INITIAL STUDY - APPENDIX A

Biological Resources

ECORP

Biological Technical Report and MSHCP Consistency

Biological Technical Report and MSHCP Consistency Analysis for the Hillwood Ethanac Project

Riverside County, California

Assessor's Parcel Numbers: 329-240-016, 329-240-017, 329-240-018, 329-240-019, 329-240-020, 329-240-023, 329-240-024, 329-240-025, 329-240-026, and 329-240-027

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CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF APPENDICES

LIST OF ACRONYMS AND ABBREVIATIONS

Term	Definition
ARD	Aquatic Resources Delineation
BUOW	Burrowing Owl
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CNPSEI	California Native Plant Society Electronic Inventory
CRPR	California Rare Plant Rank
CWA	Clean Water Act
ESA	Endangered Species Act
GPS	Global Positioning System
HCP	Habitat Conservation Plan
IA	Implementing Agreement
I-	Interstate
MBTA	Migratory Bird Treaty Act
MCV	Manual of California Vegetation
MM	Mitigation Measure
MSHCP	Multiple Species Habitat Conservation Plan
NEPA	National Environmental Policy Act
NEPSSA	Narrow Endemic Plant Species Survey Area
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
NWP	Nationwide Permit
Project	Hillwood Ethanac Development Project
RCA	Riverside Conservation Authority
RCHCA	Riverside County Habitat Conservation Agency
RCTLMA	Riverside County Land Management Agency
SAA	Streambed Alteration Agreement

Term	Definition
sf	Square Foot/Feet
SKR	Stephens' Kangaroo Rat
SSC	Species of Special Concern
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 INTRODUCTION

ECORP Consulting, Inc. conducted a biological reconnaissance survey at an approximately 21-acre property for the proposed Hillwood Ethanac Development Project (Project) located in the City of Perris in Riverside County. The Project also includes offsite improvement areas. The survey was conducted to identify any potential biological resources that could be affected by the Proposed Project, pursuant to the terms of the California Environmental Quality Act (CEQA) and for the purposes of identifying any biological constraints that would affect the proposed site plan for the Project. The surveys were conducted in accordance with the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). The MSHCP provides information on plant and wildlife species of concern to the County of Riverside and outlines goals for their conservation. Information on the MSHCP can be found at www.rctlma.org (Riverside County Land Management Agency [RCTLMA] 2022). The Project will be subject to county, state, and federal regulations regarding compliance with the federal Endangered Species Act (ESA), California ESA, Migratory Bird Treaty Act (MBTA), and California Fish and Game Code.

1.1 Project Location

The Project Site is generally located east of Interstate (I-) 215 and south of Highway 74. The Project Site is located northwest of the intersection of Ethanac and Sherman Roads in the City of Perris, Riverside County, California (Figures 1 and 2). The Project Footprint consists of an approximately 21-acre Project Site and approximately 21-acre offsite improvement areas (42-acres total) comprised of Assessor Parcel Numbers 329-240-016, 329-240-017, 329-240-018, 329-240-019, 329-240-020, 329-240-023, 329-240-024, 329-240-025, 329-240-026, and 329-240-027. The offsite improvement areas include portions of Ethanac Road, Sherman Road, Trumble Road, and Illinois Avenue (Figure 2).

The Project Site, as depicted on the U.S. Geological Survey (USGS) "Romoland, California" 7.5-minute topographic quadrangle, is located within Section 10, Township 5 South, Range 3 West. The Project Site is generally flat and elevation is approximately 1,440 feet (439 meters) above mean sea level. The Project Site is currently vacant land covered primarily with nonnative grasses and forbs. Vegetation communities/land cover types observed within the Project Footprint include eucalyptus groves; ornamental trees; and disturbed and developed areas.

1.2 Project Description

The proposed Hillwood-Ethanac Project and offsite improvements (Proposed Project or Project Footprint) involves the construction and operation of an approximately 412,348-square-foot (sf) building on the approximately 21-acre Project Site. Street improvements will be required along Ethanac Road and where Ethanac Road intersects with Trumble and Sherman Roads. Water and sewer connections will connect to the existing lines on Trumble Road or Ethanac Road, in the vicinity of the Project Site. Construction of offsite infrastructure facilities may be necessary. Stormwater facilities will connect to either the Romoland Master Drainage Plan Line A, located approximately 0.5 mile south of the Project Site on McLaughlin Avenue, or to a future Line A-21 on Trumble Road approximately 0.4 mile south of Ethanac Road. The offsite improvement areas are shown on Figure 2. The Proposed Project would be constructed in a single phase and the Project Site grading will balance the site.

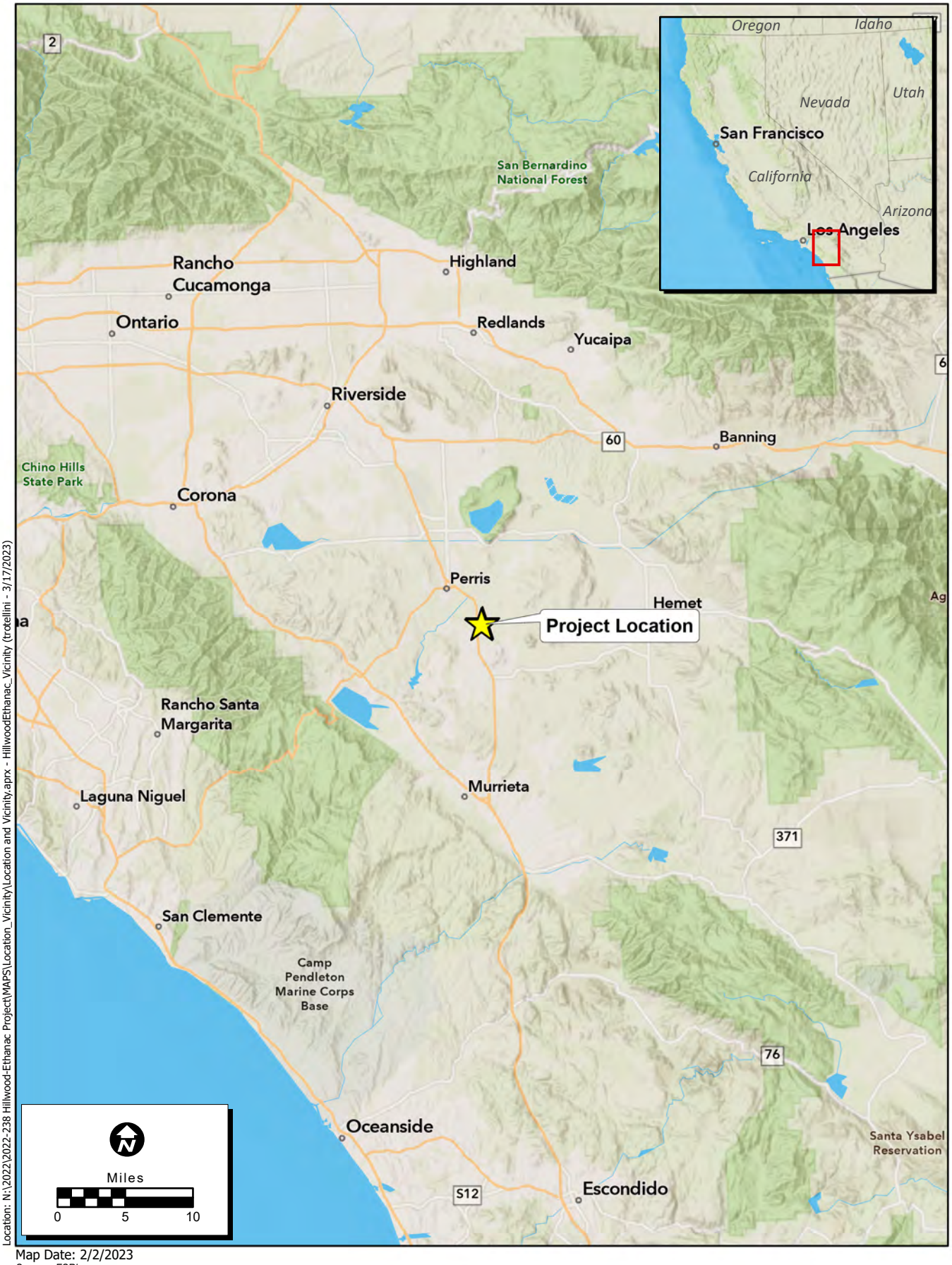

Figure 1. Project Vicinity

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2022-238 Hillwood-Ethanac Project

Location: N:\2022\2022-238 Hillwood-Ethanac Project\MAPS\Location_Vicinity\Location and Vicinity.aprx - HillwoodEthanac_Location (trotellini - 2/2/2023)

Map Date: 2/2/2023

Service Layer Credits: Source: Esri, USDA FSA, County of Sacramento, California State Parks, Esri, HERE, Garmin, SafeGraph, FAO, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, Esri Community Maps Contributors, Loma Linda University, County of Riverside, California State Parks, © OpenStreetMap, Microsoft, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, Bureau of Land Management, EPA, NPS, US Census Bureau, USDA, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

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Figure 2. Project Location

2022-238 Hillwood-Ethanac Project

1.3 Terms

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

- **Project Footprint:** the approximately 42-acre area assessed during the general biological assessment, which encompasses the approximately 21-acre Project Site, and the approximately 21-acre roadway offsite improvement area.
- **Project Site:** the approximately 21-acre property north of Ethanac Road that will be permanently impacted to construct the approximately 412,348-sf building.
- **Offsite Improvement Area:** the approximately 21 acres of right-of-way surrounding expansions where improvements will occur along Trumble Road, Illinois Avenue, Ethanac Road, and Sherman Road.
- **Burrowing Owl Study Area:** includes the Project Footprint and a 500-foot buffer around the Project Footprint.

2.0 SPECIAL-STATUS SPECIES REGULATIONS

ECORP conducted the biological reconnaissance survey to identify potential constraints to development and to ensure compliance with state and federal regulations regarding listed, protected, and sensitive species. The regulations are detailed below.

2.1 Federal Regulations

2.1.1 The Federal Endangered Species Act

The federal ESA protects plants and animals that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service. Section 9 of the ESA prohibits the taking of endangered wildlife, where taking is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct" (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 U.S. Code 1538). Under Section 7 of the ESA, federal agencies are required to consult with the USFWS if their actions, Including permit approvals or funding, could adversely affect a listed or proposed species, including plants or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species. Section 10 of the ESA provides for issuance of incidental take permits where no other federal actions are necessary provided a Habitat Conservation Plan (HCP) is developed.

2.1.2 Migratory Bird Treaty Act

The federal MBTA implements international treaties between the United States and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting,

pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (i.e., rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR Part 13 General Permit Procedures and 50 CFR Part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code.

2.1.3 Federal Clean Water Act

The federal Clean Water Act's (CWA) purpose is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters." Section 404 of the CWA prohibits the discharge of dredged or fill material into Waters of the U.S. without a permit from the U.S. Army Corps of Engineers (USACE). The definition of Waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas "that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3 7b). The U.S. Environmental Protection Agency acts as a cooperating agency to set policy, guidance, and criteria for use in evaluation permit applications and reviews USACE permit applications.

The USACE regulates *fill* or dredging of fill material within its jurisdictional features. *Fill material* means any material used for the primary purpose of replacing an aquatic area with dry land or changing the bottom elevation of a water body. Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the State Water Quality Control Board, administered by each of nine California Regional Water Quality Control Boards (RWQCB).

2.2 State and Local Regulations

2.2.1 California Endangered Species Act

The California ESA generally parallels the main provisions of the ESA but, unlike its federal counterpart, the California ESA applies the take prohibitions to species proposed for listing (called *candidates* by the state). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the California Fish and Game Code as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." The California ESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with the California Department of Fish and Wildlife (CDFW) to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

2.2.2 Fully Protected Species

The State of California first began to designate species as *fully protected* prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under federal and/or California ESAs. The regulations that implement the Fully Protected Species Statute (California Fish and Game Code Section 4700) provide that fully protected species may not be taken or possessed at any time. Furthermore, CDFW prohibits any state agency from issuing incidental take permits for fully protected species, except for necessary scientific research.

2.2.3 Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (California Fish and Game Code Sections 1900-1913) was created with the intent to "preserve, protect and enhance rare and endangered plants in this State." The NPPA is administered by CDFW. The Fish and Wildlife Commission has the authority to designate native plants as *endangered* or *rare* and to protect endangered and rare plants from take. The California ESA of 1984 (California Fish and Game Code Section 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

2.2.4 California Fish and Game Code

2.2.4.1 Streambed Alteration Agreement

Section 1602 of the California Fish and Game Code requires that a Notification of Lake or Streambed Alteration be submitted to CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake." The CDFW reviews the proposed actions and, if necessary, submits to the Applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the Applicant is the Streambed Alteration Agreement (SAA). Often, projects that require an SAA also require a permit from the USACE under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the SAA may overlap.

2.2.4.2 Migratory Birds

The CDFW enforces the protection of nongame native birds in Sections 3503, 3503.5, and 3800 of the California Fish and Game Code. Section 3513 of the California Fish and Game Code prohibits the possession or take of birds listed under the MBTA. These sections mandate the protection of California nongame native birds' nests and make it unlawful to take these birds. All raptor species are protected from *take* pursuant to California Fish and Game Code Section 3503.5 and are also protected at the federal level by the MBTA of 1918 (USFWS 1918).

2.2.5 Western Riverside County Multiple Species Habitat Conservation Plan

The Western Riverside County MSHCP is a comprehensive, multijurisdictional HCP focusing on conservation of species and their associated habitats in western Riverside County. The MSHCP

identified 146 species, referred to as *Covered Species*, for which the federal and California ESAs *take* authorization has been granted to signatories to the plan as long as they comply with its requirements. Of the 146 Covered Species within the MSHCP, 118 are considered to be *adequately conserved*. The remaining 28 Covered Species will be considered adequately conserved when certain landmark conservation requirements are met during the course of future development. The goal of the MSHCP is to maintain the biological and ecological diversity within a rapidly urbanizing region while also improving the future economic development in the county by providing an efficient, streamlined regulatory process through which development can proceed in an efficient way.

The approval of the MSHCP and execution of the Implementing Agreement (IA) by the wildlife agencies allows signatories of the IA to issue *take* authorizations for all species covered by the MSHCP, including state- and federally listed species, as well as other identified sensitive species and/or their habitats. Each city of local jurisdiction will impose a development mitigation fee for projects within their jurisdiction. With payment of the mitigation fee to the County and compliance with the survey requirements of the MSHCP where required, full mitigation in compliance with CEQA, National Environmental Policy Act (NEPA), and the federal and California ESAs, will be granted. The development mitigation fee varies according to project size and description and is dependent on development density (Riverside County Ordinance No. 810.2). Payment of the mitigation fee and compliance with the requirements of Section 6.0 of the MSHCP are intended to provide full mitigation under CEQA, NEPA, and the California and federal ESAs for impacts to the species and habitats covered by the MSHCP, pursuant to agreements with USFWS, CDFW, and/or any other appropriate participating regulatory agencies as set forth in the IA for the MSHCP.

2.2.6 Stephens' Kangaroo Rat (*Dipodomys stephensi*) Habitat Conservation Plan

The Project Site is located within the Long-Term Stephens' kangaroo rat HCP area. The plan is administered by the Riverside County Habitat Conservation Agency (RCHCA) and aims to conserve 15,000 acres of occupied Stephens' kangaroo rat habitat. To date, more than 46,000 acres have been assembled in western Riverside County for this species. The RCHCA has a Section 10A permit granted by USFWS that allows for take of Stephens' kangaroo rat as part of development activity. The federal ESA defines *take* as any attempt to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct as it relates to Stephens' kangaroo rat. As individual projects are proposed and approved in the Stephens' kangaroo rat HCP area, public and private land developers are required to pay a Stephens' kangaroo rat mitigation fee for land that is developed and removes Stephens' kangaroo rat habitat. This streamlined process benefits developers in the Stephens' kangaroo rat HCP Area because projects within this area do not require individual review and approval by the wildlife agencies.

Developers benefit from the streamlined process in the Stephens' kangaroo rat HCP area because projects within this area do not require individual review and approval by the wildlife agencies. The activities covered by the plan fall into three categories:

1. Actions by private landowners, local and regional public agencies, public and private utilities, and farmers that are otherwise lawful but constitute incidental take of Stephens' kangaroo rat as defined by the federal and California ESA;

2. Establishment and management of permanent Stephens' kangaroo rat reserves by the RCHCA in cooperation with other public agencies and individual landowners; and

3. Implementation by the RCHCA and its member agencies of the conservation, mitigation, and monitoring measures specified in this plan.

The Mitigation Fee is $500 per gross acre of the parcels proposed for development within the Stephens' kangaroo rat HCP Area.

2.2.7 California Environmental Quality Act Significance Criteria

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if the project would:

- have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means;
- interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and
- conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional or state HCP.

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA because although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish or result in the permanent loss of an important resource on a population-wide or region-wide basis.

3.0 METHODS

3.1 Literature Review

Prior to conducting the biological reconnaissance survey, ECORP biologists performed a literature review using the CDFW California Natural Diversity Data Base (CNDDB; CDFW 2022a) and the California Native Plant Society (CNPS) Electronic Inventory (CNPSEI; CNPS 2022) to determine the documented special-status plant and wildlife species in the vicinity of the Project Footprint. ECORP searched CNDDB and CNPSEI records within the Project boundaries as depicted on USGS 7.5-minute "Romoland, California" topographic quadrangle, and the surrounding eight topographic quadrangles: Lake Elsinore, Steele Peak, Perris, Lakeview, Winchester, Bachelor Mountain, Murrieta, and Wildomar. The CNDDB and CNPSEI contain records of reported occurrences of federally or state-listed endangered, threatened, proposed endangered or threatened species, California Species of Special Concern (SSC), and/or other special-status species or habitat that may occur within or in the vicinity of the Project Footprint. Additional information was gathered from the following sources and includes, but is not limited to:

- U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) *Web Soil Survey* (NRCS 2022);
- State and Federally Listed Endangered and Threatened Animals of California (CDFW 2022b);
- Special Animals List (CDFW 2022c);
- *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012);
- *A Manual of California Vegetation*, 2nd Edition (MCV; Sawyer et al. 2009); and
- Various online websites (e.g., CalFlora 2022).

Using this information and field observations, ECORP biologists generated a list of special-status plant and wildlife species that have potential to occur within the Project Footprint. For the purposes of this assessment, special-status species are defined as plants or animals that:

- have been designated as either rare, threatened, or endangered by CDFW, CNPS, or the USFWS, and/or are protected under either the federal or California ESAs;
- are candidate species being considered or proposed for listing under these same acts;
- are fully protected by the California Fish and Game Code, Sections 3511, 4700, 5050, or 5515;
- are of expressed concern to resource and regulatory agencies or local jurisdictions; and/or
- are covered species under the MSHCP.

ECORP assessed special-status species reported for the region in the literature review or for which suitable habitat occurs on the Project Footprint for their potential to occur within the Project Site based on the following guidelines:

- **Present**: The species was observed onsite during a site visit or focused survey.

- **High**: Habitat (including soils and elevation factors) for the species occurs within the Project Footprint and a known occurrence has recently been recorded (within the last 20 years) within 5 miles of the area.
- **Moderate**: Habitat (including soils and elevation factors) for the species occurs within the Project Footprint and a documented observation occurs within the database search, but not within 5 miles of the area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project Footprint; or a recently documented observation occurs within 5 miles of the area and marginal or limited amounts of habitat occurs within the Project Footprint.
- **Low**: Limited or marginal habitat for the species occurs within the Project Footprint and a recently documented observation occurs within the database search, but not within 5 miles of the area; a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project Footprint; or suitable habitat strongly associated with the species occurs onsite, but no records or only historic records were found within the database search.
- **Presumed Absent**: Species was not observed during a site visit or focused surveys conducted in accordance with protocol guidelines at an appropriate time for identification; habitat (including soils and elevation factors) does not exist onsite; or the known geographic range of the species does not include the Project Footprint.

Note: Location information on some special-status species may be of questionable accuracy or unavailable. Therefore, for survey purposes, the environmental factors associated with a species' occurrence requirements may be considered sufficient reason to give a species a positive potential for occurrence. In addition, just because a record of a species does not exist in the databases does not mean it does not occur. In many cases, records may not be present in the databases because an area has not been surveyed for that particular species.

