Shady View Residential Project

Biological Technical Report

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ACRONYMS AND ABBREVIATIONS

AMSL	Above Mean Sea Level
BMPs	Best Management Practices
BUOW	Burrowing Owl
CAGN	Coastal California Gnatcatcher
Cal-IPC	California Invasive Pest Council
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFG	California Fish and Game
City	City of Chino Hills
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWA	Clean Water Act
dB(A)	A-Weighted Decibel
DBH	diameter at breast height
EPA	Environmental Protection Agency
FESA	Federal Endangered Species Act
HELIX	HELIX Environmental Planning, Inc.
ISA	International Society of Arboriculture
LBVI	Least Bell's Vireo
MBTA	Migratory Bird Treaty Act
MCV	A Manual of California Vegetation
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
OHWM	Ordinary High Water Mark
project	Shady View Residential Project

ACRONYMS AND ABBREVIATIONS (cont.)

RPW	Relatively Permanent Water Body
RWQCB	Regional Water Quality Control Board
S	State
SFP	State Fully Protected
SR	State Route
SSC	Species of Special Concern
TNW	Traditional Navigable Waters
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

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EXECUTIVE SUMMARY

HELIX Environmental Planning, Inc. (HELIX) completed this biological technical report for the Shady View Residential Project (Tentative Tract No. 82126; project) located in the City of Chino Hills (City), San Bernardino County, California. The project proposes the development of a single-family residential subdivision. The proposed subdivision would consist of 159 single-family residential homes, a community recreation center, private interior streets, debris basins, utility infrastructure, and other associated improvements. Additionally, the project includes approximately 72 acres of homeowners' association-maintained open space and the relocation of an oil storage facility within the project area. The project also includes approximately 0.84 acre of off-site areas located adjacent to the project boundary to accommodate road improvements and cleanup from past oil production-related contamination. For the purpose of this report, the project site and off-site areas are collectively referred to as the study area.

The approximately 130-acre study area is located in the eastern portion of the Chino Hills. Topographically, the study area consists of a large hillside in the southwestern portion of the site and a series of low rolling canyons and ridges in the northeastern portion of the site. Three drainage complexes (Drainage Complexes A, B, and C) were delineated within the study area. Approximately half of the study area in the western and southern portions burned in the 2020 Blue Ridge Wildfire. The remaining half of the study area consists of a mixture of native habitat, non-native/disturbed habitat, and existing developed areas. HELIX conducted a general biological survey (including vegetation mapping and a general habitat assessment), a jurisdictional assessment, and a burrowing owl (*Athene cunicularia*; BUOW) habitat assessment in December 2020. Focused surveys for coastal California gnatcatcher (*Polioptila californica californica*; CAGN), least Bell's vireo (*Vireo bellii pusillus*; LBVI), and rare plant species were completed in the spring and summer of 2021.

Nine vegetation communities were mapped on the study area. Native communities totaled 27.17 acres, which included California sagebrush scrub (14.94 acres), disturbed-California sagebrush scrub (11.88 acres), coast live oak woodland (0.21 acre), and mule fat thickets (0.14 acre). The remainder of the study area (103.47 acres) supports existing developed areas, disturbed habitat, pepper tree groves, and upland mustards. None of these communities are considered sensitive pursuant to the California Department of Fish and Wildlife (CDFW). One rare plant species (intermediate mariposa lily [*Calochortus weedii* var. *intermedius*]) was detected during 2021 surveys. Four intermediate mariposa lilies (a California Rare Plant Rank 1B.2 species) were detected in the southwest corner of the study area. Eleven sensitive animal species were determined to have a potential to occur within the study area, including three with a low potential (long-eared owl [*Asio otus*], pocketed free-tailed bat [*Nyctinomops femorasaccus*], and western yellow bat [*Lasiurus xanthinus*]); six with a moderate potential (Southern California legless lizard [*Anniella stebbinsi*], red diamond rattlesnake [*Crotalus ruber*], grasshopper sparrow [*Ammodramus savannarum*], Swainson's hawk [*Buteo swainsoni*; foraging only], white-tailed kite [*Elanus leucurus*], and western mastiff bat [*Eumops perotis californicus*]); and two with high potential (coast horned lizard [*Phrynosoma blainvillii*] and golden eagle [*Aquila chrysaetos*]). In addition, BUOW is not expected to occur within the study area based on the results of a habitat assessment performed in 2020, and CAGN and LBVI were detected within the study area during the 2021 surveys. Based on the timing of the observations and the lack of high-quality nesting habitat on the study area, LBVI males detected during surveys were presumed to be transient and were not nesting on the study area. The three drainage complexes (Drainage Complexes A, B, and C) are presumed to support a total of 0.28 acre of U.S. Army Corps of Engineers (USACE)/Regional Water Quality Control Board (RWQCB)

jurisdictional waters of the U.S and 1.14 acres of CDFW jurisdictional streambed. The study area also supports trees that may qualify as City-protected trees, as defined by Chapter 16.90 of the City's Municipal Code.

The project proposes permanent impacts to 82.41 acres of the study area, including 25.98 acres of native-dominated habitat and 56.43 acres that comprise other areas with little to no native vegetation. The remaining 48.23 acres (37 percent) are designated by the project as open space. The project would permanently impact 0.21 acre of non-wetland USACE/RWQCB waters of the U.S. and 0.89 acre of CDFW jurisdictional streambed. Potential significant impacts were identified for sensitive bat species (pocketed free-tailed bat, western mastiff bat, and western yellow bat), coast horned lizard, BUOW (if detected during take avoidance surveys prior to construction), CAGN, jurisdictional resources, nesting bird species, and City-protected trees. The proposed project would avoid impacts to rare plant species, would not significantly impact regional wildlife corridors, and would not conflict with regional conservation plans.

Measures related to the following topics are proposed herein to fully mitigate potential impacts of the project: sensitive bat species (pocketed free-tailed bat, western mastiff bat, and western yellow bat), coast horned lizard, BUOW (if detected during take avoidance surveys prior to construction), CAGN, jurisdictional resources, nesting bird species, and City-protected trees. Successful implementation of these measures would mitigate potential impacts to below a level of significance.

1.0 INTRODUCTION

1.1 PURPOSE OF THE REPORT

This report provides the City of Chino Hills (City; California Environmental Quality Act [CEQA] lead agency), resource agencies, and the public with current biological data to satisfy the review of the proposed Shady View Residential Project (Tentative Tract No. 82126; project), located in the City of Chino Hills, San Bernardino County, California. The purpose of this report is to document the existing biological conditions on and in the immediate vicinity of the project and provide an analysis of potential impacts to sensitive biological resources with respect to local, state, and federal policy. This report provides the biological resources technical documentation necessary for project review under CEQA by the lead agency.

1.2 PROJECT LOCATION

The approximately 129.80-acre project site is generally located 2.5 miles to the north of the intersection of State Route (SR-) 91 and SR-71 in the City of Chino Hills (Figure 1, *Regional Location*). The study area is within Section 7 Township 3 South, Range 7 West of the Prado Dam, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 2, *USGS Topography*). Specifically, the study area is located to the south of the terminus of Shady View Drive and its intersection with Wrangler Road (Figure 3, *Aerial Photograph*). The study area is identified by Assessor's Parcel Number 1057-261-06.

The project also includes approximately 0.84 acre of off-site areas located adjacent to the project boundary to accommodate road improvements and cleanup from past oil production-related contamination (Figure 3). For the purpose of this report, the project site and off-site area are collectively referred to as the study area.

1.3 PROJECT DESCRIPTION

The project proposes the development of a single-family residential subdivision. The proposed subdivision would consist of 159 single-family residential homes, a community recreation center, private interior streets, debris basins, utility infrastructure, and other associated improvements (Figure 4, *Site Plan*). Additionally, the project includes approximately 72 acres of homeowners' association-maintained open space. Site work and grading are expected to occur west of the proposed residential development to allow for the stabilization of an existing earthquake fault and the relocation of existing oil storage tanks and existing oil transmission lines. The relocated aboveground oil storage tanks are proposed in the northwestern portion of the study area, near the western boundary and west of the proposed residential structures. The relocated pipelines would connect the new tanks with oil facilities to the west of the study area.

2.0 METHODS

Project evaluation included a review of project plans; a literature review of biological resources occurring on the study area and surrounding vicinity; a general biological survey, including vegetation mapping and a general habitat assessment; a burrowing owl (*Athene cunicularia*; BUOW) habitat assessment; focused surveys for rare plant species, coastal California gnatcatcher (*Polioptila californica*; CAGN), and least Bell's vireo (*Vireo bellii pusillus*; LBVI); and a jurisdictional delineation. The methods used to evaluate the biological resources present on the study area are discussed in this section.

2.1 NOMENCLATURE

Nomenclature for this report follows Baldwin et al. (2012) for plants. Plant communities were classified in accordance with the Manual of California Vegetation, Second Edition (MCV; Sawyer et al. 2009), with additional vegetation community and land use information taken from Oberbauer (1996). Animal nomenclature follows Emmel and Emmel (1973) for butterflies, the Center for North American Herpetology (Taggart 2016) for reptiles and amphibians, American Ornithological Society (2021) for birds, and Baker et al. (2003) for mammals. Rare plant and sensitive animal statuses are from the Inventory of Rare and Endangered Plants of California (California Native Plant Society [CNPS] 2022) and the California Natural Diversity Database (CNDDB; California Department of Fish and Wildlife [CDFW] 2022). Rare plant species' habitats and flowering periods are from the Jepson Manual (Baldwin et al. 2012), the Inventory of Rare and Endangered Plants of California (CNPS 2022), and the California Natural Diversity Database (CDFW 2022). Soil classifications were obtained from the Web Soil Survey (Natural Resources Conservation Service [NRCS] 2021).

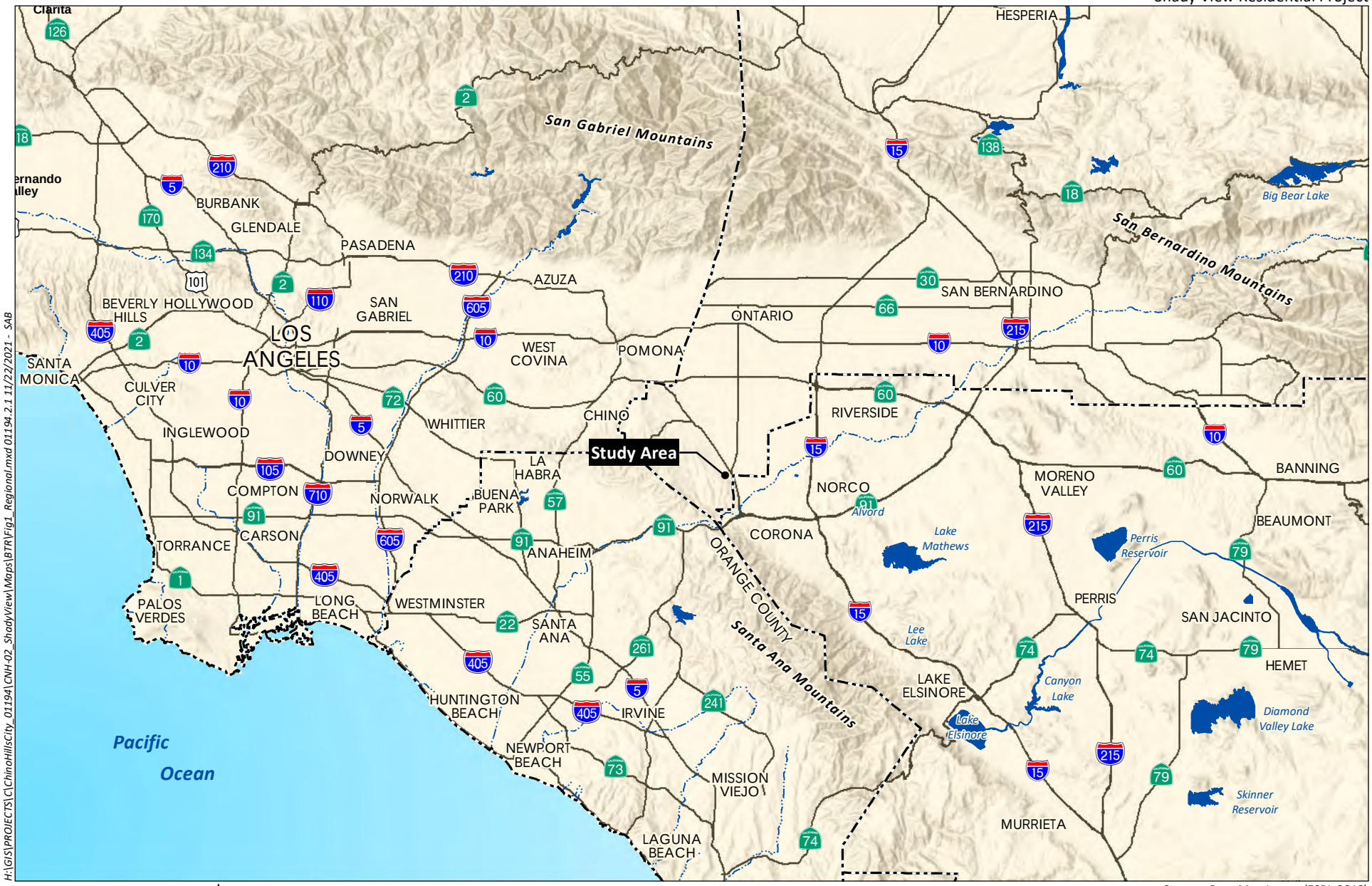
2.2 LITERATURE REVIEW

Prior to conducting the site visit, HELIX Environmental Planning, Inc. (HELIX) reviewed regional planning documents, Google Earth aerials (2021), Web Soil Survey (NRCS 2021), and sensitive species database records, including the Inventory of Rare and Endangered Plants of California (CNPS 2022), CNDDB (CDFW 2022), and critical habitat maps for endangered and threatened species (U.S. Fish and Wildlife Service [USFWS] 2021a; Figure 5, *Critical Habitat*). A two-quadrangle database search was conducted on CNDDB and CNPS, which included the following quadrangles: Prado Dam and Corona North.

2.3 FIELD SURVEYS

Field surveys were conducted to document the existing condition of the study area and surrounding lands. A general biological survey and habitat assessment were conducted in December 2020 to map existing vegetation communities and to determine habitat suitability for sensitive plant and animal species within the study area. The lists of plant and animal species observed and/or detected during the field surveys are provided as Appendix A, *Plant Species Observed*, and Appendix B, *Animal Species Observed and/or Detected*. Noted animal species were identified by direct observation, vocalizations, or the observance of scat, tracks, or other signs. However, the list of animal species identified is not necessarily a comprehensive account of all species that use the study area as species that are nocturnal, secretive, or seasonally restricted may not have been observed.

A BUOW habitat assessment was conducted in December 2020 and focused surveys for rare plant species, CAGN, and LBVI were conducted between May and July 2021. A jurisdictional assessment was



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Source: Base Map Layers (ESRI, 2013)

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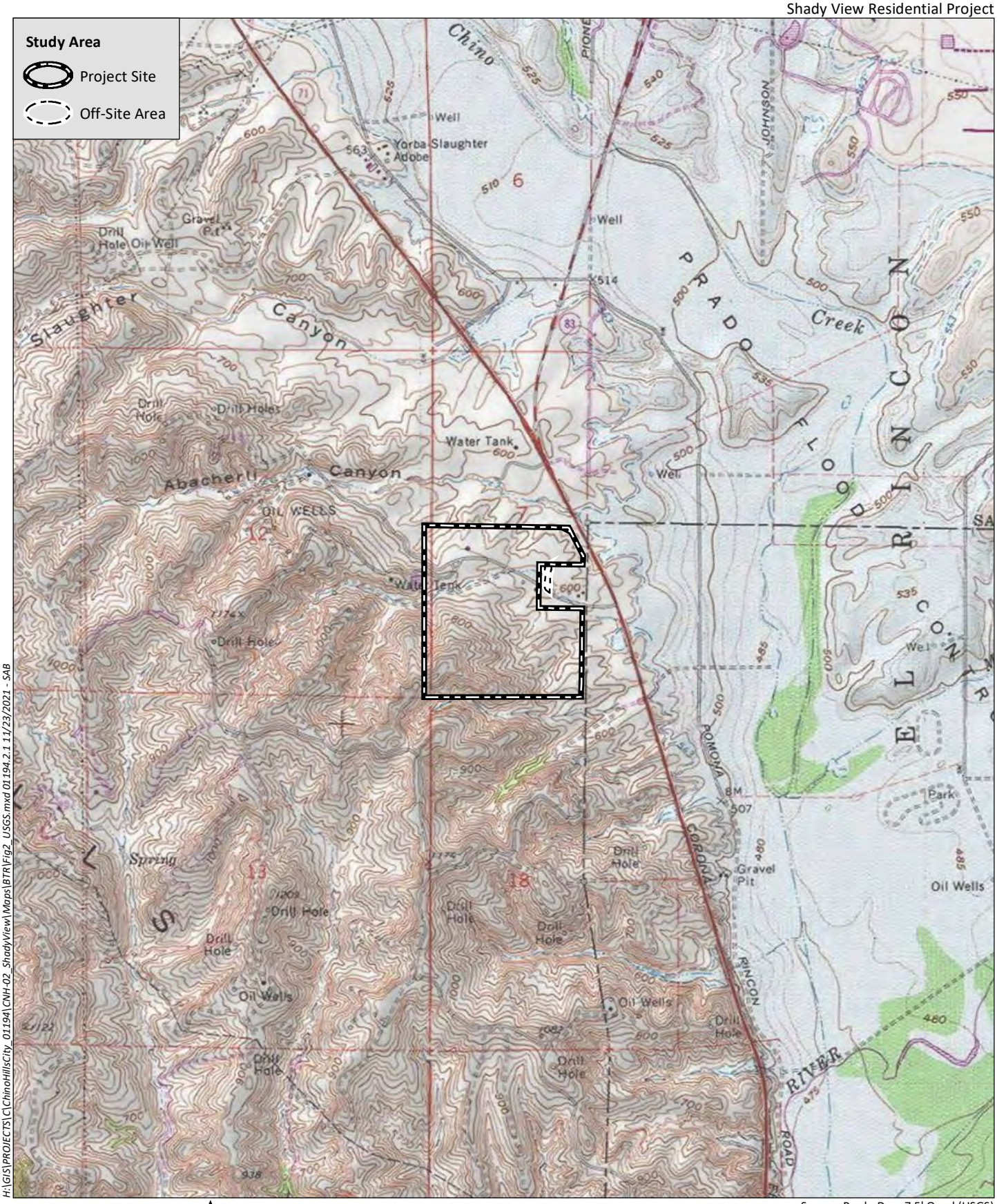
Regional Location

Figure 1



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Source: Prado Dam 7.5' Quad (USGS)

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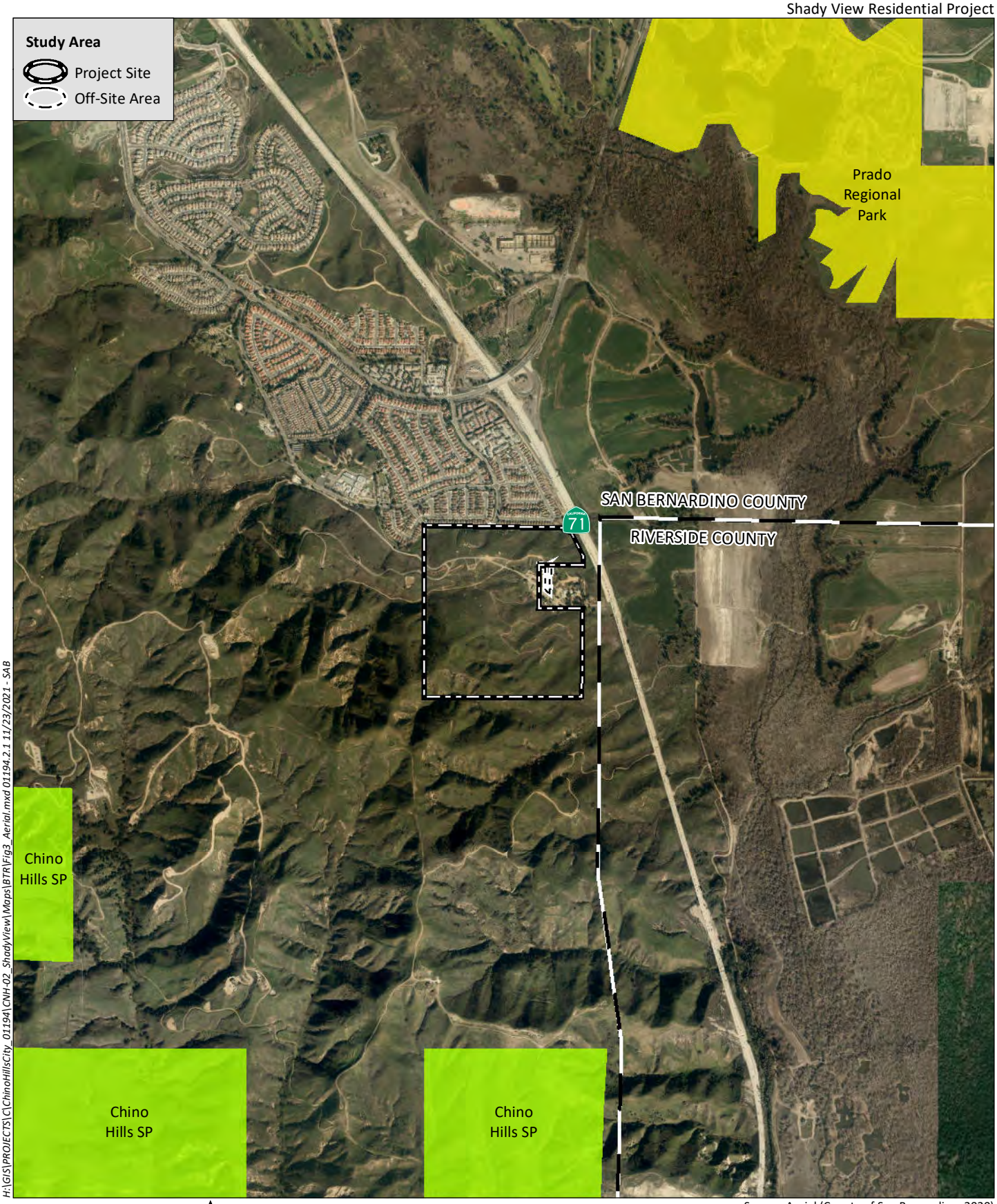
USGS Topography

Figure 2



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Source: Aerial (County of San Bernardino, 2020)

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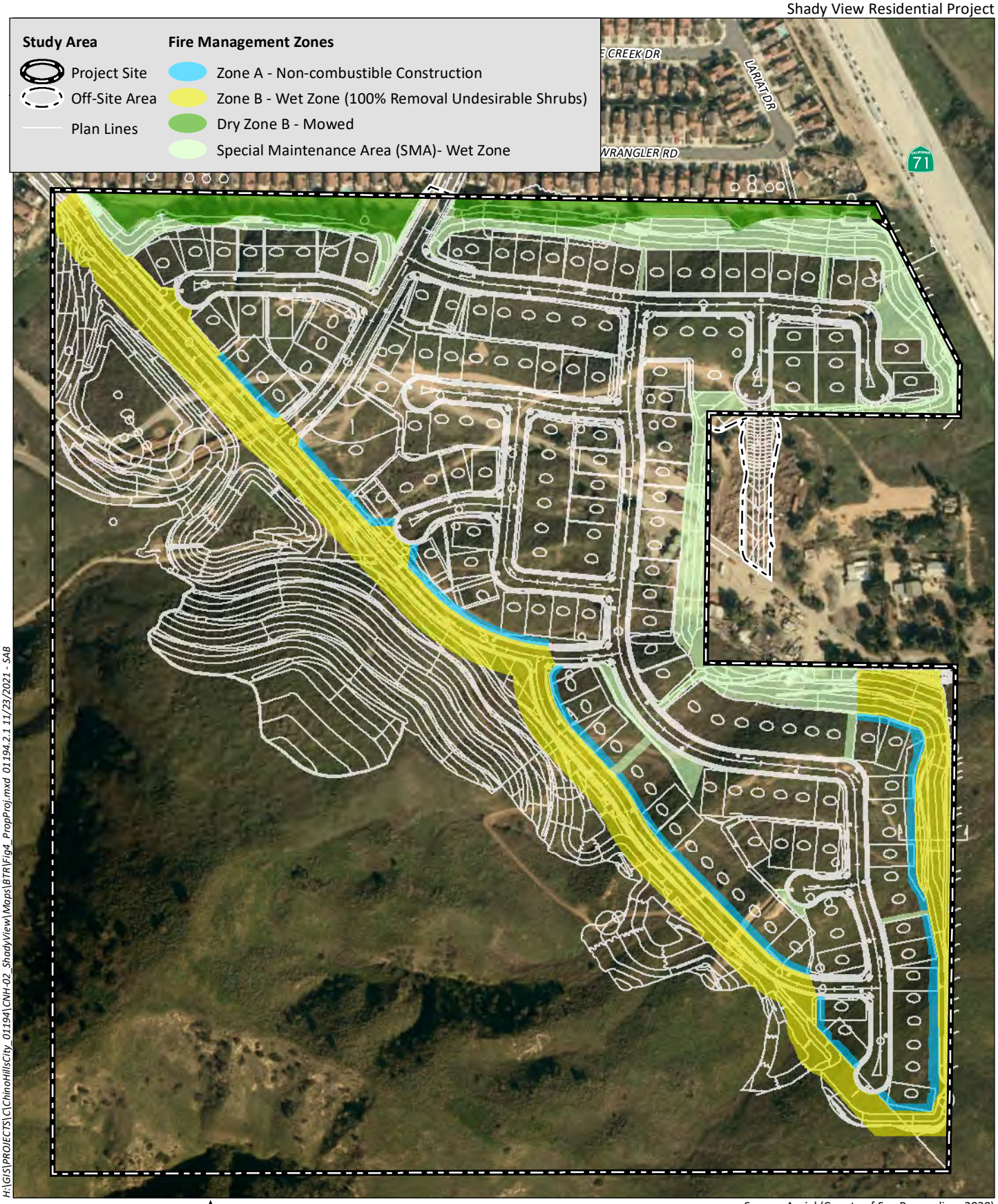
Aerial Photograph

Figure 3



Source: Aerial (County of San Bernardino, 2020)

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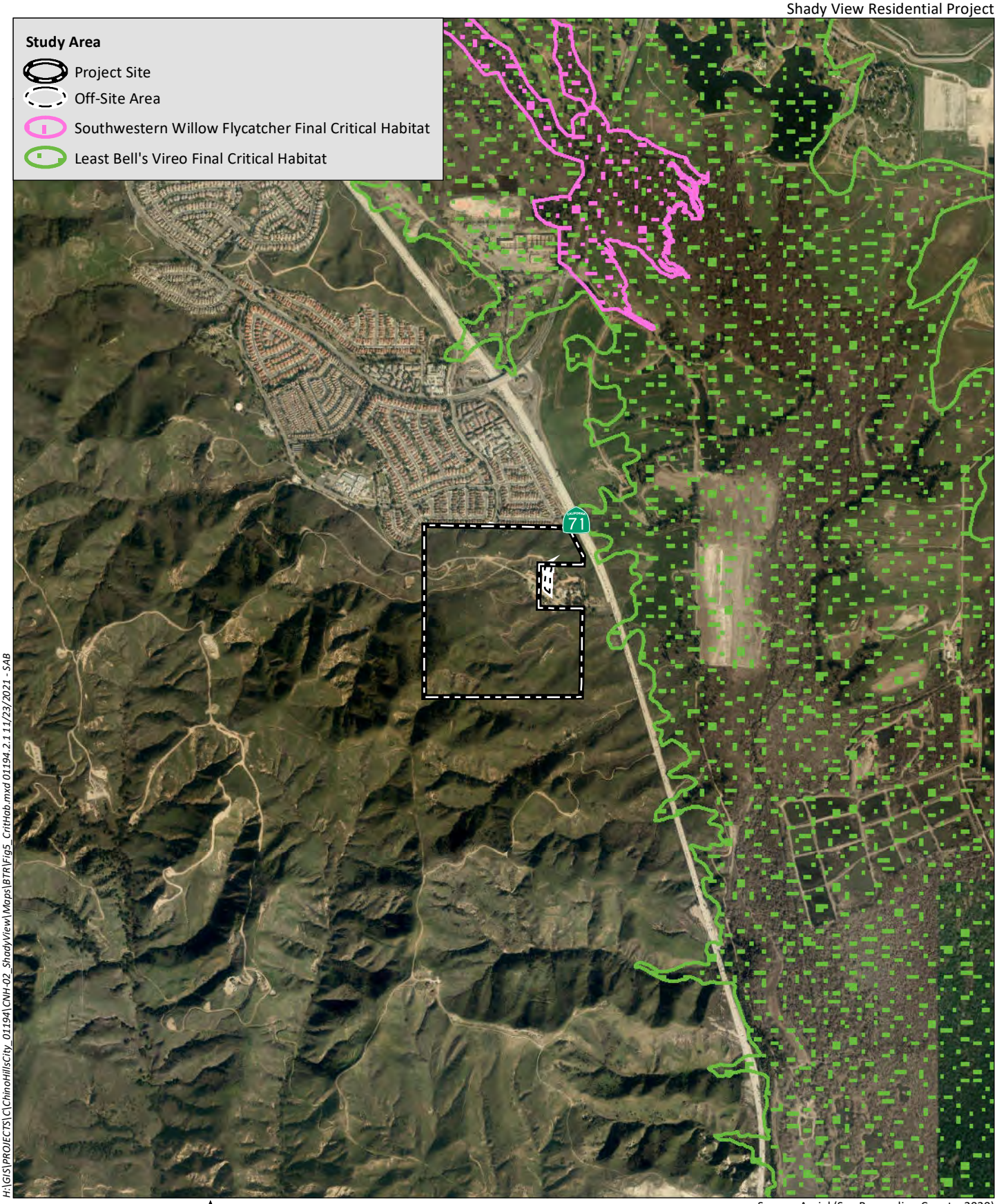
Proposed Project

Figure 4



Source: Aerial (San Bernardino County, 2020)

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Critical Habitat

Figure 5

conducted in December 2020 to determine the existing jurisdictional limits regulated by the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW.

