, separated generally by the dominant species in the shrub canopy. Other common shrubs in these associations include California sagebrush (*Artemisia californica*) and California buckwheat (*Eriogonum fasciculatum*). The herbaceous layer is dominated by ripgut brome (*Bromus diandrus*), with various other native and invasive forbs.

Deerweed shrubland alliance is present mostly on the western slopes of the site, where deerweed represents more than 50% of the shrub canopy. These drier slopes do not have the same abundance of ripgut brome, but include a mix of non-natives such as wild oat (*Avena barbata*), shortpod mustard (*Hirschfeldia incana*), as well as native species such as caterpillar phacelia (*Phacelia cicutaria*) and rod wire lettuce (*Stephanomeria virgata*).

The California buckwheat shrubland alliance presents on several of the southern-facing slopes of the site. California buckwheat and general shrub cover is often fairly low on these rocky dry slopes, though non-native annuals such as red brome (*Bromus rubens*) often fill out the interspaces.

Southern Oak Woodland

Along the north-facing canyons of Elephant Hill are areas of Southern oak woodland. This habitat is characterized by areas of trees with grassland or few soft shrubs between them. There are two different alliances on site associated with these woodlands:

- California walnut (*Juglans californica*) Woodland Alliance
- Coast live oak (*Quercus agrifolia*) Woodland Alliance

California walnut woodland alliance is a sensitive vegetation group with a rarity ranking of G3 S3.2. This vegetation is defined by California walnut having over 50% relative cover in the tree canopy, or over 30% relative cover where coast live oak is also present. On the project site, this vegetation group is typically defined by the mix of California walnut with coast live oak, but there are also smaller areas on site where

California walnut is the fully dominant tree among grassland or chaparral species such as laurel sumac (*Malosma laurina*). California walnut stands have been reduced throughout their range historically due to urban development, type conversion, and agricultural clearing.

Coast live oak woodland alliance is defined on site by areas with nearly full relative cover of coast live oak in the tree canopy and low or no presence of California walnut. The shaded understory is often dominated by annual forbs such as blue fiesta flower (*Pholistoma auritum*), miner's lettuce (*Claytonia perfoliata, C. parviflora*), and ripgut brome, as well as larger soft shrubs like poison oak and bush monkey flower.

Valley and Foothill Grasslands

The lower flats and toe-slopes of the site, as well as some ridgelines are dominated by non-native grasses and forbs. These areas are grouped into valley and foothill grasslands with four defined vegetative alliances. The boundaries between these alliances are often intermixed and amorphous.

- Wild oat (*Avena barbata* and *A. fatua*) Semi-Natural Herbaceous Stands
- *Bromus (diandrus, hordeaceus)-Brachypodium distachyon* Semi-natural Herbaceous Stands
- Mustards (*Brassica nigra* and others) Semi-natural Herbaceous Stands
- Fountain grass *(Pennisetum setaceum)* Semi-natural Herbaceous Stands

Wild oat grasslands predominate on along the western boundary the site. This area largely consists of a flat disturbed valley floor between State Route 57 and Elephant Hill. Wild oat dominates this flat, along with species such as perennial ryegrass (Festuca perennis) and field bindweed (Convolvulus arvensis). Shrubs and trees are typically absent, and native herbs are absent or consist of less than 10% cover. The wild oat grassland continues partially onto the adjacent slopes of Elephant Hill.

Annual brome grasslands are present in areas throughout the site, including valley bottoms, slopes, and ridgetops. These areas are usually dominated by ripgut brome and include occasional emergent trees and shrubs. Ripgut brome has a Cal-IPC rank of Moderate. Other common forbs include red brome, Maltese star thistle (*Centaurea melitensis*), cultivated radish (*Raphanus sativus*), wild oat, and shortpod mustard. The low seasonally wet basin adjacent to West Mission Boulevard is dominated by curly dock (*Rumex crispus*).

Upland mustard stands are present throughout the project site typically on ridgetops and slopes, with emergent trees and shrubs present in relatively low numbers. On the southwestern slopes the dominant mustard is shortpod mustard while black mustard (*Brassica nigra*) dominates the ridgetops and slopes with more north and east aspects. Cultivated radish is present throughout. Black mustard, shortpod mustard, and cultivated radish all have a Cal-IPC ranking of Moderate. Other common forbs include milk thistle (*Silybum marianum*), Italian thistle (*Carduus pycnocephalus*), and Maltese star thistle.

Two areas of fountain grass swards were observed on the steep south-facing slopes of Elephant Hill. Crimson fountain grass (*Pennisetum setaceum*) dominates these areas with low numbers of other non-native and native forbs.

Non-Native Vegetation

Approximately 0.21 acre of non-native vegetation/ornamental woodland was mapped within a jurisdictional waters area found in the southern portion the Property. This habitat type is dominated by a mix of non-native trees including Shamel ash (*Fraxinum uhdei*) and Peruvian peppertree (*Schinus molle*), and also includes non-native castor bean, American century plant (*Agave americana*), and tree tobacco (*Nicotiana glauca*). This area is highly disturbed by a large amount of debris from an apparently active homeless encampment.

SPECIAL STATUS PLANT SPECIES

Special status plant species include those plants listed by the state or federal governments as endangered, threatened or rare and species or those that are candidates for future listing. It also encompasses the species determined by the California Department of Fish and Wildlife (CDFW) to meet the CEQA (Section 15380) criteria as "rare and endangered", even though they have not been officially listed by any agency (CNDDB 2020a). Finally, the list considers those species noted by the California Native Plant Society (CNPS 2019). The species of special interest were first determined using the CNDDB list of special plant species (CNDDB 2020b) and the CNPS rare plant inventory (CNPS 2020). Other sources included the Consortium of California herbaria (Consortium 2020) and the vascular plant checklist for western Riverside County (Roberts et al. 2004, 2007). Recent taxonomic and status information on some of these species was also reviewed (Smith 1980).

CNDDB (CDFW 2019a) element reports were then developed for the any observations within 5 miles of the site, to provide the known locations of species/communities of special concern in the general region and Bios mapping of this data.

The plant species of concern reported as occurring within the project vicinity are found in Table 1 below. Some plants that are associated with the San Gabriel Mountains were not included on the list due to the extreme distance of the site to the known populations (>5 miles) and when elevational requirements were not met. The following section describes those species potentially occurring and the results of the surveys.

Table 1. Sensitive Plant Species Potentially Occurring on the Site

Species		Status			Bloom Period	Habitat Requirements	Potential to Occur
Scientific Name	**Common Name**	**FWS**	**DFW**	**CNPS**			
Androsace elongata ssp. acuta	California androsace	None	None	4.2	Mar-June	A variety of habitats including woodlands and grasslands and scrub	** Potential to occur, however not observed on site.
Asplenium vespertinum	western spleenwort	None	None	4.2	Feb-June	Rocky areas within chaparral and sage scrub	** Potential to occur, however not observed on site.
Atriplex coulteri	Coulter's saltbush	None	None	1B.1	Mar-Oct	Found in coastal scrub habitats and grasslands with alkaline or clay soils	Marginal potential to occur, however not observed on site.
Berberis nevinii	Nevin's barberry	FE	SE	1B.1	Mar-June	Found on gravelly or sandy sites in chaparral, cismontane woodland, coastal scrub and riparian scrub.	Marginal potential to occur, however not observed on site.
Brodiaea filifolia	thread-leaved brodiaea	FT	SE	1B.1	Mar-June	Often found in clay soils within openings in chaparral, coastal scrub, cismontane woodlands, vernal pools and playas	Marginal potential to occur, however not observed on site.
Calochortus catalinae	Catalina mariposa lily	None	None	4.2	Mar-June	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland	** Potential to occur, however not observed on site.
Calochortus clavatus var. *gracilis*	Slender mariposa lily	None	None	1B.2	Mar-June	Chaparral, Coastal scrub, Valley and foothill grassland	** Potential to occur, however not observed on site.
Calochortus plummerae	Plummer's mariposa lily	None	None	4.2	May-July	Granitic, rocky areas of Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland. Often in alluvial fans.	** Potential to occur, however not observed on site.
Calochortus weedii var. *intermedius*	intermediate mariposa lily	None	None	1B.2	May-Jul	Rocky, calcareous Chaparral, Coastal scrub, Valley/ foothill grassland	**** Present**

Calystegia felix	lucky morning-glory	None	None	1B.1	Mar-Sep	Meadows and seeps (sometimes alkaline), Riparian scrub (alluvial)	Known from Chino Hills. Marginal habitat, however not observed on site.
Centromadia parryi ssp. *australis*	southern tarplant	None	None	1B.1	May-Nov	Marshes and swamps (margins), Valley and foothill grassland (vernally mesic), Vernal pools	No suitable habitat present. Unlikely to occur.
Convolvulus simulans	small-flowered morning-glory	None	None	4.2	Mar-Jul	Open chaparral, Coastal scrub, Valley/ foothill grassland within clay, serpentinite seeps	Marginal potential to occur, however not observed on site.
Chorizanthe parryi var. parryi	Parry's spineflower	None	None	1B.1	Apr-June	sandy or rocky, openings in Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland	Potential to occur, however not observed on site.
Dudleya multicaulis	many-stemmed dudleya	None	None	1B.2	Apr-Jul	Chaparral, Coastal scrub, Valley and foothill grassland, often in clay	****Present**
Horkelia cuneata var. puberula	mesa horkelia	None	None	1B.1	Feb-Jul	Sandy or gravelly sites in maritime Chaparral, Cismontane woodland, Coastal scrub	Marginal potential to occur, however not observed on site.
Juglans californica	Southern California black walnut	None	None	4.2	N/A	Alluvial areas in various woodland and shrub habitat	****Present**
Phacelia hubbyi	Hubby's phacelia	None	None	4.2	Apr-July	gravelly, rocky, talus Chaparral, Coastal scrub, Valley and foothill grassland	** Potential to occur, however not observed on site.
Pseudognaphalium leucocephalum	white rabbit-tobacco	None	None	2B.2	Jul-Dec	sandy, gravelly Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland. Often associated with alluvial fans	Marginal potential to occur, however not observed on site.
Quercus engelmannii	Engelmann oak	None	None	4.2	Mar-June	Valley and Foothill Grasslands, Cismontane & Riparian woodlands,	** Not observed on site

Senecio aphanactis	chaparral ragwort	None	None	2B.2	Jan-April	Chaparral, Cismontane woodland, Coastal scrub, sometimes alkaline soils	** Potential to occur, however not observed on site.
Sidalcea neomexicana	salt spring checkerbloom	None	None	2B.2	Mar-Jun	Alkaline, mesic sites in Chaparral, Coastal scrub, Lower coniferous forest, Mojavean desert scrub, Playas	No suitable habitat present. Unlikely to occur.
Symphyotrichum defoliatum	San Bernardino aster	None	None	1B.2	Jul-Nov	Near ditches, streams, meadows, seeps, marshes & vernally mesic Valley/ foothill grassland & other habitats	** Potential to occur, however not observed on site.
Thysanocarpus rigidus	rigid fringepod	None	None	1B.2	Feb-May	Dry rocky slopes in Pinyon and Juniper woodlands	Site is outside elevational range and not expected to occur.