3.2 U.S. Fish and Wildlife Service-Designated Critical Habitat

Biologists reviewed the USFWS online service for information regarding Threatened and Endangered Species Final Critical Habitat designation within California to determine if the Project Footprint is within any species' designated Critical Habitat (USFWS 2022).

3.3 Aquatic Resources

ECORP biologists conducted a desktop review of the NRCS' Web Soil Survey (NRCS 2022) and the corresponding USGS topographic maps to determine if there were any blue line streams or drainages that might potentially fall under the jurisdiction of either federal or state agencies within the Project Footprint.

3.4 Western Riverside County MSHCP Consistency Analysis

ECORP reviewed Project data to determine consistency with the MSHCP. Biologists queried the Riverside Conservation Authority (RCA) MSHCP Information Map to determine requirements for habitat

assessment(s), potential focused survey(s), or other issues related to biological resources that could exist within the Project Footprint (RCA 2022).

Section 6.0 of the MSHCP also requires that an assessment of the Project be completed to identify any potential applicable Project-related effects on biological resources, including riparian/riverine areas, vernal pools, and fairy shrimp. In addition, the MSHCP requires that an Urban/Wildlands Interface analysis be conducted to address the indirect effects associated with locating proposed development in the proximity of MSHCP Conservation Areas.

3.5 Field Survey

3.5.1 Biological Reconnaissance Survey

Biologists conducted a reconnaissance survey by walking the entire Project Footprint paying special attention to those areas that could host sensitive vegetation communities or had the potential to provide suitable habitat for special-status species. The biologists documented the plant and wildlife species present within the Project Footprint and assessed the location and condition of the Project Footprint for the potential for it to provide habitat for special-status plant and wildlife species. The data was recorded on a Global Positioning System (GPS) unit, field notebooks, and/or maps. Photographs were taken during the survey to provide visual representation of the various vegetation communities within the Project Footprint. The biologists examined the Project Site to assess its potential to facilitate wildlife movement or function as a movement corridor for wildlife moving throughout the region. In addition, the biologists mapped the vegetation communities and land cover types present on the Project Footprint.

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

ECORP recorded plant and wildlife species including any special-status species that were observed during the survey. Plant nomenclature follows that of *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012). Wildlife nomenclature follows Society for the Study of Amphibians and Reptiles (2017), *Check-list of North American Birds* (Chesser et al. 2019), and the *Revised Checklist of North American Mammals North of Mexico* (Bradley et al. 2014). ECORP recorded GPS coordinates, the species, location, and habitat in instances where a special-status species was observed.

3.5.2 Burrowing Owl Habitat Assessment, Focused Burrow Survey and Focused Surveys

The Project Footprint is located within the MSHCP Burrowing Owl (BUOW, *Athene cunicularia*) Survey Area (Figures 3 and 5) and is subject to the MSHCP burrowing owl survey requirements (RCTLMA 2022). ECORP conducted a BUOW habitat assessment concurrently with the biological reconnaissance survey to determine the presence of suitable habitat. Biologists walked the Project Footprint and a 500-foot

buffer (Figure 3) to identify the presence of owl habitat, scanning for suitable habitat using binoculars in areas that were inaccessible by foot.

ECORP biologists conducted a focused burrow survey where they documented suitable burrows within the Project Footprint and in some areas of the 500-foot buffer, where accessible. This is a requirement under Part 2A of the WR-MSHCP Burrowing Owl Survey Instructions

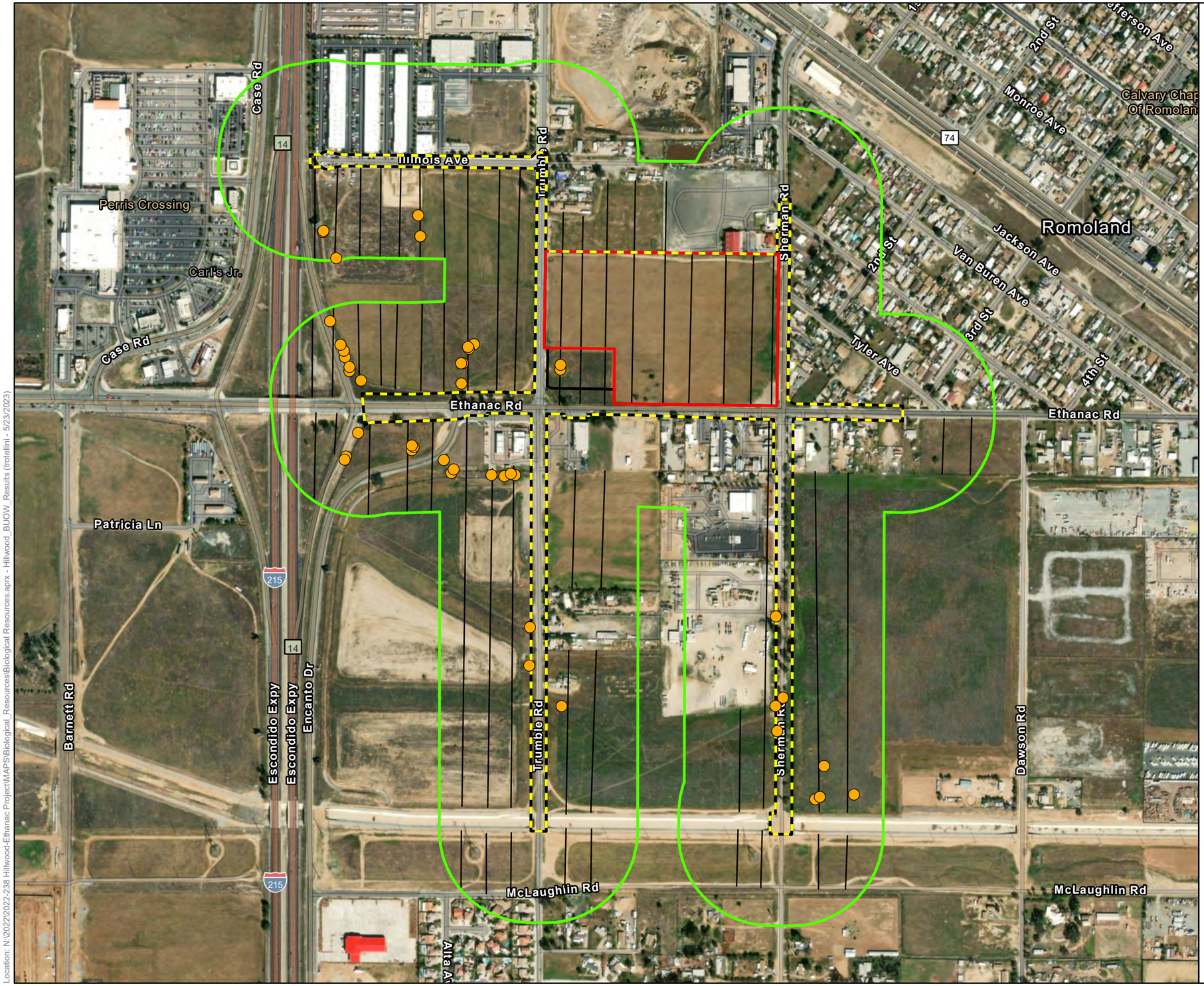
Protocol-level BUOW surveys were conducted during the breeding season (March 1 through August 31) as required under Part 2B of the WR-MSHCP Burrowing Owl Survey Instructions and consisted of four separate surveys conducted throughout the Project Footprint, and within the 500-foot buffer (Burrowing Owl Study Area; RCA 2006), where accessible, to determine if, when, and how the Study Area is being used by BUOW. The surveys were conducted on four separate days in March, April, and May 2023 by qualified biologists. The biologists walked pedestrian transects spaced 20 to 30 meters apart across the entire Study Area (Figure 3) where access was permissible. In areas that were inaccessible, binoculars were used to scan for the presence of BUOW. Additionally, all the encountered burrows were marked during the surveys.

The biologists visually inspected any burrows, rocky areas, or manufactured materials within the BUOW study area for potential BUOW occupation. All burrows encountered were inspected for presence or sign of BUOW (e.g., whitewash, pellets, feathers, and/or prey remains) and classified according to the guidelines in the Staff Report (California Department of Fish and Game [CDFG] 2012).

Data collected for each burrow included the condition and size of the burrow, number of entrances, presence of BUOW sign near the burrow, and location. The biologists used GPS to mark the location. Burrows were individually numbered and classified into two categories based on definitions found in the CDFG Staff Report (CDFG 2012): occupied burrow or potential burrow. Burrows classified as occupied showed signs (e.g., whitewash, feathers, pellets, and/or bones of prey outside the burrow), indicating BUOW presence and/or use at some point in time. Potential burrows were defined as burrows that are large enough for a BUOW but do not show sign of use by the species. The biologists recorded the data on survey sheets and took photographs.

4.0 RESULTS

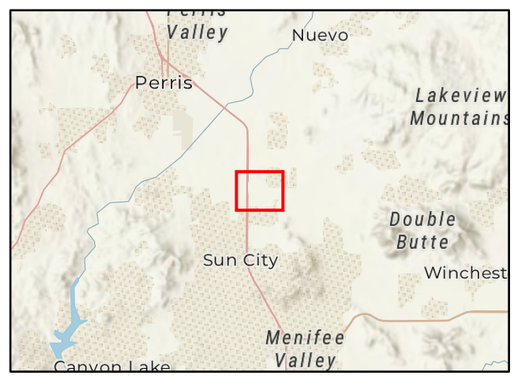
The results of the literature review and field surveys, including site characteristics, vegetation communities, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors) are summarized below.



Map Contents

- Project Site
- Offsite Improvement Area
- Project Footprint
- Study Area (Includes a 500-ft Buffer)
- BUOW Survey Transects
- Potential Burrowing Owl Burrows (No Sign)

Sources: ESRI
Other Related Info if Needed



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Map Date: 5/23/2023

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Scale in Feet
0 275 550

Figure 3. Burrowing Owl Study Area and Burrow Locations

2022-238 Hillwood-Ethanac Project

4.1 Literature Review

4.1.1 Special-Status Plants and Wildlife

ECORP conducted the CNDDB and CNPSEI searches on November 7 and 8, 2022 and January 13, 2023. The database searches identified 43 special-status plant species and 56 special-status wildlife species that could occur within and/or near the Project Footprint. Biologists generated a list from the results of the literature review and evaluated the Project Footprint for suitable habitat that could support any of the special-status plant or wildlife species on the list.

4.1.2 U.S. Fish and Wildlife Service-Designated Critical Habitat

The Project Footprint is not located within any USFWS-designated Critical Habitat. The closest designated Critical Habitat is for spreading navarretia (*Navarretia fossalis*), located approximately 1.9 miles to the northwest of the Project Footprint, and for coastal California gnatcatcher (*Polioptila californica californica*), located approximately 2.4 miles to the southwest of the Project Footprint (USFWS 2022).

4.2 Biological Reconnaissance Survey

ECORP biologists Carla Marriner and Verity Richardson conducted the biological reconnaissance surveys on November 9, 2022 and Ms. Marriner conducted the January 17, 2023 survey. This last biological reconnaissance survey included an additional offsite area located along Illinois Avenue plus a 500-foot buffer. The results of the biological reconnaissance surveys, including site characteristics, plants and plant communities, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors) are summarized below. The biologists surveyed areas of unknown property ownership within the 500-foot buffer from a distance with binoculars. Table 1 provides summarized weather conditions during the surveys.

Table 1. Weather Conditions During the Survey

Date	Time		Temperature (˚F)		Cloud Cover (%)		Wind Speed (mph)	
	Start	End	Start	End	Start	End	Start	End
11/09/2022	0745	1245	50	57	20	30	0-1	4-12
1/17/2023	0830	1000	43	46	10	15	0-2	2-4

4.2.1 Site Characteristics and Land Use

The majority of the Project Footprint is disturbed and developed. The Project Site is currently vacant, disturbed, and undeveloped. The vegetation observed is composed of mostly nonnative forbs and grasses. Scattered trash and evidence of off-highway vehicle use was also observed on the site. Additionally, most of the site showed evidence of mechanical disturbance and based on aerial imagery, it appears to have been regularly disturbed over the last 20 years, likely associated with annual weed and fire abatement procedures.

There are four soil types within the Project Footprint:

- Exeter sandy loam, 2 to 8 percent slopes, eroded;
- Madera fine sandy loam, 0 to 2 percent slopes;
- Monserate sandy loam, shallow, 0 to 5 percent slopes; and
- Monserate sandy loam, shallow, 5 to 15 percent slopes, eroded (NRCS 2022).

The Project Site is bounded by an open lot with a similar vegetative composition of disturbed nonnative grasslands to the west, Sherman Road and residential developments to the east, commercial development to the north, and Ethanac Road and commercial developments to the south. Representative site photographs are included in Appendix A.

4.2.2 Vegetation Communities and Land Cover Types

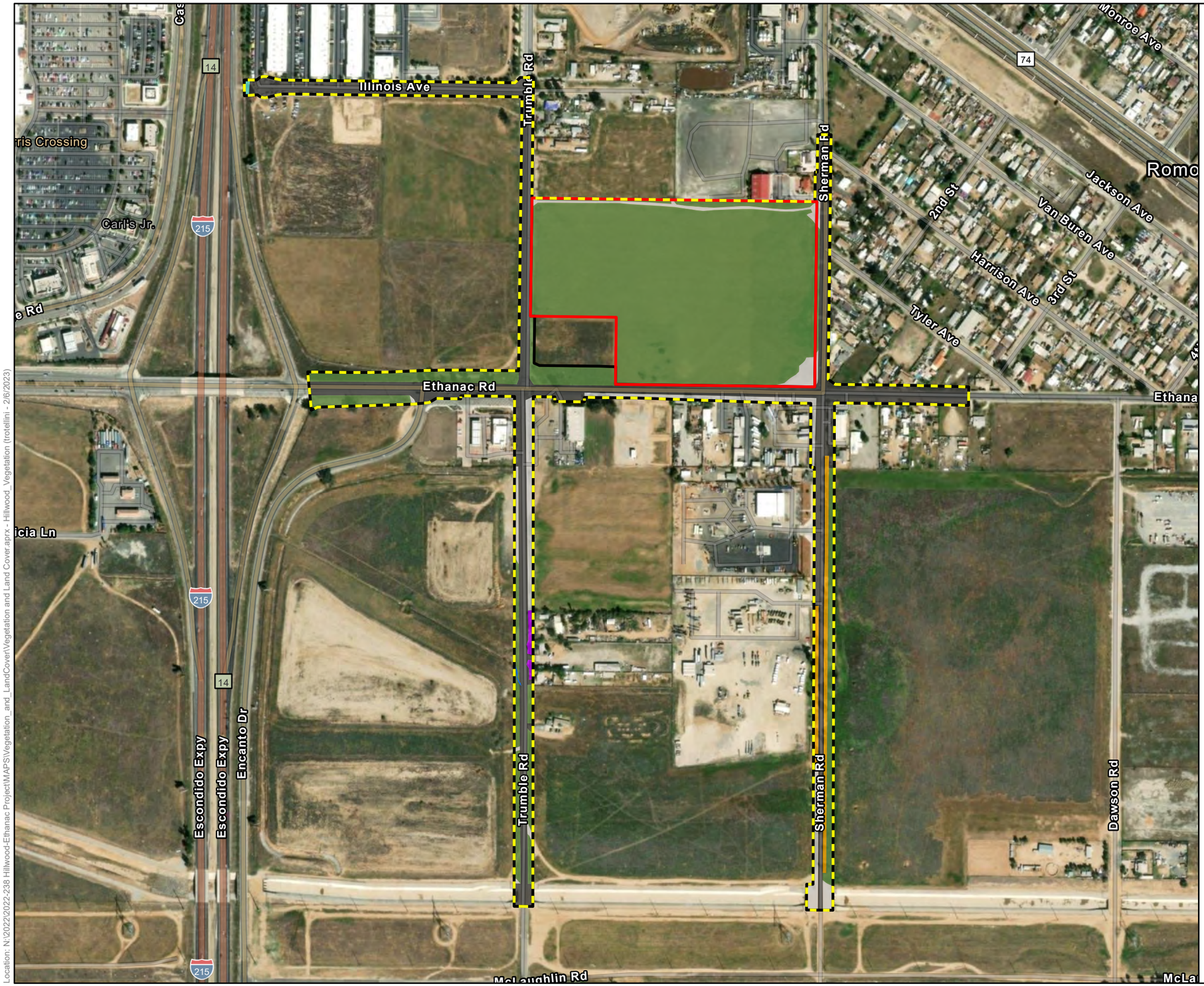
The vegetation communities observed within the Project Footprint were characteristic of areas subjected to anthropogenic disturbances. ECORP identified one vegetation alliance, Eucalyptus groves (*Eucalyptus* spp. Woodland Semi-Natural Alliance) within the offsite improvement area along Sherman Road. Biologists identified an earthen canal and a storm drain area plus four vegetation/land cover types within the Project Footprint that did not meet alliance membership requirements of the MCV (Sawyer et al. 2009). Detailed descriptions of each of these vegetation/land cover types including herbaceous nonnative forbs and grasses, disturbed, urban/developed and ornamental trees are described below and depicted on Figure 4. A full list of plant species observed on and immediately adjacent to the Project Footprint is included in Appendix B.

4.2.2.1 Disturbed

The disturbed classification includes areas where the native vegetation community has been heavily influenced by human actions, such as grading, trash dumping, and off-road use, but lacks development. Disturbed is not a vegetation classification, but rather a land cover type and is not typically restricted to a known elevation. Disturbed areas encompass approximately 2.8 acres and were located throughout the Project Footprint. These areas have been recently disced, lack any vegetation cover due to the proximity to the paved roads, or are existing dirt roads. Vegetation was absent or sparse in areas classified as disturbed.

4.2.2.2 Earthen Canal

ECORP mapped a small portion of a humanmade earthen canal (0.02 acre) within the Project Footprint. The canal leads to an offsite catch basin that carries the flows across the I-215 and eventually to the San Jacinto River. Biologists observed vegetation within this portion of the manmade earthen canal including mule fat (*Baccharis salicifolia*), barbary fig (*Opuntia ficus-indica*), palo verde (*Parkinsonia* sp.), and tamarisk (*Tamarix* sp.).



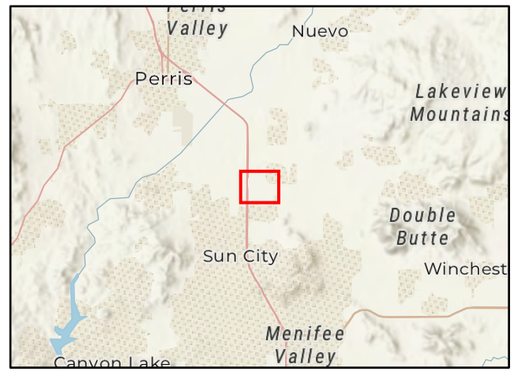
Map Contents

- Project Site
- Offsite Improvement Area
- Project Footprint

Vegetation Communities and Land Cover Types

- Disturbed
- Earthen Canal
- Eucalyptus Grove
- Herbaceous Non-native Forbs and Grasses
- Ornamental Trees
- Storm Drain
- Urban/Developed

Sources: ESRI
Other Related Info if Needed



Location: N:\2022\2022-238 Hillwood-Ethanac Project\MAPS\Vegetation_and_LandCover\Vegetation and Land Cover.aprx - Hillwood_Vegetation (trotellini - 2/6/2023)

Map Date: 2/2/2023

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Scale in Feet
0 225 450

Figure 4. Vegetation Communities and Land Cover Types

2022-238 Hillwood-Ethanac Project

4.2.2.3 Eucalyptus Grove (Eucalyptus spp. Woodland Semi-Natural Alliance)

This vegetation community is located within the offsite improvement area along Sherman Road and encompasses approximately 1.1 acres. This vegetation community is dominated primarily by nonnative Eucalyptus trees such as red gum (*Eucalyptus camaldulensis)*.

4.2.2.4 Herbaceous Non-native Forbs and Grasses

Approximately 26.1 acres of the land within the Project Footprint is considered herbaceous nonnative forbs and grasses. This vegetation community was observed in the Project Site and in some areas within the offsite improvement area. Areas mapped within this land cover were largely devoid of native vegetation due to human disturbance and proximity to the roads and were dominated by nonnative weedy and ruderal vegetation. Some areas mapped within the Project Site exhibited human disturbance (e.g., annual discing and mowing).