2.3.1 General Biological Survey

HELIX Biologist and Regulatory Specialist Ezekiel Cooley and Biologist Lauren Singleton conducted a general biological survey of the study area on December 17, 2020. Vegetation communities were classified and mapped in accordance with MCV (Sawyer et al. 2009), with additional vegetation community and land use information taken from Oberbauer (1996). Vegetation was mapped on a 125-foot (1 inch = 125 feet) aerial photograph of the site. Vegetation communities were mapped by HELIX to one-hundredth of an acre (0.01 acre). The entire site was surveyed on foot with the aid of binoculars. Representative photographs of the site were taken, with select photographs included in this report as Appendix C, *Representative Site Photographs*. Plant and animal species observed or otherwise detected were recorded in field notebooks. Animal identifications were made in the field by direct, visual observation or indirectly by detection of calls, burrows, tracks, or scat. Plant identifications were made in the field or in the lab through comparison with voucher specimens or photographs.

2.3.2 Focused Species Surveys

2.3.2.1 Rare Plant Surveys

HELIX Biologists Matthew Dimson and Daniel Torres conducted a spring rare plant survey on May 26, 2021, and Mr. Torres and HELIX Biologist Jessica Lee conducted a summer rare plant survey on July 9, 2021. Rare plants investigated include those that are listed as threatened or endangered by USFWS or CDFW and those afforded a California Rare Plant Rank (CRPR) of 1 through 3 by CNPS. HELIX conducted the surveys in accordance with published agency guidelines (California Department of Fish and Game [CDFG] 2000, CDFW 2018, USFWS 2000) and during the appropriate flowering period to maximize the detection of those rare plant species with the potential to occur on the study area. Survey methods incorporated a combination of meandering transects and focused searches in areas with the greatest potential to support rare plant species with the potential to occur on the study area. If observed, individual rare plants were mapped using a handheld Global Positioning System unit. Rare plant survey results are discussed in Section 3.5.1 below.

2.3.2.2 Burrowing Owl

A BUOW habitat assessment was conducted on the study area by Mr. Cooley and Ms. Singleton on December 17, 2020, in accordance with CDFW survey guidelines (CDFG 2012). Since potentially suitable habitat was identified, the biologists surveyed the study area for potentially suitable burrows. The biologists walked slowly and methodically, closely checking the habitat for suitable burrows (i.e., greater than approximately four inches [11 cm] in height and width and greater than approximately 59 inches [150 cm] in depth), BUOW diagnostic sign (e.g., molted feathers, pellets/castings, or whitewash at or near a burrow entrance), and individual BUOWs. The assessment included an approximately 500-foot (150-m) buffer zone around the study area (survey area). Inaccessible areas of the survey area were visually assessed using binoculars. Since no suitable burrow or burrow surrogates were identified during the survey, focused BUOW surveys were not required. The survey methods and results are discussed in detail in a separate letter report, which is provided as Appendix E, *BUOW Habitat Assessment Report*.

2.3.2.3 Coastal California Gnatcatcher

A focused breeding season survey for CAGN was performed by Ms. Singleton in accordance with the current USFWS protocols (USFWS 1997). Ms. Singleton is permitted to conduct CAGN surveys under HELIX's Threatened and Endangered Species Permit TE-778195-14. The survey consisted of six breeding season surveys conducted at least one week apart between May 14 and June 22, 2021. The CAGN survey area encompassed approximately 26.82 acres of potential CAGN habitat within the study area, which comprised California sagebrush scrub (including disturbed California sagebrush scrub). The surveys were conducted by walking within and along the perimeter of suitable CAGN habitat. The survey route was arranged to ensure complete survey coverage of habitat with potential for occupancy by CAGN. Surveys were conducted with binoculars to aid in bird detection. Recorded CAGN vocalizations were played sparingly and only if other means of detection had failed. If a CAGN was detected before playing recorded vocalizations, the recordings were not played. Once CAGNs were initially detected in an area, the use of playback was discontinued. The CAGN survey findings are documented in a separate letter report included as Appendix F, *CAGN Focused Survey Report*. As required by HELIX's 10(a)(1)(A) recovery permit (TE778195), this report was submitted to the USFWS within 45 days of completing the final survey.

2.3.2.4 Least Bell's Vireo

The study area supports potentially suitable LBVI habitat. Focused surveys for LBVI were conducted in accordance with the current USFWS survey protocol (USFWS 2001). The survey consisted of eight site visits conducted by Mr. Dimson, Ms. Singleton, and Mr. Torres between May 14 and July 27, 2020. The surveys were conducted by walking along the edges of, as well as within, potential LBVI habitat while listening for LBVI and viewing birds with the aid of binoculars. The survey route was designed to ensure complete survey coverage of habitat potentially occupied by LBVI, which included 0.14 acre of mule fat thickets. Because LBVI were heard in several locations outside of potentially suitable during the initial survey, the biologists surveyed other portions of the study area to help determine the status of LBVI individuals heard throughout the study area. The survey area did not include the portion of the study area that burned in the Blue Ridge Fire in 2020 due to lack of vegetation. The LBVI survey findings are documented in a separate letter report included as Appendix G, *LBVI Focused Survey Report*. As required by HELIX's 10(a)(1)(A) recovery permit (TE778195), this report was submitted to the USFWS within 45 days of completing the final survey.

2.3.3 Jurisdictional Assessment

Prior to beginning fieldwork, aerial photographs (1 inch = 75 feet), topographic maps (1 inch = 75 feet), USGS quadrangle maps, and National Wetlands Inventory maps (USFWS 2021b) were reviewed to assist in determining the location of potential jurisdictional waters on the study area. Mr. Cooley and Ms. Singleton conducted the jurisdictional assessment fieldwork on December 17, 2020. The assessment was conducted to identify any jurisdictional waters potentially subject to USACE jurisdiction pursuant to Section 404 of the Clean Water Act (CWA), RWQCB jurisdiction pursuant to Section 401 of the CWA, and streambed habitats potentially subject to CDFW jurisdiction pursuant to Sections 1600 *et seq.* of the California Fish and Game (CFG) Code. Data collection was targeted in areas that were deemed to have the potential to support jurisdictional resources, such as the presence of an ordinary high water mark (OHWM), the presence of a bed/bank and streambed associated vegetation and/or other surface indications of streambed hydrology. Representative photographs were taken of the drainage features

and are included as Appendix D, *Representative Drainage Photographs*. A summary of the regulatory framework is provided below.

2.3.3.1 U.S. Army Corps of Engineers and Regional Water Quality Control Board Jurisdiction

The USACE waters of the U.S. were determined using current USACE guidelines (Environmental Laboratory 1987, USACE 2008a). Areas were determined to be waters of the U.S. if there was evidence of regular surface flow (e.g., bed and bank). Jurisdictional limits for these areas were measured according to the presence of a discernible OHWM, which is defined in 33 Code of Federal Regulations Section 329.11 as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of the soil; destruction of terrestrial vegetation; the presence of litter or debris; or other appropriate means that consider the characteristics of the surrounding areas." The USACE has issued further guidance on the OHWM (Riley 2005; USACE 2008b), which also was considered in this jurisdictional delineation.

The jurisdictional delineation was conducted in accordance with court decisions (i.e., Rapanos v. United States, Carabell v. United States, and Solid Waste Agency of Northern Cook County v. FUSACE), as outlined and applied by the USACE (USACE 2007; Grumbles and Woodley 2007); and USACE and U.S. Environmental Protection Agency (EPA; 2007). These publications explain that the EPA and USACE will assert jurisdiction over traditional navigable waters (TNW) and tributaries to TNWs that are a relatively permanent water body (RPW), which has year-round or continuous seasonal flow. For water bodies that are not RPWs, a significant nexus evaluation is used to determine if the non-RPW is jurisdictional. As an alternative to the significant nexus evaluation process, a preliminary jurisdictional delineation may be submitted to the USACE. The preliminary jurisdictional delineation treats all waters and wetlands on a site as if they are jurisdictional waters of the U.S. (USACE 2008a). A significant nexus evaluation or preliminary jurisdictional delineation are typically only required for projects that propose impacts to jurisdictional features and, therefore, require a Section 404 permit from the USACE.

The RWQCB asserts regulatory jurisdiction over activities affecting wetland and non-wetland waters of the State pursuant to Section 401 of the CWA and the State Porter-Cologne Water Quality Control Act. RWQCB jurisdiction found within the study area follows the boundaries of USACE jurisdiction for waters of the U.S. and extends them to the top of bank. There are no areas supporting isolated waters of the State subject to exclusive RWQCB jurisdiction pursuant to the State Porter-Cologne Water Quality Control Act.

2.3.4 California Department of Fish and Wildlife Jurisdiction

The CDFW jurisdictional boundaries were determined based on the presence of riparian vegetation or regular surface flow, if present. Streambeds within CDFW jurisdiction were delineated based on the definition of streambed as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supporting fish or other aquatic life. This includes watercourses with surface or subsurface flow that supports riparian vegetation" (Title 14, Section 1.72). This definition for CDFW jurisdictional habitat allows for a wide variety of habitat types to be jurisdictional, including some that do not include wetland species (e.g., oak woodland and alluvial fan sage scrub). Jurisdictional limits for CDFW streambeds were defined by the top of bank. Vegetated CDFW habitats were mapped at the limits of streambed-associated vegetation, if present.

3.0 RESULTS

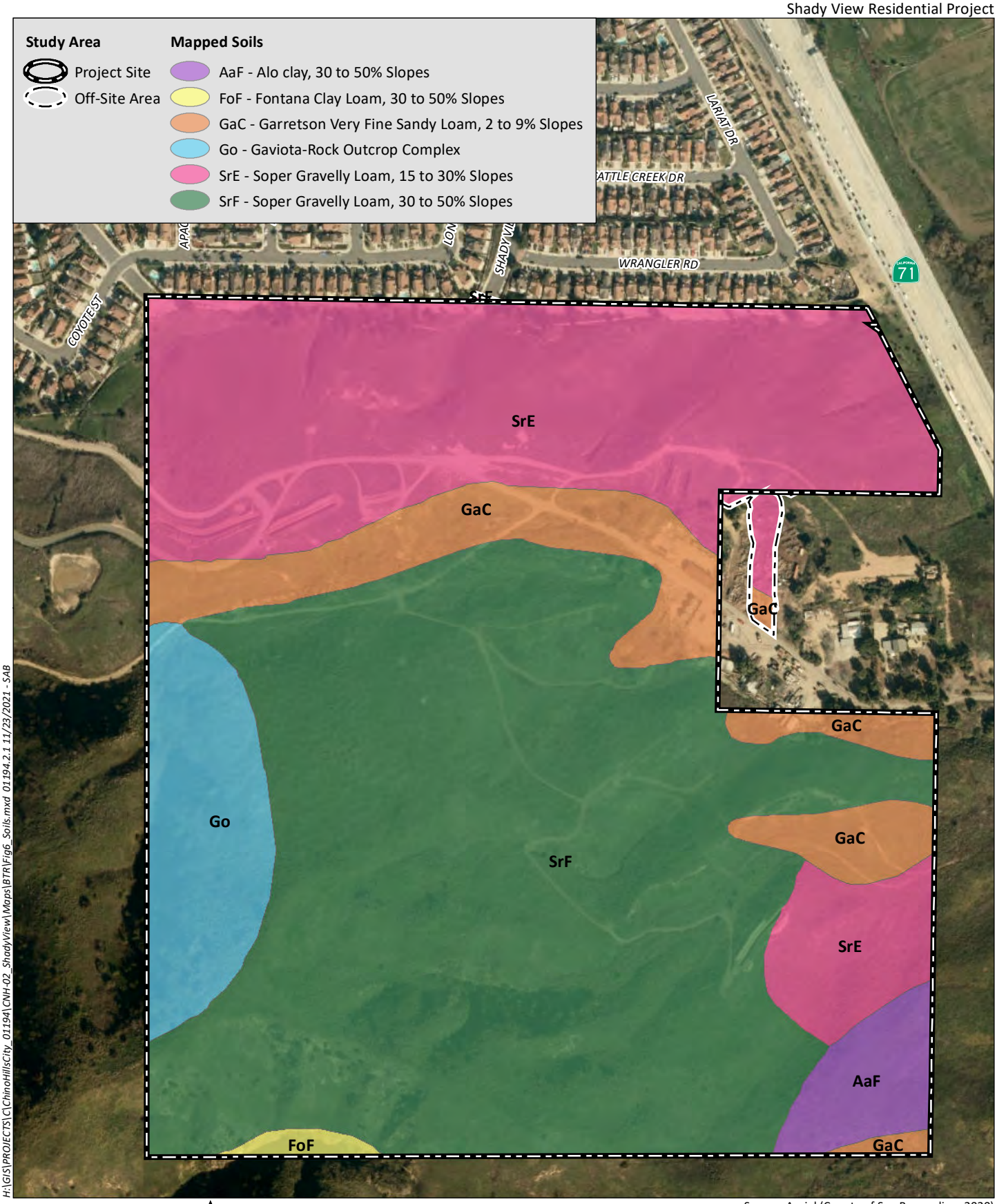
3.1 ENVIRONMENTAL SETTING

The study area is located in the eastern portion of the Chino Hills. Topographically, the study area consists of a large hillside in the southwestern portion of the site and a series of low rolling canyons and ridges in the northeastern portion of the site. A series of smaller canyons between low ridges trend west to east in the central portion of the study area and north to south in the northern portion of the study area. Elevations on the study area range from approximately 550 feet (168 meters) above mean sea level (AMSL) within the northeastern portion to 1,075 feet (328 meters) AMSL along the southwestern portion. The Chino Fault transects the central and western portions of the study area. In late October and early November 2020, the Blue Ridge Wildfire burned the hills to the west and south of the study area. In the western and southern portions of the study area, a backfire was initiated by local fire officials as a containment method for the wildfire. The remainder of the study area that did not burn consists of native habitat, including California sagebrush scrub, coast live oak woodland, and mule fat thickets, in addition to existing developed areas, disturbed habitat, pepper tree grove, and upland mustards. Three drainage complexes (Drainage Complexes A, B, and C) were delineated within the study area. Drainage Complex A consists of the main Drainage A and three small tributaries (Drainages A1, A1.1, and A2). The series of canyons in the northern portion of the study area support six small drainage features (Drainages B1, B2, B2, B2.1, B3, B4, and B5). Another drainage complex, Drainage Complex C, was delineated in the southwest corner of the study area. Drainage Complex C consists of the main Drainage C and two small tributaries (Drainages C1 and C2). All drainages on the study area ultimately drain into the Santa Ana River, located directly to the east of the study area.

Mapped soils on the study area mostly consist of Soper gravelly loam (15 to 30 percent slopes and 30 to 50 percent slopes; Figure 6, *Soils*; NRCS 2021). The Soper soil series consists of well-drained residuum weathered from sandstone. Other mapped soils on the study area include Alo clay (30 to 50 percent slopes), Fontana clay loam (30 to 50 percent slopes), Garretson very fine sandy loam (2 to 9 percent slopes), and Gaviota-rock outcrop complex. Immediate land uses surrounding the study area include a residential community to the north; SR-71 and Prado Basin to the east; and undeveloped land to the west and south (Figure 3). The study area is located approximately 1.1 miles east of Chino Hills State Park.

3.2 VEGETATION COMMUNITIES

Nine vegetation communities and land uses were mapped on the study area (Table 1, *Vegetation and Land Uses*; Figure 7, *Vegetation*). The CDFW CaCodes and Oberbauer Element Codes are provided in parentheses next to each community name in Table 1. Representative site photographs are included as Appendix C. A brief description of each vegetation community and land use mapped on the study area is provided below.

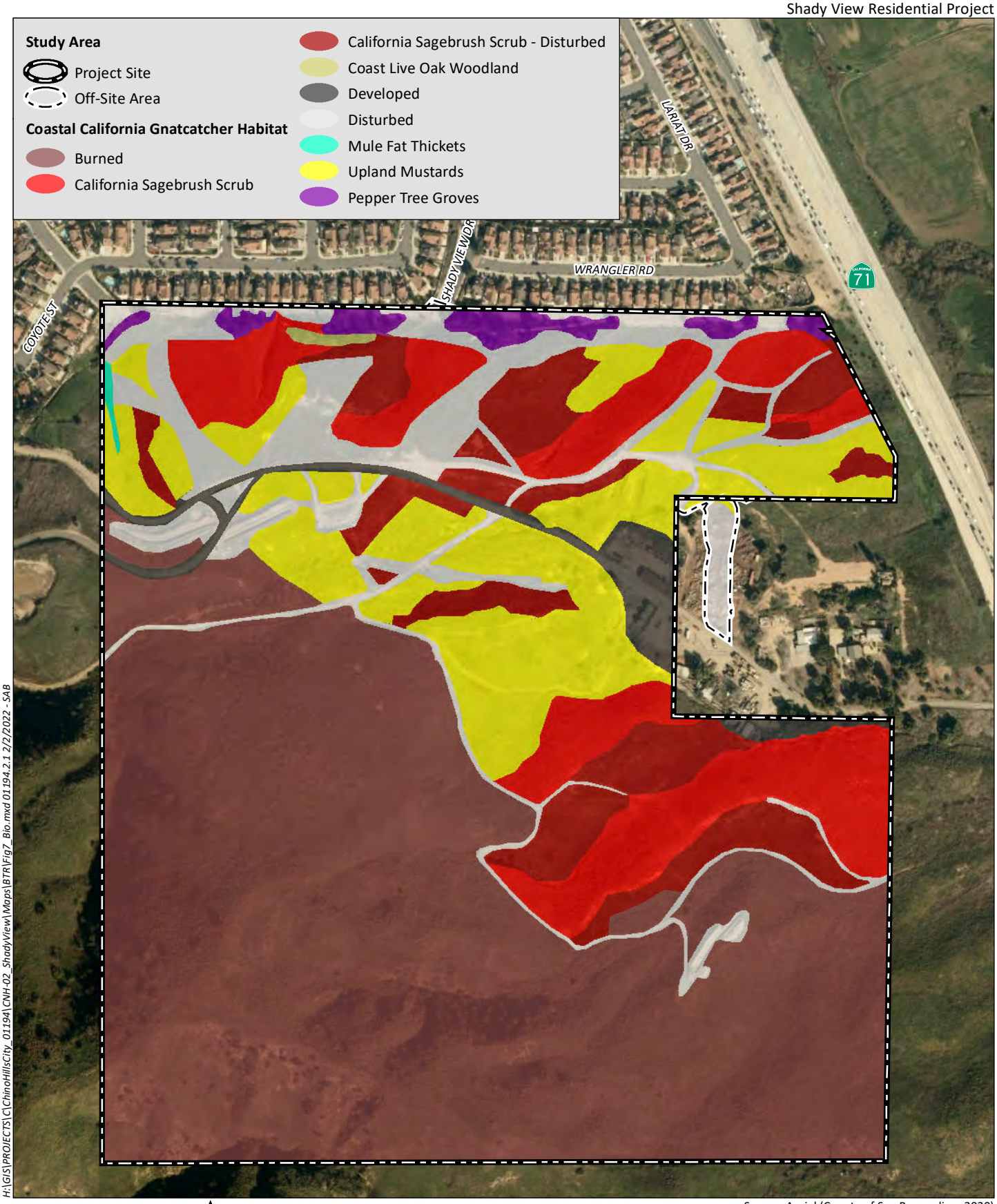


Source: Aerial (County of San Bernardino, 2020)

HELIX Environmental Planning

Soils

Figure 6



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Source: Aerial (County of San Bernardino, 2020)

HELIX Environmental Planning

Vegetation and Land Uses

Figure 7

Table 1
VEGETATION COMMUNITIES

Habitat Type	On-Site (acres)[1]	Off-Site (acres)[1]	TOTAL (acres)[1]
Burned Habitat[2]	67.30	0.00	**67.3**
California Sagebrush Scrub (CaCode[3] 32.010.01)	14.94	0.00	**14.94**
Coast Live Oak Woodland (CaCode 71.060.02)	0.21	0.00	**0.21**
Developed (O[4] 12000)	3.55	0.02	**3.57**
Disturbed (O 11300)	12.92	0.73	**13.65**
Disturbed-California Sagebrush Scrub (CaCode 32.010.01)	11.88	0.00	**11.88**
Mule Fat Thickets (CaCode 63.510.01)	0.14	0.00	**0.14**
Pepper Tree Groves (CaCode 79.200.00)	1.96	0.00	**1.96**
Upland Mustards (CaCode 42.011.05)	16.90	0.09	**16.99**
TOTAL	**129.80**	**0.84**	**130.64**

[1] Acreages are rounded to the nearest hundredth.
[2] Not included in the Manual of California Vegetation of Oberbauer.
[3] CDFW CaCodes.
[4] Oberbauer Element Code.

3.2.1 Burned Habitat

Burned habitat has been affected by wildfires. The western and southern portions of the study area were burned in the Blue Ridge Wildfire between late October and early November 2020. Mapped burned habitat within the study area totaled 67.30 acres (on-site only). Due to the extent of damage from the backfire, vegetation communities in these areas were not identifiable.

3.2.2 California Sagebrush Scrub

California sagebrush scrub that occurs in more inland areas generally occupies xeric sites, such as steep slopes, severely drained soils, or clays that slowly release stored soil moisture. This community is dominated by subshrubs with leaves that are deciduous during drought, an adaptation that allows the habitat to withstand the prolonged drought period in the summer and fall. California sagebrush scrub species have relatively shallow root systems and open canopies that allow for the occurrence of a substantial herbaceous (annual plant) component. Typical stands are fairly open and dominated by species such as California sagebrush (*Artemisia californica*), brittlebush (*Encelia farinosa*), and California buckwheat (*Eriogonum fasciculatum*).

Several patches of California sagebrush scrub were observed on the west- and north-facing hillsides in the northern and western portions of the study area, totaling 14.94 acres (on-site only). These areas were dominated by California sagebrush. Other native shrubs commonly observed included box springs goldenbush (*Ericameria palmeri* var. *pachylepis*), California buckwheat, and California encelia (*Encelia californica*). Red brome (*Bromus rubens*) and short-pod mustard (*Hirschfeldia incana*) were prevalent in the understory and spaces between shrubs.

3.2.3 Coast Live Oak Woodland

Coast live oak woodland is an open-to-dense evergreen woodland or forest community dominated by coast live oak (*Quercus agrifolia*) trees, which may reach heights between 35 and 80 feet. Components of the shrub layer generally include toyon (*Heteromeles arbutifolia*) and blue elderberry (*Sambucus*

nigra ssp. *caerulea*). This community occurs on coastal foothills of the Peninsular Ranges, typically on north-facing slopes and shaded ravines.

One small patch of coast live oak woodland was observed on a north-facing slope in the northern portion of the study area, consisting of roughly 10 coast live oak trees, totaling 0.21 acre (on-site only). The coast live oak woodland appears to be on a manufactured slope associated with the existing residential development to the north, and the trees may have been planted to protect the slope. These trees are not visible in aerials prior to the development of the homes to the north (Historic Aerials 2021; see aerials from 1992 and 1980). A few toyon (*Heteromeles arbutifolia*) shrubs were intermixed with the coast live oak trees, and non-native annuals, such as red brome and short-pod mustard, dominated the understory.

3.2.4 Developed

Developed land includes areas where permanent structures and/or pavement have been placed, which prevents the growth of vegetation, or where landscaping is clearly tended and maintained.

Developed land consists of paved roads and existing facilities near the center of the study area, totaling 3.57 acres (3.55 acres on-site; 0.02 acre off-site).

3.2.5 Disturbed

Disturbed habitat includes land cleared of vegetation (e.g., dirt roads) or actively maintained or heavily disturbed areas that are mostly unvegetated but may support scattered non-native plant species, such as ornamentals or ruderal exotic species, which take advantage of disturbance. Disturbed habitat is similar to the non-native vegetation community, although disturbed areas generally support little to no vegetative cover.

Disturbed habitat was primarily observed within the northern portion of the study area and consisted mostly of bare ground with scattered doveweed (*Croton setiger*), filaree (*Erodium* sp.), red brome, tocalote (*Centaurea melitensis*), and white horehound (*Marrubium vulgare*), totaling approximately 13.65 acres (12.92 acres on-site; 0.73 acre off-site).

3.2.6 Disturbed-California Sagebrush Scrub

This community is dominated by disturbed habitat described in Section 3.2.5 above and is intermixed with species associated with California sagebrush scrub described in Section 3.2.2 above.