U.S. Fish and Wildlife Service FT- Federal Threatened FE- Federally Endangered	California Department of Fish and Wildlife SE- State Endangered ST-State Threatened

California Native Plant Society Rare Plant Rankings

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

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

4 Plants of limited distribution (a watch list)

- .1 Seriously threatened in California (> 80% of occurrences threatened)
- .2 Moderately threatened in California (20-80% occurrences threatened / moderate threat)
- .3 Not very threatened in California (< 20% of occurrences threatened / low threat or no current threats known)

** Reported in immediate area of site

RESULTS

Many-stemmed dudleya (*Dudleya multicaulis*)

Many-stemmed dudleya was found to be widespread among many of the bedrock outcroppings through all vegetation communities on the north-facing slopes and ridgetops of Elephant Hill. Many-stemmed dudleya is a succulentyyy vernal, summer-deciduous perennial herb that persists through the dry season from a subsurface corm. It has yellow flowers on an upright peduncle up to 35 cm and can bloom between April and July. The CNPS gives this plant a rare plant rank of 1B.2.

During the late March surveys, many-stemmed dudleya was not yet in bloom, though many individuals had already formed an inflorescence and the plants were otherwise distinguishable from other potential co-occurrring dudleya species by the leaf habit. New seedling recruitment was also observed to be high in many of the populations, however it was assumed that the majority of these would not survive so only mature individual plants were included in the population estimates. Peak bloom was approaching during the late April survey and by the June survey over 99% of the plants were past bloom and with dried brown leaves. Several of the larger populations were estimated to contain at least 5,000 individuals and the total project-area population was estimated to be nearly 20,000 plants. Due to the steep site topography and some limits to practical survey coverage, it is assumed that some additional unmapped small or moderate populations may exist on the north slope of the site.

Intermediate mariposa lily (*Calochortus weedii intermedius*)

Intermediate mariposa lily was observed in one location on the north slope of Elephant Hill among scattered poison oak and fairly thick cover of ripgut brome. This species is a perennial bulbiferous herb which occurs in rocky open slopes in chaparral, coastal scrub, and valley and foothill grasslands. Its stem can be up to 90 cm, with 2-6 flowers consisting of yellow to purple petals beared with hairs on the inner face out to the upper petal margin. This species can bloom between May and July, and it has a CNPS rare plant rank of 1B.2.

Intermediate mariposa lily was only observed during the June 9 survey, at which point the plants were in both flower and fruit, with no buds remaining to bloom. A total of four individuals were observed, with one additional dead stem of a previous year's individual observed. Detectability would have been poor during the March and April surveys as the bare green leaves and stem would have blended in with the abundant green grasses, especially in areas with taller vegetation. Detectability during the June survey was noted to only be fair as the blossoms were not readily apparent from a distance, despite the browned background grasses and knowing where to look. There are likely more occurrences on site than were observed. A 1991 herbarium collection from Elephant Hill noted intermediate mariposa lily was present with multi-stemmed dudleya, but as there were no dudleya in close proximity to this occurrence it's likely the collection is evidence of another nearby population. Calochortus species can show large inter-annual swings in emergent population size depending on rainfall patterns and other factors. They often present

in high numbers following wildfires, so the 2020 fire at Elephant Hill may provide opportunity to explore the full extent of the population in 2021.

California walnut (*Juglans californica*)

California walnut was observed throughout the project site, though was more frequent on the ridgetops and north-facing slopes of the site. California walnut is a fairly small tree, growing to about 9 meters, and can be found on hillsides and canyons of southern California. It has a CNPS rare plant rank 4.2. California walnut woodland is a fragmented and declining vegetation community due mainly to urban development throughout its range. California walnut woodland has a global and state rarity rank of G3 S3.2.

California walnut was readily visible during all of the field surveys, though due to practical survey limitations some of the larger populations were estimated, and some additional individuals may have been obscured in areas of coast live oak woodland. In addition, several individuals of the similar looking English walnut (*Juglans regia*) were observed on site. It is possible that some of these when viewed from a distance were erroniously recorded as California walnut. However, the vast majory of walnuts on site are California walnut.

Table 2 notes the locality, number of plants observed, along with the plant communities and associated plant species for each locality. **Figure 5** provides a map of these localities within the survey area.

Table 2. Sensitive Plant Species Found in Project Area

Species	#	Plant Community	Associated Species
Intermediate mariposa lily (*Calochortus weedii intermedius*)	4	Coastal sage scrub	*Toxicodendron diversilobum, Chlorogalum pomeridianum, Bromus diandrus, Silybum marianum, Brassica nigra*
Many-stemmed dudleya (*Dudleya multicaulis*)	~20,000	Coastal sage scrub, Valley grassland, Southern oak woodland	No consistent associates. Generally on north-slope bedrock outcroppings with varied surrounding vegetation communities.
California black walnut (*Juglans californica*)	~166	Southern oak woodland	*Quercus agrifolia, Malosma laurina*

Discussion

Elephant Hill and the adjacent hill to the south (Westmont Hills and Phillips Ranch), are a veritable island in a sea of development. This highly fragmented landscape limits dispersal of plants much more significantly than animals. However, this lack of connectivity likely affects plants by limiting the number

and diversity of pollinators as well as limiting genetic viability due to lack of cross pollination (Brückmann SV, Krauss J & Steffan-Dewenter I, 2010). Fragmentation can lead to populations easily becoming extirpated from single catastrophic events, such as drought or fire (O. Eriksson, 1996).

During the survey season, it was noted that a homeless encampment had increased in size and trampling of vegetation was most prevalent at the northwest portion of the site. After the surveys were completed it was noted that part of the survey area that was most densely covered in invasive plants had burned. It is estimated that 25 of the 120 acres were burned on June 12, 2020.

It is recommended that a sensitive plant survey be conducted during the Spring of 2021 which focuses on the recently burned areas as some species are dependent on fire to germinate or seeds that may be in the soil may have an opportunity to bloom, with less competition with invasives that cover this site.

REFERENCES

Arellano-Rivas A, De-Nova JA, Munguía-Rosas MA (2016) Patch isolation and shape predict plant functional diversity in a naturally fragmented forest. J Plant Ecol.

Auffret AG, Rico Y, Bullock JM, Hooftman DAP, Pakeman RJ, Soons MB, Suárez-Esteban A, Traveset A, Wagner H, Cousins SAO (2017) Plant functional connectivity – integrating landscape structure and effective dispersal. J Ecol.

Ayram CAC, Mendoza ME, Etter A, Salicrup DRP (2016) Habitat connectivity in biodiversity conservation: a review of recent studies and applications. Prog Phys Geogr Earth Environ 40:7–37.

Baldwin, BG, D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken, Editors. 2012. The Jepson manual: Vascular plants of California, second edition. University of California Press, Berkeley, California.

Brückmann SV, Krauss J, Steffan-Dewenter I (2010) Butterfly and plant specialists suffer from reduced connectivity in fragmented landscapes. J Appl Ecol 47:799–809.

Buck-Diaz, J. and J.M. Evans. 2011. Alluvial Scrub Vegetation of southern California: A Focus on the Santa Ana River Watershed in Orange, Riverside, and San Bernardino Counties, California. California Native Plant Society, Sacramento, California

California Department of Fish and Wildlife (CDFW). 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations, and Sensitive Natural Communities. Dated March 20, 2018.

California Department of Fish and Wildlife (CDFW). 2019b. Biogeographic and Observation

System (Bios). https://map.dfg.ca.gov/bios/ https://map.dfg.ca.gov/bios/ California Department of Fish and Wildlife (CDFW). 2018c. California Sensitive Plant Communities.

California Department of Fish and Wildlife, Natural Diversity Database (CNDDB). 2020c. California Natural Diversity (RareFind) Database Element report for the Wittier, El Monte, South Gate, La Habra and Los Alamitos 7.5’ quadrangles. California Department of Fish and Wildlife, Natural Heritage Division, Sacramento, California.

California Native Plant Society (CNPS). 2019. Inventory of rare and endangered vascular plants of California, 8th Ed. California Native Plant Society, Sacramento, California.’

Consortium of California Herbaria (Consortium). 2018. Consortium of California herbaria website, an online herbaria database: A review of collections from the Lytle Creek area. University of California, Berkeley and the Jepson Herbarium. http://ucjeps.berkeley.edu/consortium

Cousins SAO, Ohlson H, Eriksson O (2007) Effects of historical and present fragmentation on plant species diversity in semi-natural grasslands in Swedish rural landscapes. Landsc Ecol 22:723–730

Eriksson O (1996) Regional dynamics of plants: a review of evidence for remnant, source-sink and metapopulations. Oikos 77:248–258.

Google Earth. 2019. Aerial photographs of the property dated: 28 March 2018. Other photos examined: 20 April 2016, 6 October 1995, 21 May 2002, 31 December 2002, and 31 January 2009.

Holland, R. F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Sacramento, California.

LADPW. 2006. San Gabriel River Corridor Master Plan- Final Program Environmental Impact Report County of Los Angeles Department of Public Works

Los Angeles Almanac. 2019. Seasonal Rainfall (Precipitation) to Date 2018-2019 National Weather Service Forecast Office, Los Angeles/Oxnard. http://www.laalmanac.com/weather/we13a.php Accessed 4/25/2019

Natural Resources Conservation Service (NRCS). 2020. Custom soil resource report for the Pico Rivera area, California.

Natural Resources Conservation Service (NRCS). 2017. Supplement to the soil survey of Los Angeles County, California, Southeastern Part. Accessible online at: http://soils.usda.gov/survey/printed_surveys/.

O'Brien, Bart C. 2007. Plant Lists for the San Gabriel River Watershed. Rivers and Mountains Conservancy, Azusa, CA (lists 3 and 7).

Roberts, F.M, S.D.White, A.C. Sanders, D.E. Bramlet, and S.D. Boyd. 2004. The vascular plants of western Riverside County: An annotated checklist. F.M. Roberts Publications, San Luis Rey, California.

Roberts, F.M, S.D.White, A.C. Sanders, D.E. Bramlet, and S.D. Boyd. 2007. Additions to the flora of western Riverside County. Crossosoma 33 (2): 55-69.

Smith, R.L. 1980. Alluvial Scrub Vegetation of the San Gabriel River Floodplain, California. Madrono 27(3): 126-138.

United States Department of Agriculture, Natural Resources Conservation Service. 2017. Supplement to the soil survey of Los Angeles County, California, Southeastern Part. Accessible online at: http://soils.usda.gov/survey/printed_surveys/

VCS, Environmental. 2019. General Biological Assessment and Jurisdictional Delineation. In prep.