Nonnative plant species present in this community included primarily nonnative grasses and weedy species such as Bermuda grass (*Cynodon dactylon*), cheeseweed (*Malva parviflora*), pigweed amaranth (*Amaranthus albus*), shortpod mustard (*Hirschfeldia incana*), wild oat (*Avena* sp.), bromegrass (*Bromus diandrus*), and Russian thistle (*Salsola tragus*).

Native species present in this community at the time of the survey included telegraph weed (*Heterotheca grandiflora*), common sunflower (*Helianthus annuus*), and jimson weed (*Datura wrightii*). In addition, scattered trees were observed within the Project Footprint such a gum trees (*Eucalyptus* sp.), juniper (*Platycladus* sp.), olive tree (*Olea europaea*), mule fat, and tree of heaven (*Ailanthus altissima*).

4.2.2.5 Ornamental Trees

ECORP mapped approximately 0.15 acre of ornamental trees within the Project Footprint adjacent to Trumble Road. Biologists observed nonnative tree species including Peruvian peppertree (*Schinus molle*), wattles (*Acacia* sp.), Mexican fan palm trees (*Washingtonia robusta*), olive trees, and tree of heaven.

4.2.2.6 Storm Drain

This area encompasses approximately 0.03 acre and is located within the Project Footprint at the western end of Illinois Avenue. This area contains a large box culvert that collects runoff from Illinois Avenue and I-215. Vegetation observed adjacent to this area includes a few Goodding's black willow (*Salix gooddingii*), yerba mansa (*Anemopsis californica*), one nonnative tamarisk (*Tamarix* sp.), and other nonnative herbaceous species.

4.2.2.7 Urban/Developed

The urban/developed classification includes areas where anthropogenic disturbance has resulted in permanent impacts such as roads, buildings, and other development. Urban/developed areas have little to no vegetation; Urban/developed is not a vegetation classification, but rather a land cover type and is not typically restricted to a known elevation. ECORP mapped approximately 12.7 acres of

urban/developed land cover within the Project Footprint and constitutes primarily the roads along Trumble Road, Illinois Avenue, Ethanac Road, and Sherman Road.

4.2.3 Plants

Plant species observed within the Project Footprint were generally characteristic of disturbed urban/wildland interface areas. Nonnative plant species observed during the biological assessment included wild oat, bromegrass, Bermuda grass, cheeseweed, pigweed amaranth, common stork's bill (*Erodium cicutarium*), small-flowered fiddleneck (*Amsinckia menziesii*), shortpod mustard, and Russian thistle. Native plants observed on the Project Site included telegraph weed, common sunflower, jimson weed, and California aster (*Corethrogyne filaginifolia*). Appendix B provides a full list of plant species observed on the Project Footprint.

4.2.4 Wildlife

The Project Footprint provides habitat for species adapted to disturbances and urban environments. Bird species were observed during the reconnaissance surveys including California horned lark (*Eremophila alpestris*), red-tailed hawk (*Buteo jamaicensis*), killdeer (*Charadrius vociferus*), and mourning dove (*Zenaida macroura*). ECORP observed two mammal species: desert cottontail (*Sylvilagus audubonii*) and California ground squirrel (*Otospermophilus beecheyi*). Appendix C provides a full list of wildlife species observed on or immediately adjacent to the Project Footprint.

4.2.5 Potential for Special-Status Species to Occur within the Project Footprint

The literature review and database search identified 43 special-status plant species and 56 special-status wildlife species that have the potential to occur within or near the Project Footprint. However, due to the current lack of suitable habitat for the special-status plant and wildlife species, many of the species have a low potential to occur or are presumed absent from the Project Footprint.

4.2.5.1 Special-Status Plants

There were 43 special-status plant species that appeared in the literature review and database searches for the Project Footprint (CDFW 2022a; CNPS 2022). ECORP generated a list from the results of the literature review and evaluated the Project Footprint for suitable habitat that could support any of the special-status plant species on the list.

With various habitat types occurring within the nine-quadrangle search, including the Temescal and Lakeview mountains, several species appeared in the literature review results that had no potential to occur within or near the Project Footprint due to elevational or habitat requirements. Additionally, biologists eliminated CNPS Rare Plant Rank 3 or 4 species from the analysis because these rankings are considered a review list and a watch list, respectively. Table 2 provides descriptions of the CNPS designations. Appendix D consists of a table outlining each species, designation, and potential for occurrence within the Project Footprint.

Table 2. CNPS Status Designations	
List Designation	**Meaning**
1A	Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B	Plants Rare, Threatened, or Endangered in California and Elsewhere
2A	Plants Presumed Extirpated in California, but Common Elsewhere
2B	Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere
3	Plants about which we need more information; a review list
4	Plants of limited distribution; a watch list
List 1B, 2, and 4 extension meanings:	
.1	Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2	Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

Note: According to CNPS (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code (CDFG 1984). This interpretation is inconsistent with other definitions.

4.2.5.2 Plant Species Present on the Project Footprint

One special-status plant species, paniculate tarplant (*Deinandra paniculata*), was observed in a drainage ditch within the Burrowing Owl Study Area (500-foot buffer) during the biological assessment. However, paniculate tarplant is a California Rare Plant Rank (CRPR) 4.2 species (limited distribution in California) and does not have the same protections that plant species with a rank of 1B do.

4.2.5.3 Plant Species with a Moderate Potential to Occur

Two species were found to have a moderate potential to occur within the Project Footprint. The Project Footprint provides marginal or limited amounts of habitat (including soils and elevation factors) and recently documented observations occur within 5 miles of the Project Footprint; or a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project Footprint. The special-status plant species with a moderate potential are listed below and detailed in Appendix D.

- Smooth tarplant (*Centromadia pungens* ssp. *laevis*) CRPR 1B.1, MSHCP Covered Species.
- Parry's spineflower (*Chorizanthe parryi* var. *parryi*) CRPR 1B.1, MSHCP Covered Species.

4.2.5.4 Plant Species with a Low Potential to Occur

The following six species have a low potential to occur within the Project Footprint because limited habitat for the species occurs onsite and a known occurrence has been reported in the database, but not within 5 miles of the site or a historic documented occurrence (more than 20 years old) was

recorded within 5 miles of the Project Footprint; or suitable habitat strongly associated with the species occurs onsite, but no records were found in the database search. The dense nonnative vegetation observed onsite combined with the mechanically disturbed soils limits the amount of suitable habitat; however, the herbaceous nonnative forbs and grasses on the Project Footprint may provide low-quality suitable habitat for these species.

- Munz's onion (*Allium munzii*), federally listed (Endangered), state-listed (Threatened), CRPR 1B.1, MSHCP Covered Species.
- Jaeger's milk-vetch (*Astragalus pachypus* var. *jaegeri*), CRPR 1B.1, MSHCP Covered Species.
- San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior),* federally listed (Endangered), state-listed (Threatened), CRPR 1B.1, MSHCP Covered Species.
- Thread-leaved brodiaea (*Brodiaea filifolia*), federally listed (Threatened), state-listed (Endangered), CRPR 1B.1, MSHCP Covered Species.
- Intermediate mariposa lily (*Calochortus weedii* var. *intermedius*), CRPR 1B.2, MSHCP Covered Species.
- Long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*) CRPR 1B.2, MSHCP Covered Species.

4.2.5.5 Plant Species Presumed Absent

A total of 35 plant species were presumed absent from the Project Footprint due to lack of suitable habitat (including elevation and soils) within the Project Footprint or because the Project Footprint is located outside of the known range for the species. A table outlining each species, their designations, and potential for occurrence on the Project Footprint can be found in Appendix D.

4.2.5.6 Special-Status Wildlife

The literature search documented 56 special-status wildlife species in the vicinity of the Project Footprint. ECORP generated a list from the results of the literature review and evaluated the Project Footprint for suitable habitat that could support any of the special-status wildlife species on the list. The Project Site's long history of mechanical disturbances (e.g., discing, mowing) on the site, proximity to residential development, and the presence of anthropogenic influences on the site likely preclude many of these species from occurring. A brief natural history and discussion of the special-status wildlife species found to be present onsite or to have a moderate potential to occur within the Project Footprint is provided below. Appendix E provides a table outlining each species, their designations, and potential for occurrence within the Project Footprint.

4.2.5.7 Wildlife Species Present on the Project Footprint

The following species was observed within the Project Footprint during the biological reconnaissance survey.

California Horned Lark

California horned lark (*Eremophila alpestris actia*) is a MSHCP Covered Species and CDFW Watch List species. Horned larks favor bare open areas dominated by low vegetation or widely scattered shrubs, including prairies, deserts, and plowed fields. They nest in hollows on the ground. Suitable habitat is present within the open and disturbed habitat within the Project Footprint. In addition to being observed during the biological assessment, the literature review returned several recent and historic records within 5 miles of the Project Footprint.

4.2.5.8 Wildlife Species with a Moderate Potential to Occur

Seven species were found to have a moderate potential to occur within the Project Footprint because of one of the following factors:

- Although these species were not observed during the biological reconnaissance survey, somewhat suitable habitat for the species occurs onsite, and a known occurrence has been reported in the database, but not within 5 miles of the site; or
- a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project Footprint; or
- a recently documented observation occurs within 5 miles of the site and marginal or limited amounts of habitat occurs onsite.

The special-status wildlife species with a moderate potential are listed below and detailed in Appendix E.

- California glossy snake (*Arizona elegans occidentalis*), CDFW SSC.
- Cooper's hawk (*Accipiter cooperii*), CDFW Watch List Species, MSHCP Covered Species.
- BUOW, CDFW SSC, MSHCP Covered Species.
- Ferruginous hawk (*Buteo regalis*), CDFW Watch List Species, MSHCP Covered Species.
- Loggerhead shrike (*Lanius ludovicianus),* CDFW SSC, MSHCP Covered Species.
- Stephens' kangaroo rat (*Dipodomys stephensi*), federally listed (Endangered), state-listed (Threatened), MSHCP Covered Species.
- San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), CDFW SSC, MSHCP Covered Species.

4.2.5.9 Wildlife Species with a Low Potential to Occur

The following seven species have a low potential to occur within the Project Footprint because of one of the following factors:

- There is limited habitat for the species onsite and a known occurrence has been reported in the database, but not within 5 miles of the site; or

- a historic documented observation (more than 20 years old) was recorded within 5 miles of the Project Footprint; or
- suitable habitat strongly associated with the species occurs onsite, but no records were found in the database search.

The herbaceous nonnative forbs and grasses within the Project Footprint provides low-quality habitat for species typically associated with grassland and scrub vegetation communities. Furthermore, the dense nonnative vegetation observed onsite, combined with the mechanically disturbed soils, severely limits the amount of suitable habitat for these species. The special-status wildlife species with a low potential are listed below and detailed in Appendix E.

- Crotch bumblebee (*Bombus crotchii*), state-listed (candidate).
- Western spadefoot (*Spea hammondii*), CDFW SSC, MSHCP Covered Species.
- Red-diamond rattlesnake (*Crotalus ruber*), CDFW SSC, MSHCP Covered Species.
- Coast horned lizard (*Phrynosoma blainvillii*), CDFW SSC, MSHCP Covered Species.
- White-tailed kite (*Elanus leucurus*), Fully Protected Species (FP), MSHCP Covered Species.
- Los Angeles pocket mouse (*Perognathus longimembris brevinasus*), CDFW SSC, MSHCP Covered Species.
- Jacumba pocket mouse (*Perognathus longimembris internationalis*), CDFW SSC.

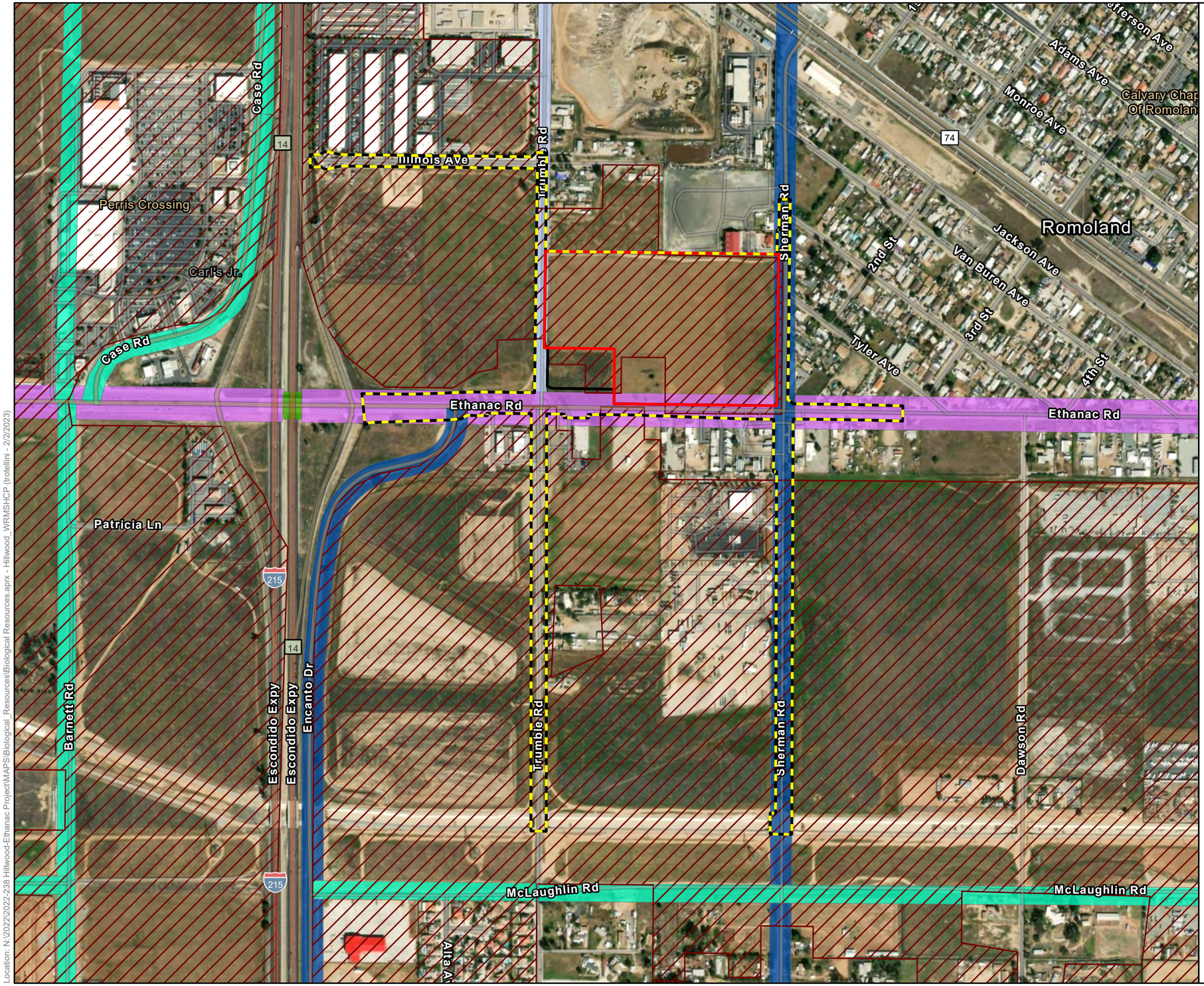
4.2.5.10 Wildlife Species Presumed Absent

A total of 41 species were presumed absent. These species were not present at the Project Site during the biological reconnaissance survey and the habitat present within the Project Footprint was not suitable. For some species, there were historic or recent sightings near the Project Footprint; however, these species are presumed absent due to the lack of suitable habitat within the Project Footprint. Appendix E outlines each species, their designations, and potential for occurrence within the Project Footprint.

4.3 Burrowing Owl Survey Results

A BUOW habitat assessment was required because the Project Footprint is located within a MSHCP-designated BUOW survey area (Figure 5). ECORP conducted the BUOW habitat assessment and focused burrow survey concurrently with the biological reconnaissance survey on November 9, 2022 and on January 17, 2023 by ECORP biologists Ms. Marriner and Ms. Richardson within the Project Footprint and a 500-foot buffer. Weather conditions during the assessment are summarized in Table 1.

The assessment determined the site included suitable habitat for BUOW consisting of relatively large open expanses of sparsely vegetated nonnative forbs and grasses on level to gently rolling terrain, with an abundance of active California ground squirrel burrows. The presence of the ground squirrel burrows onsite provides suitable burrow habitat for owls. ECORP recorded potential burrows within the Burrowing Owl Study Area (Figure 3).



Map Contents

- Project Site
- Offsite Improvement Area
- Project Footprint

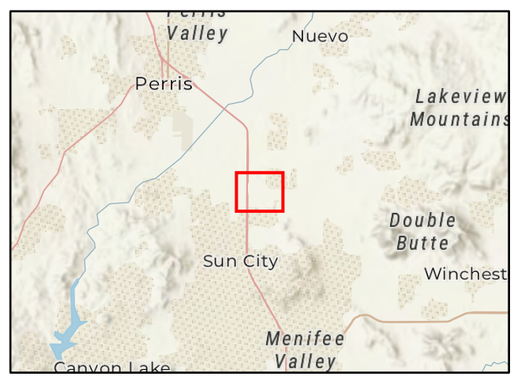
MSHCP Species Survey Areas

- MSHCP Burrowing Owl Survey Area

MSHCP Covered Roads Right-of-Way

- Expressway
- Urban Arterial
- Arterial
- Major
- Secondary
- Collector

Sources: ESRI
Other Related Info if Needed



Location: N:\2022\2022-238 Hillwood-Ethanac Project\MAPS\Biological_Resources\Biological Resources.aprx - Hillwood_WRMSHCP (trotellini - 2/2/2023)

Map Date: 1/27/2023

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Scale in Feet
0 275 550

Figure 5. Western Riverside County MSHCP Designation

2022-238 Hillwood-Ethanac Project

Four focused burrowing owl surveys were conducted during the breeding season to determine the presence of burrowing owls on the Project Footprint due to the presence of suitable habitat, including potential burrows. The focused surveys followed the MSHCP *Burrowing Owl Survey Instructions* (RCTLMA 2006). In addition to BUOW focused surveys, pre-construction surveys will be required within 30-days prior to site disturbance (RCTLMA 2022). Mitigation measures discussing additional survey requirements are described in Section 6.0.

No BUOW or active signs thereof were observed during the habitat assessment or focused burrowing surveys within the Burrowing Owl Study Area. Suitable burrows were observed within the study area during the surveys. Methodology, results of the literature review, existing conditions and results from the BUOW focused surveys are included in Attachment F.

4.4 Raptors and Migratory Birds

Potential nesting habitat for migratory birds and raptors protected by the MBTA and California Fish and Game Code was present within and adjacent to the Project Footprint in some of the larger trees and shrubs. Additionally, the open areas and ground could be suitable for some ground nesting species (e.g., mourning dove, killdeer). Raptors typically breed between February and August, and songbirds and other passerines generally nest between March and August. There is potential for nesting to occur within the Project Footprint due to the presence of suitable nesting habitat.

4.5 Aquatic Resources Delineation

ECORP conducted a desktop review to identify potential streams and hydric soils on the property. This entailed examination of the NRCS Soil Mapper (2022), National Wetland Inventory mapping, and the USGS topographic mapping of the Project Footprint to aid in identifying potential biological constraints to the Project due to jurisdictional streams. Additionally, biologists walked the property to look for signs of ordinary high-water mark as defined by the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Arid West Region Supplement)* (USACE 2008). There was water puddling in a series of tire ruts along a dirt road at the northern edge of the Project Site and in some areas within the offsite improvement area; however, the Project Site was determined to have a low potential for other aquatic features including vernal pools and human-modified depressions. Hernandez Environmental conducted a formal Aquatic Resources Delineation (ARD) within the Project Footprint on December 6 and 26, 2022. The boundaries of potential jurisdictional areas were formally delineated, and the results of the survey can be found in Appendix G.