Several patches of disturbed-California sagebrush scrub were observed on the east- and south-facing hillsides in the northern and western portions of the study area, totaling 11.88 acres (on-site only). This community consisted of sparse California sagebrush and box springs goldenbush. The interstitial spaces between the shrubs were mostly dominated by doveweed, red brome, and short-pod mustard. Scattered castor bean (*Ricinus communis*) and tree tobacco (*Nicotiana glauca*) were also observed within this community.

3.2.7 Mule Fat Thickets

Mule fat thickets is a depauperate, shrubby riparian scrub community dominated by mule fat (*Baccharis salicifolia*), sometimes interspersed with small willows (*Salix* spp.). This early seral community is

dominated by frequent flooding, the absence of which would lead to a cottonwood or sycamore dominated woodland or forest. In some environments, limited hydrology may favor the persistence of mule fat.

A small strip of mule fat thicket was observed in the northwest corner of the study area, totaling 0.14 acre (on-site only). This community was almost solely comprised of mule fat, with some scattered coyote brush (*Baccharis pilularis*) and Mexican palo verde (*Parkinsonia aculeata*) throughout. No willow trees were observed in this community.

3.2.8 Pepper Tree Groves

Pepper tree grove is characterized as stands of pepper trees (*Schinus* spp.) and other non-native trees (e.g., acacias [*Acacia* spp.], many of which are used in landscaping.

Pepper tree groves were observed on a north-facing slope in the northern portion of the study area, totaling 1.96 acres (on-site only). This area consisted mostly of Peruvian pepper trees (*Schinus molle*), with other ornamental trees including Aleppo pine (*Pinus halepensis*), London plane tree (*Platanus x hispanica*), and river red gum (*Eucalyptus camaldulensis*). Some scattered coast live oak trees were also noted in this area.

3.2.9 Upland Mustards

Upland mustards are typically associated with land that has been heavily influenced by human activities, including areas adjacent to roads, manufactured slopes, and abandoned lots. Upland mustards are dominated by non-native mustard species (e.g., black mustard [*Brassica nigra*], short-pod mustard) or other similar forb species that take advantage of previously cleared or abandoned landscaping, or land showing signs of past or present animal usage, which removes any capability of providing viable habitat.

Upland mustards were observed in several patches throughout the study area, totaling 16.99 acres (16.90 acres on-site; 0.09 acre off-site). These areas were dominated by short-pod mustard. Other commonly observed species included castor bean rancher's fiddleneck (*Amsinckia intermedia*), red brome, Russian thistle (*Salsola tragus*), tocalote, and tree tobacco.

3.3 PLANTS

HELIX identified a total of 80 plant species within the study area during surveys to date, of which 32 (40 percent) are non-native species (Appendix A).

3.4 ANIMALS

A total of 63 animal species were identified on the study area during biological surveys, including three invertebrate species, two reptile species, 55 bird species, and three mammal species (Appendix B).

3.5 SENSITIVE BIOLOGICAL RESOURCES

3.5.1 Rare Plant Species

Rare plant species are uncommon or limited in that they: (1) are only found in the Chino Hills region; (2) are a local representative of a species or association of species not otherwise found in the region; or (3) are severely depleted within their ranges or within the region. Rare plant species include those species listed by CNPS with a CRPR of 1, 2, or 3 or federally and state listed endangered and threatened species. Species with CRPR of 4 may be considered rare if a population is locally uncommon, at the periphery of the species' range, sustained heavy losses, shows unusual morphology, or occurs on unusual substrates (CNPS 2021).

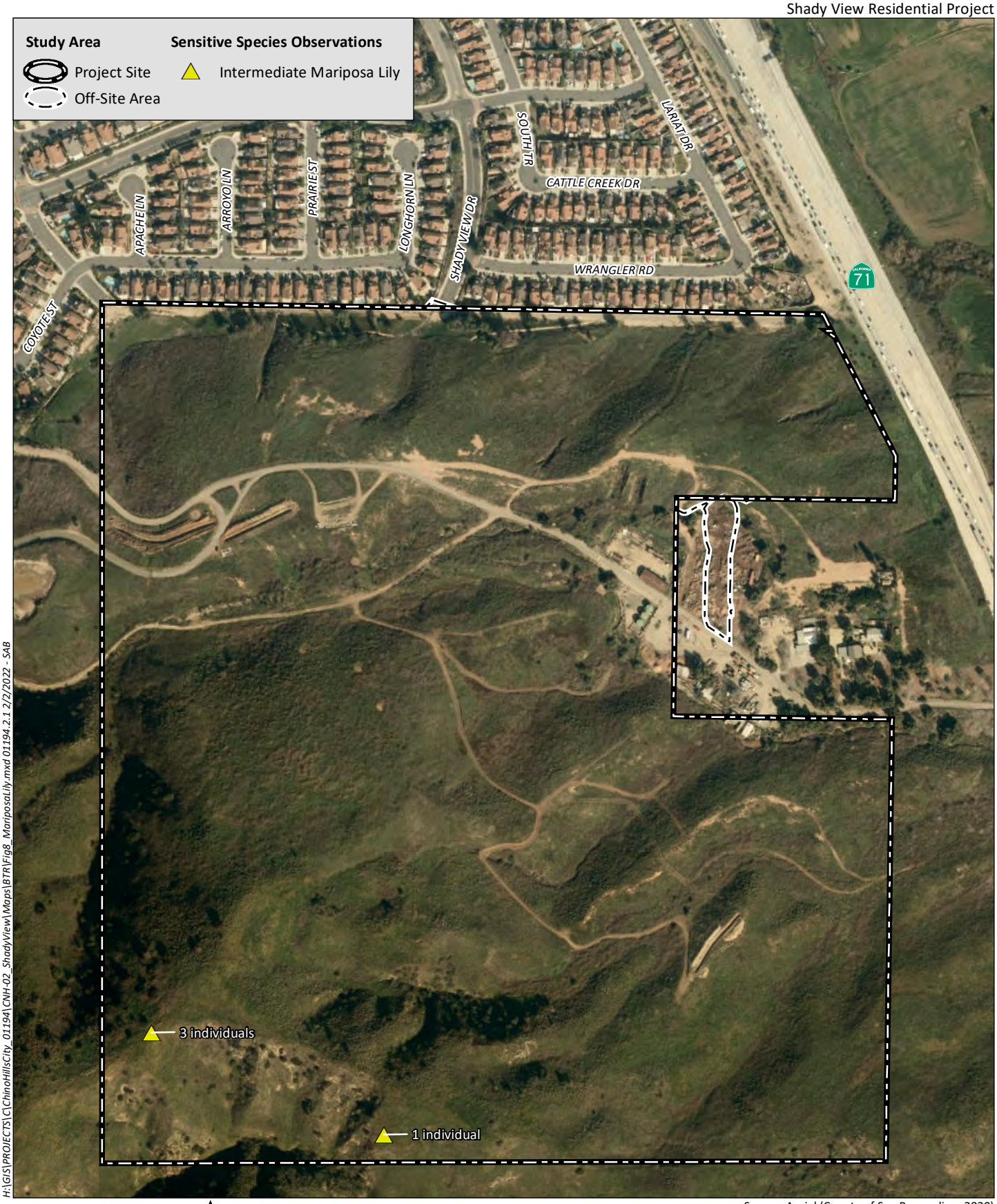
Fourteen rare plant species were recorded within the two-quadrangle database search conducted on CNDDB (CDFW 2022) and CNPS (2022). These species are included in Appendix H, *Rare Plant Species Potential to Occur.* Of the 14 rare plant species recorded within the vicinity of the study area, ten species were considered to have no potential to occur on the study area based on elevation range and/or lack of suitable habitat on the study area. The remaining five species were considered to have a potential to occur on the study area, primarily based on the presence of California sagebrush scrub (see Appendix H). These species include Braunton's milk-vetch (*Astragalus brauntonii*), intermediate mariposa lily (*Calochortus weedii* var. *intermedius*), many-stemmed dudleya (*Dudleya multicaulis*), and white-rabbit tobacco (*Pseudognaphalium leucocephalum*).

Braunton's milk-vetch, many-stemmed dudleya, and white-rabbit tobacco were not observed during rare plant surveys conducted in May and July 2021 and are presumed absent from the study area. Four intermediate mariposa lilies were observed in the southwest corner of the study area (Figure 8, *Intermediate Mariposa Lily Locations*). Intermediate mariposa lily is a CRPR 1B.2 species, which are species considered rare throughout their range and have declined significantly over the last century. This species is not federally or state listed as endangered or threatened.

3.5.2 Sensitive Animal Species

Sensitive wildlife species are those listed or candidate listed as federally threatened or endangered by USFWS; and/or State listed or candidate listed as threatened or endangered or considered Species of Special Concern (SSC) by CDFW.

The study area is located outside of any USFWS-designated critical habitat, although critical habitat for LBVI occurs within 0.25 mile to the east of the study area and critical habitat for southwestern willow flycatcher (*Empidonax traillii extimus*) occurs approximately one mile north of the study area. Thirty sensitive animal species were recorded within the Prado Dam and Corona North database search conducted on CNDDB (CDFW 2022). These species are included in Appendix I, *Sensitive Animal Species Potential to Occur.* An evaluation of each sensitive animal species' potential to occur on the study area is also provided in Appendix I. Of the 29 sensitive animal species, 15 species were considered to have no potential to occur on the study area due to the lack of suitable habitat, and/or the study area is located outside of the species' known geographical range. The remaining 14 species are discussed further below.



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Source: Aerial (County of San Bernardino, 2020)

HELIX Environmental Planning

Intermediate Mariposa Lily Locations

Figure 8

Low Potential

Three species were determined to have a low potential to occur on the study area based on the presence of low-quality habitat, limited acreage of habitat, and lack of observations within the immediate vicinity of the study area. All species with a low potential to occur are State SSC, including long-eared owl (*Asio otus*), pocketed free-tailed bat (*Nyctinomops femorasaccus*), and western yellow bat (*Lasiurus xanthinus*).

Moderate Potential

Six species were determined to have a moderate potential to occur based on the presence of habitat that was limited in size and recent observations in the vicinity of the study area. These species include Southern California legless lizard (*Anniella stebbinsi*), red diamond rattlesnake (*Crotalus ruber*), grasshopper sparrow (*Ammodramus savannarum*), Swainson's hawk (*Buteo swainsoni*; foraging only), white-tailed kite (*Elanus leucurus*), and western mastiff bat (*Eumops perotis californicus*). Red diamond rattlesnake, Southern California legless lizard, grasshopper sparrow, and western mastiff bat are State SSC. Swainson's hawk is a State threatened species, and white-tailed kite is a State fully protected species. Although the study area supports potentially suitable foraging habitat for Swainson's hawk, this species is not known to nest in southern California, with the exception of populations in the Antelope Valley in the Mojave Desert (Battistone et al. 2019, Bechard et al. 2020).

High Potential

Two species were determined to have a high potential to occur based on the presence of potentially suitable habitat and recent observations in the vicinity of the study area. These species include coast horned lizard (*Phrynosoma blainvillii*) and golden eagle (*Aquila chrysaetos*). Coast horned lizard is a State SSC and golden eagle is a State Fully Protected Species.

Not Expected

BUOW is a state SSC that inhabits dry, low-growing, sparse vegetation, such as the disturbed habitats that occur throughout the study area. The nearest BUOW record in eBird was observed in 2017, approximately 1.5 miles to the northeast of the study area (eBird 2021). A BUOW habitat assessment was conducted on the study area on December 17, 2020. During the habitat assessment, it was determined that although the study area supports some potentially suitable habitat, suitable burrows, as defined in Appendix C of the Staff Report on BUOW Mitigation (CDFG 2012), were not present. The detailed report findings for the BUOW habitat assessments are included as Appendix E.

Present

CAGN is a federally endangered species and a State SSC that forages and nests in coastal sage scrub and very open chaparral. The study area supports approximately 26.82 acres of potential CAGN habitat consisting of California sagebrush scrub (including disturbed California sagebrush scrub). A total of three CAGN pairs were detected during the 2021 survey effort, although not all individuals were detected during each survey (Figure 9, *CAGN Locations*). Two CAGN pairs (Pair No. 1 and Pair No. 2) were detected in the eastern portion of the study area, and one CAGN pair (Pair No. 3) was detected within the northern portion of the study area. The detailed report findings for the CAGN focused survey are included as Appendix F.

LBVI is a federally and state endangered species that forages and nests in riparian woodland habitat. This species frequents areas that combine an understory of dense, young willows, or mule fat with a canopy of tall willows. No willows were noted within the study area during field surveys. The study area supports a small area of mule fat scrub (0.14 acre) in the northwest corner. Four single males were detected within the study area during the 2021 survey effort, though not all individuals were detected during each survey visit (Figure 10, *LBVI Locations*). One male (Male No. 1) was observed in the northwest corner of the study area, one male (Male No. 2) was observed in the central-eastern portion of the study area, one male (Male No. 3) was observed in the central-western portion of the study area, and one male (Male No. 4) was observed off-site near the western study area boundary. Only Male No. 1 was heard calling from the small patch of mule fat scrub. The other three males were detected in short-pod mustard and tree tobacco, a burned blue elderberry, and Peruvian pepper trees. No LBVI were detected after the fourth survey conducted on June 17, 2021. The detailed report findings for the LBVI focused survey are included as Appendix G.

3.5.3 Sensitive Vegetation Communities/Habitats

Sensitive vegetation communities/habitats are considered either rare within the region or sensitive by CDFW (2018b). Communities are given a Global and State (S) ranking on a scale of 1 to 5. Communities afforded a rank of 5 are most common, while communities with a rank of 1 are considered highly periled. The CDFW considers sensitive communities as those with a rank between S1 and S3.

No sensitive plant communities were observed or mapped within the study area.

3.5.4 Jurisdictional Waters and Wetlands

Three drainage complexes (Drainage Complexes A, B, and C), consisting of 12 drainage features, were delineated within the study area (Figure 11, *Jurisdictional Features*). The drainages are presumed to support a total of 0.28 acre of USACE/RWQCB jurisdictional waters of the U.S and 1.14 acres of CDFW jurisdictional streambed (Table 2, *Existing Jurisdictional Features*). All jurisdictional features are located on-site, with the exception of a small segment in the central portion of Drainage A that extends off-site. No wetlands or other special aquatic features were observed within the study area. A brief description of each drainage is provided below. Representative photographs of the drainage features are included as Appendix D.

Table 2
EXISTING JURISDICTIONAL FEATURES[1]

Drainage	USACE/RWQCB (acres)[2]	CDFW (acres)[2]
Drainage Complex A		
A	0.10[3]	0.38[4]
A1	0.03	0.12
A1.1	<0.01[5]	0.01
A2	0.04	0.12
Subtotal	*0.17*	*0.63*
Drainage Complex B		
B1	0.02	0.15
B2	0.02	0.05
B2.1	<0.01[5]	0.01

Drainage	USACE/RWQCB (acres)[2]	CDFW (acres)[2]
B3	0.02	0.09
B4	0.02	0.09
B5	<0.01[6]	<0.01[7]
Subtotal	*0.08*	*0.39*
Drainage Complex C		
C	0.02	0.08
C1	<0.01[7]	0.01
C2	0.01	0.03
Subtotal	*0.03*	*0.12*
TOTAL	**0.28**	**1.14**

[1] Jurisdictional acreages overlap and are not additive (e.g., RWQCB acreages are included in the CDFW acreages).
[2] Acreages are rounded to the nearest hundredths.
[3] Approximately 0.003 acre of Drainage A consists of a small segment in the central portion of the drainage that extends off-site.
[4] Approximately 0.020 acre of Drainage A consists of a small segment in the central portion of the drainage that extends off-site.
[5] Actual acreage is 0.001 acre.
[6] Actual acreage is 0.002 acre.
[7] Actual acreage is 0.004 acre.

3.5.4.1 Drainage Complex A

Drainage A

Drainage A, which is a blueline stream mapped by USGS, is an ephemeral drainage that runs from west to east through the center of the study area. The headwaters of Drainage A originate in the hillsides approximately 0.7 mile to the southwest of the study area. Drainage A enters the study area near the central-western boundary. The upstream portion of the drainage consists of a shallow wash that crosses a dirt road and follows topographic contours through the study area. The drainage becomes an incised channel near the center of the study area after crossing the dirt road a second time. Drainage A briefly exits and reenters the study area near the eastern boundary, and ultimately exits the study area just south of an existing residential home. The drainage continues off-site for approximately 500 linear feet until it enters a small culvert and flows under SR-71. Drainage A extends east for approximately 1,500 linear feet, ultimately draining into the Chino Creek. Chino Creek drains into the Santa Ana River at the Prado Flood Control Basin. The Santa Ana River ultimately drains into the Pacific Ocean approximately 27 miles to the southwest of the study area. The upstream portion of Drainage A burned in the 2020 Blue Ridge Fire and did not support vegetation at the time the survey was conducted. The middle portion of Drainage A mostly supports upland mustards, and the downstream portion supports disturbed and undisturbed California sagebrush scrub. Soils within Drainage A consist of Garretson very fine sandy loam (2 to 9 percent slopes), Gaviota-rock outcrop complex, and Soper gravelly loam (30 to 50 percent slopes).

Within the study area, Drainage A supports approximately 0.10 acre of USACE/RWQCB waters of the U.S. and 0.38 acre of CDFW jurisdictional streambed.

Drainage A1

Drainage A1 is a small ephemeral tributary to Drainage A, which initiates within the southern portion of the study area to the south of Drainage A. The drainage extends east for approximately 700 linear feet before jurisdictional indicators stop. Drainage A1 sheet flows with no discernable indicators for approximately 430 feet, after which flows coalesce and indicators were visible again. Drainage A1 continues within the study area for approximately 400 feet until indicators cease. No indicators were discernable from this point to the eastern study area boundary. Sheet flow from Drainage A1 presumably connects off-site to Drainage A during large storm events. The majority of Drainage A1 was burned in the 2020 Blue Ridge Fire and did not support vegetation at the time the survey was conducted. The most downstream portion of the drainage supports some disturbed California sagebrush scrub. Soils within Drainage A1 consist of Garretson very fine sandy loam (2 to 9 percent slopes) and Soper gravelly loam (30 to 50 percent slopes).

Within the study area, Drainage A1 supports approximately 0.03 acre of USACE/RWQCB waters of the U.S. and 0.12 acre of CDFW jurisdictional streambed.

Drainage A1.1

Drainage A1.1 is a small ephemeral tributary to Drainage A1 that initiates on the study area in the downstream portion of Drainage A1. Drainage A1 was completely burned in the 2020 Blue Ridge Fire and was unvegetated at the time the survey was conducted. Soils within Drainage A1.1 consist of Soper gravelly loam (30 to 50 percent slopes).

Within the study area, Drainage A1.1 supports approximately <0.01 acre of USACE/RWQCB waters of the U.S. and 0.01 acre of CDFW jurisdictional streambed.

Drainage A2

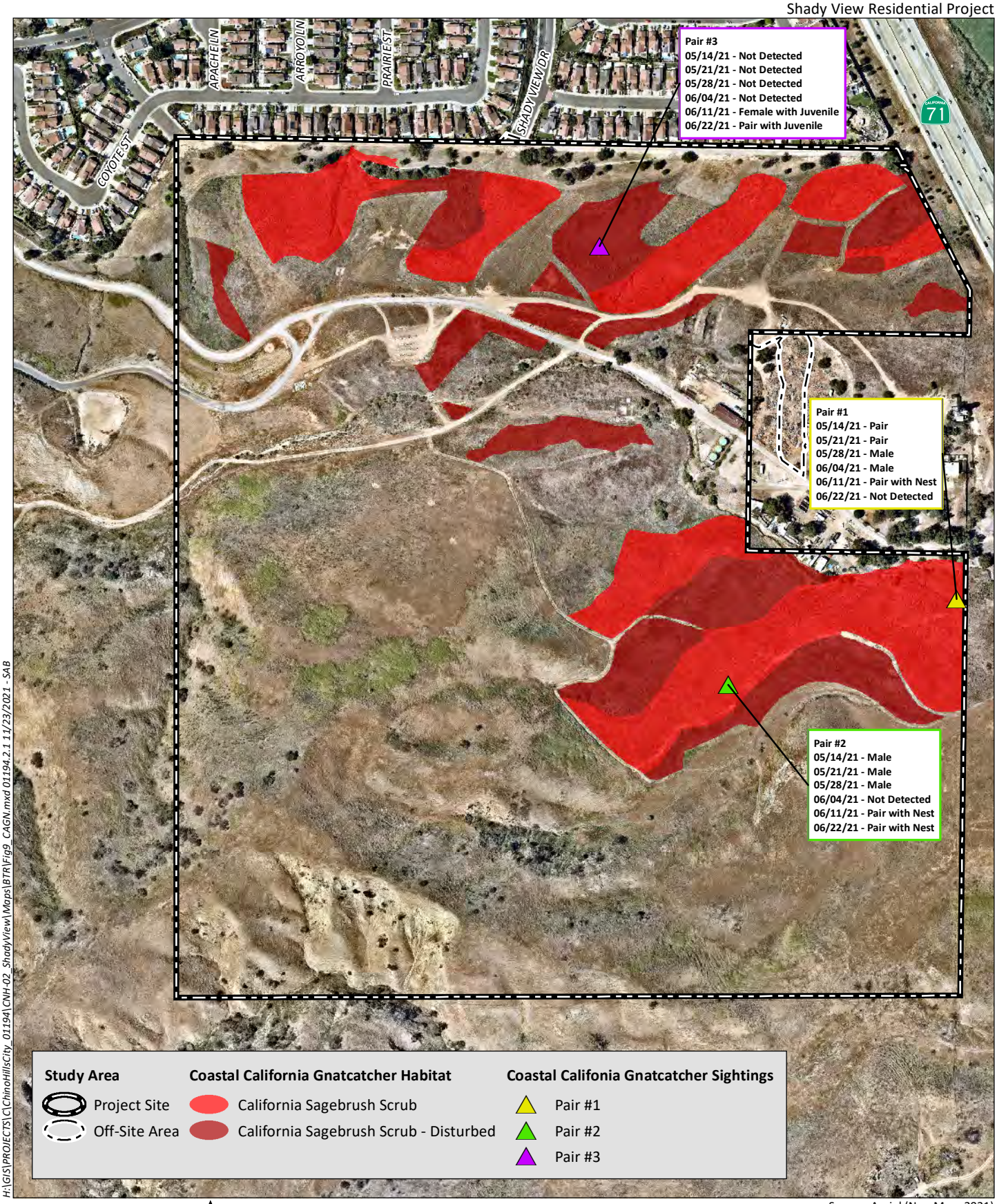
Drainage A2 is a small ephemeral tributary to Drainage A, which initiates on the study area near the center of the site south of Drainage A. The drainage meanders southwest to northeast through steep topography for 525 linear feet, after which point jurisdictional indicators ceased. Although no indicators are visible, sheet flow from Drainage A2 presumably connects to Drainage A during large storm events based on topography. Drainage A2 supports disturbed and undisturbed California sagebrush scrub and soils consist of Soper gravelly loam (30 to 50 percent slopes).

Within the study area, Drainage A2 supports approximately 0.04 acre of USACE/RWQCB waters of the U.S. and 0.12 acre of CDFW jurisdictional streambed.

3.5.4.2 Drainage Complex B

Drainage B

Drainage B does not occur within the study area but is described to provide context for the rest of the Drainage Complex B. Historically, Drainage B was an ephemeral drainage located directly north of the study area, which was subsequently directed into storm drains during the development of the residential homes located directly to the north of the study area (Historic Aerials 2021). The storm drains outlet into Drainage B to the east of SR-71, which is a natural streambed. Drainage B drains into the Santa Ana River at the Prado Flood Control Basin. The remaining tributaries to Drainage B that are



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0 400 Feet

Source: Aerial (NearMap, 2021)

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Coastal California Gnatcatcher Locations

Figure 9

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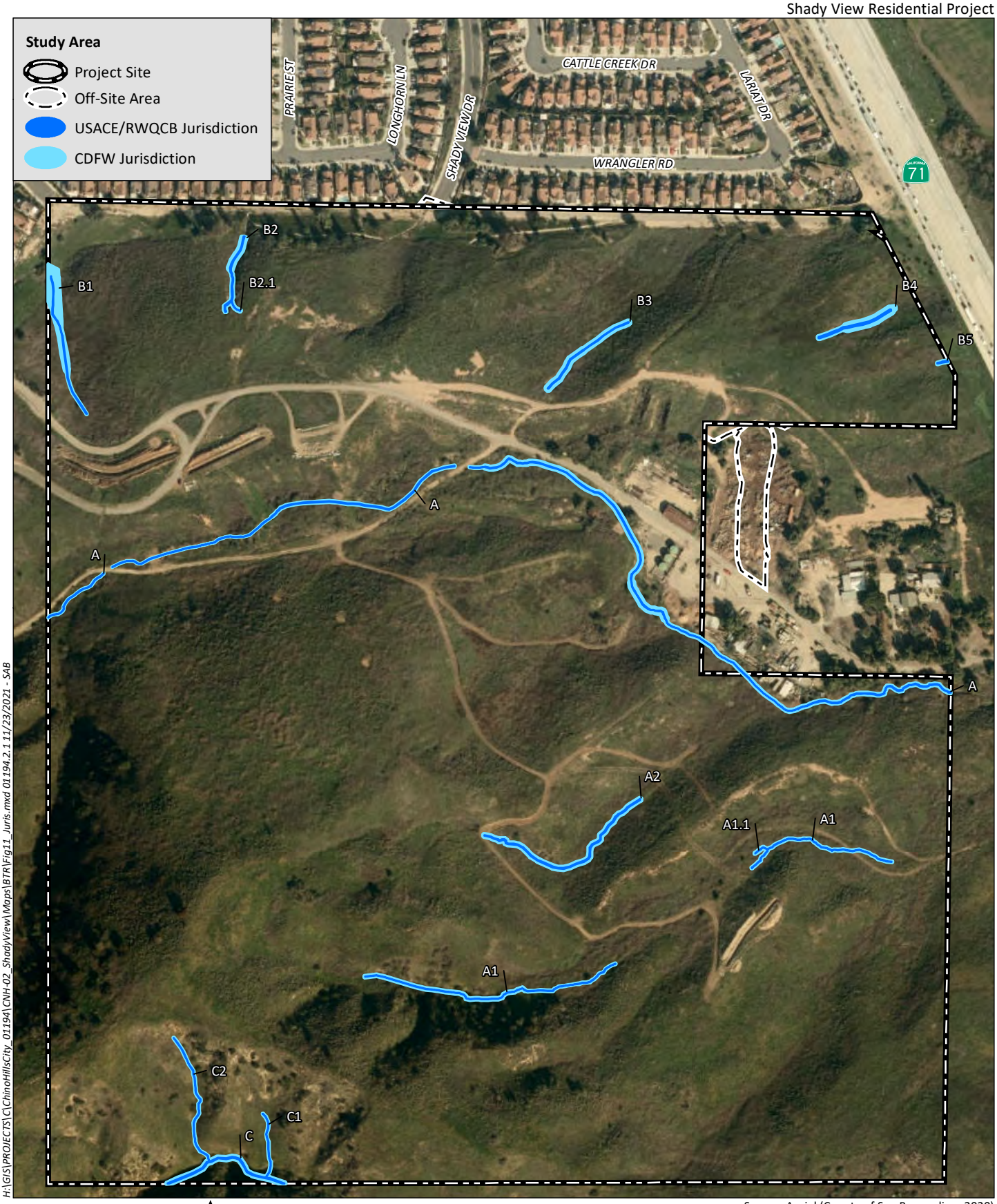
Source: Aerial (NearMap, 2020 & NAIP, 2018)

HELIX Environmental Planning

Least Bell's Vireo Locations

Figure 10



Source: Aerial (County of San Bernardino, 2020)

HELIX Environmental Planning

Jurisdictional Features

Figure 11

located within the study area (Drainages B1, B2, B2.1, B3, B4, and B5) no longer have an obvious connection to Drainage B since flows have been placed underground within storm drains.