APPENDIX A: FLORAL COMPENDIUM

Family	Species Name	Common Name	
Adoxaceae			
	Sambucus nigra subsp. *caerulea*	Mexican elderberry	
Agavaceae			
	Agave americana	American century plant	*
	Chlorogalum parviflorum	Small flower soap plant	
	Chlorogalum pomeridianum	Wavyleaf soap plant	
Anacardiaceae			
	Malosma laurina	Laurel sumac	
	Schinus molle	Peruvian peppertree	*
	Toxicodendron diversilobum	Pacific poison oak	
Apiaceae			
	Foeniculum vulgare	Sweet fennel	*
Apocynaceae			
	Asclepias eriocarpa	Woollypod milkweed	
	Asclepias fascicularis	Mexican whorled milkweed	
Asteraceae			
	Ambrosia confertiflora	Weak-leaf bur ragweed	
	Ambrosia psilostachya	Cuman ragweed	
	Artemisia californica	Coastal sagebrush	
	Baccharis pilularis	Coyotebrush	
	Baccharis salicifolia subsp. *salicifolia*	Mule fat	
	Bidens pilosa	Common beggar-ticks	*
	Carduus pycnocephalus subsp. *pycnocephalus*	Italian thistle	*
	Centaurea melitensis	Maltese star-thistle	*
	Corethrogyne filaginifolia	California aster	
	Ericameria palmeri	Palmer's goldenbush	
	Erigeron foliosus	Leafy fleabane	
	Hedypnois cretica	Cretanweed	*
	Helianthus annuus	Common sunflower	
	Helminthotheca echioides	Bristly oxtongue	*
	Heterotheca grandiflora	Telegraphweed	
	Hypochaeris glabra	Smooth cat's ear	*
	Malacothrix saxatilis	Cliff desertdandelion	
	Pseudognaphalium californicum	Ladies' tobacco	
	Pseudognaphalium microcephalum		
	Silybum marianum	Blessed milkthistle	*

	Sonchus asper subsp. asper	Prickly sow thistle	*
	Sonchus oleraceus	Common sowthistle	*
	Stephanomeria virgata	Rod wire lettuce	
	Taraxacum officinale	Common dandelion	*
Boraginaceae			
	Amsinckia intermedia	Common fiddleneck	
	Eucrypta chrysanthemifolia	Spotted hide-seed	
	Pectocarya linearis subsp. ferocula	Narrow-toothed pectocarya	
	Phacelia cicutaria var. *hispida*	Caterpillar phacelia	
	Phacelia distans	Distant phacelia	
	Phacelia ramosissima	Branching phacelia	
	Pholistoma auritum	Blue fiesta flower	
Brassicaceae			
	Brassica nigra	Black mustard	*
	Brassica rapa	Field mustard	*
	Hirschfeldia incana	Short-pod mustard	*
	Lepidium nitidum	Shining pepperweed	
	Raphanus sativus	Cultivated radish	*
	Sisymbrium irio	London rocket	*
	Sisymbrium orientale	Indian hedgemustard	*
	Thysanocarpus laciniatus	Mountain fringepod	
Cactaceae			
	Opuntia littoralis and/or *O. oricola or hybrid*	pricklypear	
Caryophyllaceae			
	Cerastium glomeratum	Sticky chickweed	*
	Stellaria media	Common chickweed	*
Chenopodiaceae			
	Chenopodium californicum	California goosefoot	
	Salsola tragus	Prickly Russian thistle	*
Convolvulaceae			
	Calystegia macrostegia	Island false bindweed	
	Convolvulus arvensis	Field bindweed	*
	Cuscuta californica	Chaparral dodder	
Crassulaceae			
	Crassula connata	Sand pygmyweed	
	Dudleya lanceolata	Lanceleaf liveforever	
	Dudleya multicaulis	Many-stemed liveforever	§
Cucurbitaceae			
	Marah macrocarpa	Cucamonga manroot	
Cyperaceae			
	Cyperus eragrostis	Tall flatsedge	

Dryopteridaceae			
	Dryopteris arguta	Coastal woodfern	
Euphorbiaceae			
	Croton setigerus	Dove weed	
	Ricinus communis	Castorbean	*
Fabaceae			
	Acmispon glaber	Common deerweed	
	Lathyrus vestitus	Pacific pea	
	Lupinus succulentus	Hollowleaf annual lupine	
	Medicago polymorpha	Burclover	*
	Melilotus indicus	Sourclover	*
	Trifolium willdenovii	Tomcat clover	
Fagaceae			
	Quercus agrifolia	California live oak	
Geraniaceae			
	Erodium botrys	Longbeak stork's bill	*
	Erodium cicutarium	Redstem stork's bill	*
	Erodium moschatum	Musky stork's bill	*
Juglandaceae			
	Juglans californica	Southern california black walnut	§
	Juglans regia	English walnut	*
Lamiaceae			
	Marrubium vulgare	Horehound	*
Liliaceae			
	Calochorthus weedii var. *intermedius*	Intermediate mariposa lily	§
Malvaceae			
	Malva parviflora	Cheeseweed mallow	*
Montiaceae			
	Claytonia parviflora	Streambank springbeauty	
	Claytonia perfoliata	Miner's lettuce	
Moraceae			
	Ficus carica	Edible fig	*
Myrsinaceae			
	Anagallis arvensis	Scarlet pimpernel	*
Nyctaginaceae			
	Mirabilis laevis var. *crassifolia*	California four o'clock	
Oleaceae			
	Fraxinus uhdei	Shamel ash	*
Oxalidaceae			

	Oxalis californica	California wood-sorrel	
Papaveraceae			
	Eschscholzia californica	California poppy	
Phrymaceae			
	Mimulus aurantiacus var. pubescens	Sticky monkeyflower	
Plantaginaceae			
	Plantago lanceolata	Narrowleaf plantain	*
Poaceae			
	Avena barbata	Lopsided oat	*
	Avena fatua	Wild oat	*
	Brachypodium distachyon	Purple false brome	*
	Bromus diandrus	Ripgut brome	*
	Bromus hordeaceus	Soft brome	*
	Bromus madritensis subsp. *rubens*	Red brome	*
	Elymus condensatus	Giant wildrye	
	Festuca myuros	Rattail sixweeks grass	*
	Festuca perennis	Perennial ryegrass	*
	Hordeum murinum	Mouse barley	*
	Lamarckia aurea	Goldentop grass	*
	Pennisetum setaceum	Crimson fountaingrass	*
	Schismus barbatus	Common Mediterranean grass	*
	Stipa cernua	Nodding needlegrass	
	Stipa miliacea var. *miliacea*	Smilograss	*
Polygonaceae			
	Eriogonum fasciculatum	Eastern Mojave buckwheat	
	Rumex crispus	Curly dock	*
Pteridaceae			
	Pentagramma triangularis	Gold-back fern	
Ranunculaceae			
	Clematis pauciflora	Ropevine clematis	
Rosaceae			
	Heteromeles arbutifolia	Toyon	
	Rosa californica	California wild rose	
	Rubus ursinus	California blackberry	
Rubiaceae			
	Galium angustifolium	Narrowleaf bedstraw	
	Galium aparine	Sticky willy	
Salicaceae			
	Salix lasiolepis	Arroyo willow	
Scrophulariaceae			
	Verbascum virgatum	Wand mullein	*

Selaginellaceae			
	Selaginella bigelovii	Bushy spikemoss	
Solanaceae			
	Datura wrightii	Sacred thorn-apple	
	Nicotiana glauca	Tree tobacco	*
	Solanum douglasii	Greenspot nightshade	
Themidaceae			
	Dichelostemma capitatum	Bluedicks	
Urticaceae			
	Urtica urens	Dwarf nettle	*
Violaceae			
	Viola pedunculata	Johnny-jump-up	

* Non-native/Naturalized

§ Sensitive

APPENDIX B: FIGURES

Figure 1. Project Location on USGS Topographic Map

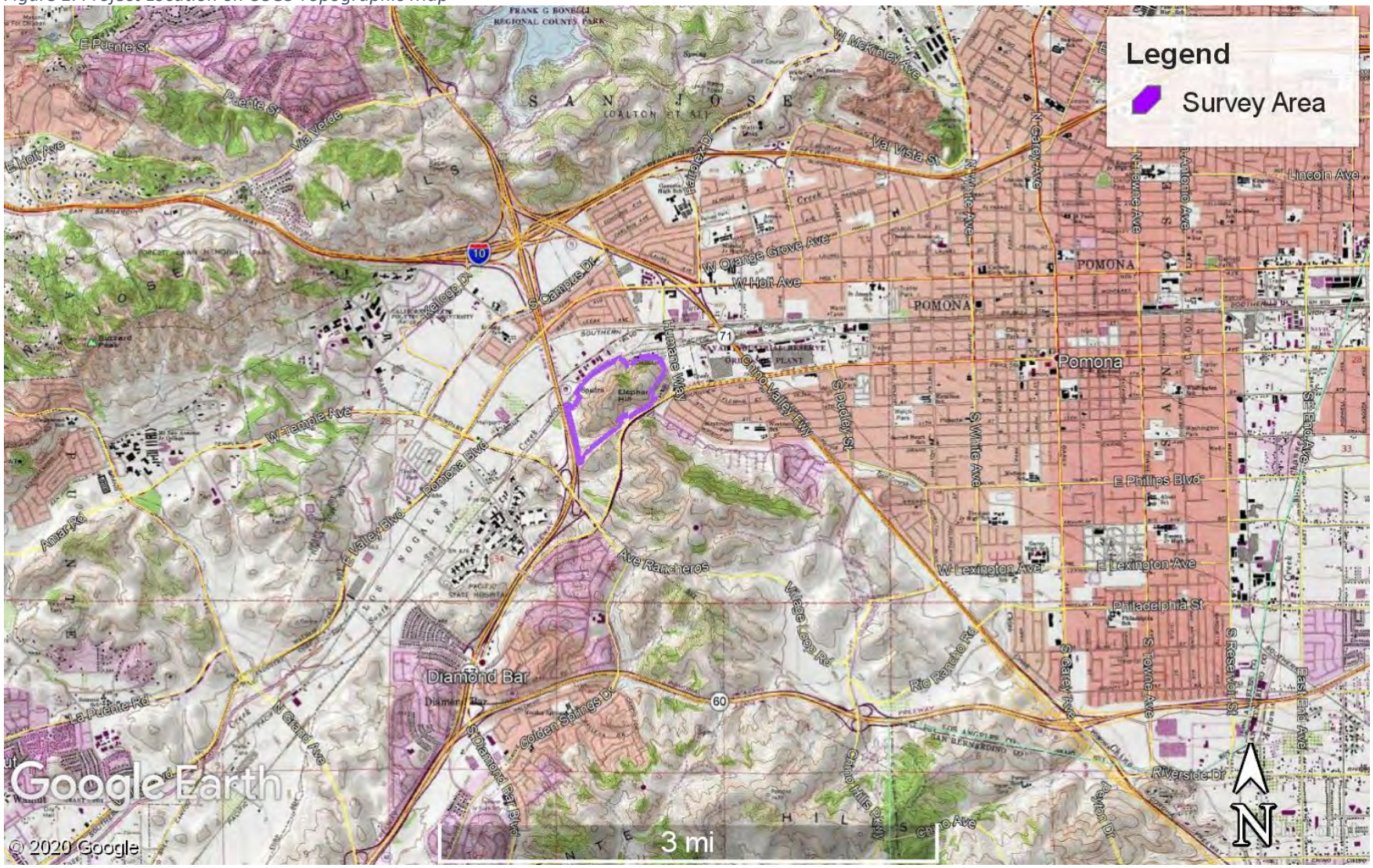


Figure 2. Survey Area on Aerial Photo (Google Earth 2020)