4.6 Wildlife Movement Corridors, Linkages, and Significant Ecological Areas

The concept of habitat corridors addresses the linkage between large blocks of habitat that allow the safe movement of mammals and other wildlife species from one habitat area to another. The definition of a corridor is varied, but corridors may include such areas as greenbelts, refuge systems, underpasses, and biogeographic land bridges. In general, a corridor is described as a linear habitat, embedded in a dissimilar matrix, which connects two or more large blocks of habitat. Wildlife movement corridors are

critical for the survivorship of ecological systems for several reasons. Corridors can connect water, food, and cover sources, spatially linking these three resources with wildlife in different areas. In addition, wildlife movement between habitat areas provides for the potential of genetic exchange between wildlife species populations, thereby maintaining genetic variability and adaptability to maximize the success of wildlife responses to changing environmental conditions. This is especially critical for small populations subject to loss of variability from genetic drift and effects of inbreeding. Naturally, the nature of corridor use and wildlife movement patterns varies greatly among species.

ECORP assessed the Project Site for its ability to function as a wildlife corridor. The Project Site likely provides wildlife movement opportunities because it consists of open land. It is possible the Project Footprint may play a minor role in local wildlife dispersal and foraging. Common wildlife species including coyotes (*Canis latrans*), skunks (*Mephitis mephitis*), opossums (*Didelphis virginiana*), and raccoons (*Procyon lotor*) may travel through the site and neighboring developed areas, but the site does not provide connectivity between large areas of open space on a local or regional scale. The Site's value as a corridor is lessened by the fact that it borders residential developments to the east and commercial developments to the north, and is moderately disturbed due to anthropogenic factors.

5.0 IMPACT ANALYSIS

Impacts to sensitive biological resources resulting from construction activities are presented below.

5.1 Special-Status Species

The Project Footprint consists of herbaceous nonnative forbs and grasses, disturbed land with large portions devoid of native vegetation, developed paved roads, ornamental trees, and a eucalyptus grove along Sherman Road.

The literature review and database searches identified 43 special-status plant species. Of these 43 special-status plants, two were found to have a moderate potential to occur within the Project Footprint due to the presence of marginally suitable habitat and records within 5 miles: smooth tarplant and Parry's spineflower. These plant species are MSHCP covered species; thus, additional surveys will not be required.

A total of six species had a low potential to occur onsite and 35 plant species were presumed absent. One special status species, paniculate tarplant, was observed within the 500-foot buffer; however, this species has a CRPR rank of 4.2 (limited distribution in California) and does not have the same protections as plant species with a rank of 1B; therefore, potential impacts to this species are not considered significant. The Project Site is highly disturbed and no additional sensitive plant species were observed during the biological surveys. No impacts to special-status plant or narrow endemic plant species are expected to occur as a result of the Proposed Project.

Of the 56 special-status wildlife species identified in the literature search, one bird species was present during the biological reconnaissance survey: California horned lark (Watch List species). Marginally suitable habitat for this sensitive bird species including the herbaceous nonnative forbs and grasses occurs within the Project Footprint. Additionally, the large gum trees and other ornamental trees located within the Project Footprint could provide nesting habitat for nesting birds and raptors

protected by the MBTA and California Fish and Game Code. Ground-disturbing construction activities could directly affect nesting birds and other birds protected by the MBTA and their nests through habitat removal on the Project Footprint, and indirectly through increased noise, vibrations, and increased human activity if any tree or vegetation removal needs to occur during the bird breeding season (typically January 15 through August 31). Potential impacts to sensitive bird species and/or nesting birds would be less than significant with the implementation of Mitigation Measure (MM) BIO-1.

A total of seven wildlife species were determined to have moderate potential to occur within the Project Footprint: BUOW, loggerhead shrike, California glossy snake, red-diamond rattlesnake, ferruginous hawk, San Diego black-tailed jackrabbit, and Stephens' kangaroo rat (SKR). Six of these species are covered by the MSHCP and, other than SKR, which is federally listed (Threatened), none of the other species are listed under the federal or California ESAs. These wildlife species are covered under the MSHCP and considered adequately conserved; no additional surveys or mitigation will be required. Although potential impacts to SKR are covered by the MSHCP and SKR HCP, potential impacts to SKR habitat within the SKR HCP area will require Mitigation Fee payment of $500 per gross acre of the parcels proposed for development within the SKR HCP Fee Area.

California glossy snake is not covered under the MSHCP. This species, if present, could be subject to direct impacts through ground disturbance and indirect impacts from noise, vibrations, and increased human activity related to Project activities. However, this species is only expected to occur in very low densities and Project-related impacts would not be expected to contribute to the overall decline of populations for these species due to the lack of high-quality habitat within the Project Footprint, the Site's history of anthropogenic disturbances, and the presence of urban development adjacent to the Project Site. Therefore, potential impacts to California glossy would not be considered significant under CEQA and additional surveys and mitigation are not necessary.

The BUOW was found to have a moderate potential for occurrence and the Project Footprint is located within a designated survey area under the MSHCP for BUOW (RCA 2022). The biological reconnaissance survey and habitat assessment determined that suitable BUOW habitat was present within the BUOW Study Area. Four focused surveys were performed to further ascertain presence of the species during the breeding season; however, no BUOW or signs of BUOW were observed during the surveys. Due to the mobile nature of the species, it is also possible that BUOW could use the Site prior to the start of Project activities. If BUOW are present within the Project Footprint, direct impacts in the form of ground disturbance, vegetation removal, habitat loss, and mortality and indirect impacts from construction noise and vibrations may occur. Potential impacts to BUOW would be less than significant with the implementation of MMs BIO-1, BIO-2, and BIO-3.

A total of seven wildlife species have a low potential to occur within the Project Footprint. Five of the seven species are covered under the MSHCP and considered adequately conserved and will not require additional surveys or mitigation. The remaining two species include Crotch bumble bee and Jacumba pocket mouse. These species, if present, could be subject to direct impacts through ground disturbance and indirect impacts from construction noise, vibrations, and increased human activity related to the development of the Project Site. However, due to the lack of suitable habitat within the impact area, the site's long history of anthropogenic disturbances, and the presence of urban development immediately

adjacent to the Project Footprint, these species, if present in the impact area, are only expected to occur in very low densities and Project-related impacts would not be expected to contribute to the overall decline of populations for these species; therefore, potential impacts to these species would not be considered significant and additional surveys and mitigation are not necessary.

5.2 Sensitive Natural Communities

No sensitive natural communities were observed within the Project Footprint. No impacts to sensitive natural communities are anticipated to result from the Proposed Project.

5.3 State or Federally Protected Wetlands and Waters of the U.S.

The results of the surveys and potential impacts to jurisdictional waters observed within the Project Footprint are included in Appendix G. The Project is expected to impact approximately 0.05 acre (132 linear feet) of an ephemeral stream and a cement-lined channel within the offsite improvement area along Trumble Road (Appendix G), and associated habitat that would be regulated under Section 1602 of the California Fish and Game Code. Impacts to these features would require the CDFW to be notified of these impacts under a Notification of Lake of Streambed Alteration Agreement pursuant to California Fish and Game Code Section 1602. The Project is expected to impact approximately 0.04 acre (132 linear feet) of the ephemeral stream, which is considered a Waters of the U.S. Impacts to onsite Waters of the U.S. will qualify for a Nationwide Permit (NWP) 14 from the USACE. The impacts to Waters of the U.S. within the human-made earthen canal and the cement-lined channel would require individual permits, according to Decision Document NWP 14 "each crossing is considered a single and complete project for purposes of NWP authorization." See more details regarding impacts to jurisdictional waters in Appendix G.

5.4 Wildlife Corridors and Nursery Sites

The Project Footprint likely provides wildlife movement opportunities because it consists of open and unimpeded land. However, the Project Site's value as a corridor is lessened by the fact that it borders residential developments to the east, commercial development to the north and south, and is disturbed due to anthropogenic factors. No migratory wildlife corridors or native wildlife nursery sites were identified within the Project Footprint. No impacts to these resources are expected to occur during the development of the Project.

5.5 Covered Roads (Multiple Species Habitat Conservation Plan Section 2.11.2)

Sherman Road is a publicly maintained MSHCP cover road. Safety improvements to publicly maintained existing roadways and necessary operation and maintenance activities conducted for safety purposes within Public/Quasi-Public Lands are Covered Activities. Covered maintenance activities include signage, traffic control devices, guardrails and fences, pavement repairs, accident response, tree trimming, natural disaster damage/restoration of emergency access, storm drainage, weed control, grading shoulders (up to 12 feet), grading existing dirt roadways, dust stabilization, culverts/drop structures, curbs/gutters/sidewalks, roadway widening, berms, roadway resurfacing, ditch clearing,

landscape maintenance, bridge maintenance, and roadway reconstruction. Guidelines are provided in Section 7.3.5 of the MSHCP, which would minimize and avoid impacts to sensitive species and habitats occurring adjacent to the existing roadway. The best management practices in Appendix C of the MSHCP would be applied as appropriate.

5.6 Habitat Conservation Plans and Natural Community Conservation Plans

The Project Site is located within the planning area for the Western Riverside MSHCP. The Project is not located within any Conservation Areas. The Project Site is located within a MSHCP-designated survey area for BUOW. Implementation of appropriate MMs would be consistent with the MSHCP requirements and therefore reduce any potential impacts to less than significant.

5.6.1.1 MSHCP Implementation Structure

Section 6.0 of the MSHCP requires assessment of the potential effects from the Project on biological resources including riparian/riverine areas, vernal pools, fairy shrimp, BUOW, and narrow endemic plant species. In addition, the MSHCP requires an Urban/Wildlands Interface analysis be conducted in order to address the indirect effects associated with locating proposed development in proximity of MSHCP Conservation Areas. These resources were assessed during the reconnaissance survey and are discussed below in relation to the Project.

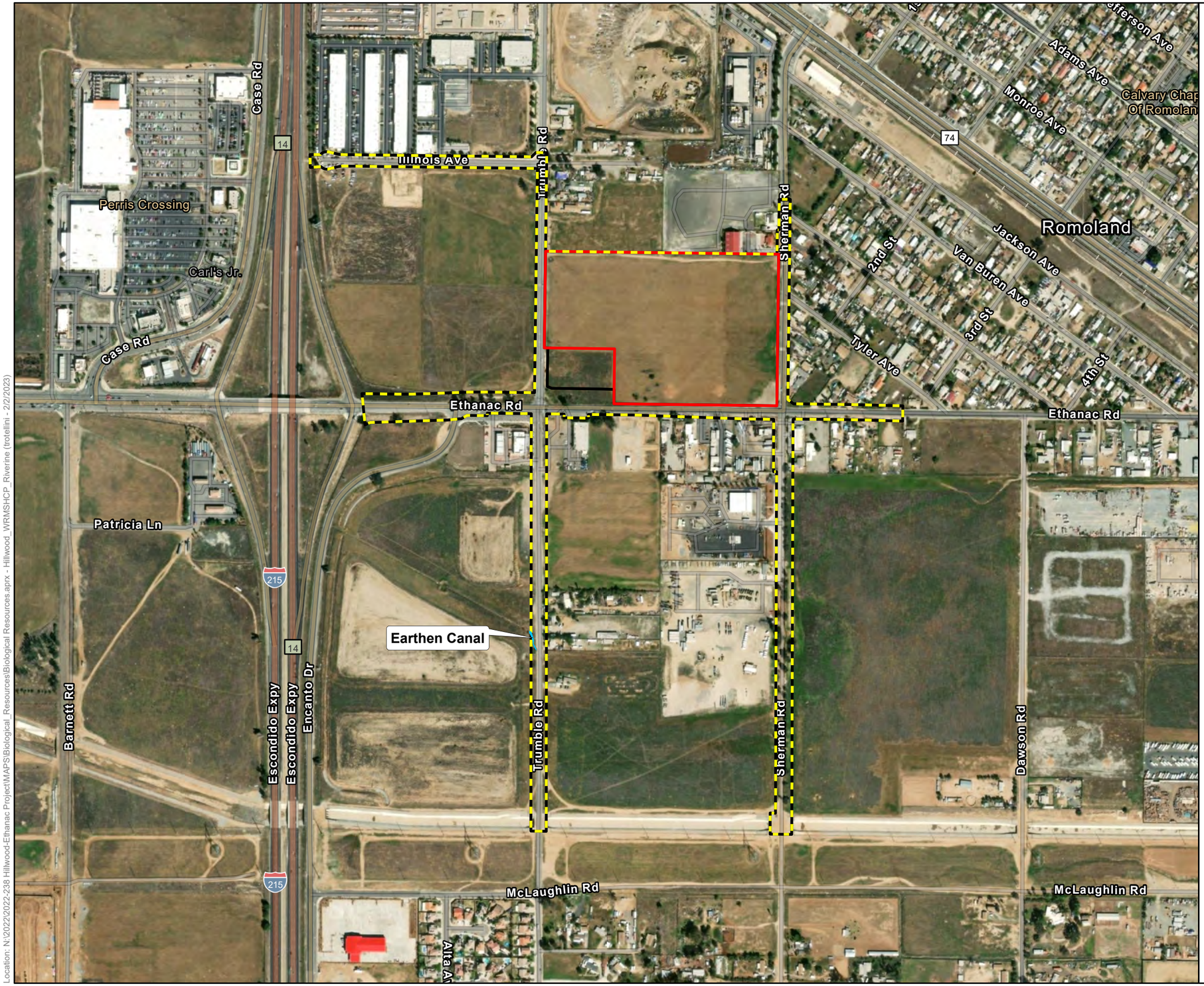
5.6.1.2 Riparian/Riverine and Riparian Bird Habitat (MSHCP Section 6.1.2)

In accordance with Section 6.1.2 of the MSHCP, ECORP performed a habitat assessment for riparian and riverine communities, vernal pools, and fairy shrimp. The MSHCP defines Riparian and Riverine resources as:

> ""…lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent moss and lichens, which occur close to or depend upon soil moisture from a nearby fresh water source; OR areas with fresh water flow during all or a portion of the year."

Biologists evaluated potential Riparian/Riverine aquatic areas concurrently with the ARD, and detailed methods are provided in Appendix G. Hernandez Environmental biologists conducted the delineation for the entire Project Footprint in December 2022.

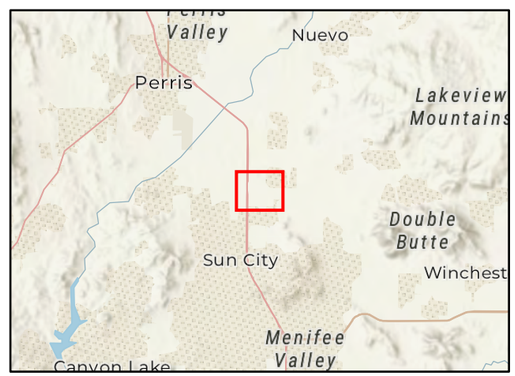
The Project Footprint contains approximately 0.05 acre (132 linear feet) of CDFW jurisdictional ephemeral features and associated vegetation regulated under Section 1602 of the California Fish and Game Code (Figure 6). CDFW jurisdiction was measured from top of bank to top of bank or outside the dripline of associated riparian habitat. The CDFW jurisdictional areas on the Project Footprint include 0.02 acre (108 linear feet) of canal and associated mule fat and palo verde as shown on Figure 6. The humanmade earthen canal collects ephemeral flows and directs them northwest. The canal leads to an offsite catch basin that carries the flows across I-215 and eventually to the San Jacinto River. Vegetation observed within the portion of the humanmade earthen canal includes mule fat, Barbary fig (*Opuntia ficus-indica*), palo verde, and tamarisk. Shortpod mustard was the dominant species in the herbaceous layer within the canal.



Map Contents

- Project Site
- Offsite Improvement Area
- Project Footprint
- Riverine Feature

Sources: ESRI
Other Related Info if Needed



Location: N:\2022\2022-238 Hillwood-Ethanac Project\MAPS\Biological_Resources\Biological Resources.aprx - Hillwood_WRMSHCP_Riverine (trotellini - 2/2/2023)

Map Date: 1/27/2023

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Scale in Feet
0 275 550

Figure 6. MSHCP Riparian/Riverine Habitat

2022-238 Hillwood-Ethanac Project

The MSHCP also requires habitat assessments/focused surveys for certain species identified under Section 6.1.2, including riparian birds and fairy shrimp. The results of the literature review and habitat assessment determined that although some scattered mule fat and isolated willow trees were observed in some portions of the Project Site, the Project Footprint does not likely contain suitable habitat for riparian bird species including southwestern willow flycatcher (*Empidonax traillii extimus*), least Bell's vireo *(Vireo bellii pusillus*), and western yellow-billed cuckoo (*Coccyzus americanus occidentalis*). There were no indicators of surface flow and the area was not extensive enough to identify as its own vegetation community. The habitat was narrow in width (i.e., only scattered trees) with no understory, and lacked the structure required for southwestern willow flycatcher, least Bell's vireo, and western yellow-billed cuckoo nesting activities. These species typically require dense willow thickets in the understory of riparian vegetation communities for nesting purposes. The mule fat and the isolated willows were not structurally correct for riparian obligate bird species and there was no evidence or indicators of surface flow. Therefore, these trees would not be considered a riparian/riverine resource that would need to be conserved per the MSHCP.

5.6.1.3 Vernal Pool, and Fairy Shrimp Habitat Assessment (MSHCP Section 6.1.2)

The MSHCP defines vernal pools as:

> "…seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation and hydrology) during the wetter portion of the growing season but normally lack wetlands indicators of hydrology and/or vegetation during the drier portion of the growing season."

Based on the literature review, field survey observations, and Google Earth imagery, the Project Site appears to have been regularly disturbed over at least the last 20 years and there was no evidence of vernal pools; fairy shrimp species are not anticipated to be within the Project Footprint. Due to lack of hydric/clays soils, ongoing disturbances, no records of fairy shrimp within 5 miles of the Project Footprint, ECORP determined that vernal pool fairy shrimp has no potential to occur. Therefore, no additional surveys are required due to the lack of suitable habitat, and the Project is consistent with Section 6.1.2 of the MSHCP.

5.6.1.4 Narrow Endemic Plant Species (MSHCP Section 6.1.3)

ECORP reviewed the Riverside RCA MSHCP Information Map to determine if the Project Footprint was located within a Narrow Endemic Plant Species Survey Area (NEPSSA), in accordance with Section 6.1.3 of the MSHCP. The Project Footprint is not located within a NEPSSA (RCA 2022). Therefore, the Project is consistent with Section 6.1.3 of the MSHCP.

5.6.1.5 Urban/Wildlands Interface Guidelines (MSHCP Section 6.1.4)

The Project Footprint does not share a border with any adjacent MSHCP-designated conserved lands. Therefore, the Project is consistent with Section 6.1.4 of the MSHCP.

5.6.1.6 Additional Surveys (MSHCP Section 6.3.2)

The RCA MSHCP Information Map was reviewed to determine if the Project Footprint was located with any MSHCP-designated survey areas. The Information Map revealed the Project Footprint is located within a survey area for BUOW but is located outside of the survey areas for amphibians, small mammals, Delhi-sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*), and other criteria species. Therefore, habitat assessments for BUOW were conducted concurrently with the biological reconnaissance survey.

The biological survey and BUOW habitat assessment determined suitable foraging and burrow habitat is present within some of the open areas of the Project Site and within the disturbed/developed habitat of the Project Footprint.

Four focused BUOW surveys were conducted during the breeding season to determine the presence of BUOW within the Project Footprint due to the presence of suitable habitat, including potential burrows. The focused surveys followed the MSHCP *Burrowing Owl Survey Instructions* (RCTLMA 2006). Although potentially suitable habitat was present in the Study Area, no BUOW, or occupied burrows (e.g., burrows containing whitewash, pellets, feathers, bones of prey items) were observed during the protocol-level focused surveys for BUOW. Mitigation measures discussing additional survey requirements are described in Section 6.0. Additionally, a pre-construction survey will be required within 30 days prior to site disturbance.

6.0 MITIGATION MEASURES

The following MMs would reduce impacts to sensitive biological resources to a less than significant level.