Drainage B1

Drainage B1 is a small ephemeral tributary that historically connected to Drainage B. Drainage B1 initiates on the study area near the western boundary of the site. The drainage flows north through gentle slopes for approximately 390 linear feet, after which point the jurisdictional indicators cease in the low-lying area in the northwest corner of the study area. The development to the north of the study area cut off Drainage B1's historic connection to Drainage B. The small watershed does not direct enough flows to connect Drainage B1 to any other tributaries or v-ditches that may connect to storm drains associated with the adjacent development. The furthest upstream extent of Drainage B1 supports upland mustards, and the downstream portion supports a small patch of mule fat scrub. Soils within Drainage B1 consist of Soper gravelly loam (15 to 30 percent slopes).

Within the study area, Drainage B1 supports approximately 0.02 acre of USACE/RWQCB waters of the U.S. and 0.15 acre of CDFW jurisdictional streambed.

Drainage B2

Drainage B2 is a small ephemeral tributary that historically connected to Drainage B. Drainage B2 initiates within the western portion of the study area. The drainage flows north through gentle slopes for approximately 220 linear feet, after which point the drainage outlets into a v-ditch associated with the development to the north of the study area. The v-ditch outlets into a storm drain associated with the existing development, which presumably drains into Drainage B. Drainage B2 is dominated by California sagebrush scrub and soils consist of Soper gravelly loam (15 to 30 percent slopes).

Within the study area, Drainage B2 supports approximately 0.02 acre of USACE/RWQCB waters of the U.S. and 0.05 acre of CDFW jurisdictional streambed.

Drainage B2.1

Drainage B2.1 is a small ephemeral tributary to Drainage B2 that initiates on the study area to the east of Drainage B2. The drainage flows north for approximately 35 linear feet prior to joining Drainage B2. Drainage B2.1 is dominated by California sagebrush scrub and soils consist of Soper gravelly loam (15 to 30 percent slopes).

Within the study area, Drainage B2.1 supports <0.01 acre of USACE/RWQCB waters of the U.S. and 0.01 acre of CDFW jurisdictional streambed.

Drainage B3

Drainage B3 is a small ephemeral tributary that historically connected to Drainage B. Drainage B3 initiates in the northern portion of the study area. The drainage flows northeast for approximately 290 linear feet, after which point the jurisdictional indicators ceased in a gently sloping area near the northern study area boundary. No signs of jurisdictional indicators were observed between where indicators ceased and the retaining wall associated with the existing development to the north of the study area. Drainage B3 is dominated by California sagebrush scrub and soils consist of Soper gravelly loam (15 to 30 percent slopes).

Within the study area, Drainage B3 supports 0.02 acre of USACE/RWQCB waters of the U.S. and 0.09 acre of CDFW jurisdictional streambed.

Drainage B4

Drainage B4 is a small ephemeral tributary that connects off-site to Drainage B. Drainage B4 initiates on the study area near the northeast corner. The drainage flows northeast for approximately 225 linear feet, after which point the jurisdictional indicators cease near the northeast corner of the study area. During large storm events, sheet flow from Drainage B4 presumably drains into a small pipe culvert located off-site approximately 60 feet to the east of the study. The culvert continues under SR-71 and ultimately connects to Drainage B, approximately 500 linear feet to the northeast of the study area. Drainage B4 is dominated by disturbed and undisturbed California sagebrush scrub and soils consist of Soper gravelly loam (15 to 30 percent slopes).

Within the study area, Drainage B4 supports 0.02 acre of USACE/RWQCB waters of the U.S. and 0.09 acre of CDFW jurisdictional streambed.

Drainage B5

Drainage B5 is a small ephemeral tributary that historically connected to Drainage B. Drainage B5 initiates near the northeastern corner of the study area. The drainage flows east for approximately 30 linear feet and exits the study area at the eastern study area boundary. Drainage B5 continues off-site for approximately 50 linear feet, after which jurisdictional indicators cease at an embankment associated with SR-71. Drainage B5 is dominated by upland mustards and soils consist of Soper gravelly loam (15 to 30 percent slopes).

Within the study area, Drainage B5 supports <0.01 acre of USACE/RWQCB waters of the U.S. and <0.01 acre of CDFW jurisdictional streambed.

3.5.4.3 Drainage Complex C

Drainage C

Drainage C, which is a blueline stream mapped by USGS, is an ephemeral drainage that meanders from west to east near the southwest corner of the study area. The headwaters of Drainage C originate in the steep hillsides approximately 900 feet south of the study area. Drainage C enters the study area at the southern boundary. The drainage is an incised channel that follows steep topographic contours through the study area. Drainage C exits the study area at the southern boundary after meandering through the site for approximately 350 linear feet. The drainage continues off-site for approximately 0.5 mile until it enters a box culvert and flows under SR-71. Drainage C extends west for approximately 3,000 linear feet, ultimately draining into the Santa Ana River at the Prado Flood Control Basin. Drainage C burned in the 2020 Blue Ridge Fire and did not support vegetation at the time the survey was conducted. Soils within Drainage C consist of Fontana clay loam (30 to 50 percent slopes).

Within the study area, Drainage C supports 0.02 acre of USACE/RWQCB waters of the U.S. and 0.08 acre of CDFW jurisdictional streambed.

Drainage C1

Drainage C1 is a small ephemeral tributary to Drainage C, which initiates to the north of Drainage C in the southwest corner of the study area. The drainage extends south for approximately 175 linear feet before its confluence with Drainage C. Drainage C1 burned in the 2020 Blue Ridge Fire and did not support vegetation at the time the survey was conducted. Soils within Drainage C1 consist of Soper gravelly loam (30 to 50 percent slopes) and Fontana clay loam (30 to 50 percent slopes).

Within the study area, Drainage C1 supports <0.01 acre of USACE/RWQCB waters of the U.S. and 0.01 acre of CDFW jurisdictional streambed.

Drainage C2

Drainage C2 is a small ephemeral tributary to Drainage C, which initiates to the north of Drainage C in the southwest corner of the study area. The drainage extends south for approximately 350 linear feet before its confluence with Drainage C. Drainage C2 burned in the 2020 Blue Ridge Fire and did not support vegetation at the time the survey was conducted. Soils within Drainage C2 consist of Soper gravelly loam (30 to 50 percent slopes) and Fontana clay loam (30 to 50 percent slopes).

Within the study area, Drainage C2 supports 0.01 acre of USACE/RWQCB waters of the U.S. and 0.03 acre of CDFW jurisdictional streambed.

3.5.5 Habitat and Wildlife Corridor Evaluation

Wildlife corridors connect otherwise isolated pieces of habitat and allow movement or dispersal of plants and animals. Corridors can be local or regional in scale; their functions may vary temporally and spatially based on conditions and species presence. Local wildlife corridors allow access to resources such as food, water, and shelter within the framework of their daily routine. Animals use these corridors, which are often hillsides or tributary drainages, to move between different habitats. Regional corridors provide these functions over a larger scale and link two or more large habitat areas, allowing the dispersal of organisms and the consequent mixing of genes between populations.

Regionally, the study area is situated in the eastern portion of the Chino Hills. The study area is located immediately adjacent to open space and approximately 1.1 miles east of Chino Hills State Park. Existing residential homes occur directly to the north of the study area, and SR-71 is located approximately 100 feet to the east. The study area supports pockets of native habitat that provide live-in resources for wildlife, such as California sagebrush scrub, coast live oak woodland, and mule fat scrub. A large portion of the study area burned in the 2020 Blue Ridge Fire and did not support vegetation at the time the survey was conducted. However, burned habitat likely consisted of a mixture of native vegetation, such as coast live oak woodland and California sagebrush scrub, as well as non-native vegetation, such as upland mustards.

As previously described, corridors can be local or regional in scale. The study area is not considered a regional corridor since it does not directly connect two or more large blocks of habitat that would otherwise be fragmented or isolated from one another. The nearest regional wildlife movement corridor to the study area identified by the South Coast Missing Linkages Project is the San Gabriel – San Bernardino Connection located approximately 33 miles to the northeast of the study area (South Coast Wildlands 2008). The area immediately to the north of the study area is highly urbanized and supports limited cover for wildlife moving through the area. The SR-71 bisects any potential corridors to the east

of the study area, although wildlife can cross under SR-71 via off-site culverts to the east of the study area that are associated with Drainages A, B4, and C (Alonso et al. 2014, Lyren 2001). Wildlife may also access the study area via undeveloped land to the west and south; however, access to the east through the study area is restricted to culverts under SR-71 since development to the north and the highway are a physical barrier to wildlife movement. The culverts associated with Drainages A and B4 are small pipe culverts and would only facilitate the movement of reptiles and small to medium-sized mammals, such as cottontail rabbits (*Sylvilagus* spp.), coyotes (*Canis latrans*), and bobcats ([*Lynx rufus*]; Alonso et al. 2014, Lyren 2001). Mule deer (*Odocoileus hemionus*) have been recorded using the larger culvert crossing associated with Drainage C (Alonso et al. 2014). There are numerous crossings between the southern boundary of the study area and SR-91 that allow wildlife to cross under SR-71. Many of these culverts were improved by the California Department of Transportation specifically to increase wildlife movement under SR-71 to the southeast of the study area when SR-71 was widened in 2005.

4.0 REGIONAL AND REGULATORY CONTEXT

4.1 FEDERAL REGULATION

4.1.1 Federal Endangered Species Act

Administered by the USFWS, the Federal Endangered Species Act (FESA) provides the legal framework for the listing and protection of species (and their habitats) identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered a "take" under the FESA. Section 9(a) of the FESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct." "Harm" and "harass" are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species' behavioral patterns.

Sections 4(d), 7, and 10(a) of the FESA regulate actions that could jeopardize endangered or threatened species. Section 7 describes a process of federal interagency consultation for use when federal actions may adversely affect a listed species. A biological assessment is required for any major construction activity if it may affect a listed species. In this case, take can be authorized via a letter of biological opinion issued by the USFWS for non-marine related listed species issues. A Section 7 consultation is required when there is a nexus between federally listed species' use of the site and impacts to USACE jurisdictional areas. Section 10(a) allows the issuance of permits for "incidental" take of endangered or threatened species. The term "incidental" applies if the taking of a listed species is incidental to and not the purpose of an otherwise lawful activity.

4.1.2 Federal Clean Water Act

Federal wetland regulation (non-marine issues) is guided by the Rivers and Harbors Act of 1899 and the CWA. The Rivers and Harbors Act deals primarily with discharges into navigable waters, while the purpose of the CWA is to restore and maintain the chemical, physical, and biological integrity of all water of the U.S. Permitting for projects filling water of the U.S., including wetlands and vernal pools, is overseen by USACE under Section 404 of the CWA. Projects may be permitted on an individual basis or may be covered under one of several approved Nationwide Permits. Individual Permits are assessed individually based on the type of action, amount of fill, etc. Individual Permits typically require substantial time (often longer than six months) to review and approve, while Nationwide Permits are

pre-approved if a project meets the appropriate conditions. A CWA Section 401 Water Quality Certification, which is administered by the State Water Resources Control Board, must be issued prior to any 404 Permit.

4.1.3 Migratory Bird Treaty Act

All migratory bird species that are native to the United States or its territories are protected under the federal Migratory Bird Treaty Act (MBTA), as amended under the Migratory Bird Treaty Reform Act of 2004 (FR Doc. 05-5127). The MBTA is generally protective of migratory birds but does not actually stipulate the type of protection required. In common practice, the MBTA is used to place restrictions on the disturbance of active bird nests during the nesting season, which is generally defined as February 15 to August 31 for songbirds. In addition, the USFWS commonly places restrictions on disturbances allowed near active raptor nests, which the nesting season is generally defined as January 15 to August 31.

4.1.4 Critical Habitat

As described by the FESA, critical habitat is the geographic area occupied by a threatened or endangered species essential to species conservation that may require special management considerations or protection. Critical habitat also may include specific areas not occupied by the species but that have been determined to be essential for species conservation. The study area is located outside of any USFWS-designated critical habitat, although LBVI critical habitat occurs within 0.25 mile to the east of the study area.

4.2 STATE REGULATIONS

4.2.1 California Environmental Quality Act

Primary environmental legislation in California is found in CEQA and its implementing guidelines (State CEQA Guidelines), which require that projects with potential adverse effects (i.e., impacts) on the environment undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

4.2.2 California Endangered Species Act

The CESA is similar to the FESA in that it contains a process for listing of species and regulating potential impacts to listed species. Section 2081 of the CESA authorizes the CDFW to enter into a memorandum of agreement for take of listed species for scientific, educational, or management purposes. The golden eagle and white-tailed kite are considered State Fully Protected (SFP) species. A SFP species may not be taken or possessed at any time, and no state licenses or permits may be issued for their take except for collecting the species necessary for scientific research and relocation of the bird species for the protection of livestock (Fish and Game Code Sections 3511, 4700, 5050, and 5515).

The Native Plant Protection Act (NPPA) enacted a process by which plants are listed as rare or endangered. The NPPA regulates the collection, transport, and commerce of plants that are listed. The CESA followed the NPPA and covers both plants and animals that are determined to be endangered or threatened with extinction. Plants listed as rare under NPPA were designated threatened under the CESA.

4.2.3 California Fish and Game Code

4.2.3.1 Protection of Raptor Species

Raptors (birds of prey) and owls and their active nests are protected by CFG Code Section 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW.

4.2.3.2 Streambed Alteration Agreement

The CFG Code (Section 1600 et seq.) requires an agreement with the CDFW for projects affecting riparian and wetland habitats through the issuance of a Streambed Alteration Agreement.

4.3 LOCAL REGULATIONS

4.3.1 Native Tree Protection

The City has implemented regulatory measures to protect and preserve native trees that occur within the City's jurisdiction. The City's Tree Preservation Ordinance states, "It is unlawful for any person, firm, partnership, corporation or other legal entity to destroy or remove any non-exempt protected trees within the City without a tree permit. When a tree permit is required, no grading or building permits shall be issued until the tree permit is issued, nor shall work of any kind commence that would result in the destruction, damage, or removal of any non-exempt protected tree prior to the issuance of the tree permit" (Chapter 16.90 of the City's Municipal Code; City 2020).

To remove City-protected trees, a Tree Permit must be obtained. Protected trees include native and heritage trees as defined by the City. Native trees are defined as California sycamore (*Platanus racemosa*), coast live oak, southern California black walnut (*Juglans californica*), or scrub oak (*Quercus berberidifolia*) trees that have a stem/trunk is at least four inches in diameter at breast height (DBH; i.e., four feet six inches above finish grade). Heritage trees are defined as any species of single- or multi-trunk tree having a cumulative diameter of 44 inches or greater at DBH and of significant age, health, and quality to be deemed valuable to the aesthetics of the community by an International Society of Arboriculture (ISA) certified arborist. The City must also approve the ISA-certified arborist. Heritage trees exclude invasive trees defined by the California Invasive Plant Council (Cal-IPC; 2006, 2007) and trees that are susceptible to falling, such as gum trees (blue gum [*Eucalyptus globulus*]).

To obtain a Tree Permit, an application must be submitted at the same time as an application for the development of land to the City Manager or designated representative ("Director") and a filing fee as established by the City Council must be paid. A Tree Permit will only be granted if at least one of the following findings can be made:

(a) The condition of the protected tree(s) with respect to disease, danger of falling, proximity to proposed or existing structures, and interference with utility services warrant removal or relocation of the tree(s).

(b) It is reasonable to remove or relocate the protected tree(s) because of its (their) continued existence at the location unreasonably prevents the development of the property because: (1)

only an oddly configured structure could be constructed, or (2) an undue financial hardship on the property owner would result.

(c) The protected tree(s) removal or relocation is consistent with good urban forestry practices, such as the number of healthy trees that a given parcel of land will support.

(d) The protected tree(s) is (are) declared by an ISA-certified arborist to be dead or dying.

(e) The proposed removal or relocation of the protected tree(s) will substantially improve the defensible space of the property in the event of a fire, as determined by the Fire Department.

The application may also require an Arborist Report and a Soil Erosion and Sediment Control Plan, as determined necessary by the Director. The conditions of the Tree Permit will require an approved Tree Plan that includes protection and maintenance of protected trees to be retained or relocated on site and mitigation with a minimum replacement ratio of trees or other replacement of equivalent value and size, within the subject property, as determined by an approved Tree Plan or any required tree protection mitigation measures included in any applicable project application. The replacement ratio may be expanded or reduced as determined by the Director. If replacement on-site is not feasible, the City may approve replacement at an off-site location or the payment of an in-lieu fee to the City's Protected Tree Replacement Fund.

5.0 PROJECT EFFECTS

This section describes potential direct and indirect impacts associated with the proposed project. Direct impacts immediately alter the affected biological resources such that those resources are eliminated temporarily or permanently. Indirect impacts consist of secondary effects of a project, including noise, decreased water quality (e.g., through sedimentation, urban contaminants, or fuel release), fugitive dust, colonization of non-native plant species, animal behavioral changes, and night lighting. The magnitude of an indirect impact can be the same as a direct impact; however, the effect usually takes a longer time to become apparent.

The significance of impacts to biological resources present, or those with potential to occur, was determined based upon the sensitivity of the resource and the extent of the anticipated impacts. For certain highly sensitive resources (e.g., a federally listed species), any impact would be significant. Conversely, other resources that are of low sensitivity (e.g., species with a large, locally stable population in the region but declining elsewhere) could sustain some impact with a less than significant effect.

5.1 SENSITIVE SPECIES

5.1.1 Rare Plant Species

No Impacts

Ten of the 14 rare plant species recorded within the Prado Dam and Corona North quadrangles were not considered to have a potential to occur based on geographic range, elevation range, and/or lack of suitable habitat (see Appendix H). The remaining four species (Braunton's milk-vetch, intermediate mariposa lily, many-stemmed dudleya, and white-rabbit tobacco), were considered to have a potential

to occur on the study area based primarily based on the presence of suitable habitat. Braunton's milk-vetch, many-stemmed dudleya, and white-rabbit tobacco were not observed during rare plant surveys conducted in May and July 2021 and are presumed absent from the study. Four intermediate mariposa lilies were observed in the southwest corner of the study area (Figure 8). These individuals would not be impacted by the project since they occur outside of the project footprint. No project impacts are anticipated to rare plant species.

5.1.2 Sensitive Animal Species

Less than Significant Impacts with Mitigation Incorporated

Of the 29 sensitive animal species recorded within the vicinity of the study area, 15 species were considered to have no potential to occur on the study area due to a lack of suitable habitat and/or the study area is located outside of the species' known geographical range (Appendix J). The remaining 14 species are discussed in further detail below.

Low Potential

Three species were determined to have a low potential to occur on the study area based on the presence of low-quality habitat, limited acreage of habitat, and lack of recent observations within the immediate vicinity. These species include long-eared owl, pocketed free-tailed bat, and western yellow bat.

Long-eared owl is protected under MBTA regulations, which is addressed in Section 5.4.2 below. Loss of potentially suitable foraging habitat within the study area would not result in a significant impact to this species since suitable foraging habitat is located to the east, west, and south of the study area.

Western yellow bat roosts in trees, particularly in palms and cottonwoods. Although the study area does not support palms or cottonwoods, some scattered trees were noted throughout the site. Pocketed free-tailed bat roost in crevices within high rocky cliffs, caverns, and buildings. The study area supports some potentially suitable roosting habitat, including steep cliffs in the southwest corner of the study area that is being avoided, and existing structures in the northeast portion of the study area. Both species prefer foraging over open water, which the study area does not support. Suitable foraging habitat is located within the immediate vicinity of the study area (e.g., Prado Basin). If construction occurs during the maternity roosting season, pre-construction surveys will be conducted as outlined in Measure BIO-1. Additional avoidance and minimization measures would be required if maternity roosts are identified, as outlined in Measure BIO-1. Implementation of Measure BIO-1 would reduce potential impacts to a less than significant level. Loss of potentially suitable foraging habitat within the study area would not result in a significant impact to this species since suitable foraging habitat is located to the east, west, and south of the study area.

Moderate Potential

Six species were determined to have a moderate potential to occur based on the presence of habitat that was limited in size and recent observations in the vicinity of the study area. These species include Southern California legless lizard, red diamond rattlesnake, grasshopper sparrow, Swainson's hawk (foraging only), white-tailed kite, and western mastiff bat.

There is limited habitat for Southern California legless lizard and red diamond rattlesnake within the study area. Southern California legless lizard requires areas with warm, loose soil with adequate soil moisture. There are only two small habitat areas (mule fat scrub and coast live oak woodland) within the northern portion of the study area that support potentially suitable habitat. The project would remove approximately 0.33 acre of potentially suitable Southern California legless lizard habitat. The study area does not support rocky outcrops typically preferred by red diamond rattlesnake, although there are small rodent burrows within and adjacent to coastal sage scrub habitat that could be used as refuge. Since the study area supports limited habitat for these two species, the study area is not expected to support large populations of this species, and a loss of a few individuals, if present, would not be expected to reduce regional population numbers.

Grasshopper sparrow and white-tailed kite are protected under MBTA regulations, which is addressed in Section 5.4.2 below. Swainson's hawk is not known to nest in the Chino Hills region. Loss of potentially suitable foraging habitat for grasshopper sparrow, white-tailed kite, and Swainson's hawk within the study area would not result in a significant impact to these species since suitable foraging habitat is located to the east, west, and south of the study area.

The study area supports potentially suitable mastiff bat roosting habitat, including steep cliffs in the southwest corner of the study area, existing structures in the northeast portion of the study area, and large ornamental trees in the northern portion of the study area. Measure BIO-1 would reduce any potentially significant impacts to western mastiff bat. The study area also supports potentially suitable foraging habitat. Loss of potentially suitable foraging habitat within the study area would not result in a significant impact to this species since suitable foraging habitat is located to the east, west, and south of the study area.

High Potential

Two species were determined to have a high potential to occur based on the presence of potentially suitable habitat and recent observations in the vicinity of the study area. These species include coast horned lizard and golden eagle.

The study area supports potentially suitable coast horned lizard habitat, such as California sagebrush scrub. Adjacent suitable habitat is located directly to the west and south of the study area. Measure BIO-2 would reduce any potentially significant impacts to coast horned lizard. A qualified biologist will be present during the initial clearing of suitable habitat. If individuals are observed, the biologist will direct all work to occur within an area of the study area away from the coast horned lizard. The biologist will passively flush individuals away from the active work area.

Golden eagle is protected under MBTA regulations, and potential project impacts to nesting individuals are addressed in Section 5.4.2 below. The project will avoid 48.23 acres (37 percent) of potentially suitable foraging habitat within the study area, and existing open space is located to the east, west, and south of the study area. Therefore, the loss of a relatively small acreage of potentially suitable foraging habitat within the study area would not result in a significant impact to this species.

Not Expected

Based on the results of the habitat assessment, the study area supports potentially suitable habitat for BUOW but does not support suitable burrows or burrow surrogates. Although suitable burrows were not identified within the study area, site conditions may change prior to construction. Therefore, a pre-

construction take avoidance survey should be conducted on the study area prior to ground disturbance in accordance with CDFW's *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). If BUOW is observed during the take avoidance survey, avoidance of active nests and/or relocation of BUOW would be required, as outlined in Measure BIO-3. Implementation of Measure BIO-3 would reduce potential impacts to a less than significant level.

Present

Three CAGN pairs were detected during the 2021 survey effort (Figure 9). The project would permanently impact approximately 14.08 acres of California sagebrush scrub and 11.57 acres of disturbed-California sagebrush scrub, totaling 25.65 acres of permanent impacts to suitable CAGN habitat. Mitigation Measure BIO-4, included in Section 6.0 below, would be implemented to reduce permanent direct impacts to suitable CAGN habitat. In addition, construction noise could impose indirect impacts to CAGN individuals that are adjacent to work areas. Direct and/or indirect impacts to CAGN during the nesting season (February 15 through August 31) would be considered a significant impact. To avoid potential indirect impacts to CAGN during the nesting season, notification to, and guidance from USFWS, would be obtained prior to implementing construction activities within 500 feet of an active nest. Avoidance and minimization measures designed to avoid potential direct and indirect impacts are provided as Mitigation Measure BIO-4 in Section 6.0, which would reduce potential impacts to a less than significant level.

Four LBVI males were detected within the study area during the first four of eight surveys conducted during the 2021 breeding season (Figure 10). However, it is presumed LBVI are not using the study area for nesting habitat since (1) the study area supports very limited nesting habitat of marginal quality (0.14 acre of mule fat scrub); (2) three of the four individuals were detected in habitat not generally used for nesting; and (3) no individuals were detected after June 17, 2021, which is in the middle of the breeding season. Prado Basin is located approximately 0.25 mile to the east of the study area and supports high-quality nesting habitat. Additionally, the 2020 Blue Ridge Fire burned a large area to the north, west, and south of the study area, which may have supported suitable LBVI nesting habitat. Observed individuals in the study area may have been transient or dispersing individuals, or individuals displaced from the 2020 Blue Ridge Fire searching for suitable habitat within the vicinity.