Figure 3. On Site Soils



Map Unit Symbol	Map Unit Name
1007	Urban land-Biscailuz-Pico complex, 0 to 2 percent slopes
1008	Urban land-Pico-Metz complex, 0 to 2 percent slopes
1146	Lithic Haploxerolls-Lithic Argixerolls complex, 20 to 55 percent slopes
1232	Counterfeit-Urban land complex, 10 to 35 percent slopes, terraced

Figure 4. Vegetation Communities

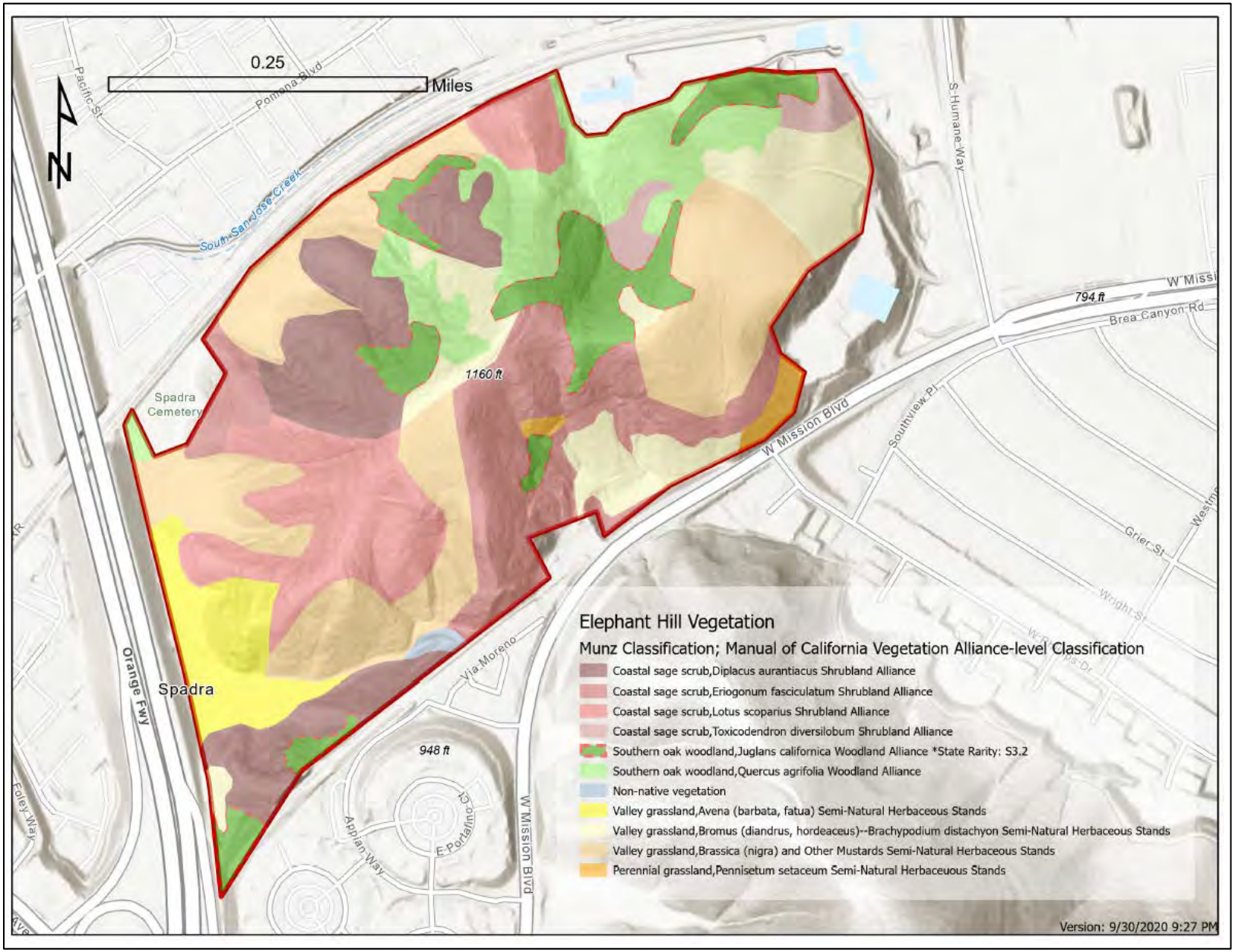
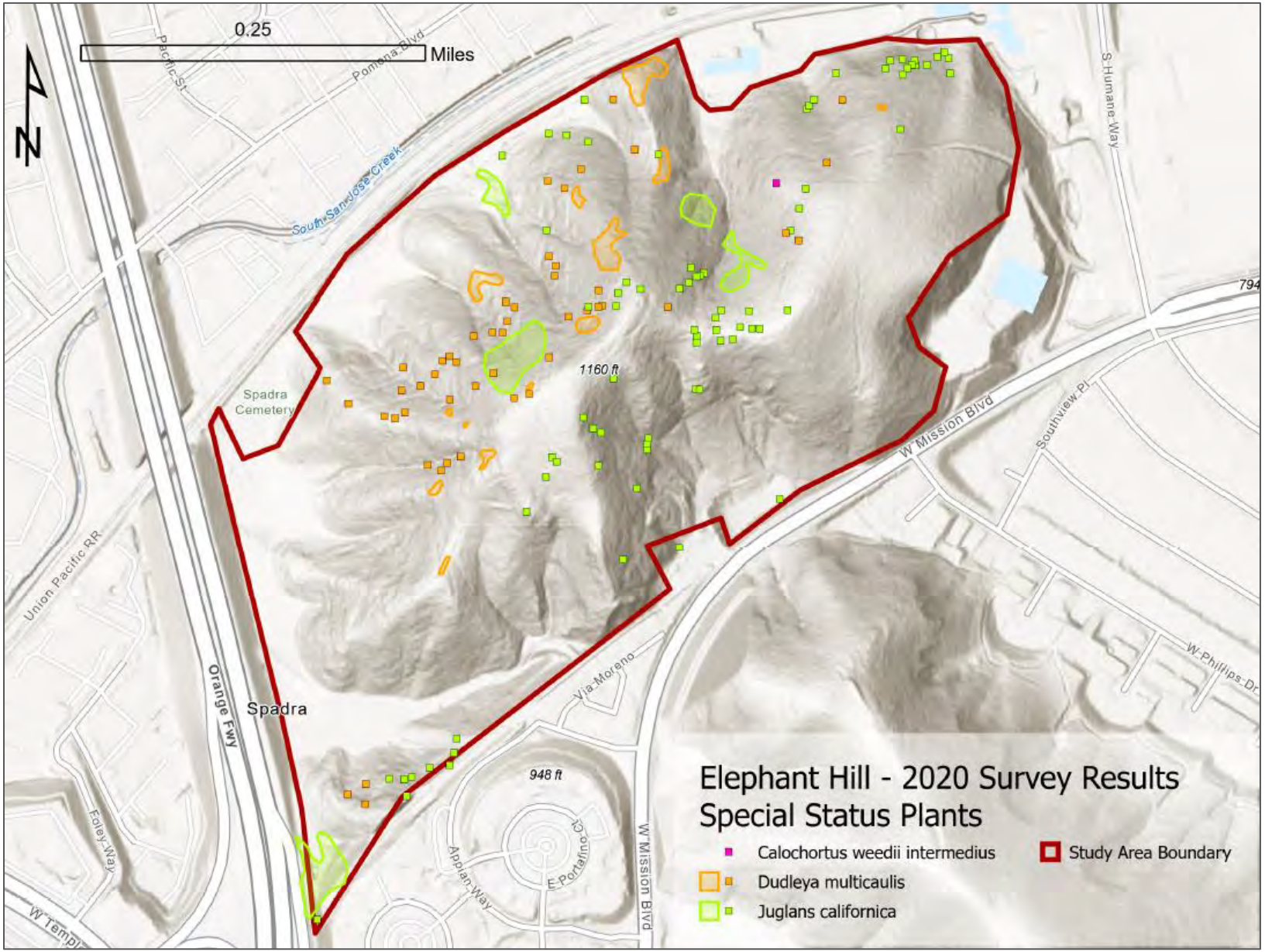


Figure 5. Sensitive Plant Locations



APPENDIX C: PHOTOS



Photo 1. Many-stemmed dudleya, April 29, 2020



Photo 2. Many-stemmed dudleya habitat, April 29, 2020



Photo 3. Intermediate mariposa lily, June 8, 2020



Photo 4. Intermediate mariposa lily habitat, June 8, 2020



Photo 5. California walnut, June 8, 2020



Photo 6. California walnut woodland, March 25, 2020

Appendix F:

Fairy Shrimp Habitat Suitability
for the Elephant Hill Project site,
Pomona, Los Angeles County,
California

GLENN LUKOS ASSOCIATES
Regulatory Services

September 5, 2022

Stacey Love
U.S. Fish and Wildlife Service
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

SUBJECT: Results of Habitat Suitability Assessment for Listed Fairy Shrimp at the 120-Acre Elephant Hill Property, Located in the City of Pomona, Los Angeles County, California.

Dear Ms. Love:

On November 1, 2021, I submitted a notification to conduct a wet season survey for listed fairy shrimp at the Elephant Hill located in the City of Pomona, Los Angeles County. The property is located in the City of Pomona, Los Angeles County [Exhibit 1 – Regional Map]. The property is northwest and adjacent to Mission Boulevard and east of State Route 57 [Exhibit 2 – Vicinity Map]. Universal Transverse Mercator (UTM) coordinates approximately corresponding to the property are 426657 mE and 3768020 mN.

1.0 SITE LOCATION AND DESRIPTION

The overall property totals approximately 120 acres, consisting mostly of a single, large hill (Elephant Hill) that slopes southeast towards Mission Boulevard. The portion of the property along Mission Boulevard includes a large impoundment that was apparently created when borrow material was collected many years ago during the construction of residential development to the southwest. Exhibit 3 (Aerial Map) depicts the property boundary along with the approximate location of two areas where ponding had been observed in 2021 just after a rainfall event. Historic aerial imagery and topo indicates that the portion of site containing the impoundment at one time consisted of a bench/saddle that sloped towards a stream that drained to the northeast that then wrapped around Elephant Hill to the north. Prior to the construction of the current alignment for Mission Boulevard, an original alignment extended through the edge of the property to link up with what at one time was Brea Canyon Road. With the initial development of Diamond Bar in the 1960s and the construction of State Route 57 in the late 1960s/early 1970s, Mission Boulevard was re-aligned to curve southward and link up with the

construction of Diamond Bar Boulevard. Sometime after 1980 a residential development was constructed south of the Elephant Hill property and west of Mission Boulevard, and the current depression/impoundment was created likely to collect runoff and the excavated soil was presumably used in the adjacent construction.

2.0 RESULTS OF ASSESSMENT

In the November notification, I had proposed to evaluate the site for any features exhibiting suitable inundation and to survey any features that met the minimum criteria for suitability pursuant to the U.S. Fish and Wildlife Service (USFWS) survey protocol entitled *Survey Guidelines for the Listed Large Branchiopods* (dated November 13, 2017). Specifically, the wet season survey protocol refers to features that exhibit inundation for a minimum of seven days to be sampled.