BIO-1 **Pre-construction Survey for Nesting Birds:** In order to avoid violation of the Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code Sections 3503, 3503.5, and 3513, site preparation activities (ground disturbance, construction activities, staging equipment, and/or removal of trees and vegetation) for the Project shall be avoided, to the greatest extent possible, during the nesting season of potentially occurring native and migratory bird species. If site-preparation activities are proposed during the nesting/breeding season, the Project proponent shall retain a qualified biologist to conduct a pre-activity field survey prior to the issuance of grading permits for the Project to determine if active nests of species protected by the MBTA or the California Fish and Game Code are present in the construction zone. The nest surveys shall include the Project Site and adjacent areas where Project activities have the potential to cause nest failure. The survey results shall be provided to the City's Planning Division. The Project proponent shall adhere to the following: 1. The Project proponent shall designate a biologist (Designated Biologist) experienced in: identifying local and migratory bird species of special concern; conducting bird surveys using appropriate survey methodology; nesting surveying techniques, recognizing breeding and nesting behaviors, locating nests and breeding territories, and identifying nesting stages and nest success; determining/establishing appropriate avoidance and minimization measures; and

monitoring the efficacy of implemented avoidance and minimization measures. 2. Pre-activity field surveys shall be conducted at the appropriate time of day/night, during appropriate weather conditions, no more than 3 days prior to the initiation of Project development activities. Surveys shall encompass all suitable areas including trees, shrubs, bare ground, burrows, cavities, and structures. Survey duration shall take into consideration the size of the project site; density, and complexity of the habitat; number of survey participants; survey techniques employed; and shall be sufficient to ensure the data collected is complete and accurate. If no nesting birds are observed during the survey, site preparation and construction activities may begin conducted during the nesting/breeding season. However, if active nests (including nesting raptors) are located then avoidance or minimization measures shall be undertaken in consultation with the City of Perris and the CDFW. Measures shall include immediate establishment of an appropriate buffer zone to be established by a qualified biologist, and approved by the City of Perris, based on their best professional judgement and experience. The buffer around the nest shall be delineated and flagged, and no construction activity shall occur within the buffer area until a qualified biologist determines nesting species have fledged and the nest is no longer active or the nest has failed. The biologist shall monitor the nest at the onset of Project activities, and at the onset of any changes in such Project activities (e.g., increase in number or type of equipment, change in equipment usage, etc.) to determine the efficacy of the buffer. If the biologist determines that such Project activities may be causing an adverse reaction, the biologist shall adjust the buffer accordingly or implement alternative avoidance and minimization measures, such as redirecting or rescheduling construction or erecting sound barriers. All work within these buffers will be halted until the nesting effort is finished (i.e., the juveniles are surviving independent from the nest). The onsite biologist shall review and verify compliance with these nesting avoidance buffers and shall verify the nesting effort has finished. Work can resume within these avoidance areas when no other active nests are found. Upon completion of the survey and nesting bird monitoring, a report shall be prepared and submitted to City of Perris Planning Division for mitigation monitoring compliance record keeping.

BIO-2 **Pre-construction Surveys for BUOW:** The Project proponent shall retain a qualified biologist to conduct a pre-construction survey for resident burrowing owls within 30 days prior to commencement of initial ground-disturbing activities (e.g., vegetation clearing, clearing and grubbing, grading, tree removal, site watering, equipment staging) at the Project Site. The survey shall include the Project Site and all suitable burrowing owl habitat within a 500-foot buffer. The results of the survey shall be submitted to the City of Perris Planning Division prior to obtaining a grading permit. In addition, a pre-construction survey for resident burrowing owls shall also be conducted within three days prior to commencement. If burrowing owls are observed during the Migratory Bird Treaty Act (MBTA) nesting bird survey (MM BIO-1, to be conducted within three days of ground disturbance or vegetation clearance, the observation shall be reported to the CDFW and the US Fish and Wildlife Service (USFWS). If ground disturbing activities in these areas are delayed or suspended for more than 30 days after the pre-construction survey, the area shall be resurveyed for owls. The pre-construction survey and any relocation activity will

be conducted in accordance with the current Burrowing Owl Instruction for the Western Riverside MSHCP. If burrowing owl are not detected during the pre-construction survey, no further mitigation is required. If burrowing owl are detected, the CDFW shall be sent written notification within three days of detection of burrowing owls. If active nests are identified during the pre-construction survey, the Project applicant shall not commence activities until no sign is present that the burrows are being used by adult or juvenile owls or following CDFW approval of a Burrowing Owl Plan as described below. If owl presence is difficult to determine, a qualified biologist shall monitor the burrows with motion-activated trail cameras for at least 24 hours to evaluate burrow occupancy. The qualified biologist and Project applicant shall coordinate with the City of Perris Planning Division, the US Fish and Wildlife Service (USFWS), and the CDFW to develop a Burrowing Owl Plan to be approved by the City in consultation with the CDFW and the USFWS prior to commencing project activities. The Burrowing Owl Plan shall be prepared in accordance with guidelines in the CDFW Staff Report on Burrowing Owl (March 2012) and MSHCP. The Burrowing Owl Plan shall describe proposed avoidance, minimization, relocation, and monitoring as applicable. The Burrowing Owl Plan shall include the number and location of occupied burrow sites and details on proposed buffers if avoiding the burrowing owls and/ or information on the adjacent or nearby suitable habitat available to owls for relocation. If no suitable habitat is available nearby for relocation, details regarding the creation and funding of artificial burrows (numbers, location, and type of burrows). and management activities for relocated owls may also be required in the Burrowing Owl Plan. The permittee shall implement the Burrowing Owl Plan following CDFW and USFWS review and concurrence. A final letter report shall be prepared by the qualified biologist documenting the results of the Burrowing Owl Plan. The letter shall be submitted to CDFW prior to the start of project activities. The onsite qualified biologist will verify the nesting effort has finished according to methods identified in the Burrowing Owl Plan. When the biologist determines that burrowing owls are no longer occupying the Project site per the criteria in the Burrowing Owl Plan, Project activities may begin.

BIO-3: If burrowing owl are discovered to occupy the Project Site after Project activities have started, then construction activities shall be halted immediately. The Project proponent shall notify the CDFW and the USFWS within 48 hours of detection. A Burrowing Owl Plan, shall be implemented. The Burrowing Owl Plan shall be submitted to the CDFW for review and approval within two weeks of detection and no Project activity shall continue within 1,000 feet of the burrowing owls until the CDFW approves the Burrowing Owl Plan. The Project proponent shall be responsible for implementing appropriate avoidance and mitigation measures, including burrow avoidance, passive or active relocation, or other appropriate mitigation measures as identified in the Burrowing Owl Plan.

6.1 Recommendations

CDFW and RWQCB jurisdictional waters are regulated by state and local governments under a no-net-loss policy, and all impacts are considered significant and should be avoided to the greatest extent possible. Impacts to jurisdictional waters require mitigation through habitat creation, restoration, or

enhancement as determined by consultation with the regulatory agencies during the permitting process. Any impacts to CDFW jurisdiction would require a Section 1602 SAA from CDFW. Any impacts to Waters of the U.S. would require a Section 404 permit and would qualify for a Nationwide Permit 14 authorization from the USACE. It would also need a 401 Certification from the Santa Ana RWQCB.

If avoidance of riverine resources (earthen canal on Trumble Road; Figure 6) is infeasible, the unavoidable impacts would require regulatory permitting and will be mitigated and a Determination of Biologically Equivalent or Superior Preservation may be required.

CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Field work conducted for this assessment was performed by me or under my direct supervision. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the Project applicant or the applicant's representative and that I have no financial interest in the Project.

SIGNED: _____ DATE: _____

Stacie Tennant
Senior Biologist and Project Manager
ECORP Consulting, Inc.

SIGNED: _____ DATE: _____

Carla Marriner
Senior Biologist and Project Manager
ECORP Consulting, Inc.

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LIST OF APPENDICES

APPENDIX A

Representative Site Photographs

Photo 1: Typical view and vegetation cover on the northeast corner of the Project Site; facing west.

Photo 2: West side of the Project Site dominated by herbaceous nonnative forbs and grasses; facing east.

Photo 3: View of the southwestern portion of the Project Site; facing north.

Photo 4: View of disturbed land cover within the southeastern portion of the Project Site; facing west.

Photo 5: View of Eucalyptus grove along Sherman Road within southeast portion of the Project Footprint; facing north.

Photo 6: View of Trumble Road and western side of Project Footprint where road improvements will occur; facing north.

Photo 7: View of disturbed areas east of Trumble Road, facing north toward Ethanac Road within the southwestern portion of Project Footprint.

Photo 8: View of Burrowing Owl Study Area within 500-foot buffer west of the Project Footprint; facing south.

Photo 9: View of Trumble Road south of Ethanac Road (offsite improvement area); ornamental trees adjacent to the road in the background.

Photo 10: View of Illinois Avenue – urban/developed land cover within offsite improvement area; facing east.

Photo 11. Typical vegetation cover within the 500-foot buffer south of Illinois Avenue (offsite improvement area); facing north.

Photo 12. View of the storm drain (non-jurisdictional) and associated vegetation located at the western end of Illinois Avenue within the Project Footprint; facing west.

APPENDIX B

Plant Species Observed

Scientific Name	Common Name
GYMNOSPERMS	
CUPRESSACEAE	CYPRESS FAMILY
Juniperus sp.*	Juniper
*Platycladus orientalis**	Oriental arborvitae
PINACEAE	PINE FAMILY
Pinus sp.*	Pine
ANGIOSPERMS (DICOTS)	
AMARANTHACEAE	AMARANTH FAMILY
*Amaranthus albus**	Pigweed amaranth
ANACARDIACEAE	CASHEW FAMILY
*Schinus molle**	Peruvian pepper tree
*Searsia lancea**	African sumac
APOCYNACEAE	DOGBANE FAMILY
*Nerium oleander**	Oleander
ASTERACEAE	SUNFLOWER FAMILY
Ambrosia sp.	Bursage
Baccharis salicifolia	Mule fat
Corethrogyne sp.	Sandaster
Deinandra fasciculata	Clustered tarweed
Deinandra paniculata CRPR 4.2	Paniculate tarplant
Helianthus annuus	Common sunflower
Heterotheca grandiflora	Telegraph weed
*Lactuca serriola**	Prickly lettuce
*Pulicaria paludosa**	Spanish false fleabane
Symphyotrichum chilense	California aster
BIGNONIACEAE	TRUMPET-CREEPER FAMILY
*Jacaranda mimosifolia**	Blue jacaranda
BORAGINACEAE	BORAGE FAMILY
Amsinckia sp.	Fiddleneck
Heliotropium curassavicum	Salt heliotrope
BRASSICACEAE	MUSTARD FAMILY
*Hirschfeldia incana**	Shortpod mustard
*Sisymbrium irio**	London rocket

Scientific Name	Common Name
BUXACAEA	BOX FAMILY
*Buxus sempervirens**	Common box
CHENOPODIACEAE	CHENOPOD FAMILY
*Salsola tragus**	Russian thistle
CONVOLVULACEAE	MORNING GLORY FAMILY
Convolvulus sp.*	Morning glory
EUPHORBIACEAE	SPURGE FAMILY
Croton setiger	Doveweed
Euphorbia albomarginata	Rattlesnake sandmat
FABACEAE	LEGUME FAMILY
*Parkinsonia aculeata**	Mexican palo verde
Acacia sp.*	Wattle
GERANIACEAE	GERANIUM FAMILY
*Erodium cicutarium**	Red-stemmed filaree
LAMIACEAE	MINT FAMILY
Trichostema lanceolatum	Vinegar weed
MALVACEAE	MALLOW FAMILY
*Malva parviflora**	Cheeseweed mallow
MELIACEAE	MAHOGANY FAMILY
*Melia azedarach**	China berry tree
MYRTACEAE	MYRTLE FAMILY
*Eucalyptus camaldulensis**	Red gum
Eucalyptus sp.*	Gum tree
OLEACEAE	OLIVE FAMILY
*Olea europaea**	Olive tree
POLYGONACEAE	BUCKWHEAT FAMILY
Eriogonum fasciculatum var. *fasciculatum*	California buckwheat
SALICACEAE	WILLOW FAMILY
Salix gooddingii	Goodding's black willow
Salix lasiolepis	Arroyo willow
SAURURACEAE	LIZARD'S TAIL FAMILY
Anemopsis californica	Yerba mansa
SIMAROUBACEAE	QUASSIA FAMILY
*Ailanthus altissima**	Tree of heaven

Scientific Name	Common Name
SOLANACEAE	NIGHTSHADE FAMILY
*Datura inoxia**	Pricklyburr
Datura wrightii	Jimson weed
TAMARICACEAE	TAMARISK FAMILY
Tamarix sp.*	Tamarisk
ZYGOPHYLLACEAE	CALTROP FAMILY
*Tribulus terrestris**	Puncture vine
ANGIOSPERMS (MONOCOTS)	
AGAVACEAE	CENTURY PLANT FAMILY
Agave sp.	Agave
ARECACEAE	PALM FAMILY
*Phoenix dactylifera**	Date palm
*Washingtonia robusta**	Mexican fan palm
CYPERACEAE	SEDGE FAMILY
Cyperus sp.	Flatsedge
POACEAE	GRASS FAMILY
Avena sp.*	Wild oat
*Bromus diandrus**	Ripgut brome
*Cynodon dactylon**	Bermuda grass
*Muhlenbergia capillaris**	Hairawn muhly
Muhlenbergia rigens	Deergrass
TYPHACEAE	CATTAIL FAMILY
Typha sp.	Cattail
*Not native to California	

California Native Plant Society (CNPS) Rare Plant Ranks:
1A: Plants presumed extinct in California.
1B: Plants rare, threatened, and endangered in California and elsewhere.
2: Plants rare, threatened, or endangered in California but more common elsewhere.
3: Plants about which need more information; a review list.
4: Plants of limited distribution; a watch list.
CNPS Threat Ranks:
0.1 Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2 Fairly threatened in California (20-80% of occurrences threatened / moderate degree and immediacy of threat)
0.3 Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Source: CNPS Rare and Endangered Plant Inventory (CNPS 2022)

APPENDIX C

Wildlife Species Observed

Scientific Name	Common Name
ENTOGNATHA	**WINGLESS ARTHROPODS**
Poduridae	Springtails
Podura aquatica	Water springtail
INSECTA	**INSECTS**
Nymphalidae	Brush-footed Butterflies
Vanessa cardui	Painted lady
AVES	**BIRDS**
Accipitridae	Hawks and Eagles
Buteo jamaicensis	Red-tailed hawk
Alaudidae	Larks
Eremophila alpestris[+]	California horned lark
Charadriidae	Plovers
Charadrius vociferus	Killdeer
Columbidae	Pigeons and Doves
*Columba livia**	Rock pigeon
*Streptopelia decaocto**	Eurasian collared-dove
Zenaida macroura	Mourning dove
Corvidae	Jays and Crows
Corvus corax	Common raven
Fringillidae	Finches
Haemorhous mexicanus	House finch
Spinus psaltria	Lesser goldfinch
Icteridae	New World Blackbirds
Euphagus cyanocephalus	Brewer's blackbird
Sturnella neglecta	Western meadowlark
Mimidae	Mockingbirds and Thrashers
Mimus polyglottos	Northern mockingbird
Parulidae	New World Warblers
Setophaga coronata	Yellow-rumped warbler
Passerellidae	New World Sparrows
Passerculus sandwichensis	Savannah sparrow

Scientific Name	Common Name
Zonotrichia leucophrys	White-crowned sparrow
Passeridae	Old World Sparrows
*Passer domesticus**	House sparrow
Phasianidae	Pheasants
Gallus gallus	Domestic chicken
Sturnidae	Starlings
*Sturnus vulgaris**	European starling
Trochilidae	Hummingbirds
Calypte anna	Anna's hummingbird
Tyrannidae	Tyrant Flycatchers
Sayornis nigricans	Black phoebe
MAMMALIA	**MAMMALS**
Canidae	Foxes, Wolves, and Coyotes
Canis familiaris	Domestic dog
Leporidae	Rabbits and Hares
Sylvilagus audubonii	Desert cottontail
Sciuridae	Squirrels
Otospermophilus beecheyi	California ground squirrel

*Nonnative species
+Western Riverside MSHCP Covered Species

APPENDIX D

Special Status Plant Species Potential to Occur

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Angiosperms					
Abronia villosa* var. *Aurita chaparral sand-verbena	Fed: CA: CRPR: MSHCP:	None None 1B.1 None	(Jan) Mar-Sept 75-1600	Occurs in chaparral, coastal scrub, and desert habitats. Often found in sandy soil.	**Presumed Absent.** No chaparral, coastal scrub or desert habitats are present on the Project Footprint, and there are no records within 5 miles.
Allium marvinii Yucaipa onion	Fed: CA: CRPR: MSHCP:	None None 1B.2 COV	Apr-May 760-1065	Occurs in chaparral. Often found in openings on clay soils.	**Presumed Absent.** No suitable chaparral habitat or suitable soils are present on the Project Footprint, and there are no records within 5 miles.
Allium munzii Munz's onion	Fed: CA: CRPR: MSHCP:	**END** **THR** 1B.1 COV	Mar-May 297-1070	Occurs in chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, and valley and foothill grasslands. Often found in clay soils, growing in grasslands and openings within shrublands or woodlands.	**Low.** The Project Footprint lacks suitable habitat. There are two historic records within 5 miles of the Project (#21 is 1.02 miles east in 1897 and #22 is 4.5 miles southwest in 1962).
Almutaster pauciflorus alkali marsh aster	Fed: CA: CRPR: MSHCP:	None None 2B.2 None	June-Oct 240-800	Occurs in meadows and seeps.	**Presumed Absent.** No suitable meadow or seep habitat occurs on the Project Footprint. There are no records within 5 miles of the site.
Ambrosia pumila San Diego ambrosia	Fed: CA: CRPR: MSHCP:	**END** None 1B.1 COV	Apr-Oct 20-415	Occurs in chaparral, coastal scrub, valley and foothill grassland, and vernal pools. Often found in sandy loam or clay, often in disturbed areas, sometimes found in alkaline soils.	**Presumed Absent.** The Project Footprint is out of the elevational range of the species**.** No river flood plain terraces, and/or alkali playas occur onsite and there are no records within 5 miles of the site.

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Arctostaphylos rainbowensis rainbow manzanita	Fed: CA: CRPR: MSHCP:	None None 1B.1 COV	Dec-Mar 670-2200	Occurs in chaparral habitat.	**Presumed Absent.** No suitable chaparral habitat is present on the Project Footprint. There are no records within 5 miles of the site.
Astragalus pachypus var. ***Jaegeri*** Jaeger's milk-vetch	Fed: CA: CRPR: MSHCP:	None None 1B.1 COV	Dec-June 365-975	Occurs in chaparral, cismontane woodland, coastal scrub, valley and foothill grassland.	**Low.** Marginally suitable nonnative grassland habitat is present on the Project Footprint. However, there are no records within 5 miles.
Atriplex coronata var. ***notatior*** San Jacinto Valley crownscale	Fed: CA: CRPR: MSHCP:	**END** None 1B.1 COV	Apr-Aug 139-500	Occurs in playas, valley and foothill grasslands (mesic) and vernal pools.	**Low.** Marginally suitable nonnative grassland habitat is present on the Projects site; however, no mesic, playas or vernal pools are present onsite. There are two recent and one historic record within 5 miles of the Project.
Atriplex parishii Parish's brittlescale	Fed: CA: CRPR: MSHCP:	None None 1B.1 COV	Jun-Oct 25-1900	Occurs in chenopod scrub, playas, vernal pools.	**Presumed Absent.** Although there is one recent occurrence within 5 miles of the Project, there is no suitable chenopod scrub, playas or vernal pool habitat present in the Project Footprint.
Atriplex serenana var. ***davidsonii*** Davidson's saltscale	Fed: CA: CRPR: MSHCP:	None None 1B.2 None	Apr-Oct 10-200	Occurs in coastal bluff scrub and coastal scrub habitats.	**Presumed Absent.** There is no coastal bluff scrub or coastal scrub habitats present on the Project site. There are no records within 5 miles of the Project.
Ayenia compacta California ayenia	Fed: CA: CRPR: MSHCP:	None None 2B.3 None	Mar-Apr 150-1095	Occurs in Mojavean desert scrub, and Sonoran desert scrub.	**Presumed Absent.** No Mojavean desert scrub, and Sonoran desert scrub is present within the Project Footprint and there are no records within 5 miles of the Project.