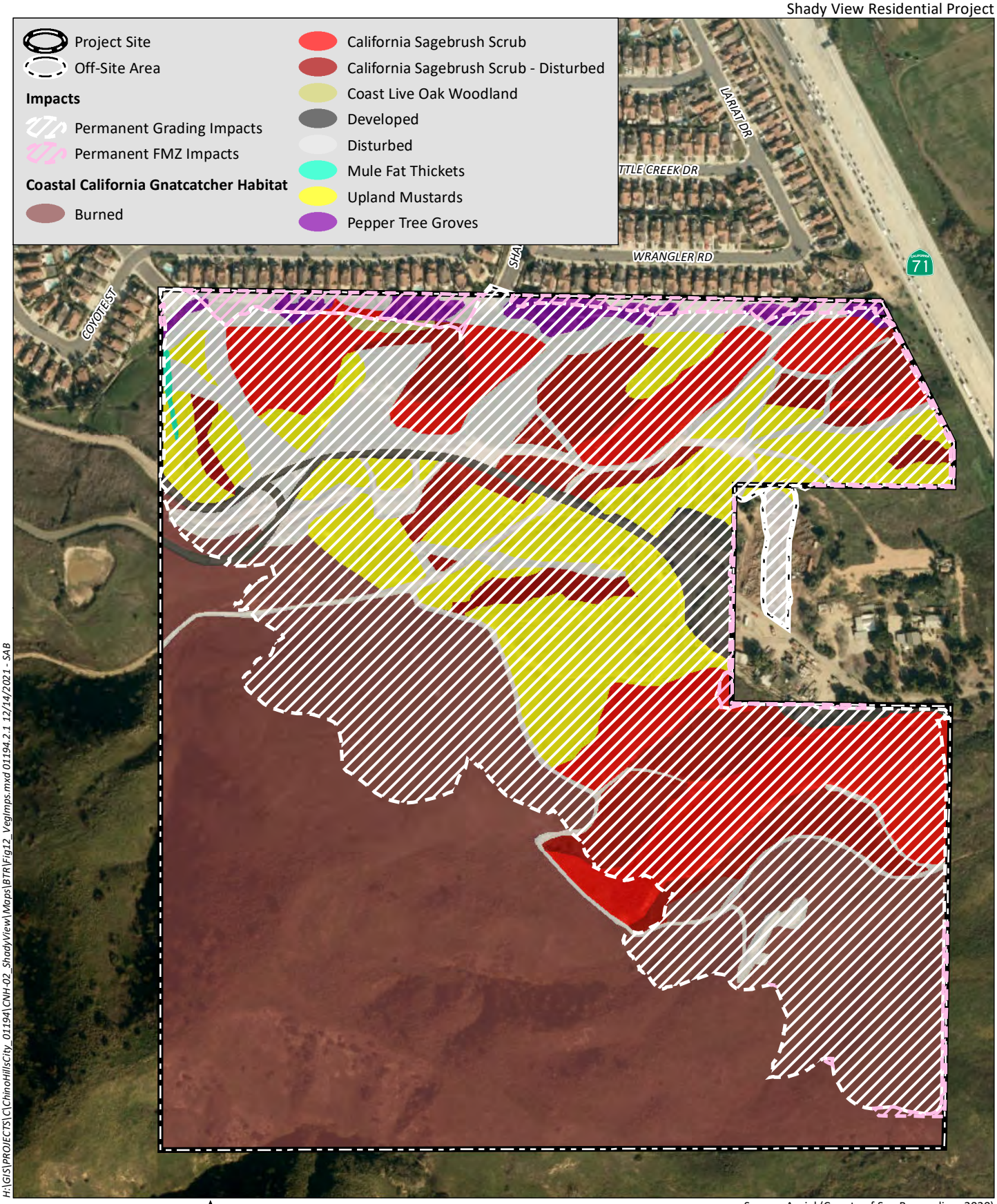
5.2 SENSITIVE VEGETATION COMMUNITIES

5.2.1 California Department of Fish and Wildlife Sensitive Vegetation Communities/Habitats

No Impacts

The 130.64-acre study area supports native-dominated habitat totaling 27.17 acres, including California sagebrush scrub (14.94 acres), disturbed-California sagebrush scrub (11.88 acres), coast live oak woodland (0.21 acre), and mule fat thickets (0.14 acre). The remainder of the study area (103.47 acres) supports existing developed areas, disturbed habitat, pepper tree groves, and upland mustards.

The project proposes permanent impacts to 82.41 acres. Of the 82.41 acres of permanent impacts, 78.51 acres are associated with on-site grading impacts, 3.06 acres are associated with on-site fuel modification impacts that extend outside of the grading limits, and 0.84 acre are associated with off-site grading impacts (Table 3, *Impacts to Vegetation Communities;* Figure 12, *Impacts to Vegetation*).



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Source: Aerial (County of San Bernardino, 2020)

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Impacts to Vegetation and Land Uses

Figure 12

Permanent impacts are proposed to 25.98 acres of native-dominated habitat and 56.43 acres that comprise other areas with little to no native vegetation. None of the vegetation communities described above are considered sensitive pursuant to CDFW (2021). The project would avoid 48.23 acres (37 percent) in the southwest portion of the study area, most of which (46.47 acres) burned in the 2020 Blue Ridge Fire.

Table 3
IMPACTS TO VEGETATION COMMUNITIES

Habitat Type	Permanent On-site Grading Impacts (acres)[1]	Permanent On-site Fuel Modification Impacts (acres)[1]	Permanent Off-site Grading Impacts (acres)[1]	Total Permanent Impacts (acres)[1]	Avoidance (acres)[1]
Burned Habitat	20.60	0.23	0.00	**20.83**	46.47
California Sagebrush Scrub	13.86	0.22	0.00	**14.08**	0.86
Coast Live Oak Woodland	0.18	0.03	0.00	**0.21**	0.00
Developed	3.24	0.10	0.02	**3.36**	0.21
Disturbed	11.43	1.21	0.73	**13.37**	0.28
Disturbed-Sagebrush Scrub	11.49	0.08	0.00	**11.57**	0.31
Mule Fat Thickets	0.12	0.00	0.00	**0.12**	0.02
Pepper Tree Groves	0.87	1.08	0.00	**1.95**	0.01
Upland Mustards	16.72	0.11	0.09	**16.92**	0.07
TOTAL	**78.51**	**3.06**	**0.84**	**82.41**	**48.23**

[1] Acreages are rounded to the nearest hundredth.

5.2.2 California Department of Fish and Wildlife Riparian Habitat and Streambed

Less than Significant Impacts with Mitigation Incorporated

The study area supports approximately 1.14 acres of CDFW jurisdictional streambed pursuant to Section 1602 of the CFG Code as regulated by CDFW. Project grading would result in permanent impacts to approximately 0.89 acre of CDFW jurisdiction within the study area (Table 4, *Impacts to CDFW Jurisdiction*; Figure 13, *Impacts to Jurisdictional Features*). The project would permanently impact most of Drainage Complex A (0.50 acre) and all of Drainage Complex B (0.39 acre). No temporary impacts are anticipated. Approximately 0.13 acre within Drainage Complex A would be avoided, and all of Drainage Complex C (0.12 acre) would be avoided.

Impacts to CDFW jurisdiction will require a Section 1602 Stream Alteration Agreement from the CDFW, as described in Measure BIO-5 included in Section 6.0 below. Compensatory mitigation for permanent impacts to CDFW jurisdiction would be required as part of subsequent Section 1602 permitting requirements. Permanent impacts to CDFW jurisdiction shall be mitigated through on-site or off-site enhancement, restoration, and/or creation of jurisdictional streambed at a ratio of no less than 2:1 as

detailed in Measure BIO-5. With the implementation of Measure BIO-5, the project would not result in significant impacts to jurisdictional resources.

Table 4
IMPACTS TO CDFW JURISDICTION

Drainage	Permanent On-site Grading Impacts (acres)[1]	Avoidance (acres)[1]
Drainage Complex A		
A	0.38[2]	0.00
A1	0.04	0.08
A1.1	0.01	0.00
A2	0.07	0.05
Subtotal	*0.50*	*0.13*
Drainage Complex B		
B1	0.15	0.00
B2	0.05	0.00
B2.1	0.01	0.00
B3	0.09	0.00
B4	0.09	0.00
B5	<0.01[3]	0.00
Subtotal	*0.39*	*0.00*
Drainage Complex C		
C	0.00	0.08
C1	0.00	0.01
C2	0.00	0.03
Subtotal	*0.00*	*0.12*
TOTAL	**0.89**	**0.25**

[1] Acreages are rounded to the nearest hundredths.
[2] Approximately 0.020 acre of Drainage A consists of a small segment in the central portion of the drainage that extends off-site.
[3] Actual acreage is 0.004 acre.

5.3 U.S. ARMY CORPS OF ENGINEERS/REGIONAL WATER QUALITY CONTROL BOARD JURISDICTION

Less than Significant Impacts with Mitigation Incorporated

The study area supports approximately 0.28 acre of USACE/RWQCB non-wetland waters of the U.S. The project would result in permanent impacts to approximately 0.21 acre of USACE/RWQCB non-wetland waters of the U.S (Table 5, *Impacts to USACE/RWQCB Jurisdiction*; Figure 13). The project would permanently impact most of Drainage Complex A (0.13 acre) and all of Drainage Complex B (0.08 acre). No temporary impacts are anticipated. Approximately 0.04 acre within Drainage Complex A would be avoided, and all of Drainage Complex C (0.03 acre) would be avoided.

Impacts to USACE/RWQCB jurisdiction will require a Section 404 permit from USACE and a Section 401 permit from RWQCB, as described in Measure BIO-5 included in Section 6.0 below. Compensatory streambed mitigation for permanent impacts to USACE/RWQCB jurisdiction will be required as part of subsequent Section 404/401 permitting requirements. Permanent impacts to USACE/RWQCB jurisdiction shall be mitigated through on-site or off-site enhancement, restoration, and/or creation of

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Source: Aerial (County of San Bernardino, 2020)

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Impacts to Jurisdictional Features

Figure 13

jurisdictional streambed at a ratio of no less than 2:1 as required by Measure BIO-5. With the implementation of Measure BIO-5, the project would not result in significant impacts to jurisdictional resources.

Table 5
IMPACTS TO USACE/RWQCB JURISDICTION

Drainage	Permanent On-site Grading Impacts (acres)[1]	Avoidance (acres)[1]
Drainage Complex A		
A	0.10[2]	0.00
A1	0.01	0.02
A1.1	<0.01[3]	0.00
A2	0.02	0.02
Subtotal	*0.13*	*0.04*
Drainage Complex B		
B1	0.02	0.00
B2	0.02	0.00
B2.1	<0.01[3]	0.00
B3	0.02	0.00
B4	0.02	0.00
B5	<0.01[4]	0.00
Subtotal	*0.08*	*0.00*
Drainage Complex C		
C	0.00	0.02
C1	0.00	<0.01[7]
C2	0.00	0.01
Subtotal	*0.00*	*0.03*
TOTAL	**0.21**	**0.07**

[1] Acreages are rounded to the nearest hundredths.
[2] Approximately 0.003 acre of Drainage A consists of a small segment in the central portion of the drainage that extends off-site.
[3] Actual acreage is 0.001 acre.
[4] Actual acreage is 0.002 acre.

5.4 WILDLIFE MOVEMENT AND MIGRATORY SPECIES

5.4.1.1 Wildlife Movement

Less than Significant

The study area is not part of a regional corridor. The study area is not identified as being part of a local or regional corridor or linkage by the South Coast Missing Linkages (South Coast Wildlands 2008). The study area does not directly connect two or more large blocks of habitat that would otherwise be fragmented or isolated from one another. Development of the project would not impede wildlife access to other undeveloped land in the region since the study area is located at the edge of existing development and open space would remain to the east, west, and south of the study area. The project would not remove any of the off-site culverts adjacent to the west side of SR-71, although increased development may deter common wildlife (e.g., bobcats, cottontail rabbits, coyotes, raccoon [*Procyon lotor*], skunk [*Mephitis* sp.]) from using culverts associated with Drainages A and B4. The project would

avoid approximately 48.23 acres (37 percent) in the southwest corner of the study area, which includes Drainage C. The box culvert is approximately 840 feet to the southeast of the proposed development and is separated by a prominent ridgeline. Therefore, the project would not impede wildlife movement through the off-site box culvert associated with Drainage C, and wildlife, including mule deer, would continue to be able to access the Chino Hills and Prado Basin under the SR-71. As previously noted, there are numerous crossings between the southern boundary of the study area and SR-91 that allow wildlife the opportunity to continue to cross under SR-71 following development.

The study area does support native upland vegetation and small patches of native riparian vegetation, which provide habitat for local wildlife movement and migratory birds passing through the study area. Some reptiles, small mammals, and occasionally larger mammals may access the study area from undeveloped land to the west and south. Birds may fly over existing development to access the study area for foraging and/or nesting. Therefore, the study area provides habitat for local wildlife movement, but does not serve as a regional wildlife corridor. Although the implementation of the project may result in some temporary disturbance to local wildlife movement from construction noise and potential decreased use of the off-site culverts associated with Drainages A and B4 by commonly occurring animals, the project overall would have a less than significant impact to wildlife movement and no mitigation measures would be required.

5.4.2 Migratory Species

Less than Significant Impacts with Mitigation Incorporated

The study area has the potential to support songbird and raptor nests (including sensitive species, such as grasshopper sparrow, golden eagle, and white-tailed kite) due to the presence of shrubs, ground cover, and trees on the study area. Potentially suitable golden eagle nesting habitat is located in the southwest corner, which consists of steep, southwest-facing cliffs. The cliffs would be avoided by the project and would be sheltered from the proposed development due to the topography of the area. However, indirect noise impacts could occur if construction occurs during the nesting season.

Project activities could disturb or destroy active migratory bird nests including eggs and young. Disturbance to or destruction of migratory bird eggs, young, or adults is in violation of the MBTA and is considered a potentially significant impact. The nesting season is generally defined as February 15 through August 31 for songbirds and January 15 to August 31 for raptors. An avoidance and minimization measure is provided as BIO-6 in Section 6.0 below, which would help ensure the project follows MBTA regulations. Implementation of Measure BIO-6 reduces potential impacts to a less than significant level.

5.5 LOCAL POLICIES AND ORDINANCES

Less than Significant with Mitigation Incorporated

The project would remove several coast live oak trees located in the northern portion of the study area (see coast live oak woodland in Figure 12), and scattered scrub oaks were noted throughout the study area during rare plant surveys. Heritage trees are not likely to occur since the coast live oaks and scrub oaks did not appear to meet the 44-inch DBH threshold. Most of the other trees noted within the study area are in the Cal-IPC Inventory (Peruvian peppertree, red gum, tree-of-heaven [*Ailanthus altissima*]; 2006, 2007), and, therefore, would not qualify as heritage trees. Aleppo pine, London plane, and

Mexican palo verde (*Parkinsonia aculeata*) were also noted during the rare plant surveys. These trees are non-invasive ornamental trees that could possibly meet the 44-inch DBH threshold. A tree survey must be conducted by an ISA-certified arborist to determine the number of City-protected trees the project would impact.

In accordance with Measure BIO-7, a tree survey will be conducted within the development footprint prior to construction. A Tree Permit must be obtained from the City prior to impacts to City-protected trees. The conditions of the Tree Permit will require mitigation with a minimum replacement ratio of trees or other replacement of equivalent value and size, within the subject property, as determined by an approved Tree Plan or any required tree protection mitigation measures included in any applicable project application. The replacement ratio may be expanded or reduced as determined by the Director. The number of replacement trees required is dependent upon the circumference of the tree to be impacted. Therefore, implementation of Measure BIO-7 would reduce any direct impacts to City-protected trees to less than significant.

5.6 ADOPTED HABITAT CONSERVATION PLANS

No Impacts

The study area is not located within any adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan. As such, the implementation of the project would not conflict with any adopted habitat conservation plans.

6.0 MITIGATION MEASURES

The following provides recommended measures intended to minimize or avoid impacts to biological resources:

BIO-1 **Sensitive Bat Species.** Due to the presence of potentially suitable habitat for sensitive bat species, the following avoidance and minimization measures shall be implemented to avoid potential indirect impacts to these two species:

If construction activities (i.e., earthwork, clearing, grubbing, etc.) are proposed within the bat maternity roosting season (April 1 through August 31), a qualified biologist experienced with bats shall conduct a pre-construction survey within all suitable habitat on the study area. The pre-construction survey shall be conducted 30 days prior to commencing construction activities and shall consist of two separate surveys conducted no more than a week apart. The second and final survey should be conducted no more than seven days prior to commencing construction activities. The pre-construction surveys should be conducted using a detector for echolocation calls, such as an Anabat bat detector system. The results of the pre-construction survey shall be documented by the qualified biologist and submitted to the City.

If the qualified biologist determines that no sensitive bat maternity roosts are present, the construction activities shall be allowed to proceed without any further requirements. If the qualified biologist determines that sensitive bat maternity roosts are present, the following avoidance and minimization measures shall be implemented:

1. No construction activities may occur within 300 feet of any sensitive bat maternity roosts. A qualified biologist shall clearly delineate any bat maternity roosts and any required avoidance buffers, which shall be clearly marked with flags and/or fencing prior to the initiation of construction activities.

2. If construction activities are proposed within 300 feet of a sensitive bat maternity roost, a biological monitor shall be required to observe the behavior of any roosting bats. The construction supervisor shall be notified if the construction activities appear to be altering the bats' normal roosting behavior. No construction activities will be allowed within 300 feet of bat maternity roosts until the additional minimization measures are taken, as determined by the biological monitor in coordination with CDFW and the City. The biological monitor shall prepare written documentation of all monitoring activities and any additional minimization measures that were taken, which shall be submitted to CDFW and the City at the completion of construction activities.

BIO-2 **Coast Horned Lizard:** A qualified wildlife biologist shall monitor the initial clearing of suitable habitat (i.e., California sagebrush scrub). If coast horned lizard individuals are found in the project footprint, the biologist shall direct all work to occur within an area of the study area away from coast horned lizard. The biologist shall passively flush individuals away from the active work area. The qualified biologist shall submit to CDFW and the City the number and locations of coast horned lizard(s) disturbed by vegetation removal activities once removal activities are completed.

BIO-3 **Burrowing Owl**: In compliance with the CDFW *Staff Report on BUOW Mitigation* (2012), a take avoidance survey shall be conducted on the study area within 14 days prior to ground disturbance to determine the presence of BUOW. If the take avoidance survey is negative and BUOW is confirmed absent, then ground-disturbing activities shall be allowed to commence, and no further mitigation would be required.

If BUOW are observed during the take avoidance survey, active burrows shall be avoided by the project in accordance with the CDFW's Staff Report (2012). The CDFW shall be immediately informed of any BUOW observations. A BUOW Protection and Relocation Plan (plan) shall be prepared by a qualified biologist, which must be approved by CDFW prior to initiating ground disturbance. The plan shall detail avoidance measures that shall be implemented during construction and passive or active relocation methodology. A final copy of the plan shall be provided to the City upon approval by CDFW. Relocation shall only occur outside of the nesting season (September 1 through January 31).

BIO-4 **Coastal California Gnatcatcher**: Due to the presence of CAGN and suitable habitat within the study area, the following measures shall be implemented to minimize and avoid potential direct impacts:

1. **FESA Compliance and Compensatory Mitigation:** FESA Compliance: Prior to issuance of a grading permit, it shall be demonstrated that FESA consultation with USFWS regarding the project's effects to CAGN has occurred and that the USFWS has authorized such take through an incidental take statement or incidental take

permit, as applicable. Compensatory mitigation for permanent direct impacts to 25.65 acres of suitable CAGN habitat identified in this report shall be offset through compensatory mitigation which may include, but is not necessarily limited to, on-site or off-site California sage scrub preservation, enhancement, restoration, and/or creation at a ratio of no less than 1:1. However, if the USFWS issues a biological opinion or incidental take permit for the project that covers CAGN, that document will supersede any measures and mitigation ratios provided in this report. Mitigation for the project's effects to CAGN shall be determined by USFWS in accordance with the FESA consultation process and the biological opinion or incidental take permit that is issued by USFWS for the project. **Non-breeding Season Avoidance and Minimization Measures:** If construction activities (i.e., earthwork, clearing, and grubbing) occur outside of the CAGN nesting season (September 1 through February 14), the following measures shall be implemented to avoid potential impacts.

a. Pre-Construction Surveys: The qualified biologist(s) shall conduct a pre-construction survey to confirm that CAGN are absent, or breeding and nesting activities are not within 500 feet of the outer limits of disturbance. The survey shall be conducted no more one day prior to impacts to suitable habitat.

b. Biological Monitoring: A qualified biologist(s) shall monitor initial clearing of suitable habitat. If CAGN are found in the project footprint, the biologist(s) shall direct all work to occur within an area of the study area away from CAGN. The biologist(s) shall passively flush individuals away from the active work area. The qualified biologist(s) shall submit to USFWS the number and locations of CAGN disturbed by vegetation removal activities.

2. **Breeding Season Avoidance and Minimization Measures:** If construction activities (i.e., earthwork, clearing, grubbing, etc.) are proposed within the CAGN nesting season (February 15 through August 31), the following measures shall be implemented to avoid potential impacts:

a. Pre-Construction Surveys: Following notification to USFWS, the qualified biologist(s) shall conduct a pre-construction survey to confirm that CAGN are absent or breeding and nesting activities are not present within 500 feet of the outer limits of disturbance. The survey shall be conducted one day prior to impacts to suitable habitat and USFWS will be notified at least seven days prior to initiation of the survey. The qualified biologist(s) shall submit to USFWS the number and locations of CAGN observed on and within 500 feet of the project footprint.

b. Biological Monitoring: Construction activities shall not occur within 500 feet of an active CAGN nest unless noise monitoring and/or noise attenuation measures are implemented (see below). Noise monitoring and noise attenuation measures shall be approved by USFWS prior to implementation. A qualified biologist(s) shall monitor initial clearing of suitable habitat. After vegetation removal is complete, surveys shall be completed once per week

during project construction that occurs within the breeding season. Weekly surveys may be suspended if approved by USFWS

c. Noise Monitoring: If an active nest is observed on or within 500 feet of the project footprint, a qualified acoustician shall assess the potential for noise levels to exceed 60 A-weighted decibels (dB[A]) hourly in areas occupied by the CAGN, or an hourly average increase of 3 dB(A) if existing ambient noise levels exceed 60 dB(A). The qualified acoustician shall coordinate with the qualified biologist(s) and USFWS to identify noise attenuation measures. Construction may proceed within 500 feet of an active nest if noise levels are maintained below a 60 dB(A) hourly average, or below an hourly average increase of 3 dB(A) if existing ambient noise levels exceed 60 dB(A), near the nest site and as approved by USFWS.

   i. A qualified acoustician shall be retained to determine ambient noise levels for construction activities within 500 feet of active nests. Noise levels near the nest site shall not exceed an hourly average of 60 dB(A), or an hourly average increase of 3 dB(A) if existing ambient noise levels exceed 60 dB(A). If project-related noise levels exceed the threshold described above, construction activities shall cease until additional minimization measures are taken to reduce project-related noise levels to below an hourly average of 60 dB(A), or below an hourly average increase of 3 dB(A) if existing ambient noise levels exceed 60 dB(A). If additional measures do not decrease project-related noise levels below the thresholds described above, construction activities shall cease until USFWS is contacted to discuss alternative methods.

   ii. All project personnel shall attend a training program presented by a qualified biologist prior to construction activities. The training program shall inform project personnel about the life history of CAGN and all avoidance and minimization measures.

   iii. The construction contractor shall only allow construction activities to occur during daylight hours.

   iv. The construction contractor shall require functional mufflers on all construction equipment (stationery or mobile) used within or immediately adjacent to any 500-foot avoidance buffers to reduce construction equipment noise. Stationary equipment shall be situated so that noise generated from the equipment is not directed towards any suitable habitat for the CAGN.

   v. The construction contractor shall place staging areas as far as feasible from any suitable CAGN habitat.

   vi. The biological monitor shall prepare written documentation of all monitoring activities at the completion of construction activities, which shall be submitted to USFWS.

BIO-5 **Jurisdictional Resources**: Prior to the issuance of a grading permit for impacts to jurisdictional resources, the Project Applicant shall obtain the necessary regulatory permits from USACE, RWQCB, and CDFW (collectively, the "Resource Agencies"). Regulatory permits are anticipated to include a Section 404 Individual Permit or Nationwide Permit through USACE, a Section 401 Water Quality Certification through RWQCB, and a Section 1602 Streambed Alteration Agreement through CDFW. Permanent impacts to jurisdictional resources shall be mitigated through on-site or off-site enhancement, restoration, and/or creation of jurisdictional streambed and/or riparian habitat at a ratio of no less than 2:1. The following minimization measures shall be implemented during construction:

- Use of standard Best Management Practices (BMPs) to minimize the impacts during construction.
- Construction-related equipment shall be stored in developed areas, outside of drainages.
- Source control and treatment control BMPs shall be implemented to minimize the potential contaminants that are generated during and after construction. Water quality BMPs shall be implemented throughout the project to capture and treat potential contaminants.
- To avoid attracting predators during construction, the project shall be kept clean of debris to the extent possible. All food-related trash items shall be enclosed in sealed containers and regularly removed from the site.
- Employees shall strictly limit their activities, vehicles, equipment, and construction material to the proposed project footprint, staging areas, and designated routes of travel.
- Exclusion fencing should be maintained until the completion of construction activities.

BIO-6 **Nesting Birds:** If construction activities (i.e., earthwork, clearing, and grubbing) must occur during the general bird nesting season for migratory birds and raptors (January 15 and August 31), a qualified biologist shall perform a pre-construction survey of potential nesting habitat to confirm the absence of active nests belonging to migratory birds and raptors afforded protection under the MBTA and CFG Code. The pre-construction survey shall be performed no more than seven days prior to the commencement of construction activities. The results of the pre-construction survey shall be documented by the qualified biologist and submitted to the City prior to construction. The report shall include survey methods and results, in addition to recommended avoidance and minimization measures if active nests are located.

If the qualified biologist determines that no active migratory bird nests within 300 feet (500 feet for raptors) of project impacts, the activities shall be allowed to proceed without any further requirements. If the qualified biologist determines that an active migratory bird or raptor nest is present, no impacts within 300 feet (500 feet for

raptors) of the active nest shall occur until the young have fledged the nest and the nest is confirmed to no longer be active, or as determined by the qualified biologist. The biological monitor may modify the buffer or propose other recommendations to minimize disturbance to nesting birds.

In addition to the nesting bird survey described above, a golden eagle specialist shall perform a pre-construction survey of potential nesting habitat to confirm the absence of active golden eagle nests if construction activities (i.e., earthwork, clearing, and grubbing) must occur during the general nesting season for migratory raptors (January 15 and August 31). The golden eagle pre-construction survey shall be performed no more than seven days prior to the commencement of construction activities. If the specialist determines that no active golden eagle nests will be disturbed by the project, the activities shall be allowed to proceed without any further requirements. If project activities have the potential to disturb active nests, the golden eagle specialist may recommend avoidance and minimization measures, such as setback buffers, depending on the location of the nest and the type of activity occurring in the vicinity/view of the nest. The results of the pre-construction survey shall be documented by the golden eagle specialist and submitted to the City prior to construction. The report shall include survey methods and results, in addition to recommended avoidance and minimization measures if golden eagle nests are located within the one-mile survey area.

BIO-7 **City-protected Trees:** Prior to the issuance of grading permits, a tree survey shall be conducted within the development footprint to determine the number of City-protected trees that will be impacted by the project. The Project Applicant shall obtain a Tree Permit in accordance with the City's Tree Preservation Ordinance (Chapter 16.90 of the City's Municipal Code; City 2020) prior to impacting protected trees. The Project Applicant shall replace impacted City-protected oak trees proposed for removal by planting replacement trees on-site, or off-site if deemed acceptable by the Director. At the City's sole discretion, payment of a fee to the City's Protected Tree Replacement Fund, pursuant to the City's adopted Administrative Policy for the implementation of the City's Tree Preservation Ordinance, may be accepted in lieu of on-site or off-site replacement. Replacement ratios shall be determined based on requirements described in Section 16.90.070 of the Tree Preservation Ordinance. The City shall approve all replacement trees.