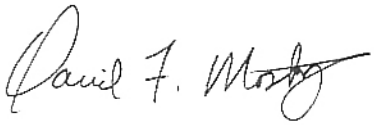
I visited the site on December 22, 2021, which was within seven days of an approximately 1.5-inch rainfall event. Although the soils within the impoundment (and on and adjacent disturbed and compacted area) were generally damp, there was no inundation and so there was nothing to sample. I again visited the site on December 31, 2021, which followed several storm events that locally resulted in approximately 6.5 inches of rainfall. The bottom of the impoundment still did not exhibit any inundation. The compacted area adjacent to impoundment did exhibit about four inches of inundation, but as it had just been two days since the last rainfall event, it was too early for anything to be observed in the feature. I returned to the site on January 5, 2021, which was seven days after the last rainfall event and the feature was no longer inundated. After the series of rainfall events in late December, there were no events large enough to produce any inundation for the remainder of the wet season.

Because the site did not exhibit adequate inundation during the past wet season, sampling could not be performed to check for the presence of fairy shrimp. Given that there was no sustained inundation in bottom of the basin (or in other portions of the site) after a series of storm events that produced more than six inches of rainfall, the site is not expected to inundate sufficiently to support fairy shrimp, including listed species such as the Riverside fairy shrimp (*Streptocephalus woottonii*) and the vernal pool fairy shrimp (*Branchinecta lynchi*).

If you have any questions regarding this request, please contact me at (949) 340-2562 or via email at dmoskovitz@wetlandpermitting.com.

Sincerely,

GLENN LUKOS ASSOCIATES, INC.



David F. Moskovitz
Senior Biologist

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Source: ESRI World Street Map

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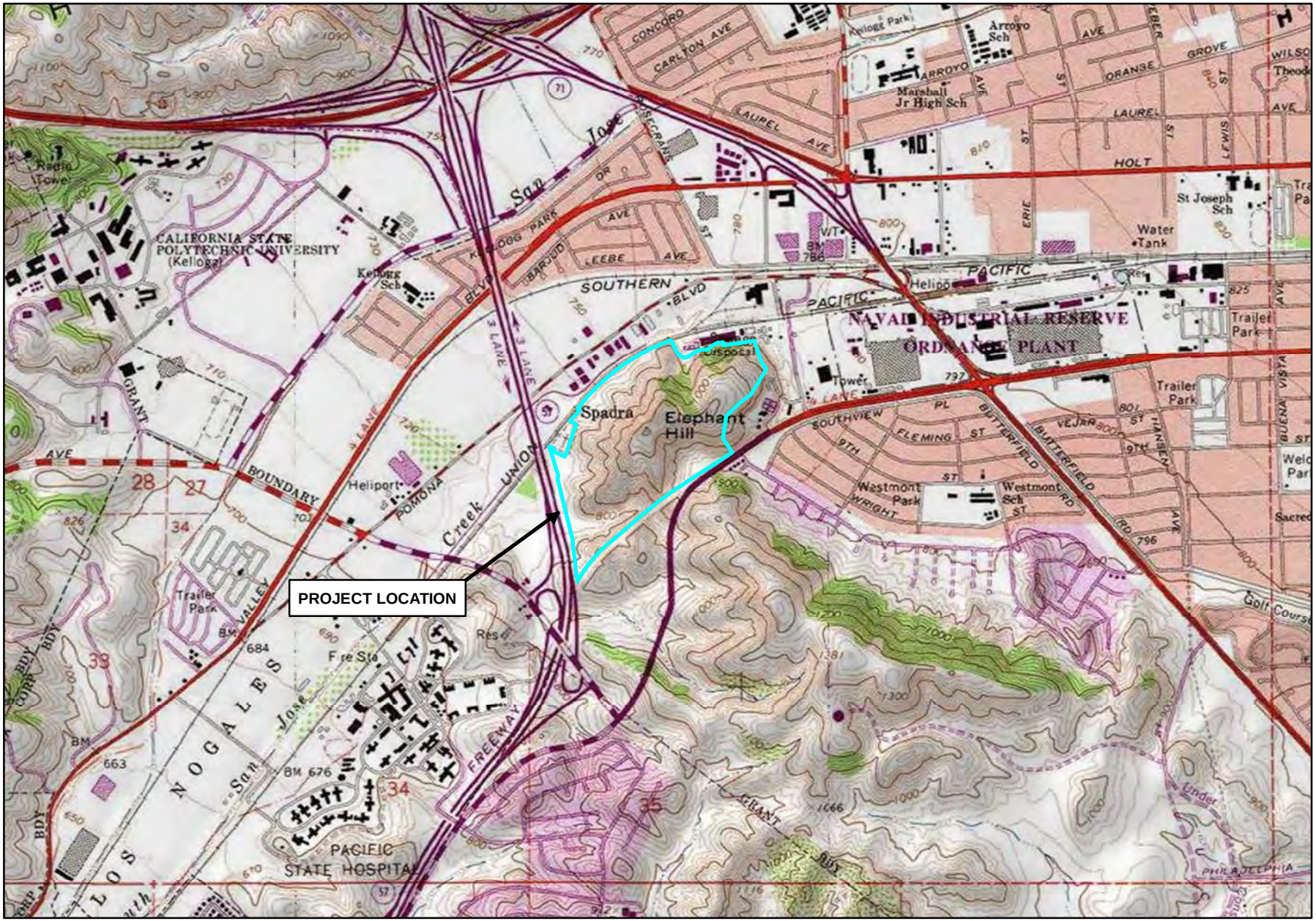
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ELEPHANT HILL SITE

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



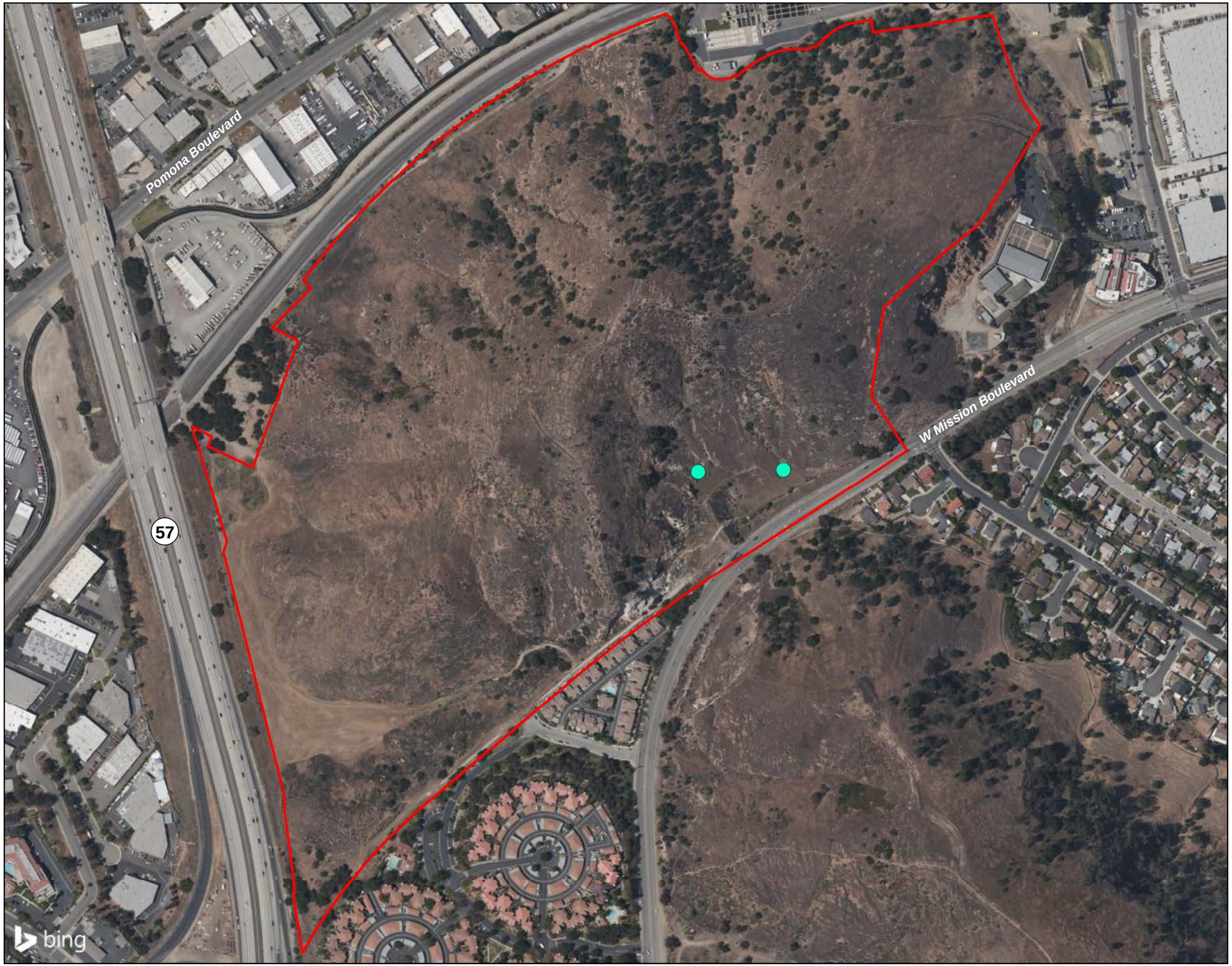
Adapted from USGS San Dimas, CA quadrangle

ELEPHANT HILL SITE

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



Property Boundary

Ponded Areas

N

0 175 350 700

Feet

1 inch = 350 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: North American 1983
Map Prepared by: K. Kartunen, GLA
Date Prepared: September 22, 2021

ELEPHANT HILL SITE

Aerial Map

GLENN LUKOS ASSOCIATES

Exhibit 3

X:\00 - 0362 ONLY\0318-52ELPH\318-52GIS\318-52_Aerial.mxd



Photograph 1. View of depression on December 22, 2021. The site visit was conducted seven days following a 1.5-inch rainfall event.



Photograph 2. View of depression on December 31, 2021. The site visit was conducted within seven days of rainfall events combining for 6.5 inches of rainfall. The soils in the bottom of the depression were damp, but there was no inundation.

GLENN LUKOS ASSOCIATES

Exhibit 4

ELEPHANT HILL SITE

Site Photographs

Appendix G:
Arborist Report - Elephant Hill Project, July 2022 (Dudek)

Arborist Report

Elephant Hill Project

JULY 2022

Prepared for:

CITY OF POMONA
505 South Garey Avenue
Pomona, California 91766
Contact: Alex Jimenez

Prepared by:

DUDEK

38 North Marengo Avenue
Pasadena, California 91101
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ISA Certified Arborist

Printed on 30% post-consumer recycled material.

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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
City	City of Pomona
ISA	International Society of Arboriculture
project	Elephant Hill Project

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1 Introduction

This report summarizes Dudek's evaluation and analysis of tree resources within the tree survey area at the proposed Elephant Hill Project (project) site, located at 2889 W. Mission Boulevard in the City of Pomona, California. The site is generally located east of State Route 57, south of Interstate 10, and west of Highway 71 (see Figure 1, Regional Map, and Figure 2, Vicinity Map).