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Berberis nevinii Nevin's barberry	Fed: CA: CRPR: MSHCP:	**END** **END** 1B.1 COV	Mar-Apr 70-825	Occurs in chaparral, cismontane woodland, coastal scrub, and riparian scrub habitats.	**Presumed Absent.** No chaparral, cismontane woodland, coastal scrub, and riparian scrub habitat is present on the Project Footprint and there are no records within 5 miles.
Brodiaea filifolia thread-leaved brodiaea	Fed: CA: CRPR: MSHCP:	**THR** **END** 1B.1 COV	Mar-June 25-1120	Occurs in chaparral, cismontane woodland, coastal scrub, playas, valley and foothill grassland and vernal pools.	**Low.** The Project Footprint lacks suitable habitat for this species. However, there are three recent and two historic records within 5 miles of the Project.
Brodiaea santarosae Santa Rosa basalt brodiaea	Fed: CA: CRPR: MSHCP:	None None 1B.2 COV	May-June 565-1045	Occurs in valley and foothill grassland.	**Presumed Absent.** The Project Footprint lacks suitable habitat for this species, and there are no records within 5 miles of the Project.
Calochortus weedii* var. *intermedius intermediate mariposa lily	Fed: CA: CRPR: MSHCP:	None None 1B.2 COV	May-July 105-855	Occurs in chaparral, coastal scrub, and valley and foothill grasslands, in rocky, calcareous soils.	**Low.** Although marginally suitable nonnative grassland habitat is present, the Project Footprint lacks rocky, calcareous soils. Additionally, there are no records within 5 miles of the Project site.
Centromadia pungens* ssp. *laevis smooth tarplant	Fed: CA: CRPR: MSHCP:	None None 1B.1 COV	Apr-Sep 0-640	Occurs in chenopod scrub, meadows and seeps, playas, riparian woodlands, and valley and foothill grassland habitats. Often found in alkaline soil.	**Moderate.** Marginally suitable nonnative grassland habitat is present on the Project site, and there are 13 recent and 5 historic records within 5 miles of the Project.
Chorizanthe leptotheca peninsular spineflower	Fed: CA: CRPR: MSHCP:	None None 4.2 COV	May-Aug 300-1900	Occurs in chaparral, coastal scrub, lower montane coniferous forest. Prefers granitic substrate.	**Presumed Absent.** No chaparral, coastal scrub, or lower montane coniferous forest habitat present on the Project.

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Chorizanthe parryi* var. *parryi Parry's spineflower	Fed: CA: CRPR: MSHCP:	None None 1B.1 COV	Apr-Jun 275-1220	Occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland habitat. Often found in sandy or rocky openings.	**Moderate**. The literature review revealed three recent and five historic records of this species within 5 miles of the Project. Marginally suitable nonnative grassland habitat and sandy soils are present on the Project. However, the site is very disturbed.
Chorizanthe polygonoides* var. *longispina long-spined spineflower	Fed: CA: CRPR: MSHCP:	None None 1B.2 COV	Apr-Jul 30-1530	Occurs in chaparral, coastal scrub, meadows and seeps, valley and foothill grasslands, and vernal pool habitat. Often found in clay soil.	**Low.** Marginally suitable nonnative grassland habitat is present on the Project Footprint and there is one recent record of this species within 5 miles of the Project. However, the site lacks clay soils.
Clinopodium chandleri San Miguel savory	Fed: CA: CRPR: MSHCP:	None None 1B.2 COV	Mar-Jul 120-1075	Occurs in chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland.	**Presumed Absent.** The Project Footprint lacks suitable habitat for this species and there are no records within 5 miles of the Project.
Cryptantha wigginsii Wiggins' cryptantha	Fed: CA: CRPR: MSHCP:	None None 1B.2 None	Feb-Jun 20-275	Occurs in coastal scrub habitat	**Presumed Absent.** No suitable coastal scrub habitat is present on the Project Footprint and there are no records within 5 miles of the Project.
Dodecahema leptoceras slender-horned spineflower	Fed: CA: CRPR: MSHCP:	**END** **END** 1B.1 COV	Apr-Jun 200-760	Occurs in chaparral, cismontane woodland and coastal scrub habitats. Often found in sandy soil.	**Presumed Absent.** No suitable chaparral, coastal scrub, or cismontane woodland habitat is present on Project Footprint and there are no records within 5 miles.
Dudleya multicaulis many-stemmed dudleya	Fed: CA: CRPR: MSHCP:	None None 1B.2 COV	Apr-Jul 15-790	Occurs in chaparral, coastal scrub, and valley and foothill grassland habitats. Typically restricted to clay and cobbly soils.	**Presumed Absent.** The Project Footprint lacks clay or cobbly soils typical of this species. There are no records within 5 miles of the Project.

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Eryngium aristulatum* var. *parishii San Diego button-celery	Fed: CA: CRPR: MSHCP:	**END** **END** 1B.1 COV	Apr-Jun 20-620	Occurs in coastal scrub, valley and foothill grassland and vernal pools. Prefers mesic habitats.	**Presumed Absent.** The Project Footprint lacks suitable habitat. No records within 5 miles of the Project.
Juncus luciensis Santa Lucia dwarf rush	Fed: CA: CRPR: MSHCP:	None None 1B.2 None	Apr-Jul 300-2040	Occurs in chaparral, great basin scrub, lower montane coniferous forest, meadows and seeps, vernal pools.	**Presumed Absent.** No suitable chaparral, great basin scrub, lower montane coniferous forest, meadows or seeps or vernal pool habitat present on the Project Footprint. Additionally, there are no records within 5 miles.
Lasthenia glabrata* ssp. *coulteri Coulter's goldfields	Fed: CA: CRPR: MSHCP:	None None 1B.1 COV	Feb-Jun 1-1220	Occurs in coastal salt marshes and swamps, playas, and vernal pools.	**Presumed Absent.** Although there are three recent and one historic records within 5 miles of the Project, no suitable coastal marsh, swamp, playa or vernal pool habitat is present on site.
Lilium parryi lemon lily	Fed: CA: CRPR: MSHCP:	None None 1B.2 COV	Jul-Aug 1220-2745	Occurs in lower montane coniferous forest, meadows and seeps, riparian forest, upper montane coniferous forest. Prefers mesic habitats.	**Presumed Absent.** No suitable lower montane coniferous forest, meadows or seeps, riparian forest, upper montane coniferous forest present on the Project Footprint. There are no records within 5 miles of the Project.
***Limnanthes alba* ssp. parishii** Parish's meadowfoam	Fed: CA: CRPR: MSHCP:	None **END** 1B.2 COV	Apr-Jun 600-2000	Occurs in lower montane coniferous forest, meadows and seeps, vernal pools. Prefers vernally mesic habitats.	**Presumed Absent.** No suitable lower montane coniferous forest, meadows or seeps, or vernal pool habitat was present on the Project Footprint. There are no records within 5 miles of the Project.

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Monardella hypoleuca* ssp. *Intermedia intermediate monardella	Fed: CA: CRPR: MSHCP:	None None 1B.3 None	Apr-Sep 400-1250	Occurs in chaparral, cismontane woodland, and occasionally in lower montane coniferous forest habitat. Often found in areas of understory.	**Presumed Absent.** No suitable chaparral, woodland, or forest habitat is present on the Project Footprint and there are no records within 5 miles.
Nama stenocarpa mud nama	Fed: CA: CRPR: MSHCP:	None None 2B.2 COV	Jan-Jul 5-500	Occurs in marshes and swamps	**Presumed Absent.** No marshes or swamps present on the Project Footprint. There are no records within 5 miles of the Project.
Navarretia fossalis spreading navarretia	Fed: CA: CRPR: MSHCP:	**THR** None 1B.1 COV	Apr-Jun 30-655	Occurs in chenopod scrub, marshes and swamps, playas and vernal pools.	**Presumed Absent.** There are six recent and two historic records within 5 miles of the Project. However, there is no suitable chenopod scrub, marshes or swamps, playas or vernal pool habitat present within the Project Footprint.
Navarretia prostrata prostrate vernal pool Navarretia	Fed: CA: CRPR: MSHCP:	None None 1B.2 COV	Apr-Jul 3-1210	Occurs in coastal scrub, meadows and seeps, alkaline valley and foothill grasslands, and vernal pools.	**Presumed Absent.** The site lacks seeps and vernal pools. No records within 5 miles of the Project.
Orcuttia californica California Orcutt grass	Fed: CA: CRPR: MSHCP:	**END** **END** 1B.1 COV	Apr-Aug 15-660	Occurs in vernal pools	**Presumed Absent.** There is one historic record within 5 miles of the Project Footprint; however, the site lacks vernal pool habitat.
Pseudognaphalium leucocephalum white rabbit-tobacco	Fed: CA: CRPR: MSHCP:	None None 2B.2 None	Aug-Nov 0-2100	Occurs in chaparral, cismontane woodland, coastal scrub, and riparian woodland. Often found in sandy, gravelly soils.	**Presumed Absent.** No suitable chaparral, cismontane woodland, coastal scrub, or riparian woodland habitat for this species is present on the Project. There are no records within 5 miles.
***Scutellaria bolanderi* ssp. austromontana** southern mountains skullcap	Fed: CA: CRPR: MSHCP:	None None 1B.2 None	Jun-Aug 425-2000	Occurs in chaparral, cismontane woodland, lower montane coniferous forest. In mesic habitats.	**Presumed Absent.** No suitable chaparral, cismontane woodland, lower montane coniferous forest present on the Project Footprint. There are no records within 5 miles of the Project.

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Sibaropsis hammittii Hammitt's clay-cress	Fed: CA: CRPR: MSHCP:	None None 1B.2 COV	Mar-Apr 720-1065	Occurs in chaparral, valley and foothill grassland.	**Presumed Absent.** The Project Footprint is out of the elevational range of the species and there are no records within 5 miles of the Project.
Sidalcea neomexicana salt spring checkerbloom	Fed: CA: CRPR: MSHCP:	None None 2B.2 None	Mar-Jun 15-1530	Occurs in chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playas. Often found in alkaline and mesic soils.	**Presumed Absent.** No suitable chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, or playa habitat was present on the site. In addition, there are no records within 5 miles of the site.
Symphyotrichum defoliatum San Bernardino aster	Fed: CA: CRPR: MSHCP:	None None 1B.2 None	Jul-Nov 2-2040	Occurs in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, and valley and foothill grassland habitats. Often found in areas near ditches, streams, and springs.	**Presumed Absent.** The site lacks seeps, marshes, coastal scrub, coniferous forest and swamps. This perennial species was not observed during the general biological survey. Additionally, there are no records within 5 miles of the Project site.
Trichocoronis wrightii* var. *wrightii Wright's trichocoronis	Fed: CA: CRPR: MSHCP:	None None 2B.1 COV	May-Sep 5-435	Occurs in marshes and swamps, meadows and seeps, riparian forest and vernal pools.	**Presumed Absent.** No marshes swamps, meadows, seeps, riparian forest or vernal pool habitat present on site. Additionally, there are no records within 5 miles of the Project site.
Gymnosperms					
Hesperocyparis forbesii Tecate cypress	Fed: CA: CRPR: MSHCP:	None None 1B.1 None	Perennial evergreen tree 80-1500	Occurs in closed-cone coniferous forest, and chaparral habitat. Often found in areas with clay, gabbroic or metavolcanics soils.	**Presumed Absent.** No suitable forest or chaparral habitat is present on the Project site. In addition, there are no records within 5 miles of the site.

Scientific Name **Common Name**	**Status**		**Bloom Period & Elevation (meters)**	**Habitat Requirements**	**Potential for Occurrence**
Bryophytes					
Geothallus tuberosus Campbell's liverwort	Fed: CA: CRPR: MSHCP:	None None 1B.1 None	10-600	Occurs in coastal scrub, vernal pools.	**Presumed Absent.** No suitable coastal scrub or vernal pool habitat present on the Project Footprint. There are no records within 5 miles of the Project.
Sphaerocarpos drewiae Bottle liverwort	Fed: CA: CRPR: MSHCP:	None None 1B.1 None	90-600	Occurs in chaparral and coastal scrub habitats.	**Presumed Absent.** No suitable chaparral or coastal scrub habitat present on the Project Footprint. There are no records within 5 miles of the Project.
Tortula californica California screw moss	Fed: CA: CRPR: MSHCP:	None None 1B.2 None	10-1460	Occurs in chenopod scrub, valley and foothill grassland.	**Presumed Absent.** The site is very disturbed and the species was not observed during the biological surveys. There is one recent record within 5 miles of the Project (Occ #8) 4.08 miles northeast.
Federal Designations: (Federal Endangered Species Act, USFWS) **END**: federally listed, endangered **THR**: federally listed, threatened			**State designations**: (California Endangered Species Act, CDFW) **END**: state-listed, endangered **THR**: state-listed, threatened Rare: CDFW Rare		**Other Designations** (Western Riverside MSHCP) COV: Covered

California Native Plant Society (CNPS) Rare Plant Ranks:
1A: Plants presumed extirpated in California and either rare or extinct elsewhere
1B: Plants rare, threatened, or endangered in CA and elsewhere
2A: Plants presumed extirpated in California but common elsewhere
2B: Plants rare, threatened, or endangered in CA but more common elsewhere
3: Plants about which need more information; a review list
4: Plants of limited distribution; a watch list
Threat Ranks:
0.1 Seriously endangered in CA (over 80% of occurrences threatened / high degree and immediacy of threat)
0.2 Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat)
0.3 Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or current threats known)

Source: California Natural Diversity Data Base (CNDDB) California Native Plant Society Electronic Inventory (CNPSEI) Romoland, Lake Elsinore, Steele Peak, Perris, Lakeview, Winchester, Bachelor Mountain, Murrieta and Wildomar 7.5-minute quads.

APPENDIX E

Special Status Wildlife Species Potential to Occur

Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
INVERTEBRATES				
Bombus crotchii Crotch bumble bee	Fed: CA: MSHCP:	None CAN None	Occurs in open grassland and scrub habitats.	**Low.** Although there are three historic records within five miles of the site. The Project is highly disturbed and frequently maintained.
Branchinecta lynchi Vernal pool fairy shrimp	Fed: CA: MSHCP:	**THR** None COV	Occurs in vernal pools and ephemeral wetlands. Typically, in small and shallow pools with mud or grassy bottoms.	**Presumed Absent.** There are no clay soils present on the site and no records were identified within five miles of the Project.
Branchinecta sandiegonensis San Diego fairy shrimp	Fed: CA: MSHCP:	**END** None None	Vernal pools and ephemeral wetlands in San Diego and Orange Counties.	**Presumed Absent.** The Project Footprint is outside of the geographical range of the species and no records were identified within five miles.
Euphydryas editha quino Quino checkerspot butterfly	Fed: CA: MSHCP:	**END** None COV	Chaparral and coastal sage scrublands in Riverside and San Diego counties.	**Presumed Absent.** No suitable habitat is present on the Project Footprint, no records were identified within five miles, and the Project is outside the recommended survey areas.
Streptocephalus woottoni Riverside fairy shrimp	Fed: CA: MSHCP:	**END** None COV	Occurs in vernal pools, tectonic swales, and earth slump basins in Riverside County.	**Presumed Absent.** There are no clay soils present onsite and no records were identified within five miles. Additionally, the Project Footprint is above the known highest elevation of the geographical range of the species.
FISH				
Gila orcutti arroyo chub	Fed: CA: MSHCP:	None SSC COV	Creeks, streams, and rivers with areas of slow-moving water with sand or mud bottoms. Ranges from San Diego to San Luis Obispo County.	**Presumed Absent.** No permanent creeks, streams, or rivers are present on the Project Footprint.
AMPHIBIANS				
Anaxyrus californicus arroyo toad	Fed: CA: MSHCP:	**END** SSC COV	Sandy banks of rivers, arroyos, and streams with shallow sandy pools. Also found in riparian woodlands or uplands adjacent to arroyos.	**Presumed Absent.** No rivers, arroyos, or streams with shallow pools are present on the Project Footprint and there are no records within five miles.

Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Rana draytonii California red-legged frog	Fed: CA: MSHCP:	**THR** SSC COV	Found near water features such as ponds or streams in humid forests, grasslands, coastal scrub, and woodlands.	**Presumed Absent.** No permanent creeks, ponds or streams, are present on the Project Footprint. There are no records within five miles of the site.
Spea hammondii Western spadefoot	Fed: CA: MSHCP:	None SSC COV	Prefers open areas with sandy or gravelly soils, including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, and alkali flats.	**Low.** There is marginally suitable nonnative grassland habitat and open areas with sandy soils within the Project site. However, the site is very disturbed. There are eight recent records within five miles of the Project. The closest record (#969) is 0.72 miles southeast in 2015 and the most recent record (#1005) is 2.93 miles north from 2017.
Taricha torosa coast range newt	Fed: CA: MSHCP:	None SSC COV	Occurs in wet forests, oak forests, chaparral, and rolling grasslands. Burrows in moist soil or wood debris.	**Presumed Absent.** No chaparral, forest, or moist soil habitat is present on the Project Footprint and there are no records within five miles.
REPTILES				
Anniella stebbinsi southern California legless lizard	Fed: CA: MSHCP:	None SSC None	Typically occurs in moist warm loose soil with plant cover in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks.	**Presumed Absent.** There are two recent records within five miles of the Project Footprint (#386) 2.66 miles northeast in 2016 and (#387) 3.42 miles east in 2018. However, no suitable moist habitat is present onsite.
Arizona elegans occidentalis California glossy snake	Fed: CA: MSHCP:	None SSC None	Typically occurs in scrub or grassland habitat, often with loose or sandy soils.	**Moderate.** Marginally suitable habitat was present on the Project Footprint. There are three historic occurrences within five miles of the site.
Aspidoscelis hyperythra orange-throated whiptail	Fed: CA: MSHCP:	None WL COV	Semi-arid open areas with coarse soils including coastal sage scrub, chaparral, and dry riparian areas and washes.	**Presumed Absent.** Although multiple occurrences have been recorded with five miles of the Project, seven historic and one recent, no suitable habitat was present within the Project Footprint.

Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Aspidoscelis tigris stejnegeri coastal whiptail	Fed: CA: MSHCP:	None SSC COV	Arid habitats including chaparral, woodlands, and dry riparian areas.	**Presumed Absent.** Although there are two historic records within five miles of the Project, no suitable habitat was present within the Project Footprint.
Coleonyx variegatus abbotti San Diego banded gecko	Fed: CA: MSHCP:	None SSC COV	Rocky areas in coastal sage scrub and chaparral.	**Presumed Absent.** No suitable coastal sage scrub or chaparral habitat is present on the Project Footprint. Additionally, there are no records within five miles of the site.
Crotalus ruber red-diamond rattlesnake	Fed: CA: MSHCP:	None SSC COV	Found in coastal chaparral, arid scrub, rocky grassland, oak and pine woodlands, desert mountain slopes and rocky desert flats.	**Low.** Somewhat suitable habitat present onsite, and there are three historic records within five miles of the Project Footprint, but the site lacks rocky areas preferred by this species and is highly disturbed.
Diadophis punctatus modestus San Bernardino ringneck snake	Fed: CA: MSHCP:	None SSC None	Moist habitats in meadows, grasslands, chaparral, mixed conifer forests, and woodlands. Also, can occur in gardens and farmlands.	**Presumed Absent.** There are no moist habitats present on the Project Footprint, and there are no records within five miles of the site.
Emys marmorata western pond turtle	Fed: CA: MSHCP:	None SSC COV	Ponds, lakes, rivers, streams, marshes, and other water sources with rocky or muddy substrate. Basks on logs, rocks, and exposed banks.	**Presumed Absent.** Although there is one historic record within five miles of the site, no suitable aquatic habitats are present on the Project Footprint.
Phrynosoma blainvillii coast horned lizard	Fed: CA: MSHCP:	None SSC COV	Open areas of valleys, foothills, and semiarid mountains with sandy soil and low vegetation including chaparral, woodlands, and grasslands.	**Low.** Marginally suitable habitat and sandy soils are present on the Project Footprint, and there are three historic records within five miles. However, the site is highly disturbed.
Salvadora hexalepis virgultea coast patch-nosed snake	Fed: CA: MSHCP:	None SSC None	Coastal scrub and semi-arid brushy areas and chaparral in canyons, rocky hillsides, and plains. Brushy or shrubby vegetation in coastal Southern California. Require small mammal burrows for refuge and overwintering sites.	**Presumed Absent.** No suitable coastal scrub or chaparral habitats are present on the Project Footprint and there are no records of this species within five miles.

Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Thamnophis hammondii two-striped gartersnake	Fed: CA: MSHCP:	None SSC None	Occur along aquatic habitats such as pools and creeks usually near chaparral, rocky areas, brushland, oak woodland, and conifer forests and hunts in water. Found from sea to about 7,000 ft elevation.	**Presumed Absent.** No suitable aquatic habitat was present on the Project Footprint and there are no records within five miles of the Project site.
BIRDS				
Accipiter cooperii Cooper's hawk	Fed: CA: MSHCP	None WL COV	Open woodlands, or broadleaf and coniferous forested areas but also found in parks and fields with tall trees. Nests in tall trees, usually on flat ground, in dense woods.	**Moderate.** Suitable foraging and nesting habitat primarily occurs within the Eucalyptus groves along Sherman Road and other trees present in the vicinity of the Project Footprint. However, there are no records within five miles of the site.
Agelaius tricolor tricolored blackbird (nesting colony)	Fed: CA: MSHCP:	None **THR** COV	Freshwater marshes with dense cattails, bulrushes, sedges, and tule. Forages in open habitat such as cultivated fields and pastures.	**Presumed Absent.** There are no freshwater marshes for nesting are present on the Project Footprint and there are no records within five miles.
Aimophila ruficeps canescens Southern California rufous-crowned sparrow	Fed: CA: MSHCP:	None WL COV	Coastal sage scrub, dominated by California sagebrush, or in coastal bluff scrub with low scattered scrub and moderate to steep, dry, and rocky slopes. Nests on ground or within 1 meter of ground in shrubs or trees.	**Presumed Absent.** Although there is one recent and five historic records within five miles of the Project, there is no suitable habitat present on the Project Footprint.
Aquila chrysaetos golden eagle (nesting & wintering)	Fed: CA: MSHCP:	None FP COV	Open country including prairies, sagebrush, savannah or sparse woodlands, and barren hills or mountainous areas. Nests on rocky cliff edges.	**Presumed Absent.** There is one recent record within five miles of the Project; however, no suitable rocky, cliff habitat for nesting is present onsite.
Artemisiospiza belli belli Bell's sage sparrow	Fed: CA: MSHCP	None WL COV	Chaparral dominated with California sagebrush or chamise. Nests on ground or within 1 meter above ground in a shrub.	**Presumed Absent.** There is one recent and three historic records within five miles of the Project. However, there is no suitable chaparral habitat present on the Project Footprint.

Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Asio otus long-eared owl (nesting)	Fed: Ca: MSHCP:	None SSC None	Nests in trees or tree cavities within deciduous and evergreen forests, orchards, wooded parks, farm woodlots, river woods, desert oases.	**Presumed Absent.** No suitable habitat was present on the Project Footprint and there are no records within five miles of the site.
Athene cunicularia burrowing owl (burrow & some wintering sites)	Fed: CA: MSHCP:	None SSC COV	Open grasslands including prairies, plains, and savannah, or vacant lots and airports. Nests in abandoned dirt burrows.	**Moderate.** Suitable foraging and burrow habitat is present and numerous small mammal burrows are present within and adjacent to the Project Footprint. However, the site is highly disturbed. Several records of the species were found within five miles of the Project Footprint. (#37 recent, #7 historic)
Buteo regalis Ferruginous hawk	Fed: CA: MSHCP:	None WL COV	Open country including prairies, sagebrush, savannah or sparse woodlands, and barren hills or mountainous areas. Nests on rocky cliff edges or in large trees such as eucalyptus or oak.	**Moderate.** There is one recent and one historic record within five miles of the Project and marginally suitable foraging and nesting habitat is present in the eucalyptus trees.
Buteo swainsoni Swainson's hawk (nesting)	Fed: CA: MSHCP:	None **THR** COV	Open pine-oak woodland, savannah, and agricultural fields with scattered trees. Nests in large solitary trees	**Presumed Absent.** The site is surrounded by urban developed areas and lacks suitable nesting habitat. There are no records within five miles.
Campylorhynchus brunneicapillus sandiegensis coastal cactus wren	Fed: CA: MSHCP:	None SSC COV	Coastal sage scrub with tall opuntia cacti. Nests in opuntia cactus.	**Presumed Absent.** Coastal sage scrub habitat with opuntia cacti is not present on the Project Footprint and there are no records within five miles.
Charadrius nivosus nivosus western snowy plover	Fed: CA: MSHCP:	**THR** SSC	Sandy beaches, salt pond levees & shores of large alkali lakes. Needs sandy, gravelly, or friable soils for nesting. Known protected population in the Tijuana Estuary.	**Presumed Absent.** No suitable habitat is present within the Project Footprint and there are no records within five miles.
Circus hudsonius northern harrier	Fed: CA: MSHCP:	None SSC COV	Marshes, wetlands, agricultural fields, and grasslands. Nests on ground among dense and tall vegetation.	**Presumed Absent.** No suitable habitat for this species occurs onsite. Additionally, there are no records within five miles of the Project Footprint.

Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Elanus leucurus white-tailed kite (nesting)	Fed: CA: MSHCP:	None FP COV	Open habitat in lowlands including savanna, open woodlands, marshes, and agricultural fields. Nests in tall trees within or on the edge of forested areas.	**Low.** Somewhat suitable foraging habitat is present primarily within some of the larger scattered Eucalyptus trees. However, the Project does not contain or adjoin forested areas and there are no records within five miles.
Eremophila alpestris actia California horned lark	Fed: CA: MSHCP:	None WL COV	Bare open areas dominated by low vegetation or widely scattered shrubs, includes prairies, deserts, and plowed fields. Nests in a hollow on the ground.	**Present.** This species was observed during the biological reconnaissance. Suitable habitat is present throughout the Project Footprint.
Haliaeetus leucocephalus bald eagle (nesting & wintering)	Fed: CA: MSHCP:	**DL** **END/FP** COV	Breeding habitat most commonly includes areas close to coastal areas, bays, rivers, lakes, reservoirs, or other bodies of water that reflect the general availability of primary food sources including fish, waterfowl, or seabirds	**Presumed Absent.** No suitable nesting habitat or adjacent to large bodies of water were present on the Project Footprint and there are no records of this species within five miles.
Icteria virens yellow-breasted chat (nesting)	Fed: CA: MSHCP:	None SSC COV	Riparian and upland thickets, and dry overgrown pastures. Prefers to nest in dense scrub along streams or at the edges of ponds or swamps.	**Presumed Absent.** No suitable riparian habitat occurs on the Project Footprint and there are no records within five miles.
Lanius ludovicianus loggerhead shrike	Fed: CA: MSHCP:	None SSC COV	Open country, with scattered shrubs and trees or other perches for hunting; includes agricultural fields, deserts, grasslands, savanna, and chaparral.	**Moderate.** There is suitable habitat present on the Project Footprint and there is one recent occurrence (#50) 2.74 miles southeast of the site recorded in 2007.
Plegadis chihi white-faced ibis	Fed: CA: MSHCP:	None WL COV	Freshwater habitats such as ponds, rivers, marshes, and swamps. Nests in low tree or on ground in reeds in marshes.	**Presumed Absent.** No suitable habitat occurs on the Project Footprint and there are no records within five miles.

Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Polioptila californica californica coastal California gnatcatcher	Fed: CA: MSHCP:	**THR** SSC COV	Dry coastal slopes, washes, and mesas with areas of low vegetation and coastal sage scrub.	**Presumed Absent.** Although the literature review revealed several occurrences (four recent and seven historic) within five miles of the Project, no suitable habitat occurs within the Project Footprint.
Setophaga petechia yellow warbler	Fed: Ca: MSHCP:	None SSC COV	Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	**Presumed Absent.** No suitable habitat occurs on the Project Footprint and there are no records within five miles.
Vireo bellii pusillus least Bell's vireo (nesting)	Fed: CA: MSHCP:	**END** **END** COV	Riparian woodlands and willow-cottonwood forests particularly with streamside thickets and dense brush.	**Presumed Absent.** Although there are two recent records within five miles no suitable riparian woodland or willow-cottonwood forest habitat occurs on the Project Footprint.
Xanthocephalus xanthocephalus yellow-headed blackbird	Fed: CA: MSHCP:	None SSC None	Occurs in freshwater marshes with dense, emergent vegetation such as cattails.	**Presumed Absent.** No suitable habitat occurs on the Project Footprint and there are no records within five miles.
MAMMALS				
Chaetodipus californicus femoralis Dulzura pocket mouse	Fed: CA: MSHCP:	None SSC None	Chaparral, coastal scrub, and desert grasslands in San Diego County along the U.S.-Mexico border.	**Presumed absent.** There is one historic record (1993) within five miles of the Project Footprint. However, no suitable chaparral, coastal scrub, or desert grassland habitat is present onsite.
Chaetodipus fallax fallax northwestern San Diego pocket mouse	Fed: CA: MSHCP:	None SSC COV	Coastal scrub, chaparral, sagebrush, and grasslands in western San Diego County.	**Presumed Absent. T**here is one historic record (1992) within five miles of the Project Footprint. However, the site is very disturbed and lacks suitable sagebrush and chaparral habitats.

Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Dipodomys merriami parvus San Bernardino kangaroo rat	Fed: CA: MSHCP:	**END** CAN COV	Occurs in alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains.	**Presumed Absent.** There is no suitable habitat on the Project Footprint. Although there has been an occurrence 1.02 miles from the site; it was recorded in 1938 and is considered historic.
Dipodomys stephensi Stephens' kangaroo rat	Fed: CA: MSHCP:	**END** **THR** COV	Annual grasslands, coastal sage scrub with sparsely spaced vegetation, loose friable soils, and flat or slightly rolling terrain.	**Moderate.** Marginally suitable habitat is present on the Project Footprint; there are twenty-three historic records within five miles. The closest (#142) was 1.42 miles in 1988 and the most recent occurrence was recorded in 1999 approximately 1.63 miles from the Project (#42).
Eumops perotis californicus western mastiff bat	Fed: CA: MSHCP:	None SSC None	Roosts high above ground in rock and cliff crevices, shallow caves, and rarely in buildings. Occurs in arid and semiarid regions including rocky canyon habitats.	**Presumed Absent.** The literature review revealed three historic records within five miles of the site; however, there are no suitable rock or cliff habitat is present on the Project Footprint.
Lasiurus xanthinus western yellow bat	Fed: CA: MSHCP:	None SSC None	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	**Presumed Absent.** Although there have been two occurrences of this species within five miles south of the Project; the occurrence was recorded in 1982 and 1987and are considered historic. In addition, no suitable riparian habitat is present on the Project Footprint.
Lepus californicus bennettii San Diego black-tailed jackrabbit	Fed: CA: MSHCP:	None SSC COV	Variety of open or semi-open country including grasslands, croplands, and sparse coastal scrub.	**Moderate.** Suitable habitat is present throughout the Project Footprint; however, the site is surrounded by urban developed areas. There are three historic and two recent occurrences within five miles of the site. The closest and most recent record (#100) 0.62 miles east in 2015.

Scientific Name **Common Name**	**Status**		**Habitat Requirements**	**Potential for Occurrence**
Neotoma lepida intermedia San Diego desert woodrat	Fed: CA: MSHCP:	None SSC COV	Coastal scrub of Southern California from San Diego County to San Luis Obispo County. Moderate to dense canopies preferred. They are particularly abundant in rock outcrops & rocky cliffs & slopes.	**Presumed Absent.** No suitable scrub habitat was present on the Project Footprint, the site lacks moderate to dense canopies and rocky habitats. In addition, there are no records within five miles.
Nyctinomops femorosaccus pocketed free-tailed bat	Fed: CA: MSHCP:	None SSC None	Roosts in crevices of outcrops and cliffs, shallow caves, and buildings. Found along rugged canyons, high cliffs, and semiarid rock outcroppings.	**Presumed Absent.** No roosting habitat present on the Project Footprint. No records have been identified within five miles of the site.
Onychomys torridus ramona southern grasshopper mouse	Fed: CA: MSHCP:	None SSC None	Low, semi-open, and open scrub habitats with flat, sandy valley floors. Habitats include coastal and mixed chaparral, coastal sage scrub, riparian scrub, low sagebrush, and grasslands with interspaced shrubs.	**Presumed Absent.** There is no coastal or mixed chaparral, coastal sage scrub, riparian scrub, low sagebrush habitat on the Project Footprint. The grassland present lacks interspaced shrubs. There are two records within five miles of the Project; however, they were recorded in 1923 and 1932 and are considered historic.
Perognathus longimembris brevinasus Los Angeles pocket mouse	Fed: CA: MSHCP:	None SSC COV	Habitats with sandy and fine soils, including grasslands, coastal sage scrub, and alluvial sage scrub.	**Low.** Marginally suitable habitat and sandy soils are present on the Project Footprint. However, no records have been identified within five miles of the site.
Perognathus longimembris internationalis Jacumba pocket mouse	Fed: CA: MSHCP:	None SSC None	Occurs in desert washes, disturbed grasslands that have sand or alluvial substrates.	**Low.** Marginally suitable habitat and sandy soils are present on the Project Footprint. However, no records have been identified within five miles of the site.
Taxidea taxus American badger	Fed: CA: MSHCP:	None SSC None	Open habitats with friable soil such as grasslands, brushlands with sparse ground cover, open chaparral, and sometimes riparian zones.	**Presumed Absent.** No suitable habitat or suitable size burrows for this species were observed within the Project Footprint. No records have been identified within five miles of the site.

Scientific Name **Common Name**	**Status**	**Habitat Requirements**	**Potential for Occurrence**
Federal Designations: (Federal Endangered Species Act, USFWS) **END**: Federally-listed, Endangered **THR**: Federally-listed, Threatened **CAN**: Federal Candidate Species FSC: Federal Species of Concern FPD: Federal Proposed for Delisting DL: Federally-delisted BCC: Birds of Conservation Concern	**State designations**: (California Endangered Species Act, CDFW) **END**: State-listed, Endangered **THR**: State-listed, Threatened **CAN**: State Candidate Species SSC: California Species of Special Concern FP: Fully Protected Species WL: Watch List Species		**Other Designations** COV: Covered under the Western Riverside MSHCP

Source: CNDDB Romoland, Lake Elsinore, Steele Peak, Perris, Lakeview, Winchester, Bachelor Mountain, Murrieta and Wildomar 7.5-minute quads.

APPENDIX F

Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Protocol-Level Focused Burrowing Owl Surveys Report

May 31, 2023

Ms. Stephanie Standerfer
Albert A. Webb Associates
3788 McCray Street
Riverside, California 92506

RE: Results of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) Protocol-Level Focused Burrowing Owl Surveys at the Hillwood Ethanac Development Project in Perris, California

Dear Ms. Standerfer,

The purpose of this report is to document the findings of protocol-level focused burrowing owl (*Athene cunicularia*) [BUOW] surveys conducted for Hillwood Ethanac Development Project (Project) located in the City of Perris, Riverside County. ECORP Consulting, Inc. conducted four protocol-level focused burrowing owl surveys on March 27, April 11, April 28, and May 11, 2023, in accordance with the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (WR MSHCP; Riverside County Land Management Agency [RCTLMA] 2006).

The Burrowing Owl Study Area includes the Project Site and offsite improvement area (Project Footprint) and a 500-foot surrounding buffer. No BUOW or signs thereof were observed within the Study Area during the surveys. Based on the lack of any direct or indirect evidence of BUOW presence, the survey results indicate that the Study Area was not occupied by BUOW at the time of the surveys.

PROJECT DESCRIPTION AND LOCATION

The Project Site is located in the City of Perris, east of Interstate (I-) 215, south of Highway 74, and northwest of the intersection of Ethanac and Sherman Roads (Figures 1 and 2). The Project Footprint consists of an approximately 21-acre Project Site, and approximately 21-acre offsite improvement areas (42 acres total) comprised of Assessor's Parcel Numbers 329-240-016, 329-240-017, 329-240-018, 329-240-019, 329-240-020, 329-240-023, 329-240-024, 329-240-025, 329-240-026, and 329-240-027.

The offsite improvement areas include portions of Ethanac Road, Sherman Road, Trumble Road, and Illinois Avenue (Figure 2). The Project, as depicted on the U.S. Geological Survey (USGS) "Romoland, California" 7.5-minute topographic quadrangle, is located within Section 10, Township 5 South, Range 3 West. The Project Site is generally flat, and elevation is approximately 1,440 feet (439 meters) above mean sea level.

BURROWING OWL NATURAL HISTORY

Burrowing owl is a U.S. Fish and Wildlife Service Bird of Conservation Concern, a California Department of Fish and Wildlife (CDFW) Species of Special Concern, and a MSHCP-Covered Species. The burrowing owl is a small, migratory owl found in various habitats throughout North America. Habitat requirements for burrowing owls consist of arid, open areas with sparse vegetation cover such as deserts, abandoned

agricultural areas, grasslands, and disturbed open habitats. Burrowing owls can excavate their own burrows for shelter and breeding purposes; however, they often occupy abandoned mammal burrows such as those constructed by California ground squirrels (*Otospermophilus beecheyi*). Burrowing owls have also been known to nest within natural rock cavities, debris piles, culverts, and pipes (Rosenberg et al. 1998).

PROJECT HISTORY

Literature Review

Prior to conducting the protocol-level BUOW surveys, ECORP conducted a review of CDFW's California Natural Diversity Database (CNDDB; CDFW 2023) and the California Native Plant Society (CNPS) Electronic Inventory (CNPS 2023). The purpose of the literature review was to determine whether special-status plant and wildlife species had been previously reported within the Project boundaries as depicted on USGS 7.5-minute "Romoland, California ", topographic quadrangle, and the surrounding eight topographic quadrangles: Lake Elsinore, Steele Peak, Perris, Lakeview, Winchester, Bachelor Mountain, Murrieta and Wildomar.

The CNDDB contains 44 records of BUOW within 5 miles (8 kilometers) of the Project Site: 36 current records (20 or fewer years old) and 8 historic records (20 or more years old). None of the records are located within the Project Footprint. A summary of some of the most recent occurrences and/or closest to the Project Site is presented below.

The most recent occurrence (Occ #2035) was in 2017 within approximately 4 miles of the Project Site. The occurrence was documented on the west side of Evans Road, between Moraga Avenue and Sunset Road. According to notes in the CNDDB, one adult was observed perching near a burrow during the breeding season.

In 2016 (Occ #1537) approximately 5 miles from the Project Site, 12 owls were observed along the south edge of Holland Road at the Haun Road junction in Menifee. A presumed breeding pair had previously been observed at this location in 2007 during the breeding season.

One occurrence (Occ #1940) was documented in 2015 approximately 1 mile from the Project Footprint. The occurrence was documented east of San Jacinto Road and north of Abbey Lane in Menifee. Two adults and fledged young of the year were observed towards the end of the breeding season.

In 2008 (Occ #249) two adults and three juveniles were observed northeast of Murrieta Road and Nuevo Road in Perris during the breeding season. The occurrence was documented approximately 3.9 miles from the Project Site.

In 2007 (Occ #1535) four pairs were observed during the breeding season along the southern edge of Honeyrun Road and east of La Ladera Road. The occurrence was documented approximately 3.1 miles from the Project Site within an irrigation canal bank and water treatment holding ponds.

Biological Reconnaissance Survey

The Project Footprint is not located within an MSHCP Criteria Cell or Cell Group. The Project Footprint is located within a MSHCP-designated burrowing owl survey area and subject to the burrowing owl survey requirements [MSHCP Section 6.3.2] (RCTLMA 2006). The MSHCP provides information on plant and wildlife species of concern to the County of Riverside and outlines goals for their conservation (RCTLMA 2014).

A BUOW habitat assessment was conducted simultaneously with the biological reconnaissance survey by ECORP biologists, Carla Marriner and Verity Richardson on November 9, 2022 and January 17, 2023 within the Project Footprint and a 500-foot buffer (Study Area; Figure 3) to determine the presence of suitable habitat. The completed burrowing owl habitat assessment met the requirements of the focused burrow survey in part A of the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (RCTLMA 2006). During the habitat assessment, the biologists determined suitable habitat was present, consisting of relatively large open expanses of sparsely vegetated nonnative forbs and grasses on level to gently rolling terrain, with an abundance of active California ground squirrel burrows. Therefore, additional owl surveys are required to determine the presence of burrowing owls in the Study Area and will need to follow the MSHCP *Burrowing Owl Survey Instructions* (RCTLMA 2006). In addition to BUOW surveys, pre-construction surveys will be required within 30-days prior to site disturbance (RCTLMA 2022).