7.0 CERTIFICATION AND QUALIFICATIONS

The following individuals contributed to the fieldwork and/or preparation of this report:

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Appendix A

Plant Species Observed

Family	Scientific Name	Common Name
GYMNOSPERMS		
Pinaceae	*Pinus halepensis**	Aleppo pine
ANGIOSPERMS - EUDICOTS		
Adoxaceae	*Sambucus nigra* ssp. *caerulea*	blue elderberry
Anacardiaceae	*Malosma laurina*	laurel sumac
	Rhus integrifolia	lemonadeberry
	*Schinus molle**	Peruvian pepper tree
	Toxicodendron diversilobum	poison oak
Apocynaceae	*Asclepias fascicularis*	narrow-leaf milkweed
Asteraceae	*Artemisia californica*	California sagebrush
	Baccharis pilularis	coyote brush
	Baccharis salicifolia	mule fat
	*Carduus pycnocephalus**	Italian thistle
	*Centaurea melitensis**	tocalote
	Corethrogyne filaginifolia var. *filaginifolia*	common sandaster
	Deinandra fasciculata	fascicled tarplant
	Encelia californica	California encelia
	Ericameria palmeri var. *pachylepis*	box springs goldenbush
	Eriophyllum confertiflorum	golden-yarrow
	Heterotheca grandiflora	telegraph weed
	Isocoma menziesii	goldenbush
	*Lactuca serriola**	wild lettuce
	Layia platyglossa	tidy-tips
	Malacothrix saxatilis	cliff aster
	*Senecio vulgaris**	common groundsel
	*Silybum marianum**	milk thistle
	*Sonchus asper**	prickly sow thistle
	Stephanomeria virgata	rod wire lettuce
Boraginaceae	*Amsinckia intermedia*	rancher's fiddleneck
	Eucrypta chrysanthemifolia var. *chrysanthemifolia*	common eucrypta
	Phacelia cicutaria var. *hispida*	caterpillar phacelia
	Phacelia parishii	Parish's phacelia
Brassicaceae	*Capsella bursa-pastoris**	shepherd's purse
	*Hirschfeldia incana**	short-pod mustard
	*Sisymbrium irio**	London rocket
Cactaceae	*Opuntia littoralis*	coastal prickly pear
Chenopodiaceae	*Amaranthus blitoides*	prostrate amaranth
	*Chenopodium album**	pigweed
	*Salsola tragus**	Russian thistle
Convolvulaceae	*Calystegia macrostegia*	morning-glory
	*Convolvulus arvensis**	bindweed
Cucurbitaceae	*Cucurbita foetidissima*	calabazilla
	Marah macrocarpa	wild cucumber
Euphorbiaceae	*Croton setiger*	doveweed
	*Chamaesyce albomarginata**	rattlesnake weed
	*Ricinus communis**	castor bean

Family	Scientific Name	Common Name
Fabaceae	*Acmispon glaber*	deerweed
	*Parkinsonia aculeata**	Mexican palo verde
Fagaceae	*Quercus agrifolia*	coast live oak
	Quercus berberidifolia	scrub oak
Geraniaceae	*Erodium* sp.*	filaree species
Lamiaceae	*Marrubium vulgare**	white horehound
	Salvia apiana	white sage
	Trichostema lanceolatum	vinegar weed
Malvaceae	*Malva parviflora*	cheeseweed
Myrtaceae	*Eucalyptus camaldulensis*	river red gum
Nyctaginaceae	*Mirabilis laevis* ssp. *crassifolia*	wishbone bush
Onagraceae	*Clarkia bottae*	Botta's clarkia
Phrymaceae	*Diplacus aurantiacus*	monkey-flower
Platanaceae	*Platanus x hispanica**	London plane tree
Polygonaceae	*Eriogonum fasciculatum*	buckwheat
Rosaceae	*Heteromeles arbutifolia*	toyon
Rubiaceae	*Galium angustifolium* ssp. *angustifolium*	narrow-leaved bedstraw
Scrophulariaceae	*Scrophularia californica*	California figwort
Simaroubaceae	*Ailanthus altissima**	tree-of-heaven
Solanaceae	*Datura wrightii*	jimson weed
	*Nicotiana glauca**	tree tobacco
Tamaricaceae	*Tamarix ramosissima**	saltcedar
ANGIOSPERMS - MONOCOTS		
Agavaceae	*Agave americana**	century plant
Liliaceae	*Calochortus weedii var. intermedius*†	intermediate mariposa lily
Poaceae	*Avena* sp.*	wild oat
	*Bromus diandrus**	common ripgut grass
	*Bromus rubens**	red brome
	Elymus condensatus	giant wild rye
	*Festuca myuros**	fescue
	*Festuca perennis**	Italian ryegrass
	*Hordeum murinum**	hare barley
	*Lamarckia aurea**	goldentop
	*Schismus barbatus**	Mediterraneangrass
	Stipa pulchra	purple needlegrass
Themidaceae	*Bloomeria crocea* var. *crocea*	golden star
	Dichelostemma capitatum	blue dicks

* Non-native species

† California Rare Plant Rank 1B.2

Appendix B

Animal Species Observed or Detected

Order	Family	Scientific Name	Common Name
INVERTEBRATES			
Hymenoptera	Pompilidae	unidentified	tarantula hawk
Lepidoptera	Nymphalidae	*Vanessa cardui*	painted lady
	Pieridae	*Pieris rapae*	cabbage white
VERTEBRATES			
Reptiles			
Squamata	Phrynosomatidae	*Sceloporus occidentalis*	western fence lizard
		Uta stansburiana	common side-blotched lizard
Birds			
Accipitriformes	Accipitridae	*Buteo jamaicensis*	red-tailed hawk
		Circus hudsonius	northern harrier
	Cathartidae	*Cathartes aura*	turkey vulture
Apodiformes	Apodidae	*Aeronautes saxatalis*	white-throated swift
	Trochilidae	*Calypte anna*	Anna's hummingbird
		Selasphorus sasin	Allen's hummingbird
Cathartiformes	Cathartidae	*Cathartes aura*	turkey vulture
Columbiformes	Columbidae	*Streptopelia decaocto*	Eurasian collared dove
		Zenaida macroura	mourning dove
Cuculiformes	Cuculidae	*Geococcyx californianus*	greater roadrunner
Falconiformes	Falconidae	*Falco sparverius*	American kestrel
Galliformes	Odontophoridae	*Callipepla californica*	California quail
Passeriformes	Aegithalidae	*Psaltriparus minimus*	bushtit
	Alaudidae	*Eremophila alpestris*	horned lark
	Bombycillidae	*Bombycilla cedrorum*	cedar waxwing
	Cardinalidae	*Passerina amoena*	lazuli bunting
		Passerina caerulea	blue grosbeak
	Corvidae	*Corvus brachyrhynchos*	American crow
		Corvus corax	common raven
	Fringillidae	*Haemorhous mexicanus*	house finch
		Spinus lawrencei	Lawrence's goldfinch
		Spinus psaltria	lesser goldfinch
		Spinus tristis	American goldfinch
	Hirundinidae	*Hirundo rustica*	barn swallow
		Petrochelidon pyrrhonota	cliff swallow
		Stelgidopteryx serripennis	northern rough-winged swallow
	Icteridae	*Icterus bullockii*	Bullock's oriole
		Icterus cucullatus	hooded oriole
	Mimidae	*Mimus polyglottos*	northern mockingbird
		Toxostoma redivivum	California thrasher
	Parulidae	*Cardellina pusilla*	Wilson's warbler
		Geothlypis trichas	common yellowthroat
	Passerellidae	*Aimophila ruficeps canescens*	southern California rufous-crowned sparrow
		Chondestes grammacus	lark sparrow
		Melospiza melodia	song sparrow
		Melozone crissalis	California towhee
		Pipilo maculatus	spotted towhee
		Zonotrichia leucophrys	white-crowned sparrow

Order	Family	Scientific Name	Common Name
Passeriformes (cont.)	Passeridae	*Passer domesticus*	house sparrow
	Polioptilidae	*Polioptila caerulea*	blue-gray gnatcatcher
		Polioptila californica californica†	coastal California gnatcatcher
	Ptilogonatidae	*Phainopepla nitens*	phainopepla
	Sylviidae	*Chamaea fasciata*	wrentit
	Troglodytidae	*Thryomanes bewickii*	Bewick's wren
		Troglodytes aedon	house wren
	Turdidae	*Sialia mexicana*	western bluebird
	Tyrannidae	*Myiarchus cinerascens*	ash-throated flycatcher
		Sayornis nigricans	black phoebe
		Sayornis saya	Say's phoebe
		Tyrannus verticalis	western kingbird
		Tyrannus vociferans	Cassin’s kingbird
	Vireonidae	*Vireo bellii pusillus*†	least Bell's vireo
Piciformes	Picidae	*Colaptes auratus*	northern flicker
		Dryobates nuttallii	Nuttall’s woodpecker
Strigiformes	Strigidae	*Bubo virginianus*	great horned owl
Mammals			
Lagomorpha	Leporidae	*Sylvilagus audubonii*	desert cottontail
		Sylvilagus bachmani	brush rabbit
Rodentia	Sciuridae	*Otospermophilus beecheyi*	California ground squirrel

† Sensitive species

Appendix C

Representative Site Photographs

Photograph 1: View of the mule fat scrub community, facing west.

Photograph 2: View of the coast live oak community, facing southeast.

Photograph 3: View of the pepper tree grove community, facing southwest.

Photograph 4: View of the disturbed community, facing east.

Photograph 5: View of the california sagebrush scrub community, facing south.

Photograph 6: View of the developed community, facing west.

Photograph 7: View of the upland mustards community, facing east.

Photograph 8: View of the burned community, facing southwest.

Appendix D

Representative Drainage Photographs

Photograph 1: Photograph of Drainge A upstream, facing east.

Photograph 2: Photograph of Drainge A upstream, facing west.

Photograph 3: Photograph of Drainge A mid-drainage, facing east.

Photograph 4: Photograph of Drainge A mid-drainage, facing west.

Photograph 5: Photograph of Drainge A downstream, facing east.

Photograph 6: Photograph of Drainge A downstream, facing west.

Photograph 7: Photograph of Drainge A1 upstream, facing west.

Photograph 8: Photograph of Drainge A1 downstream, facing west.

Photograph 9: Photograph of Drainge A2 upstream, facing east.

Photograph 10: Photograph of Drainge A2 upstream, facing west.

Photograph 11: Photograph of Drainge B, facing north.

Photograph 12: Photograph of Drainge B, facing south.

Appendix E

Burrowing Owl Habitat Assessment Report

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16485 Laguna Canyon Road
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Irvine, CA 92618
949.234.8792 **tel.**
619.462.0552 **fax**
www.**helixepi**.com

April 5, 2021 01194.00002.001

Mr. Ryan Gackstetter
City of Chino Hills
14000 City Center Drive
Chino Hills, CA 91709

Subject: Burrowing Owl (*Athene cunicularia*) Habitat Assessment Report for the Shady View Residential Project

Dear Ryan Gackstetter:

This letter report presents the results of the burrowing owl (*Athene cunicularia*; BUOW) habitat assessment conducted by HELIX Environmental Planning, Inc. (HELIX) for the Shady View Residential Project (project). The project is located in the City of Chino Hills in San Bernardino County, California. The habitat assessment was conducted in accordance with the California Department of Fish and Wildlife (CDFW; previously California Department of Fish and Game [CDFG]) Staff Report on Burrowing Owl Mitigation.[1] This letter report describes the methods used to perform the survey and the survey results.

PROJECT LOCATION

The approximately 130-acre project site is generally located 2.5 miles to the north of the intersection of State Route (SR-) 91 and SR-71 in the City of Chino Hills (Figure 1, *Regional Location*). The study area is within Section 7 Township 3 South, Range 7 West of the Prado Dam, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 2, *USGS Topography*). Specifically, the study area is located to the south of the terminus of Shady View Drive and its intersection with Wrangler Road (Figure 3, *Aerial Photograph*). The study area is identified by Assessor's Parcel Number 1057-261-06.

The project also includes approximately one acre of off-site area, located adjacent to the eastern project boundary (Figure 3). For the purpose of this report, the project site and off-site area are collectively referred to as the study area.

[1] California Department of Fish and Game. 2012. Staff Report on Burrowing Owl Mitigation. State of California Natural Resource Agency. March 7.

STUDY AREA DESCRIPTION

The study area is located in the eastern portion of the Chino Hills. Topographically, the study area consists of a large hillside in the southwestern portion of the site, and a series of low rolling canyons and ridges in the northeastern portion of the site. A series of smaller canyons between low ridges trend west to east in the central portion of the study area and north to south in the northern portion of the study area. Elevations on the study area range from approximately 550 feet (168 meters) above mean sea level (AMSL) within the northeastern portion to 1,075 feet (328 meters) AMSL along the southwestern portion. The Chino Fault transects the central and western portions of the study area. In late October and early November 2020, the Blue Ridge Wildfire burned the hills to the west and south of the study area (Figure 4, *Vegetation and Land Uses*). In the western and southern portions of the study area, a backfire was initiated by local fire officials as a containment method for the wildfire. The remainder of the study area that did not burn consists of native habitat, including California sagebrush scrub, coast live oak woodland, and mulefat thickets, in addition to existing developed areas, disturbed habitat, ornamental vegetation, and upland mustards (Figure 4).

Mapped soils on the study area mostly consist of Soper gravelly loam (15 to 30 percent slopes and 30 to 50 percent slopes.[2] The Soper soil series consists of well-drained residuum weathered from sandstone. Other mapped soils on the study area include Alo clay (30 to 50 percent slopes), Fontana clay loam (30 to 50 percent slopes), Garretson very fine sandy loam (2 to 9 percent slopes), and Gaviota-rock outcrop complex. Immediate land uses surrounding the study area include a residential community to the north; SR-71 and Prado Basin to the east; and undeveloped land to the west and south (Figure 3). The study area is located approximately 1.1 miles east of Chino Hills State Park.

METHODS

The habitat assessment was conducted according to the CDFW BUOW survey guidelines. The CDFW BUOW survey guidelines are described in further detail below.

Prior to conducting the habitat assessment, HELIX consulted eBird to determine the nearest BUOW occurrence.[3] The habitat assessment was conducted on the study area by HELIX Biologists Ezekiel Cooley and Lauren Singleton on December 17, 2020. A focused burrow survey was conducted concurrently with the habitat assessment. All suitable burrows (i.e., greater than 11 centimeters [cm] in height and width and greater than 150 cm in depth) and burrow surrogates were recorded using a handheld Global Positioning System unit, if present.

[2] Natural Resources Conservation Service. 2021. Web Soil Survey. United States Department of Agriculture. Retrieved from: http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.Aspx. Accessed February 5, 2021.

[3] eBird. 2021. eBird: an online database of bird distribution and abundance. Species Maps. eBird, Ithaca, New York. Retrieved from: http://www.ebird.org. Accessed February 5, 2021.

Table 1
SURVEY INFORMATION

Survey Date	Biologist	Start/Stop Time	Start/Stop Weather Conditions	Survey Results
12/17/20	Ezekiel Cooley Lauren Singleton	0815 - 1310	51°F, wind 0-1 mph, 100% clouds 53°F, wind 0-1 mph, 100% clouds	Potentially suitable habitat included disturbed habitat throughout the study area however, no suitable burrows or burrow surrogates were observed.

The assessment was conducted in the study area, and within a 150-meter (approximately 500-foot) buffer zone around the periphery of the study area (survey area). The biologists walked transects within suitable habitat spaced no greater than 20 meters apart (approximately 65 feet) to allow for 100 percent visual coverage of all potentially suitable habitat within the study area (Figure 5, *Transects*). Inaccessible areas of the survey area were visually assessed using binoculars. The study area was slowly walked and assessed for suitable BUOW habitat, including:

- disturbed low-growing vegetation within grassland and shrublands (less than 30 percent canopy cover);
- gently rolling or level terrain;
- areas with abundant small mammal burrows, especially California ground squirrel (*Otospermophilus beecheyi*) burrows;
- fence posts, rocks, or other low perching locations; and
- artificial structures, such as earthen berms, debris piles, and cement culverts.

If found, potential burrows were checked for signs of recent owl occupation. Signs of occupation include:

- pellets/casting (regurgitate fur, bones, and/or insect parts);
- white wash (excrement); and/or
- feathers.

RESULTS

No BUOW records were found to occur on or within the study area during the literature review. The nearest BUOW record in eBird was observed in 2017, approximately 1.5 miles to the northeast of the study area. Potentially suitable BUOW habitat was observed within the study area, including disturbed areas that support sparse, low-growing vegetation. However, no suitable burrows or burrow surrogates were observed within the study area. Therefore, focused BUOW surveys are not required. Site photographs are included as Attachment A, *Representative Site Photographs*.

CONCLUSION

No BUOW records were found to occur within the study area during the literature review. Focused BUOW surveys are not required for the study area since no suitable burrows or burrow surrogates were observed. Since existing conditions may change between this survey and construction, a take avoidance (pre-construction) survey must be conducted within the study area in accordance with CDFW Staff Report on Burrowing Owl Mitigation. The pre-construction survey must be conducted within 14 days prior to construction activities (i.e., demolition, earthwork, clearing, grubbing, etc.). The survey is necessary to confirm that site conditions have not changed prior to construction. If construction activities are delayed more than 14 days after the survey has been completed, an updated pre-construction survey must be conducted.

If you have any questions regarding the information presented in this letter report, please contact Ezekiel Cooley at EzekielC@helixepi.com or Lauren Singleton at LaurenS@helixepi.com.

Sincerely,

Ezekiel Cooley
Senior Biology Project Manager

Lauren Singleton
Biology Project Manager

Attachments:

Figure 1: Regional Location
Figure 2: USGS Topography
Figure 3: Aerial Photograph
Figure 4: Vegetation and Land Uses
Figure 5: Transects
Attachment A: Representative Site Photographs

Photograph 1: View of disturbed habitat in the northern portion of the study area, facing east.

Photograph 2: View of disturbed habitat in the central portion of the study area, facing east.

Appendix F

Coastal California Gnatcatcher Focused Survey Report

HELIX Environmental Planning, Inc.
16485 Laguna Canyon Road
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Irvine, CA 92618
949.234.8792 **tel.**
619.462.0552 **fax**
www.**helixepi**.com

August 6, 2021 01194.00002.001

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

Subject: 2021 Coastal California Gnatcatcher (*Polioptila californica californica*) Survey Report for the Shady View Residential Project

Dear Ms. Love:

This letter presents the results of a U.S. Fish and Wildlife Service (USFWS) protocol presence/absence survey for the federally listed as threatened coastal California gnatcatcher (*Polioptila californica californica*; CAGN) conducted by HELIX Environmental Planning, Inc. (HELIX) for the Shady View Residential Project (project). This report describes the methods used to perform the survey and the results. It is being submitted to the USFWS as a condition of HELIX's Threatened and Endangered Species Permit TE778195-14.

PROJECT LOCATION

The approximately 130-acre project site is generally located 2.5 miles to the north of the intersection of State Route (SR-) 91 and SR-71 in the City of Chino Hills, San Bernardino County, California (Figure 1, *Regional Location*). The project site is within Section 7 Township 3 South, Range 7 West of the Prado Dam, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 2, *USGS Topography*). Specifically, the project site is located to the south of the terminus of Shady View Drive and its intersection with Wrangler Road (Figure 3, *Aerial Photograph*). The project site is not located within USFWS-designated critical habitat for the species. The project also includes two small off-site areas located directly to the west and east of the project site (Figure 3). For the purpose of this report, the project site and off-site areas are collectively referred to as the study area.

METHODS

The survey consisted of six visits that were performed by HELIX biologist Lauren Singleton (TE 778195-14) between May 14 and June 22, 2021 (Table 1, *Survey Results*), in accordance with the current USFWS

protocol.[1] The visits were conducted at least seven days apart, between the hours of 6 a.m. and 12 p.m., pursuant to survey protocol. The study area is not located within a Natural Communities Conservation Plan program. Therefore, the USFWS requires that a minimum of six surveys be conducted at least one week apart during the period between March 15 and June 30. The survey area encompassed approximately 26.8 acres of potential CAGN habitat consisting of California sagebrush scrub (including disturbed California sagebrush scrub; Figure 4, *2020 Coastal California Gnatcatcher Survey Results*).

The surveys were conducted by walking within and along the perimeter of suitable CAGN habitat present within the study area. The survey route was arranged to ensure complete survey coverage of habitat with potential for occupancy by CAGN. Surveys were conducted with binoculars to aid in bird detection. Recorded CAGN vocalizations were played sparingly and only if other means of detection had failed. If a CAGN was detected before playing recorded vocalizations, the recordings were not played. Once CAGNs were initially detected in an area, use of playback was discontinued. The approximate survey route is depicted on Figure 4.

Table 1 details the survey dates, times, and conditions.

Table 1
SURVEY INFORMATION

Site Visit	Survey Date	Biologist(s)	Start/Stop Time	Approx. Acres Surveyed/ Acres per Hour	Start/Stop Weather Conditions
1	05/14/21	Lauren Singleton[1]	0820/1200	26.8 ac/ 7.2 ac/hr	59°F, wind 2-3 mph, 100% cloud cover 65°F, wind 4-5 mph, 0% cloud cover
2	05/21/21	Lauren Singleton[1]	0830/1200	26.8 ac/ 7.7 ac/hr	60°F, wind 5-6 mph, 20% cloud cover 69°F, wind 5-6 mph, 5% cloud cover
3	05/28/21	Lauren Singleton[1]	0845/1200	26.8 ac/ 8.2 ac/hr	60°F, wind 2-3 mph, 40% cloud cover 72°F, wind 3-4 mph, 0% cloud cover
4	06/04/21	Lauren Singleton[1] Matthew Dimson[2]	0840/1200	26.8 ac/ 8.1 ac/hr	67°F, wind 1-2 mph, 0% cloud cover 78°F, wind 9-10 mph, 0% cloud cover
5	06/11/21	Lauren Singleton[1] Matthew Dimson[2]	0840/1200	26.8 ac/ 8.1 ac/hr	66°F, wind 0-1 mph, 0% cloud cover 79°F, wind 6-8 mph, 0% cloud cover
6	06/22/21	Lauren Singleton[1] Matthew Dimson[2]	0815/1200	26.8 ac/ 7.1 ac/hr	64°F, wind 1-2 mph, 15% cloud cover 79°F, wind 2-3 mph, 30% cloud cover

[1] USFWS Permit TE 778195-14
[2] Supervised Individual

[1] U.S. Fish and Wildlife Service (USFWS). 1997. Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Protocol. 5pp.

COASTAL CALIFORNIA GNATCATCHER HABITAT

California sagebrush scrub (including disturbed-California sagebrush scrub) is the only vegetation community within the study area determined to be suitable for CAGN (Figure 4).

California Sagebrush Scrub (Including Disturbed-California Sagebrush Scrub)

California sagebrush scrub is dominated by California sagebrush. This vegetation community generally occurs within alluvial or colluvial soils on steep slopes with variable aspects below 4,000 feet. Typical stands are fairly open with occasional emergent trees or tall shrubs. Disturbed California sagebrush scrub contains many of the same shrub species as undisturbed California sagebrush scrub, but is sparser and has a higher proportion of non-native annual species. California sagebrush scrub within the study area was dominated by California sagebrush, with California buckwheat occurring as a subdominant species.

RESULTS

A total of three CAGN pairs were detected during the survey effort, although not all individuals were detected during each survey (Figure 4). Two CAGN pairs (Pair No. 1 and Pair No. 2) were detected in the eastern portion of the study area and one CAGN pair (Pair No. 3) was detected within the northern portion of the study area. A detailed description of the CAGN observations and locations from each weekly survey is included below.

One CAGN pair (Pair No. 1) was detected directly adjacent to eastern study area boundary (Figure 4). The pair was detected calling and foraging in California sagebrush and short-pod mustard (*Hirschfeldia incana*) during the first and second surveys. During the third and fourth surveys, only the male was detected calling and foraging in California sagebrush and adjacent Peruvian peppertrees (*Schinus molle*). On the fifth survey, the male and female were heard calling to each other. On the fifth survey, the male and female were heard calling to each other. A completed nest was incidentally observed in a California sagebrush shrub, but the pair did not approach the nest during the survey. Passive observation was conducted from a safe distance. The pair was not observed during the sixth survey, although the nest was still intact.

A second CAGN pair (Pair No. 2) was detected in the eastern portion of the study area, approximately 750 feet to the west of the study area boundary (Figure 4). Only the male was detected calling and foraging during surveys one, two, and three. On the fourth survey, no CAGN were detected. On the fifth survey, both the male and female were observed foraging while traveling back and forth from a completed nest in a California sagebrush. During the sixth survey, the female was observed sitting on the nest. The male switched with the female and sat on the nest for the remaining observation time during the sixth survey.

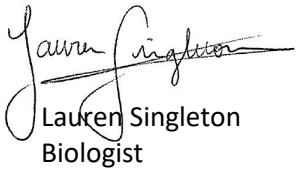
A third CAGN pair (Pair No. 3) was detected in the northern portion of the study area, approximately 350 feet to the south of the study area's northern boundary (Figure 4). No CAGN were detected at this location during the first four surveys. One female and one juvenile were detected calling and foraging on the fifth survey. The female and juvenile flew southwest when approached as part of walking the established survey route. On the sixth survey, the female and juvenile were observed calling and

foraging. A male was also heard calling in the same general area. When approached as part of walking the established survey route, the male flew to Peruvian peppertrees located along the northern study area boundary. The male then flew west toward California sagebrush scrub, approximately 200 feet west of the original observation.

CERTIFICATION

I certify that the information in this survey report and enclosed exhibit fully and accurately represent our work. Please contact Shelby Howard (619) 462-1515 or Lauren Singleton at (949) 234-8792 if you have any questions.