The field inventory and assessments of the survey area's trees (development footprint) were conducted on May 24, 2022. The focus of Dudek's field evaluations was to identify and inventory all on-site trees that are subject to regulation by the City of Pomona Municipal Code that could be affected by the proposed development per the site plan (see Figure 3, Site Plan). This report includes a discussion of tree inventory, evaluation and analysis methods, a summary of findings, identification of anticipated impacts, and tree protection and tree impact mitigation recommendations consistent with the City of Pomona Municipal Code and the tree removal permit process specified therein.

The City of Pomona (City) requires a major oak tree permit for the removal of oak trees and a minor oak tree permit for the pruning of any oak tree, which is defined as follows:

- **Oak Trees:** Oak trees of all species that have a diameter greater than 8 inches as measured 4.5 feet above the mean natural grade, are located outside of designated Historic Districts and Historic Landmarks, and have not been designated as Specimen Trees. Such oak trees may be located on either public or private property.

The analysis of potential tree impacts in this report takes into account the requirements outlined in the appropriate sections of the City of Pomona Municipal Code (Section 5809.23 – Oak tree preservation). The proposed project would involve removal of protected oak trees and would result in encroachment into the protected zone (2 feet of the tree's drip line) of oak trees to facilitate site development. Section 4 of this report recommends mitigation measures for anticipated tree removal to mitigate impacts from construction encroachment into the protected zone of regulated trees that would result from the proposed project. The provided measures are consistent with the provisions of the City of Pomona Municipal Code.

1.1 Summary

The field survey recorded 12 protected oak trees within the survey area, 11 of which are subject to regulation under the City of Pomona's Oak Tree Preservation Ordinance. The inventoried tree locations are depicted in Appendix A. The proposed project tree impacts are depicted in Appendix B.

Based on an evaluation of the most current Elephant Hill site plan (dated May 2022), the project disturbance area is focused on undeveloped portions of the project site. Construction of the proposed project is expected to require removal of up to 11 protected oak trees and one non-protected oak tree.

The City's Oak Tree Preservation Ordinance calls for one 24-inch box oak tree to be planted for each protected oak tree approved for removal. The tree replacement recommendations contained herein are based on the standards set forth in the City's Oak Tree Protection Ordinance. Section 4 of this report provides construction-related tree protection recommendations, and recommendations for long-term maintenance and care for trees that will be retained on site.

Per the City's Oak Tree Protection Ordinance, Dudek recommends planting 11 oak trees on site to mitigate for the anticipated removal of 11 protected oak trees. Species composition of the planted trees should match the species removed at a ratio of one 24- inch box tree for each tree removed, consistent with the City's Municipal Code. Furthermore, based on the City's Oak Tree Protection Ordinance and the number of proposed oak tree removal, the applicant will be required to apply for a Major Oak Tree Permit (Sec. .5809-23 – Oak Preservation).

1.2 Assignment

Dudek's International Society of Arboriculture (ISA) Certified Arborists performed the following tasks:

- Assessed and inventoried all regulated oak trees with protected zones within the survey area (based on project site plan) and documented species, general health, general structural condition, size, appearance, and presence of pests.
- Mapped the location of regulated oak on surveyed site base data and used GPS technology, as necessary, to develop a tree location exhibit and for planning reference.
- Prepared a tree information matrix that details the attributes of each regulated oak tree.
- Analyzed tree attribute data and coordinated with the project design team to promote tree retention on site, to the maximum extent practicable.
- Evaluated tree impacts based on the project site plans (dated May 2022).
- Prepared this report to document the results of field surveys and impact analyses, and provide recommendations for tree protection and impact mitigation measures in accordance with the provisions of the City of Pomona Municipal Code and Oak Tree Preservation Guidelines.

1.3 Project Description

Project development would be focused within the 52.58-acre southwestern area of the site (development area) (see Figure 3), which is designated as Urban Neighborhood and Open Space and zoned Planned Residential Development, Open Space with a State Bill 330 overlay. The development area would include residences, recreational areas, infrastructure, graded areas, and brush management areas. Biological habitat mitigation is expected to occur within the northern proposed open space area of the site and would include 4.95 acres of coastal sage scrub restoration activities and 3.3 acres of habitat preserve areas.

The proposed 15.23-acre residential component would include 228 residential dwelling units, with 68 single-family units and 160 multi-family units. The proposed multi-family residential units would be composed of 94 two-story duplexes and 66 three-story townhomes. The overall gross density would be 14.97 dwelling units per acre. The supporting recreational amenities would include a 0.75-acre central community area with a pool, multi-purpose room, various courtyard and event areas, restrooms, a dining and sun deck area, a cabana terrace, and an event lawn area. In addition, the project would include a trail with outlooks along the western perimeter of the development area. The project would include a series of internal private streets that would connect to the public street system at Sorrento Drive and Mission Boulevard, both located south of the development area. On-site parking would total 666 parking spaces and would include surface head-in parking, garage parking, and on-street parking. On-site utilities would include stormwater, water, sewer, electrical, and other dry utilities, to be located within the development area. In addition, off-site utility connections would be required within the nearby Mission Boulevard

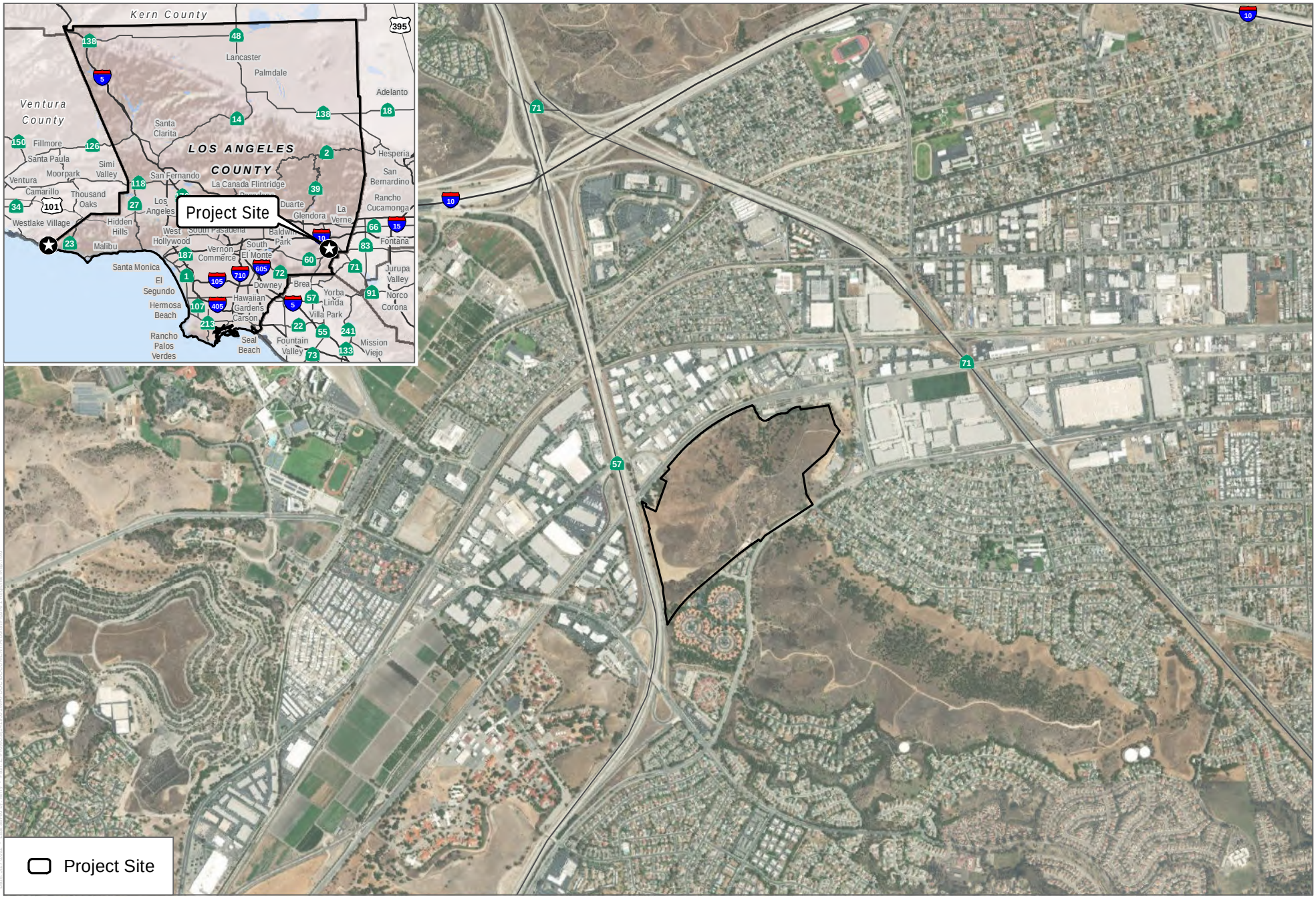
and Sorrento Drive, as well as an off-site sewer connection to the Humane Society property, located southeast of the project site.

The project would involve grading 35.98 acres. Grading would involve 1,111,998 cubic yards of cut and 1,215,939 cubic yards of fill. The project proposes to cut into the hill area and use that material to create terraces at the base of the hillside. Excess fill material would be exported to a nearby landfill or construction site in need of fill. Blasting would be required to cut into the hillside. Grading would be completed within one phase and is expected to begin in spring 2024. Terraces would be retained by a mechanically stabilized earth retaining wall. The retaining wall would be constructed of precast concrete panels, and would measure 22 to 25 feet in height. Equipment and material staging would be limited to the proposed 35.98 development area. Construction activities would be phased over approximately 4 years.

1.4 Location/Setting

The 120.6-acre project site is located at Elephant Hill, a largely undeveloped foothill within the City of Pomona (see Figure 1). Specifically, the project site is located directly east of State Route 57, south of the Union Pacific Railroad tracks right-of-way, north of Mission Boulevard, and approximately 370 feet west of Humane Way (see Figure 2). The project site consists of three parcels (Assessor's Parcel Numbers 8707-020-001, 8707-020-008, and 8708- 021-058). The project site is designated by the General Plan as Open Space and Urban Neighborhood (City of Pomona 2014). The project site in within the SB330 Overlay; the northern portion of the project site is zoned as Open Space (O) and the southern portion of the site is zoned as Planned Residential Development (PRD). The project site is primarily undeveloped, but is surrounded by residential uses to the south and southwest; industrial and commercial uses to the west past State Route 57; public facilities to the southeast; and the Union Pacific Railroad right-of-way, Spadra Cemetery, and the Pomona Water Reclamation Plant to the north. Development farther north of the Southern Pacific Railroad tracks consists largely of commercial uses.

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SOURCE: ESRI IMAGERY 2021

DUDEK

0 1,000 2,000 Feet

FIGURE 1

Regional Map

Elephant Hill Arborist Report

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SOURCE: NAIP IMAGERY 2020

DUDEK

0 300 600 Feet

FIGURE 2

Vicinity Map

Elephant Hill Arborist Report

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SOURCE: NAIP IMAGERY 2020

DUDEK

0 300 600 Feet

FIGURE 3

Site Plan

Elephant Hill Arborist Report

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2 Methods

The following sections describe the methods used by Dudek's ISA Certified Arborists to inventory and evaluate trees in the tree survey area.

2.1 Field Tree Inventory and Evaluation

Dudek's ISA Certified Arborists Katrina Burritt (#WE-10771A) and Aida Castro (#WE-13396A) conducted the following tree inventory and evaluation:

- May 24, 2022 – Tree inventory and evaluation to document tree locations and attribute information for all oak trees within the survey area.

The arborists examined oak trees that would be disturbed by the proposed development and mapped protection zones. Tree attribute data collected during the field survey included species, trunk diameter, tree height, canopy spread, general health condition, structural condition, and presences of observable pests or other tree maladies. Trunk diameters were measured using a diameter tape, which provides adjusted numbers for diameter measurements when wrapping the tape around the circumference of a tree trunk. Diameter measurements were collected using standard protocol described by the Council of Tree and Landscape Appraisers in its Guide for Plant Appraisal (ISA 2000), published by the ISA, and in accordance with guidance given in the City's Tree Protection and Preservation Program and Municipal Code.

Trunk diameter measurements were taken at 4.5 feet above the ground along the trunk axis, with a few common exceptions. In cases where the trunk of a tree split into multiple stems at approximately 4.5 feet above the ground, the measurement was made at the location that best represented the trunk's diameter. Tree height measurements were estimated by the arborist, and tree canopy radius measurements were documented by "pacing-off" the measurement based on the arborist's knowledge of their stride length or visually estimating the canopy width.

Pursuant to the Guide for Plant Appraisal (ISA 2000), tree health and structure were evaluated with respect to five distinct tree components: roots, trunk, scaffold branches, small branches, and foliage. Health and structure were graded as *good*, *good/fair*, *fair*, *fair/poor*, or *poor*. Good condition trees exhibit acceptable vigor, healthy foliage, minor if any structural issues, and no apparent maladies. Fair condition trees are typical, with few maladies, moderate structural issues, and may exhibit less vigor in foliage and new growth. Trees assigned a poor condition rating exhibit significant health or structural problems or damage. Representative photographs of the tree survey area trees are provided in Appendix C, Tree Survey Area Representative Photographs.

The location of each individual regulated tree was mapped using a Trimble Pathfinder Pro XH GPS receiver. The Pathfinder has a horizontal accuracy of 1-meter (1-sigma) using differential code positioning techniques. Because tree canopies can sometimes cause loss of satellite lock by blocking the line-of-sight to satellites, an electronic compass and reflectorless electronic distance measuring (EDM) device was also used in mapping tree locations. The EDM/compass combination operates in concert with the Pathfinder system to position offsets, and offset information is automatically attached to the GPS position data string. Dudek used the data collected to create a master tree inventory data set, inclusive of all regulated trees, within the tree survey area. It should be noted, that due to the location of several trees on steep slopes, the location and recorded tree information was based on aerial imagery and ocular estimations.

Individual oak tree locations are presented in Appendix A, Tree Location Exhibit, and individual tree attribute data and impact determination is presented in Appendices B, Tree Impact Exhibit, and Appendix D, Tree Information Matrix. Additionally, tree survey area representative photographs were taken in the field and are presented in Appendix C.

2.2 Tree Impact Analysis

Following data collection, processing, and analysis efforts, an impact determination was made for each tree based on proximity to the proposed disturbance area. Impact determinations used in this report are as follows:

- Not Impacted (tree not affected by project)
- Removal (tree to be removed)
- Encroachment (project disturbance would occur within the protected zone of the tree)

A summary of project-related tree impacts is presented in Section 3.2, Project-Related Impacts, and impact determination status for each tree recorded in the tree survey area is provided in Appendix D.

2.3 Scope of Work Limitations

This report presents tree information as observed in the field. No root crown excavations or investigations, internal probing, or aerial canopy inspections were performed during the tree assessment. Therefore, the presence or absence of internal decay or other hidden or inaccessible inferiorities in individual trees could not be confirmed.

3 Findings/Results

3.1 Inventory Summary – Protected Trees

Dudek's arborist recorded 12 oak trees (Coast live oak) with protected zones within 50 feet of improvements proposed on the project site plan. Of the 12 oak trees found within the survey area only 11 oak trees (see Table 1) meet the criteria (greater than 8- inches at 4.5 feet above ground level) for regulation under the City's Oak Tree Protection Ordinance. None of the protected oak trees are located within the Historic District and none are considered specimen trees per City Council Resolutions No. 62-65 and No. 73-68. Table 1 provides a summary of the species and regulatory status of the trees mapped within the tree survey area.

Table 1. Summary of Existing Trees

Scientific Name	Common Name	Tree Quantities	
		Oak Trees	Total (Regulated Trees)
Quercus agrifolia	Coast live oak	12	11

As presented in Appendix D, 12 (100%) of the trees exhibit good (Rating B) health. Eleven (91.67%) trees have good (Rating B) structure, and 1 (8.33%) tree exhibits fair (Rating C) structure.

Trees in the tree survey area vary in size and stature according to species. Trunk diameters of the coast live oak trees within the tree survey area range from 12 inches to 32 inches. Tree heights vary from 15 feet to 40 feet. Tree canopy extents range from 15 feet to 50 feet at their widest location. Individual attributes of each tree are presented in Appendix D, Tree Information Matrix.

3.2 Project-Related Impacts

There is wide variation in tolerance to construction impacts among tree species, and the response of an individual tree to impacts also varies with age and condition. Impacts assessed for this project include trees with protected zones within the proposed improvement and disturbance areas as defined in the project site plan (dated May 2022). The impact discussion in this section identifies all impacts anticipated to result to regulated trees based on an evaluation of tree locations compared with the project site plan. Much of the survey area will be graded to accommodate construction of the project and necessary infrastructure (e.g., utilities, access roads, fire lanes). Trees identified for retention and removal are graphically presented in the Tree Impact Exhibit (Appendix B).

Based on grading and development plans for the proposed project, it is estimated that 12 coast live oak trees will be removed (11 protected and 1 non-protected). Due to the anticipated level of grading required on the project site, the removal of the site's oak trees will not result in soil erosion through the diversion or increased flow of surface waters which cannot be satisfactorily mitigated, as the site will be graded and landscaped. Furthermore, based on the provided site plans the proposed removal of the oak trees is necessary as continued existence at the present location impedes the planned improvement or proposed use of the subject property to such an extent that: alternative development plans cannot achieve the same permitted density, or the cost of such alternative would be prohibitive. It is assumed that the oak trees would be removed during the grading process using typical tree removal methods (i.e. chainsaw). Table 2 summarizes impact determinations for oak trees within the tree survey area that are subject to regulation under the City's Oak Tree Preservation Ordinance Representative photographs of the site's trees can be found in Appendix C, Tree Survey Area Representative Photographs.

Table 2. Summary of Protected Tree Impact Determinations

Species	Impact Determination			Total
	Removal	Encroachment	No Impact	
Coast live oak	12 (11)	0	0	12
Total All Regulated Trees	**11**	**0**	**0**	**11**

( ) Number of Protected Oak Trees

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4 Mitigation and Management Recommendations

4.1 Mitigation Recommendations

Removals

The City's Municipal Code mitigation requirements for tree removals associated with development projects are summarized as follows (Section 5809.23 – Oak tree preservation):

- One 24-inch box oak tree to be planted for each oak tree removed

The proposed site plan would require removal of 11 protected oak trees. Consistent with the City's requirements, the mitigation as shown in Table 3 is recommended for protected tree removals associated with the project.

Table 3. Mitigation Recommendations for Proposed Tree Removals

Species	Expected Removal	Recommended Mitigation Plantings
		24-Inch Box Trees
Protected oaks	11	11

Retained Trees

A long-term maintenance program is required by the City's Municipal Code to mitigate for encroachments into the protected zone of regulated trees that would occur with the proposed project and to maintain the health of the trees retained on the project site. None of the site's protected oak trees will be preserved, however, should any trees be retained, appendix E provides tree protection recommendations to mitigate impacts from construction encroachment into the protected zone of regulated trees that would result from the proposed project. The measures included in Appendix E are consistent with the provisions of the City's Municipal Code and would help minimize impacts to preserved and encroached trees. Appendix E includes measures to implement prior to, during, and following construction. This includes measures such as exclusion fencing and worker training to avoid direct impacts to trees, and measures such as irrigation and monthly inspections by an arborist to promote the long-term health of retained trees. Arborist monitoring during construction when encroachments into tree protection zones would occur is also recommended to minimize root disturbance and determine the best course of actions for root pruning, supplemental irrigation, branch trimming, or other measures that would minimize impacts from ground-disturbing and other potential impactful activities. Please refer to Appendix E for detailed recommendations for trees retained on the project site.

4.2 Tree Permits

The project applicant will need to submit a Major Oak Tree Permit to the City for the removal of the 11 protected oak trees. The Major Oak Tree Permit will be subject to review by the planning commission. A copy of this report

and the final project site plan should accompany the application. A Major Oak Tree Permit is required for removal of oak trees and a minor oak tree permit is required for pruning.

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5 Disclosure

This arborist report provides conclusions and recommendations based only on a visual examination of the trees within the tree survey area by ISA Certified Arborists and reasonable reliance on the completeness and accuracy of the information provided to the arborists. The examination did not include subterranean or internal examination of the trees.

Arborists are tree specialists who use their education, knowledge, training, and experience to examine trees, recommend measures to enhance the beauty and health of trees, and attempt to reduce the risk of living near them. Although trees provide many benefits to those who live near them, they also include inherent risks from breakage or failure that can be minimized but not eliminated.

Arborists cannot detect every condition that could possibly lead to the failure of a tree. Trees are living organisms subject to attack by disease, insects, fungi, weather, and other forces of nature, and conditions that lead to failure are often hidden within trees and belowground. There are some inherent risks with trees that cannot be predicted with any degree of certainty, even by a skilled and experienced arborist. Arborists cannot predict acts of nature, including, without limitation, storms of sufficient strength, which can cause an apparently healthy tree to fail. Additionally, arborists cannot guarantee that a tree will be healthy or safe under all circumstances or for any specific period of time. A tree's condition could change over a short or long period of time due to climatic, cultural, or environmental conditions. Further, there is no guarantee or certainty that recommendations or efforts to correct unsafe conditions will prevent future breakage or failure of a tree.

To live or work near trees is to accept some degree of risk. Neither the author of this arborist report nor Dudek assume any responsibility for or will be liable for any claims, losses, or damages for damage to any tree, death or injury to any person, or any loss of or damage to any personal or real property.

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6 References

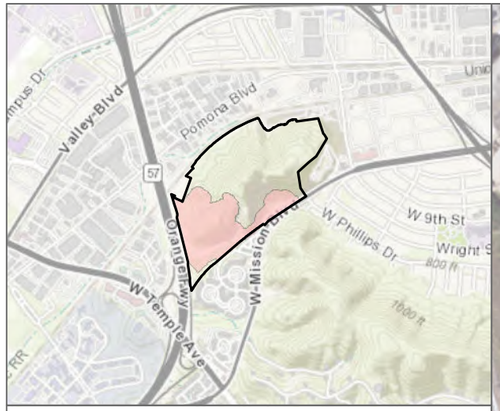
City of Pomona. n.d. *Oak tree preservation*. Accessed July 2022. https://library.municode.com/ca/pomona/codes/zoning?nodeId=APXIZOOR_PTIII_S.5809-23OATRPR.