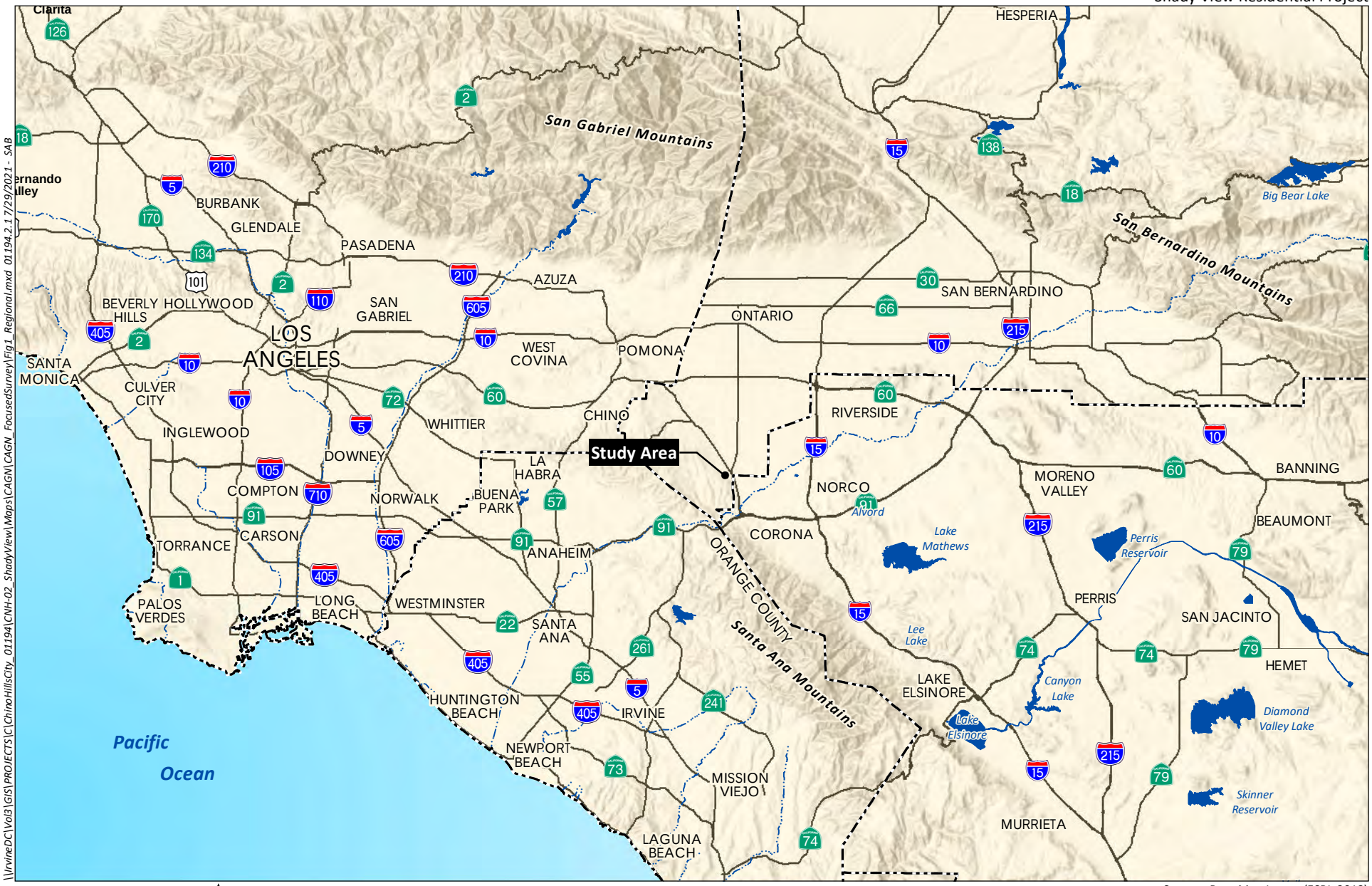
Sincerely,



Lauren Singleton
Biologist

Attachments:

Figure 1: Regional Location
Figure 2: USGS Topography
Figure 3: Aerial Photograph
Figure 4: 2021 Coastal California Gnatcatcher Survey Results



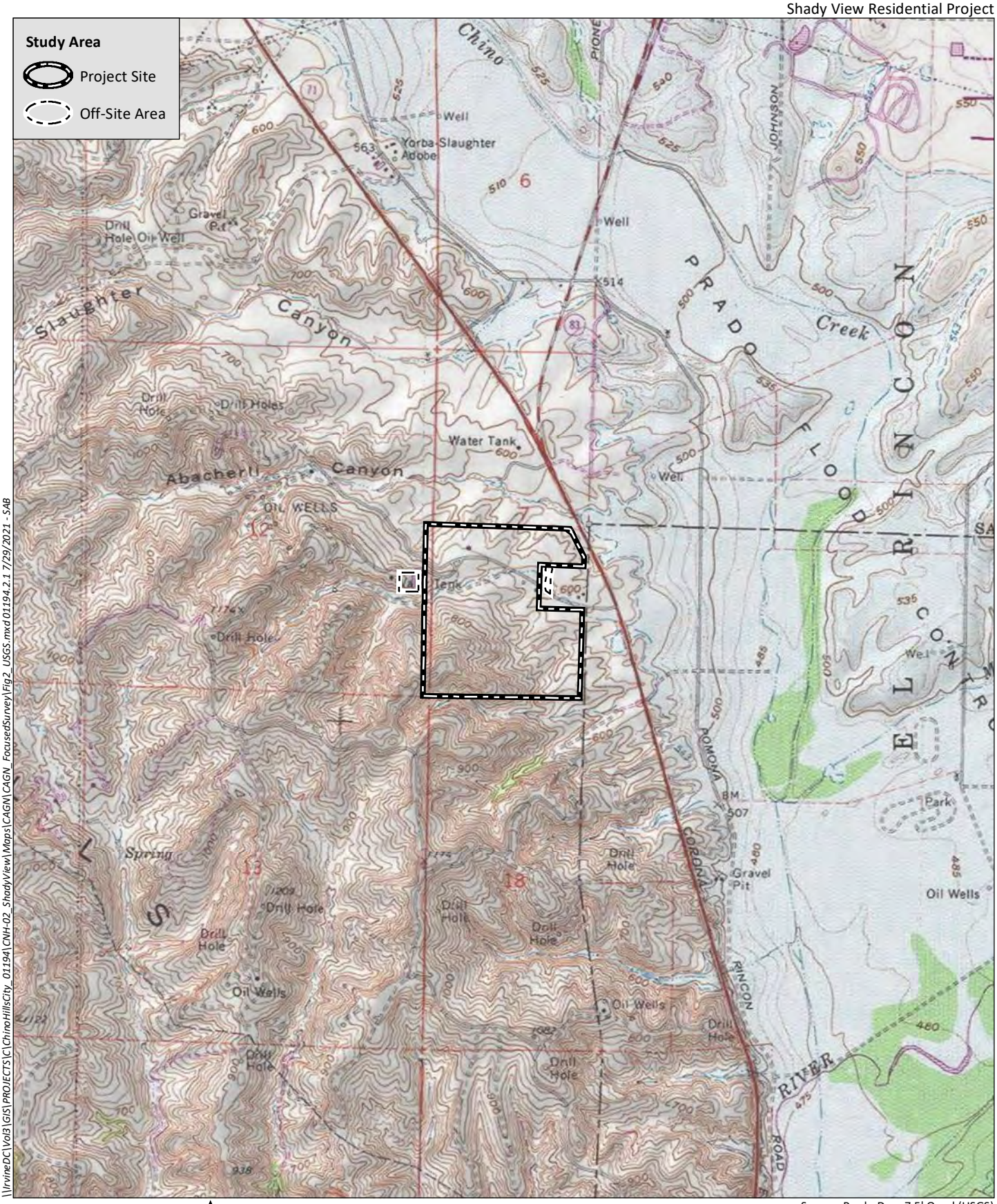
Source: Base Map Layers (ESRI, 2013)

\\IrvineDC\Vol3\GIS\PROJECTS\C\ChinoHillsCity_01194\CNH-02_ShadyView\Maps\CAGN\CAGN_FocusedSurvey\Fig1_RegionalLmxd 01194.2.1 7/29/2021 - SAB

HELIX Environmental Planning

Regional Location

Figure 1



\\IrvineDC\Vol3\GIS\PROJECTS\C\ChinoHillsCity_01194\CNH-02_ShadyView\Maps\CAGN\CAGN_FocusedSurvey\Fig2_USGS.mxd 01194.2.1 7/29/2021 - SAB

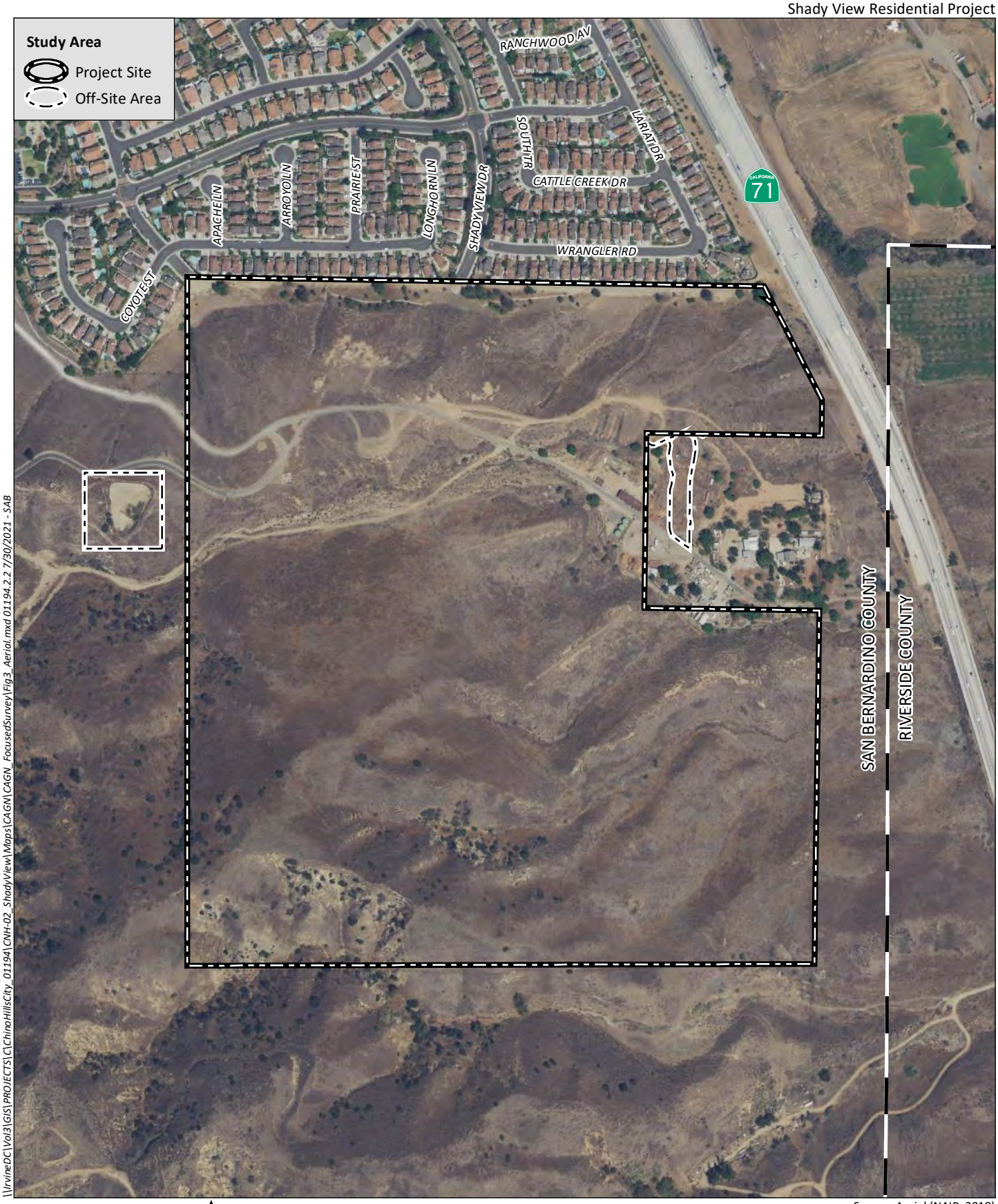
0 2,000 Feet

Source: Prado Dam 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2



\\IrvineDC\Vol3\GIS\PROJECTS\C\ChinoHillsCity_01194\CNH-02_ShadyView\Maps\CAGN\CAGN_FocusedSurvey\Fig3_AerialL.mxd 01194.2.2 7/30/2021 - SAB

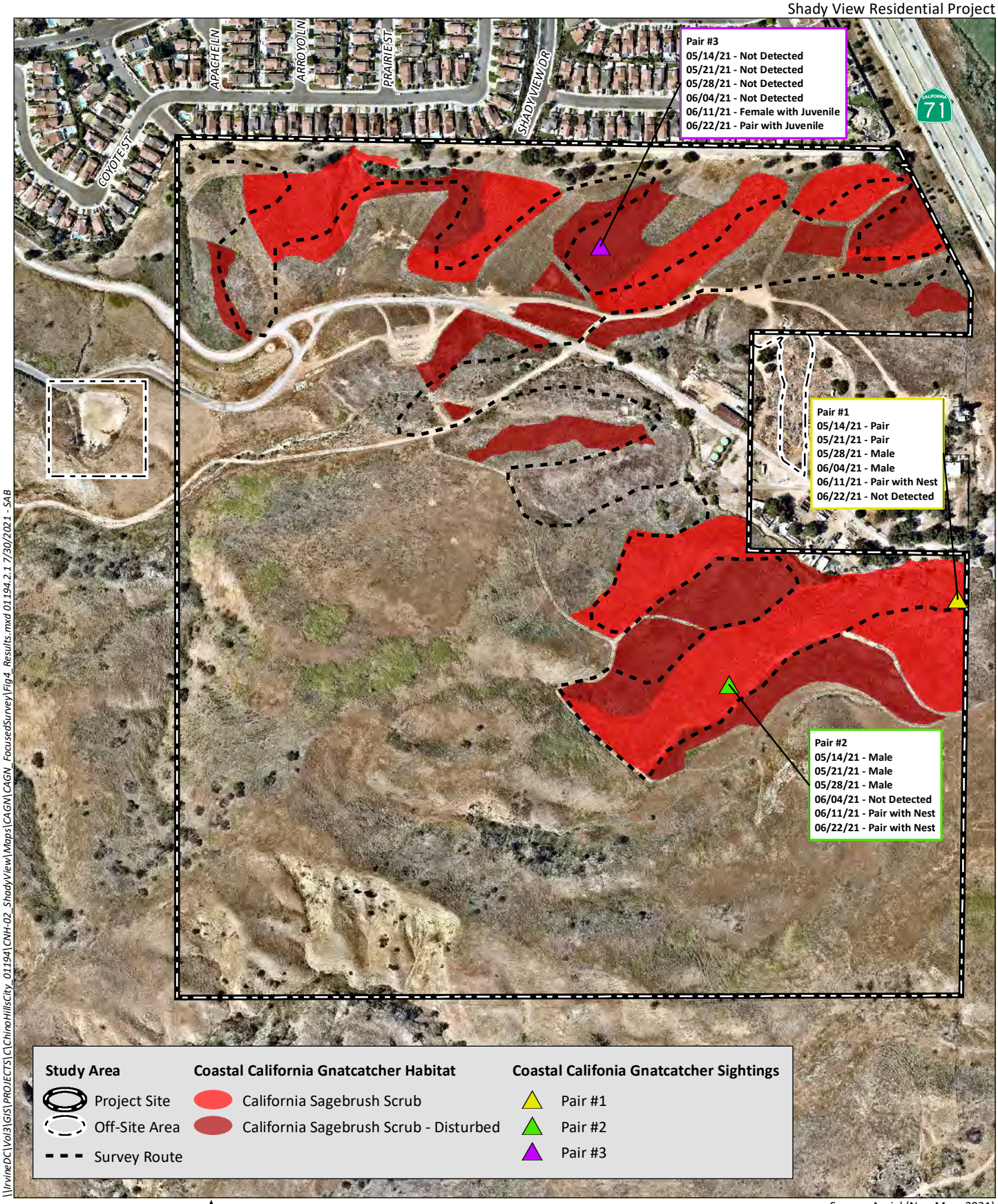
0 500 Feet

Source: Aerial (NAIP, 2018)

HELIX Environmental Planning

Aerial Photograph

Figure 3



\\IrvineDC\Vol3\GIS\PROJECTS\C\ChinoHillsCity_01194\CNH-02_ShadyView\Maps\CAGN\CAGN_FocusedSurvey\Fig4_Results.mxd 01194.2.1 7/30/2021 - SAB

Source: Aerial (NearMap, 2021)

HELIX Environmental Planning

2021 Coastal California Gnatcatcher Survey Results

Figure 4

Appendix G

Least Bell's Vireo Focused Survey Report

HELIX Environmental Planning, Inc.
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www.**helixepi**.com

September 10, 2021 01194.00002.001

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

Subject: 2021 Least Bell's Vireo (*Vireo bellii pusillus*) Survey Report for the Shady View Residential Project

Dear Ms. Love:

This letter presents the results of a U.S. Fish and Wildlife Service (USFWS) protocol presence/absence survey for the federally endangered least Bell's vireo (*Vireo bellii pusillus*; LBVI) conducted by HELIX Environmental Planning, Inc. (HELIX) for the Shady View Residential Project (project). This letter describes the survey methods and results and is being submitted to the USFWS in accordance with protocol survey guidelines.

PROJECT LOCATION

The approximately 130-acre project site is generally located 2.5 miles to the north of the intersection of State Route (SR-) 91 and SR-71 in the City of Chino Hills, San Bernardino County, California (Figure 1, *Regional Location*). The project site is within Section 7 Township 3 South, Range 7 West of the Prado Dam, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 2, *USGS Topography*). Specifically, the project site is located to the south of the terminus of Shady View Drive and its intersection with Wrangler Road (Figure 3, *Aerial Photograph*). The project site is not located within USFWS-designated critical habitat for the species. The project also includes two small off-site areas located directly to the west and east of the project site (Figure 3). For the purpose of this report, the project site and off-site areas are collectively referred to as the study area.

METHODS

The survey consisted of eight site visits conducted by HELIX biologists Matthew Dimson, Lauren Singleton, and Daniel Torres between May 14 and July 29, 2021 (Table 1, *Survey Information*). Surveys were conducted in accordance with the current USFWS survey protocol.[1] The surveys were conducted

[1] U.S. Fish and Wildlife Service. 2001. Least Bell's Vireo Survey Guidelines. January 19.

by walking along the edges of potential LBVI habitat in the study area (survey area) while listening for LBVI and viewing birds with the aid of binoculars. The survey route was designed to ensure complete survey coverage of habitat potentially occupied by LBVI. Because LBVI were heard in several locations during the initial survey, the biologists surveyed other portions of the study area to help determine the status of LBVI individuals heard throughout the study area (Figure 4, *2021 Least Bell's Vireo Survey Results*). The survey area did not include the portion of the study area that burned in the Blue Ridge Fire in 2020 due to lack of vegetation. Table 1 details the survey dates, times, and conditions.

Table 1
SURVEY INFORMATION

Site Visit	Survey Date	Biologist	Start/Stop Time	Start/Stop Weather Conditions	Survey Results	
					Least Bell's Vireo (LBVI)	Brown-Headed Cowbird[1]
1	05/14/21	Lauren Singleton	0820/1100	53°F, wind 0-1 mph, 40% clouds 67°F, wind 0-1 mph, 30% clouds	• Male (Male No. 1) heard singing in the northwest corner of the study area. • Male (Male No. 2) heard singing near the central-eastern portion of the study area. • Male (Male No. 3) heard singing central-western portion of the study area. • Male (Male No. 4) heard singing off-site near the western study area boundary.	0
2	05/26/21	Daniel Torres, Matthew Dimson	0725/1100	64°F, wind 1-3 mph, 95% clouds 75°F, wind 4-5 mph, 0% clouds	• Male No. 1 singing in the same general area in the northwest corner of the study area. • Male (Male No. 2) singing in the same general area in the central-eastern portion of the study area. • Male (Male No. 3) singing in the same general area in the central-western portion of the study area. • Male (Male No. 4) singing in the same general area off-site near the western study area boundary.	0

Site Visit	Survey Date	Biologist	Start/Stop Time	Start/Stop Weather Conditions	Survey Results	
					Least Bell's Vireo (LBVI)	Brown-Headed Cowbird[1]
3	06/07/21	Matthew Dimson	0745/0930	65°F, wind 0-1 mph, 0% clouds 73°F, wind 3-4 mph, 0% clouds	• Male No. 1 singing in the same general area in the northwest corner of the study area. • Male (Male No. 2) singing in the same general area in the central-eastern portion of the study area. • Male (Male No. 3) singing in the same general area in the central-western portion of the study area. • Male (Male No. 4) singing in the same general area off-site near the western study area boundary.	0
4	06/17/21	Matthew Dimson	0700/1100	66°F, wind 1-2 mph, 0% clouds 83°F, wind 2-3 mph, 0% clouds	• Male (Male No. 2) singing in the same general area in the central-eastern portion of the study area. • Male (Male No. 3) singing in the same general area in the central-western portion of the study area. • Male (Male No. 4) singing in the same general area off-site near the western study area boundary.	0
5	06/29/21	Daniel Torres	0715/1100	64°F, wind 1-2 mph, 65% clouds 77°F, wind 4-5 mph, 80% clouds	• No LBVI detected.	0
6	07/09/21	Daniel Torres	0705/0945	69°F, wind 2-3 mph, 25% clouds 79°F, wind 3-4 mph, 10% clouds	• No LBVI detected.	0
7	07/19/21	Daniel Torres	0640/0950	70°F, wind 1-2 mph, 30% clouds 82°F, wind 1-2 mph, 0% clouds	• No LBVI detected.	0
8	07/29/21	Matthew Dimson	0700/0910	69°F, wind 1-2 mph, 0% clouds 79°F, wind 1-2 mph, 0% clouds	• No LBVI detected.	0

[1] Number of brown-headed cowbird (*Molothrus ater*) detected during survey

SURVEY RESULTS

Four single males were detected within the study area during the 2021 survey effort, though not all individuals were detected during each survey visit. One male (Male No. 1) was observed in the northwest corner of the study area, one male (Male No. 2) was observed in the central-eastern portion of the study area, one male (Male No. 3) was observed in the central-western portion of the study area, and one male (Male No. 4) was observed off-site near the western study area boundary. No banded individuals were observed during the survey; however, not all individuals were directly observed. A detailed description of LBVI locations and observations is included below.

A single male vireo (Male No. 1) was detected in the northwest corner of the study area (Figure 4). The male was heard singing within the area during the first, second, and third survey visits but not during any subsequent surveys. The male was visually observed during the first survey and was confirmed to be unbanded. The male was singing from the small patch of mule fat scrub and a large blue elderberry (*Sambucus nigra* ssp. *caerulea*) located approximately 100 feet to the west of the study area boundary.

A single male vireo (Male No. 2) was detected near the central-eastern portion of the study area (Figure 4). The male was heard singing within the area during the first, second, third, and fourth survey visits, but was not detected during any of the subsequent surveys. The male was visually observed during the first, third, and fourth surveys and was confirmed to be unbanded. The male was singing in habitat dominated by short-pod mustard (*Hirschfeldia incana*) and tree tobacco (*Nicotiana glauca*).

A single male vireo (Male No. 3) was detected adjacent in the central-western portion of the study area (Figure 4). The male was heard singing within the area during the first, second, third, and fourth survey visits, but was not detected during any subsequent surveys. The male was visually observed during the third survey and was confirmed to be unbanded. The male was singing within habitat that burned in 2020 during the Blue Ridge Fire, which included a few burned blue elderberries with some remaining foliage.

A single male vireo (Male No. 4) was detected off-site near the eastern boundary of the study area (Figure 4). The male was heard singing within the area during the second, third, and fourth survey visits, but was not detected during the first survey or surveys five through eight. The male was not visually observed during any of the surveys. The male was singing within Peruvian peppertrees (*Schinus molle*) associated with the off-site residential home adjacent to the eastern boundary.

The brown-headed cowbird (*Molothrus ater*), a nest parasite of the LBVI, was not detected during any of the surveys.

Since no LBVI were detected after the fourth survey visit (June 17, 2021) and potentially suitable habitat consists of only a small, isolated area of mule fat scrub (0.14 acre), it is presumed individuals are not nesting on the study area. Prado Basin is located approximately 0.25 mile to the east of the study area and supports high-quality nesting habitat. Additionally, the 2020 Blue Ridge Fire burned a large area to the north, west, and south of the study area, which may have supported suitable LBVI nesting habitat. Observed individuals in the study area may have been transient or dispersing individuals, or individuals displaced from the 2020 Blue Ridge Fire searching for suitable habitat within the vicinity.

CERTIFICATION

We certify that the information in this survey report and attached exhibits fully and accurately represents our work. Please contact us at (619) 462-1515 should you have any questions.

Sincerely,

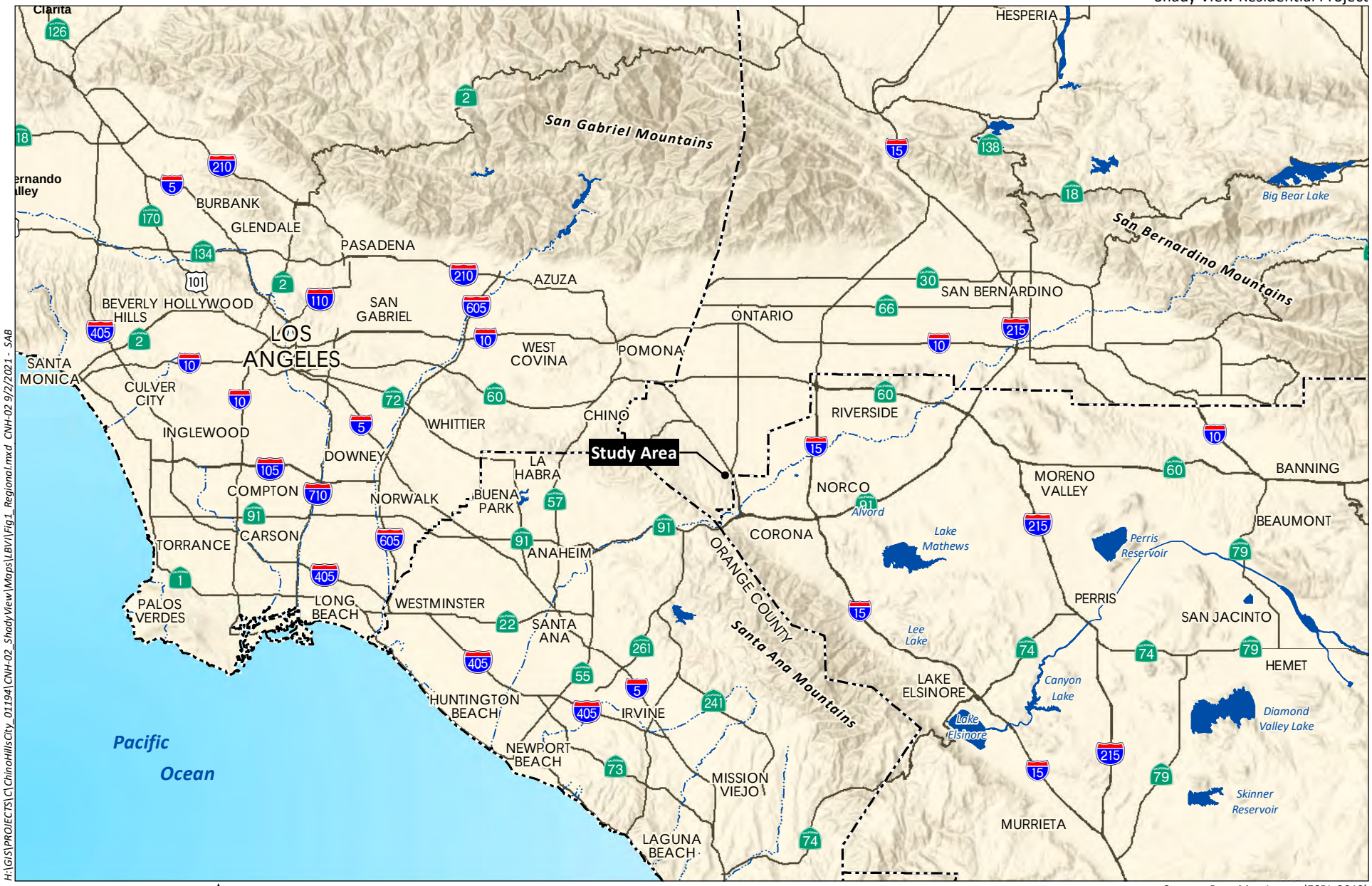
Lauren Singleton
Biologist

Daniel Torres
Biologist

Matthew Dimson
Biologist

Attachments:

Figure 1: Regional Location
Figure 2: USGS Topography
Figure 3: Aerial Photograph
Figure 4: 2021 Least Bell's Vireo Survey Results



0 10 Miles

Source: Base Map Layers (ESRI, 2013)