City of Pomona. 2014. *Pomona General Plan*. Adopted March 2014. https://www.pomonaca.gov/home/showpublisheddocument/2402/637521057423830000.

ISA (International Society of Arboriculture). 2000. *Guide for Plant Appraisal* (9th Edition).

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Appendix A
Tree Location Exhibit



Project Site

Species

- *Quercus agrifolia*, Coast live oak

SOURCE: NAIP IMAGERY 2020

DUDEK

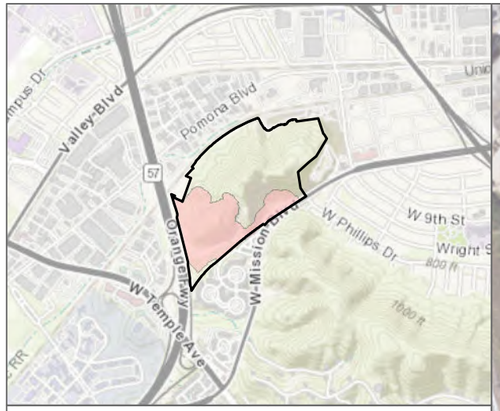
0 100 200 Feet

APPENDIX A

Tree Locations

Elephant Hill Arborist Report

Appendix B
Tree Impact Exhibit



Project Site

Impact Limits

Disposition

Direct

SOURCE: NAIP IMAGERY 2020

DUDEK

0 100 200 Feet

APPENDIX B

Tree Impacts

Elephant Hill Arborist Report

Appendix C
Tree Survey Area Representative Photographs



Photograph 1 – View of steep terrain and general tree locations.



Photograph 2 – View of steep terrain and general tree locations.



Photograph 3 – View of steep terrain and general tree locations.



Photograph 4 – View of steep terrain and general tree locations.

Appendix D
Tree Information Matrix

Appendix D - Tree information Matrix														
Tree No.	Botanical Name	Common Name	Stems	Individual Stem Diameters (in.)						Height (ft.)	Canopy width (ft.)	Health	Structure	Disposition
				D1	D2	D3	D4	D5	D6					
9	*Quercus agrifolia*	Coast live oak	1	13	0	0	0	0	0	20	20	good	good	Direct
10	*Quercus agrifolia*	Coast live oak	2	6	10	0	0	0	0	15	15	good	good	Direct
11	*Quercus agrifolia*	Coast live oak	1	25	0	0	0	0	0	20	25	good	good	Direct
12	*Quercus agrifolia*	Coast live oak	1	23	0	0	0	0	0	30	50	good	good	Direct
13	*Quercus agrifolia*	Coast live oak	1	22	0	0	0	0	0	25	20	good	good	Direct
14	*Quercus agrifolia*	Coast live oak	1	21	0	0	0	0	0	25	35	good	good	Direct
15	*Quercus agrifolia*	Coast live oak	1	25	0	0	0	0	0	40	45	good	good	Direct
16	*Quercus agrifolia*	Coast live oak	1	25	0	0	0	0	0	18	25	good	good	Direct
18	*Quercus agrifolia*	Coast live oak	1	12	0	0	0	0	0	25	20	good	good	Direct
25	*Quercus agrifolia*	Coast live oak	1	25	0	0	0	0	0	20	25	good	fair	Direct
26	*Quercus agrifolia*	Coast live oak	1	32	0	0	0	0	0	25	45	good	good	Direct
27	*Quercus agrifolia*	Coast live oak	1	25	0	0	0	0	0	25	40	good	good	Direct

Appendix E
Tree Protection Measures

APPENDIX E
Tree Protection Measures

The following sections are included as general guidelines for tree protection from construction impacts. The measures presented should be monitored by arborists and enforced by contractors and developers for maximum benefit to the trees.

TREE PROTECTION MEASURES PRIOR TO CONSTRUCTION

Prior to any construction activity (drainage, demolition, material removal or delivery), oak and landmark trees with canopies that fall within 30 feet of construction activity shall be protected by fencing and signage. All contractors shall be made aware of the tree protection measures. A project arborist shall be assigned to monitor tree health and construction activity near retained trees on site. The project arborist shall be an International Society of Arboriculture (ISA) Certified Arborist.

Fencing and Signage: A 6-foot high, chain link fence with tree protection signs shall be erected around all trees (or tree groups) with canopies that fall within 30 feet of construction activity. The protective fence should be installed at a distance from the trunk that is equal to the dripline radius plus 5 feet (protected tree zone). For any trees that would be encroached upon by construction activities, fencing shall be placed as far away from trunk of the tree as possible while still allowing the required construction activities to proceed. This fencing will delineate the tree protection zone and prevent unwanted activity in and around the trees in order to reduce soil compaction in the root zones of the trees and other damage from heavy equipment. Fences are to be mounted on two-inch diameter galvanized iron posts, driven into the ground to a depth of at least 2-feet at no more than 10-foot spacing. In areas where fencing is located on paving or concrete that will not be demolished, then the posts may be supported by an appropriate grade level concrete base. Tree protection signs should be attached to every fourth post. The contractor shall maintain the fence to keep it upright, taut, and aligned at all times. Fencing shall be removed only after all construction activities are complete.

Pre-Construction Meeting: A pre-construction meeting shall be held between all contractors and the arborist. The arborist will instruct the contractors on tree protection practices and answer any questions. All equipment operators and spotters, assistants, or those directing operators from the ground, shall provide written acknowledgement of their receiving tree protection training. This training shall include information on the location and marking of protected trees, the necessity of preventing damage, and the discussion of work practices that will accomplish such.

Protection and Maintenance during Construction

Once construction activities have begun the following measures shall be adhered to:

Avoidance: Signs, ropes, cables, or any other items shall not be attached to any tree.

Equipment Operation and Storage: Operating heavy machinery around the root zones of trees will increase soil compaction, which decreases soil aeration and subsequently reduces water penetration in the soil. All heavy equipment and vehicles shall stay out of the fenced tree protection zone, unless where specifically approved in writing by the City Arborist and under the supervision of an ISA Certified Arborist.

Storage and Disposal: Do not store or discard any supply or material, including paint, lumber, concrete overflow, etc. within the fenced tree protection zone. Remove all foreign debris within the fenced tree protection zone; it is important to leave the duff, mulch, chips, and leaves around the retained trees for water retention and nutrients. Avoid draining or leakage of equipment fluids near retained trees. Fluids such as: gasoline, diesel, oils, hydraulics, brake and transmission fluids, paint, paint thinners, and glycol (anti-freeze) should be disposed of properly. Keep equipment parked outside of the fenced tree protection zone of retained trees to avoid the possibility of leakage of equipment fluids into the soil. The effect of toxic equipment fluids on the retained trees could lead to decline and death.

Moving Construction Materials: Care will be taken when moving equipment or supplies near the trees, especially overhead. Avoid damaging the tree(s) when transporting or moving construction materials and working around retained trees (even outside of the fenced tree protection zone). Above ground tree parts that could be damaged (e.g., low limbs, trunks) should be flagged with red ribbon. If contact with the tree crown is unavoidable, prune the conflicting branch(es) using ISA or ANSI A300 standards.

Grade Changes: Grade changes, including adding fill, are not permitted within the tree protection zone, without special written authorization and under supervision by a Certified Arborist. Lowering the grade within this area will necessitate cutting main support and feeder roots, jeopardizing the health and structural integrity of the tree(s). Adding soil, even temporarily, on top of the existing grade will compact the soil further, and decrease both water and air availability to the trees' roots.

Trenching: Unless a Tree Permit has been issued for trenching activity within the fenced tree protection zone, all trenching shall be outside of the fenced tree protection zone. Roots primarily extend in a horizontal direction forming a support base to the tree similar to the base of a wineglass. Where trenching is necessary in areas that contain tree roots, prune the roots using a Dosko root pruner or equivalent. All cuts should be clean and sharp, to minimize ripping, tearing, and fracturing of the root system. The trench should be made no deeper than necessary.

Irrigation: Trees that have been substantially root pruned (30% or more of their root zone) will require irrigation for the first twelve months. The first irrigation should be within 48 hours of root pruning. They should be deep watered every two to four weeks during the summer and once a month during the winter (adjust accordingly with rainfall). One irrigation cycle should thoroughly soak the root zones of the trees to a depth of 3 feet. The soil should dry out between watering; avoid keeping a consistently wet soil. Designate one person to be responsible for irrigating (deep watering) the trees. Check soil moisture with a soil probe before irrigating. Irrigation is best accomplished by installing a temporary above ground micro-spray system that will distribute water slowly (to avoid runoff) and evenly throughout the fenced tree protection zone ***but never soaking the area located within 6- feet of the tree trunk***.

Canopy Pruning: Do not prune any of the trees until all construction is completed. This will help protect the tree canopies from damage. All pruning shall be completed under the direction of an ISA Certified Arborist and using ISA guidelines. Only dead wood shall be removed from tree canopies.

Washing: Periodic washing of the foliage is recommended during construction but no more than once every two weeks. Washing should include the upper and lower leaf surfaces and the tree bark. This should continue beyond the construction period at a less frequent rate with a high-powered hose only in the early morning hours. Washing will help control dirt/dust buildup that can lead to mite and insect infestations.

Inspection: An ISA Certified Arborist shall inspect the trees on at least a monthly basis for the duration of construction activity. A summary report documenting observations and management recommendations shall be submitted to the owner following each inspection. Photographs of representative trees are to be included in each report.

MAINTENANCE AFTER CONSTRUCTION

Once construction is complete the tree protection fencing may be removed and the following measures performed to sustain and enhance the vigor of the preserved trees.

Mulch: Provide a 4-inch mulch layer under the canopy of trees. Mulch should include clean, organic mulch that will provide long-term soil conditioning, soil moisture retention, and soil temperature control.

Pruning: Pruning should *only* be done to maintain clearance and remove broken, dead or diseased branches. Pruning shall only take place following a recommendation by an ISA Certified Arborist and performed under the supervision of an ISA Certified Arborist. No more than 15% of the canopy shall be removed at any one time. All pruning shall conform to ISA or ANSI A300 standards.

Watering: Retained trees on site shall be watered as they were prior to the commencement of construction activity. Supplemental irrigation may be necessary for twelve months following substantial root pruning.

Watering Adjacent Plant Material: All plants near the trees shall be compatible with water requirements of said trees. Watering regime included in the site's landscape plan shall be developed with consideration for the water needs of retained trees.

Spraying: If the trees are maintained in a healthy state, regular spraying for insect or disease control should not be necessary. If a problem does develop, an ISA Certified Arborist should be consulted; the trees may require application of insecticides to prevent the intrusion of bark-boring beetles and other invading pests. All chemical spraying should be performed by a licensed applicator under the direction of a licensed pest control advisor.

Monitoring: All trees within 30 feet of construction activity shall be monitored by an ISA Certified Arborist for the first two years after construction completion. An annual monitoring report shall be submitted to the City Arborist. Each report shall summarize the inspection efforts, document observations and management actions taken, include photographs of each tree, and compare post-construction tree conditions with the original, pre-construction baseline condition. If any retained trees die within this inspection period, they shall be replaced at a ratio approved by the City.