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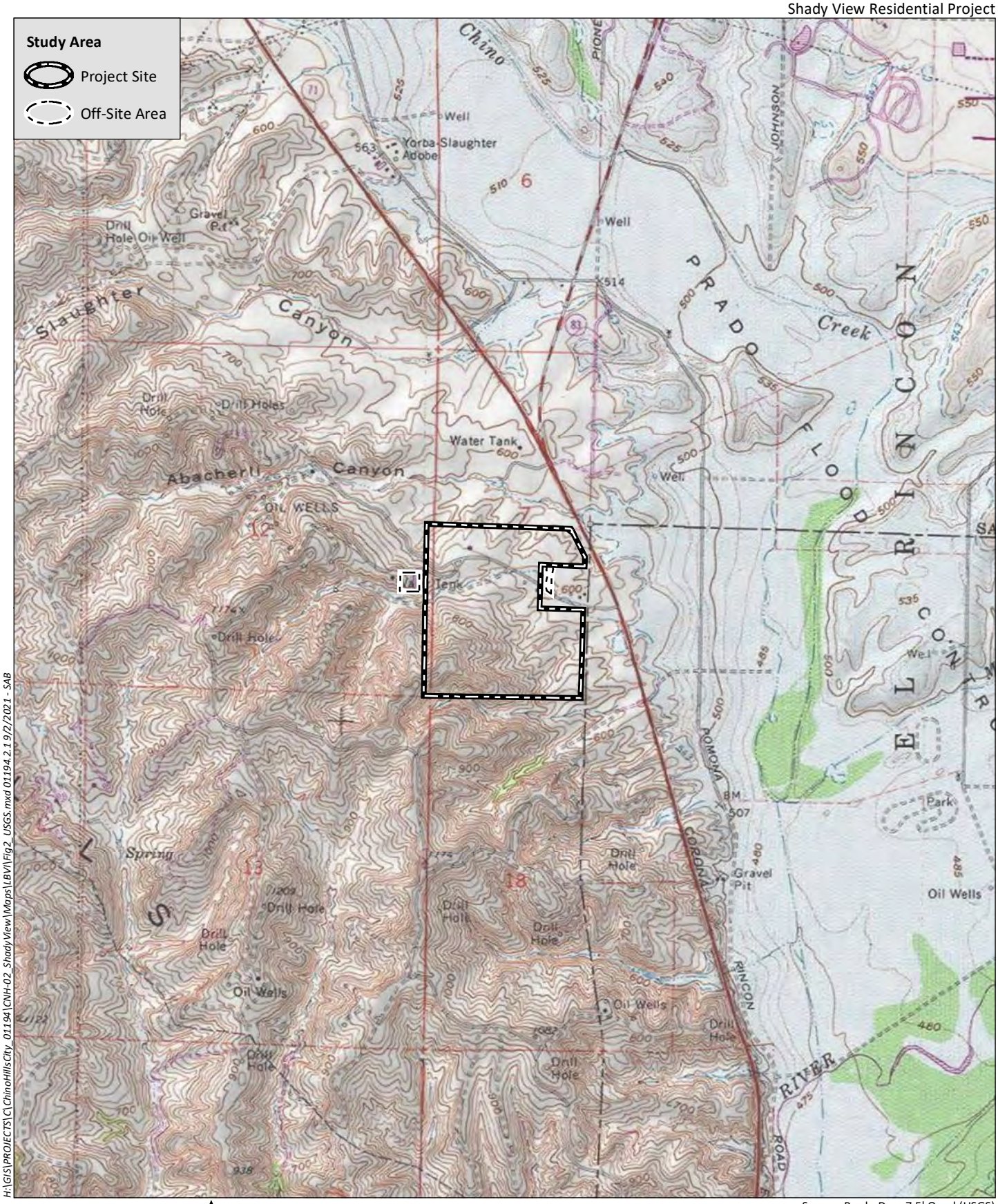
HELIX Environmental Planning

Regional Location

Figure 1



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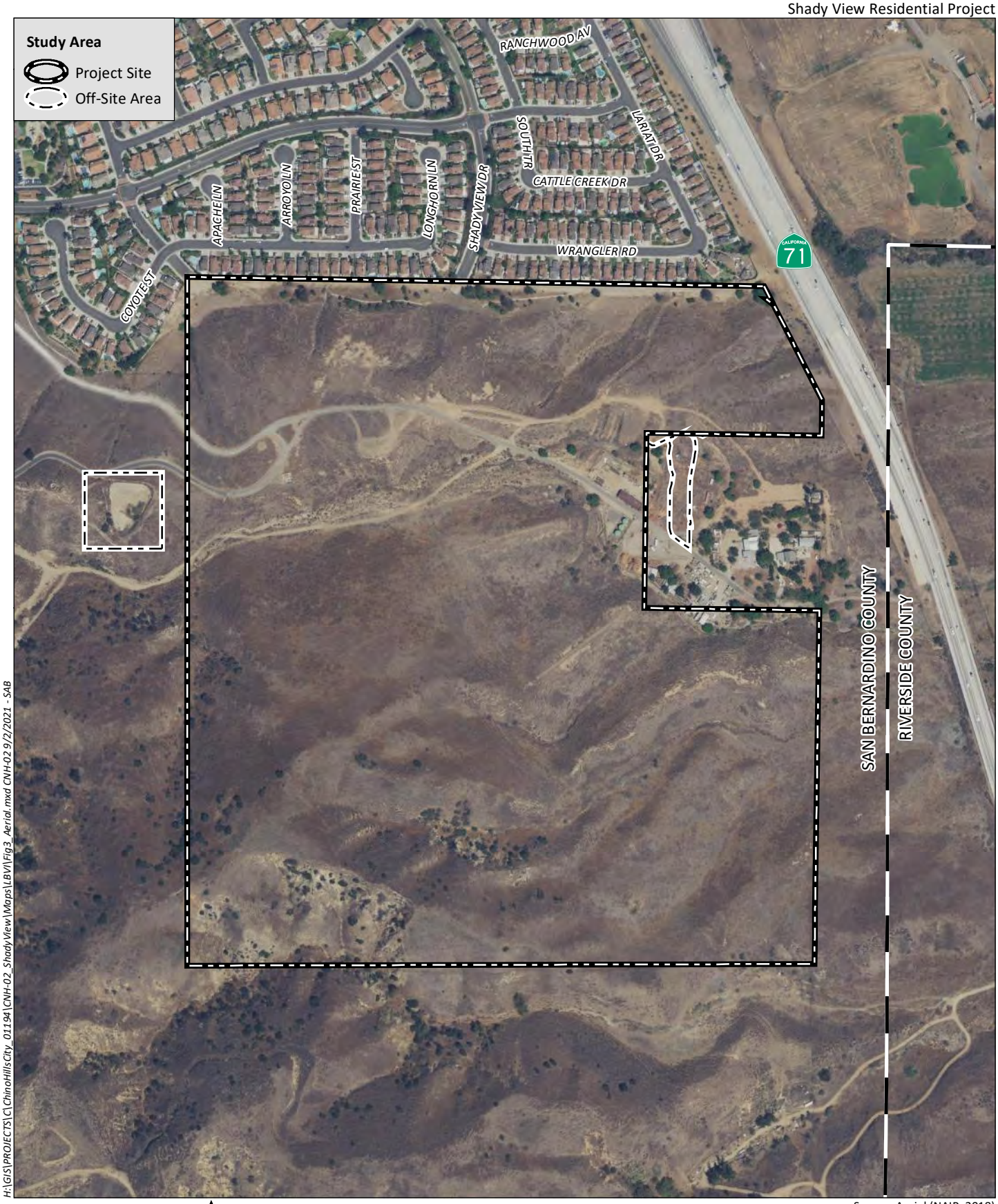
0 2,000 Feet

Source: Prado Dam 7.5' Quad (USGS)

HELIX Environmental Planning

USGS Topography

Figure 2



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0 500 Feet

Source: Aerial (NAIP, 2018)

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Aerial Photograph

Figure 3

Source: Aerial (NearMap, 2020 & NAIP, 2018)

HELIX Environmental Planning

2021 Least Bell's Vireo Survey Results

Figure 4

Appendix H

Rare Plant Species Potential to Occur

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]
Abronia villosa var. *aurita*	chaparral sand-verbena	FE CRPR 1B.1	Annual herb. Occurs on sandy floodplains or flats in generally inland, arid areas of sage scrub and open chaparral. Elevation range 0-1600 m. Flowering period Mar-Aug.	**None.** The study area lacks suitable sandy floodplains or flats to support this species. This species has been reported approximately nine miles south of the study area.
Astragalus brauntonii	Braunton's milk-vetch	CRPR 1B.1 FE	Perennial herb. Occurs in recently burned or disturbed areas, usually on sandstone within chaparral, coastal scrub, or grasslands. Prefers hilltops, or saddles and bowls between hills. Elevation range 0-650 m. Flowering period Mar-Jul.	**Presumed Absent.** Although the study area has recently burned and partially consists of sage scrub habitat, the study area lacks sandstone areas where this species is typically found. This species has been reported approximately two miles west of the study area within Chino Hills State Park. This species was not observed during rare plant surveys and is presumed absent.
Atriplex coulteri	Coulter's saltbush	CRPR 1B.2	Perennial herb. Coastal bluff scrub, coastal dunes, valley and foothill grasslands, and desert slopes. Associated with alkaline and clay soils. Elevation range 3-460 m. Flowering period Mar-Oct.	**None.** The study area lacks suitable coastal bluff scrub, coastal dunes, valley/foothill grasslands or desert slopes to support this species. Although this species has been reported within five miles of the study area, the report is historic (greater than 50 years old).
Calochortus weedii var. *intermedius*	intermediate mariposa lily	CRPR 1B.2	Perennial herb. Occurs on dry, rocky slopes within openings in chaparral, coastal scrub, and grassland habitats. Elevation range 0-680 m. Flowering period Jun-Jul.	**Presumed Present.** Four individuals were observed in the southwest corner of the study area during the spring rare plant survey performed in May 2021.

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]
Calystegia felix	lucky morning-glory	CRPR 1B.1	Annual rhizomatous herb. Occurs in wetland and marshy places such as meadows and seeps, and alluvial scrub. Elevation range 30-215 m. Flowering period Mar-Sep.	**None.** The study area lacks suitable meadows, seeps, and alluvial scrub to support this species. This species has been reported approximately two miles west of the study area in Chino Hills State Park.
Calystegia sepium spp. *binghamiae*	Santa Barbara morning-glory	CRPR 1A	Perennial herb. Occurs in marshes and swamps. Elevation range unknown. Flowering period Apr-May.	**None.** The study area lacks marshes and swamps. This species is presumed to be extinct.
Camissoniopsis lewisii	Lewis' evening primrose	CRPR 3	Annual herb. Grows in very sandy substrates near the beach, typically on beach bluffs. Elevation range. Elevation range 0-300 m. Flowering period Mar-Jun.	**None.** The study area lacks suitable very sandy substrates near the beach to support this species. Although this species has been reported within five miles of the study area, the report is historic (greater than 50 years old).
Centromadia pungens ssp. *laevis*	smooth tarplant	CRPR 1B.1	Annual herb. Occurs within valley and foothill grasslands, particularly near alkaline locales. Elevation range 90-500 m. Flowering period Apr-Sep.	**None.** The study area lacks suitable valley and foothill grasslands and alkaline soils to support this species. The nearest recorded occurrence of this species is approximately 24 miles south of the study area at Lake Elsinore.

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]
Dudleya multicaulis	many-stemmed dudleya	CRPR 1B.2	Perennial herb. Occurs in heavy soils (often clay) and sandstone outcrops. Often associated with dry, stony places within coastal sage scrub, valley grasslands, and coastal plains. Elevation range 0-600 m. Flowering period May-Jun.	**Presumed Absent.** The study area supports some mapped clay soils in the southern portion of the project site. This species has been reported within one mile of the study area in Chino Hills State Park. This species was not observed during rare plant surveys and is presumed absent.
Eriastrum densifolium ssp. *sanctorum*	Santa Ana River woollystar	FE/SE CRPR 1B.1	Perennial herb. Occurs on sandy soils within river floodplains or terraced fluvial deposits. Elevation range 180-705 m. Flowering period May-Sep.	**None.** The study area lacks suitable sandy soils within river floodplains to support this species. This species has been reported approximately two miles northeast of the study area in the Santa Ana River vicinity.
Monardella australis ssp. *jokerstii*	Jokerst's monardella	CRPR 1B.1	Perennial herb. Occurs within riparian woodland, cismontane woodland, coastal scrub, chaparral on steep scree or talus slopes between breccia. Can also occur on secondary alluvial benches along drainages and washes. Elevation range 210-1740 m. Flowering period Jul-Sep.	**None.** The study area does not support steep scree or talus slopes or secondary alluvial benches.

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]
Pseudognaphalium leucocephalum	white rabbit-tobacco	CRPR 2B.2	Biennial or short-lived perennial herb. Occurs in sandy and gravelly benches, dry stream and canyon bottoms within woodland, coastal scrub, and chaparral. Elevation range below 500 m. Flowering period Jul-Oct.	**Presumed Absent**. Although the study area partially consists of suitable sage scrub habitat with several ephemeral drainages, the study area lacks sandy or gravelly benches where this species is typically found. This species has been reported approximately two miles west of the study area in Chino Hills State Park. This species was not observed during rare plant surveys and is presumed absent.
Sidalcea neomexicana	salt spring checkerbloom	CRPR 2B.2	Perennial herb. Occurs within alkaline, mesic soils within springs and marshes. Elevation range 0-1500 m. Flowering period Apr-Jun.	**None.** The study area lacks suitable alkaline, mesic soils within springs or marshes to support this species. Although this species has been reported within five miles of the study area, the report is historic (greater than 50 years old).

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]
Symphyotrichum defoliatum	San Bernardino aster	CRPR 1B.2	Perennial herb. Occurs in vernally mesic soils within cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, grasslands, streams, springs, and disturbed ditches. Elevation range 0-2050 m. Flowering period Jul-Nov.	**None.** The study area lacks suitable vernally mesic soils to support this species. The nearest reported occurrence of this species is approximately 12 miles southeast of the study area near Lake Mathews Estelle Mountain Reserve.

Source: HELIX (2021)

[1] Sensitive species reported within the Prado Dam and Corona North quadrangles based on a database search conducted on CNDDB and CNPS.

[2] Listing is as follows: F = Federal; S = State of California; E = Endangered; T = Threatened.
CRPR = California Rare Plant Rank: 1A – presumed extinct; 1B – rare, threatened, or endangered in California and elsewhere; 2A – rare, threatened, or endangered in California and elsewhere; 2B – rare, threatened, or endangered in California but more common elsewhere. Extension codes: .1 – seriously endangered; .2 – moderately endangered; .3 – not very endangered.

[3] Potential to Occur is assessed as follows: **None**: Habitat suitable for species survival does not occur on the study area, the study area is not within geographic range of the species, and/or the study area is not within the elevation range of the species; **Low**: Suitable habitat is present on the study area but of low quality and/or small extent. The species has not been recorded recently on or near the study area. Although the species was not observed during surveys for the current project, the species cannot be excluded with certainty; **Moderate**: Suitable habitat is present on the study area and the species was recorded recently near the study area; however, the habitat is of moderate quality and/or small extent. Although the species was not observed during surveys for the current project, the species cannot be excluded with certainty; **High**: Suitable habitat of sufficient extent is present on the study area and the species has been recorded recently on or near the study area, but was not observed during surveys for the current project. However, focused/protocol surveys are not required or have not been completed; Presumed **Present**: The species was observed during focused surveys for the current project and is assumed to occupy the study area; **Presumed Absent**: Suitable habitat is present on the study area but focused surveys for the species were negative.

Appendix I

Sensitive Animal Species Potential to Occur

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]
Amphibians				
Spea hammondii	western spadefoot	SSC	Occurs in open coastal sage scrub, chaparral, and grassland, along sandy or gravelly washes, floodplains, alluvial fans, or playas; require temporary pools for breeding and friable soils for burrowing; generally excluded from areas with bullfrogs (*Rana catesbiana*) or crayfish (*Procambarus* spp.)	**None.** The study area does not support temporary pools that are necessary for breeding.
Reptiles				
Anniella stebbinsi	Southern California legless lizard	SSC	Occurs in moist warm loose soil with plant cover. May be found in coastal sand dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks.	**Moderate.** Potentially suitable habitat for this species is present within the mule fat thicket and coast live oak woodland in the northern portion of the study area. This species was recorded in CNDDB in 2016, approximately 8.6 miles east of the study area.
Coleonyx variegatus abbotti	San Diego banded gecko	SSC	Chaparral and coastal sage scrub in areas with rock outcrops.	**None.** The study area lacks does not support suitable rock outcrops.
Crotalus ruber	red diamond rattlesnake	SSC	Occurs in chaparral, coastal sage scrub, along creek banks, particularly among rock outcrops, rodent burrows, or piles of debris with a supply of burrowing rodents for prey.	**Moderate.** Although the study area does not support rock outcrops, the study area does support rodent burrows within and adjacent to coastal sage scrub habitat that could be used as refuge. Prey is likely abundant. This species was recorded in CNDDB in 2001, approximately 4.4 miles to the southwest of the study area.
Emys marmorata	western pond turtle	SSC	Almost entirely aquatic; occurs in freshwater marshes, creeks, ponds, rivers and streams, particularly where basking sites, deep water retreats, and egg laying areas are readily available.	**None**. The study area lacks suitable freshwater habitat.

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]
Phrynosoma blainvillii	coast horned lizard	SSC	Coastal sage scrub and open areas in chaparral, oak woodlands, and coniferous forests with sufficient basking sites, adequate scrub cover, and areas of loose soil; require native ants, especially harvester ants (*Pogonomyrmex* spp.), and are generally excluded from areas invaded by Argentine ants (*Linepithema humile*).	**High.** The study area supports potentially suitable coastal sage scrub habitat. This species was recorded in CNDDB in 2005, approximately 3.0 miles to the southwest of the study area.
Fish				
Catostomus santaanae	Santa Ana sucker	FT	Found within south coastal streams of the Los Angeles Basin. Prefers streams with sand-rubble-boulder bottoms with cool clear water.	**None.** The study area lacks flowing water required by this species.
Gila orcuttii	arroyo chub	SSC	Prefers slow moving streams or backwaters with sand or mud bottoms. Streams are typically deeper than 40 centimeters (16 inches). Primary food source is aquatic vegetation and invertebrates.	**None.** The study area lacks flowing water required by this species.
Oncorhynchus mykiss irideus	steelhead - southern California DPS	FE	Typically migrate up freshwater streams from saltwater or brackish water to spawn. Southern steelhead have a greater tolerance to warmer water.	**None.** The study area lacks flowing water required by this species.
Birds				
Agelaius tricolor	tricolored blackbird	SCE/SSC	Breeds in dense stands of cattails (*Typha* sp.) or bulrushes (*Schoenoplectus* sp./*Scirpus* sp.) located within large freshwater marshes. Forages in adjacent open habitats, such as agricultural fields, pastures, or grasslands.	**None**. The study area lacks suitable freshwater marsh or bulrush and cattail stands required by this species.

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]
Ammodramus savannarum	grasshopper sparrow	SSC	Breeds and forages in dense grasslands (prefers native grasslands) on rolling hills, plains, valleys, and lower mountain slopes. This species nests directly on the ground within thick grasses.	**Moderate**. The study area does not support preferred habitat consisting of dense native grassland. The study area does support some patches of non-native grasses that may be potentially suitable for nesting and foraging. This species was recorded in eBird in 2020, approximately 0.8 mile to the northwest of the study area.
Aquila chrysaetos	golden eagle	SFP	Typical foraging habitat includes grassy and open, shrubby habitats. Generally nests on remote cliffs; requires areas of solitude at a distance from human habitation.	**High.** Potentially suitable nesting habitat is located in the southwest corner of the study area, which consists of a steep southwest-facing cliff. The study area supports suitable foraging habitat. There are multiple eBird records of golden eagle in Chino Hills State Park (approximately 1.7 miles to the west of the study area), with the most recent observation from 2016. There are multiple eBird records of golden eagle in Prado Regional Park (approximately 0.8 mile to the east of the study area), with the most recent observation from 2014.

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]
Asio otus	long-eared owl	SSC	Nests and roosts in densely canopied trees within oak woodlands, riparian forests, and conifer forests in proximity to open foraging habitat.	**Low.** The study does not densely canopied woodlands or forests where this species typically nests and roosts. Some large ornamental trees and an isolated patch of coast live oak woodland were observed in the northern portion of the study area may provide some low-quality habitat. This species was recorded in eBird in 2014, approximately 6.4 miles to the southwest of the study area.
Athene cunicularia	burrowing owl	SSC	Typical habitat is grasslands, open scrublands, agricultural fields, and other areas where there are ground squirrel burrows or other areas in which to burrow.	**Not Expected.** Although the study area supports potentially suitable habitat (e.g., disturbed habitat), suitable burrows (i.e., greater than approximately four inches in height and width and greater than approximately 59 inches in depth) were not observed. Therefore, this species is not expected to occur on the study area.
Buteo swainsoni	Swainson's hawk	ST	Breeds in open grassland with scattered trees or groves within agricultural/ranch lands. Forages for small mammals, reptiles, birds, and insects in adjacent grassland and agricultural fields.	**Moderate (foraging only).** This species is not known to nest in southern California, except for populations in the Antelope Valley in the Mojave Desert. The study area low quality foraging habitat, although no mammal burrows were observed on the project site. This species recorded in eBird in 2017, approximately 1.7 miles to the west of the study area.
Campylorhynchus brunneicapillus sandiegensis	coastal cactus wren	SSC	Occurs in coastal sage scrub with large cactus for nesting.	**None.** The study area lacks suitable stands of cactus required by this species.

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]
Coccyzus americanus occidentalis	western yellow-billed cuckoo	FT/SE	Generally occurs along larger river systems, where it nests in riparian forest dominated by willows (*Salix* sp.) and cottonwoods (*Populus* sp.).	**None.** The study area lacks suitable river systems with riparian forest habitat required by this species.
Coturnicops noveboracensis	yellow rail	SSC	Occurs in freshwater marshes and meadows, brackish marshes, and dense rice fields. Southern California is outside of this species' current geographical range and only historical records are included on CNDDB.	**None**. The study area lacks suitable freshwater marsh habitat required by this species.
Elanus leucurus	white-tailed kite	SFP	Nests in trees with dense canopies within open grasslands, woodlands, and marshes. Forages for small mammals within lightly grazed/ungrazed pastures and grasslands.	**Moderate.** The study area supports some large ornamental and coast live oak trees on the north-facing slope in the northern portion of the study area. This species recorded in eBird in 2019, approximately 0.2 mile to the east of the study area.
Empidonax traillii extimus	southwestern willow flycatcher	FE/SE	Nests within thickets of willows or other riparian understory usually along streams, ponds, lakes, or canyons. Migrants may be found among other shrubs in wetter areas.	**None.** The study area lacks suitable willow thickets along waterways to support this species.
Icteria virens	yellow-breasted chat	SSC	Summer resident of mature riparian woodlands. Nests are placed in low, dense vegetation, such as willows (*Salix* sp.), blackberry (*Rubus* sp.), and wild grape (*Vitis californica*).	**None.** The study area lacks suitable mature riparian woodland to support this species.
Laterallus jamaicensis coturniculus	California black rail	ST/SFP	Occurs most commonly in tidal emergent wetlands dominated by pickleweed, or in brackish marshes supporting bulrushes in association with pickleweed. Usually found within the immediate vicinity of tidal sloughs.	**None**. This species is presumed to be extirpated from southern California. Reported occurrences are historic (greater than 50 years old).

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]
Polioptila californica	coastal California gnatcatcher	FT/SSC	Occurs in coastal sage scrub and very open chaparral.	**Presumed Present.** This species was detected within the study area during the 2021 focused breeding season surveys.
Setophaga petechia	yellow warbler	SSC	Breeds in lowland and foothill riparian woodland, dominated by cottonwoods, alders, or willows.	**None.** The study area lacks suitable mature riparian woodland to support this species.
Vireo bellii pusillus	least Bell's vireo	FE/SE	Inhabits riparian woodland and is most frequent in areas that combine an understory of dense, young willows or mule fat with a canopy of tall willows.	**Presumed Present.** This species was detected within the study area during the 2021 focused breeding season surveys. However, based on timing of observations and lack of typical habitat (southern willow scrub), this species is not expected to nest on the study area and individuals were likely passing through the study area to access suitable habitat nearby (i.e., habitat in Chino Hills State Park or Prado Basin).
Mammals				
Dipodomys stephensi	Stephens' kangaroo rat	FE/ST	Primarily occurs in sparsely vegetated areas within grassland habitats, but also found in open coastal scrub habitat. Feeds on filaree (*Erodium* sp.) and brome (*Bromus* sp.) seeds. Dig burrows in firm soil or use abandoned pocket gopher burrows.	**None.** The study area is located outside of this species' known geographic range. This species is generally restricted to Riverside County.

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]
Eumops perotis californicus	western mastiff bat	SSC	Roosts under exfoliating rock slabs on cliff faces and occasionally in large boulder crevices and building cracks. Forages in a variety of open areas, including washes, floodplains, chaparral, coastal sage scrub, woodlands, ponderosa pine forests, grassland, and agricultural areas.	**Moderate.** The study area supports some potentially suitable roosting habitat, including steep cliffs in the southwest corner of the study area, existing structures in the northeast portion of the study area, and large ornamental trees in the northern portion of the study area. The study area supports potentially suitable open areas of scrub habitat. This species was recorded in CNDDB in 1993, approximately 5.7 miles to the east of the study area.
Lasiurus xanthinus	western yellow bat	SSC	Roosts in trees and are commonly found in palms and cottonwoods. Typically forages over water and among trees within riparian, desert riparian, desert wash, and palm oasis habitats.	**Low.** The study area lacks preferred roosting habitat, such as palms and cottonwoods, and lacks foraging habitat of open water and riparian, desert wash, or palm oasis habitat. Suitable foraging habitat is located within the immediate vicinity (e.g., Prado Basin). This species was recorded in CNDDB in 1989, approximately 5.7 miles to the east of the study area.

Species Name[1]	Common Name	Status[2]	Habitat, Ecology, and Life History	Potential to Occur[3]
Nyctinomops femorasaccus	pocketed free-tailed bat	SSC	Roosts in crevices within high rocky cliffs, caverns, or buildings. Typically forages over water and among trees within arid habitats, such as pine-juniper woodlands, desert scrub, palm oasis, desert wash, and desert riparian.	**Low.** The study area supports some potentially suitable roosting habitat, including steep cliffs in the southwest corner of the study area and existing structures in the northeast portion of the study area. Although preferred foraging habitat is not present on-site, suitable foraging habitat is located within the immediate vicinity (e.g., Prado Basin). This species was recorded in CNDDB in 1986, approximately 5.0 miles to the east of the study area.

Source: HELIX (2022)

1 Sensitive species reported within the Prado Dam and Corona North quadrangles based on a database search conducted on CNDDB.

2 Listing is as follows: F = Federal; S = State of California; E = Endangered; T = Threatened; CE = Candidate Endangered; CT = Candidate Threated; FP = Fully Protected; SSC = State Species of Special Concern.

3 Potential to Occur is assessed as follows. **None**: Species is so limited to a particular habitat that it cannot disperse across unsuitable habitat (*e.g.* aquatic organisms), and habitat suitable for its survival does not occur on the study area; **Not Expected**: Species moves freely and might disperse through or across the study area, but suitable habitat for residence or breeding does not occur on the study area (includes species recorded during surveys but only as transients); **Low**: Suitable habitat is present on the study area but of low quality and/or small extent. The species has not been recorded recently on or near the study area. Although the species was not observed during surveys for the current project, the species cannot be excluded with certainty; **Moderate**: Suitable habitat is present on the study area and the species was recorded recently near the study area; however, the habitat is of moderate quality and/or small extent. Although the species was not observed during surveys for the current project, the species cannot be excluded with certainty; **High**: Suitable habitat of sufficient extent for residence or breeding is present on the study area and the species has been recorded recently on or near the study area, but was not observed during surveys for the current project. However, focused/protocol surveys are not required or have not been completed; **Presumed Present**: The species was observed during biological surveys for the current project and is assumed to occupy the study area; **Presumed Absent**: Suitable habitat is present on the study area but focused/protocol surveys for the species were negative.