METHODS

Protocol Focused Burrowing Owl Surveys

Four protocol-level BUOW surveys were conducted on four separate days in March, April, and May 2023 by qualified biologists. The biologists walked pedestrian transects spaced 20-30 meters apart across the entire Study Area (Figure 3) where access was permissible. Surveys were conducted during the burrowing owl breeding season (February 1 - August 31) and in accordance with the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (RCTLMA 2006). In locations where the Study Area was inaccessible due to unknown property ownership, biologists visually surveyed the area with binoculars. Prior to the start of a transect, biologists visually surveyed the transect and surrounding area. The biologists visually inspected any burrows, rocky areas, or man-made materials within the Study Area for potential BUOW occupation. All burrows encountered were inspected for presence or sign of burrowing owl (e.g., whitewash, pellets, feathers, and/or prey remains) and classified according to the guidelines in the *Staff Report* (California Department of Fish and Game [CDFG] 2012).

Data collected for each burrow included the condition and size of the burrow, number of entrances, presence of burrowing owl sign near the burrow, and location. The location was marked using a Global Positioning System (GPS). Burrows were individually numbered and classified into two categories based on definitions found in the CDFG *Staff Report* (CDFG 2012): occupied burrow or potential burrow. Burrows classified as occupied showed signs (e.g., whitewash, feathers, pellets, and/or bones of prey outside the burrow), indicating BUOW presence and/or use at some point in time. Potential burrows were defined as

burrows that are large enough for a burrowing owl but do not show sign of use by the species. Data was recorded on survey sheets and photographs were taken.

Weather data was recorded at the time of the surveys (including time, temperature, cloud cover, and wind speed at the start and end of the survey). Surveys were not conducted during rain, high winds (over 20 mph), dense fog, or temperatures over 90 °F. The initial focused burrow survey was completed in the evening two hours before sunset and up to one hour after sunset. The remaining three focused burrowing owl surveys were conducted in the morning one hour before sunrise and up to two hours after sunrise. Biologists also recorded the major plant and wildlife species observed or detected during the surveys.

RESULTS

The protocol-level BUOW surveys were conducted over a series of four field visits by ECORP biologists Verity Richardson, Taylor Dee, Eliza Mclean, Amber Francis, Corinna Tapia, Maddy Panzino, and Sam Harrison as noted in Table 1. Weather conditions during the surveys are also provided in Table 1. Representative site photos are included in Attachment A. A complete list of wildlife species observed during the surveys is included in Attachment B, and field data sheets are included in Attachment C.

Table 1. Survey Data

Survey No.	Date	Surveyors	Time		Temperature (F)		Cloud Cover (%)		Wind Speed (mph)	
			Start	End	Start	End	Start	End	Start	End
1	3/27/23	Verity Richardson, Taylor Dee, Eliza Mclean	1705	2005	67	55	10	0	2-5	0-2
2	4/11/23	Amber Francis, Eliza Mclean, Corinna Tapia	0600	0945	60.6	71.4	0	0	0	0
3	4/27/23	Amber Francis, Corinna Tapia	0600	0920	51.3	76	0	0	0-2	0-1
4	5/11/23	Verity Richardson, Maddy Panzino, Sam Harrison	0510	0752	51	59.2	80	80	1-4	1-4

Habitat/Vegetation

The Project Site is currently vacant, disturbed, and undeveloped, characterized by open fields, disturbed annual grassland cover vegetated with a variety of non-native and early successional weedy plant species. The vegetation observed throughout the majority of the Project Footprint is composed of mostly nonnative forbs and grasses. Scattered trash and evidence of off highway vehicle use was also observed on the site.

Additionally, most of the site showed evidence of mechanical disturbance and based on aerial imagery, it appears to have been regularly disturbed over the last 20 years, likely associated with annual weed and fire abatement procedures. The Project Site is bounded by an open lot with a similar vegetative

composition of disturbed nonnative grasslands to the west, Sherman Road and residential developments to the east, commercial development to the north, and Ethanac Road and commercial developments to the south. The majority of the Study Area is disturbed or developed.

The vegetation communities observed within the Project Footprint were characteristic of areas subjected to anthropogenic disturbances. One vegetation alliance, Eucalyptus groves (*Eucalyptus* spp. Woodland Semi-Natural Alliance) (Sawyer et al. 2009) was identified within the offsite improvement area along Sherman Road.

Burrowing Owl

The burrows depicted on Figure 3 are considered potentially suitable (>4 inches in diameter) for BUOW. However, no BUOW or active signs thereof were observed during the four focused surveys and no occupied burrows were observed in the Study Area. The California ground squirrel burrows marked as potential BUOW burrows during the biological reconnaissance survey were difficult to locate during the focused surveys due to the overgrown vegetation. These potential burrows did not contain owl sign at any time. No new potential burrows were located during the focused surveys.

DISCUSSION

Four protocol-level focused surveys for BUOW were conducted by ECORP biologists on March 27, April 11, April 27, and May 11 within the Study Area. Suitable habitat for burrowing owl was initially found to be present during the burrowing owl habitat assessment including potential owl burrows. Throughout the focused surveys, the habitat became less suitable for BUOW due to dense, overgrown vegetation obstructing the burrow openings. No BUOW or occupied burrows were observed or detected in the Project Footprint throughout the four focused surveys. However, the Study Area includes burrows suitable for burrowing owl and suitable burrowing owl foraging habitat; therefore, due to the mobile nature of the species, the previous documentation of potential burrows, and the presence of California ground squirrel activity, it is possible for burrowing owl to occupy the site before the start of construction of the Project. Although burrowing owls were not found, a 30-day burrowing owl pre-construction clearance survey shall be conducted prior to any ground disturbance activities in compliance with the *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area* (RCTLMA 2006).

If you have any questions regarding the contents of this letter report, please contact me at stennant@ecorpconsulting.com.

Enclosures:

Figure 1. Project Vicinity
Figure 2. Project Location
Figure 3. Burrowing Owl Study Area and Burrow Locations
Attachment A: Representative Site Photographs
Attachment B: Wildlife Species Observed
Attachment C: Field Survey Datasheets

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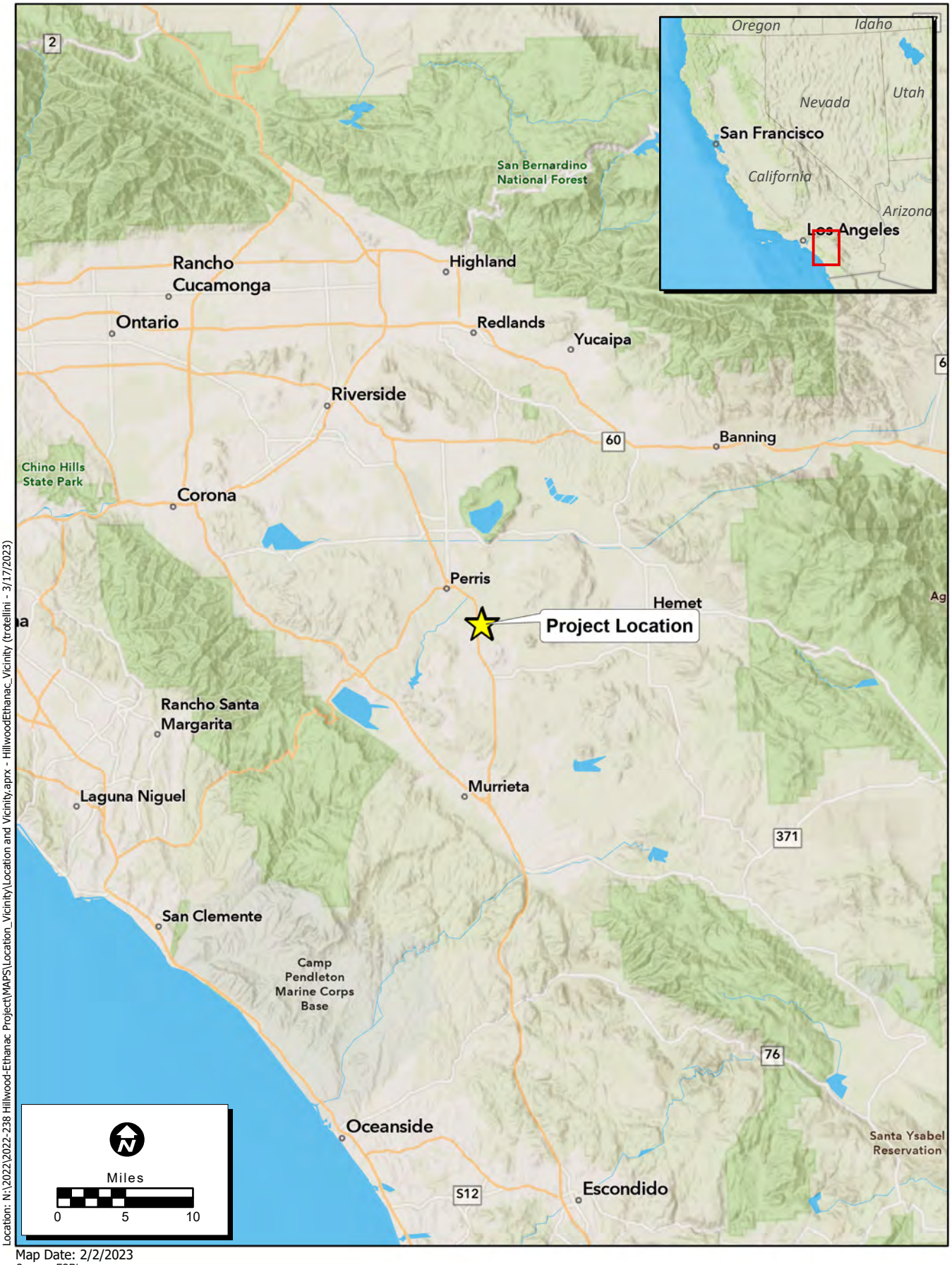

Figure 1. Project Vicinity

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2022-238 Hillwood-Ethanac Project

Location: N:\2022\2022-238 Hillwood-Ethanac Project\MAPS\Location_Vicinity\Location and Vicinity.aprx - HillwoodEthanac_Location (trotellini - 2/2/2023)

Map Date: 2/2/2023

ECORP Consulting, Inc.
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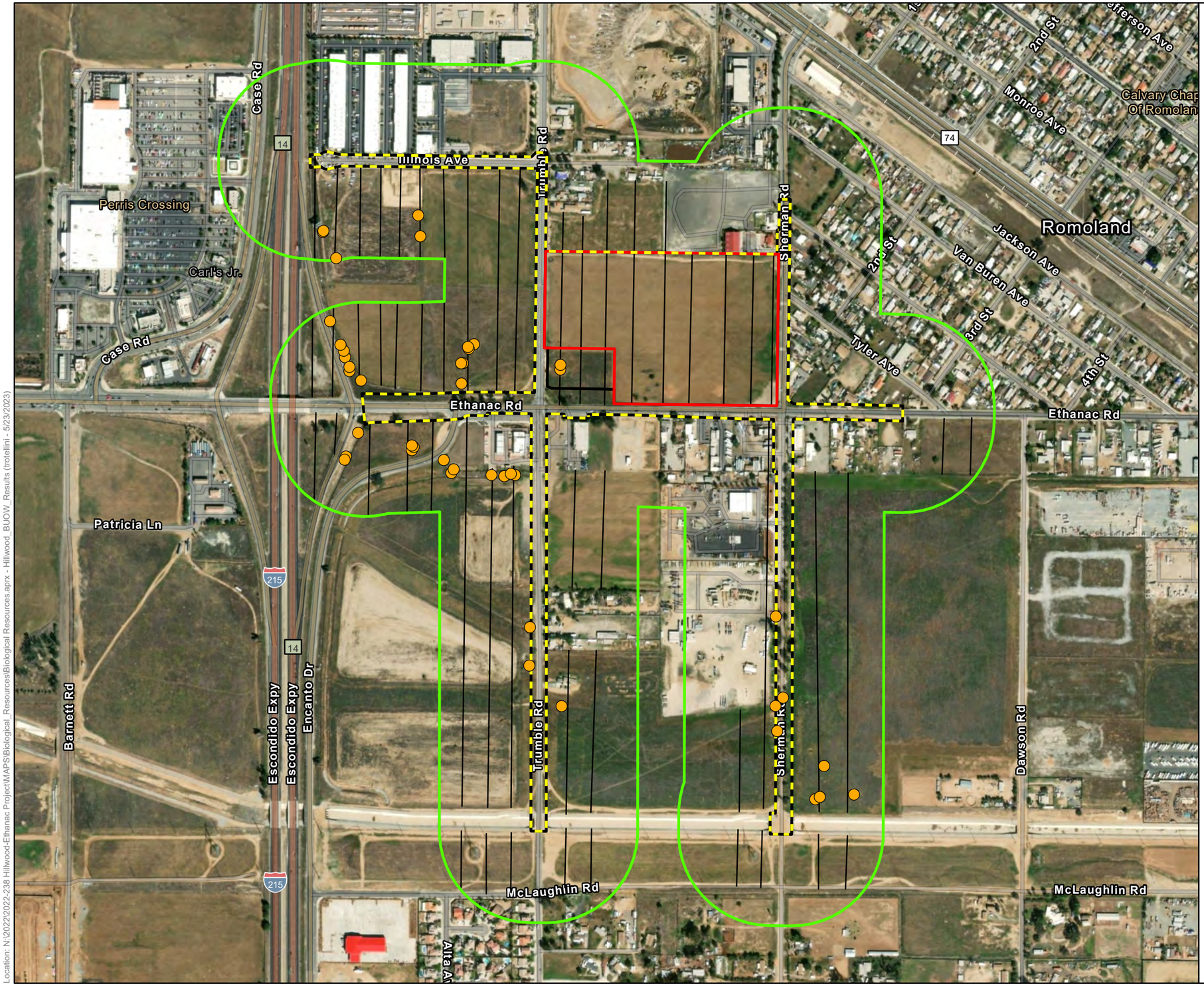
Figure 2. Project Location

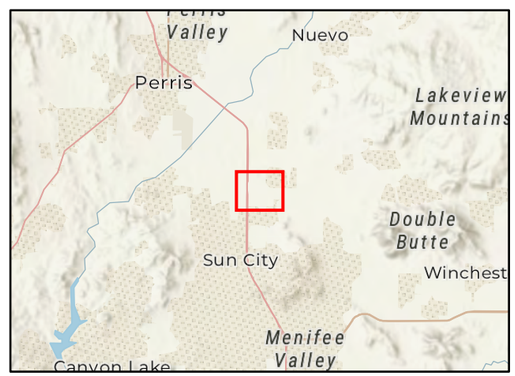
2022-238 Hillwood-Ethanac Project



Map Contents

- Project Site
- Offsite Improvement Area
- Project Footprint
- Study Area (Includes a 500-ft Buffer)
- BUOW Survey Transects
- Potential Burrowing Owl Burrows (No Sign)

Sources: ESRI
Other Related Info if Needed



Location: N:\2022\2022-238 Hillwood-Ethanac Project\MAPS\Biological_Resources\Biological Resources.aprx - Hillwood_BUOW_Results (trotellini - 5/23/2023)

Map Date: 5/23/2023

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Scale in Feet
0 275 550

Figure 3. Burrowing Owl Study Area and Burrow Locations

2022-238 Hillwood-Ethanac Project

ATTACHMENT A

Representative Site Photographs

Photo 1: Typical view and vegetation cover of the western portion of Project Site; facing north. Photo taken March 27, 2023.

Photo 2: East side of the Project Site dominated by herbaceous nonnative forbs and grasses; facing south. Photo taken March 27, 2023.

Photo 3: View of the western portion of the Study Area within the 500-foot buffer dominated by nonnative forbs and grasses; facing northeast. Photo taken March 27, 2023.

Photo 4: View of disturbed habitat along Trumble Road where road improvements will occur; facing north. Photo taken March 27, 2023.

Photo 5: View of the southern portion of the Study Area within 500-foot buffer southwest of Trumble Road; facing west. Photo taken March 27, 2023.

Photo 6: View of grassland habitat adjacent to Sherman Road and offsite improvement area; facing northwest. Photo taken May 11, 2023.

Photo 7: View of a potential burrowing owl burrow observed within the Project Site. Photo taken April 11, 2023.

ATTACHMENT B

Wildlife Species Observed

Scientific Name	Common Name
INSECTA	**INSECTS**
Formicidae	Ants
Pogonomyrmex californicus	California harvester ant
AMPHIBIA	**AMPHIBIANS**
Bufonidae	True Toads
Anaxyrus boreas halophilus	California toad
AVES	**BIRDS**
Accipitridae	Hawks and Eagles
Buteo jamaicensis	Red-tailed hawk
Anatidae	Ducks and Geese
Anas platyrhynchos	Mallard
Branta canadensis	Canada goose
Charadriidae	Plovers
Charadrius vociferus	Killdeer
Columbidae	Pigeons and Doves
*Columba livia**	Rock pigeon
Zenaida macroura	Mourning dove
Corvidae	Jays and Crows
Corvus corax	Common raven
Fringillidae	Finches
Haemorhous mexicanus	House finch
Spinus psaltria	Lesser goldfinch
Hirundinidae	Swallows
Petrochelidon pyrrhonota	Cliff swallow
Stelgidopteryx serripennis	Northern rough-winged swallow
Icteridae	New World Blackbirds
Agelaius phoeniceus	Red-winged blackbird
Sturnella neglecta	Western meadowlark
Mimidae	Mockingbirds and Thrashers
Mimus polyglottos	Northern mockingbird
Passerellidae	New World Sparrows

Scientific Name	Common Name
Passerculus sandwichensis	Savannah sparrow
Zonotrichia leucophrys	White-crowned sparrow
Passeridae	Old World Sparrows
*Passer domesticus**	House sparrow
Sturnidae	Starlings
*Sturnus vulgaris**	European starling
Trochilidae	Hummingbirds
Calypte anna	Anna's hummingbird
Tyrannidae	Tyrant Flycatchers
Sayornis nigricans	Black phoebe
Sayornis saya	Say's phoebe
Tyrannus verticalis	Western kingbird
Tyrannus vociferans	Cassin's kingbird
Tytonidae	Barn Owls
Tyto alba	Barn owl
MAMMALIA	**MAMMALS**
Geomyidae	Pocket Gophers
Thomomys sp.	Smooth-toothed pocket gopher
Leporidae	Rabbits and Hares
Sylvilagus audubonii	Desert cottontail
Sciuridae	Squirrels
Otospermophilus beecheyi	California ground squirrel

*Nonnative species

ATTACHMENT C

Field Survey Datasheets

Date: 3/27/23
Survey Season: Breeding
Survey #: 1
GPS File Name: _____

Burrowing Owl Survey

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Project #: 2022-238
Client: _____

General Information	Weather Data		
Observers: Verity Richardson, Taylor Dee, Eliza McLean.		AM	PM
	Time (24 hr)	Start: 1705 End: _____	Start: 1705 End: 2005
	Temp* (°F) 6" above ground in shade	Start: 69°F End: _____	Start: 67 End: 55
	Wind (mph)	Start: 2-5 End: _____	Start: 2-5 End: 0-2
	% Cloud Cover	Start: 10% End: _____	Start: 10 End: 0

Site Information

Project Name: Hillwood-Ethanac
Location: Perris-Menifee
County: Riverside
Photos Taken? [Y] [N]
Area Surveyed: Project area +500-ft buffer

Physical Characteristics

Elevation:
Land Form*:
* e.g. mesa, bajada, wash
Soils:
Other:
Land Uses:
N:
E:
S:
W:
Disturbances on Site: [e.g. tracks (vehicle, human, livestock); trash; dump sites; blading; other]

Transect Width: 10-20 meters

Field Observations

Vegetation Communities:

Plants

Animals: [include: B - burrow, S - scat, O - observed, T - tracks, C - carcass, or Other (specify)]

WEKI EUST
SPOP HOFI
CORA RTHA
CAKI BARO
MODO SPPH

Harvester ant
Cottontail
California ground sq.

Comments

No BUOW observed.

Date: 3/27/23
Survey Season: Breeding
Survey #: 1
GPS File Name: ______

Burrowing Owl Survey

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Project #: 2022-238
Client: ______

Burrowing Owl Sign

Sign	# features	Location (UTM Northing/Easting)	Comments (aspect, dimensions, etc.)

Comments:

Date: 4-11-23
Survey Season: Breeding
Survey #:
GPS File Name: Hillwood-Ethanac

Burrowing Owl Survey

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Project #: 2022-238
Client:

General Information	Weather Data				
Observers:		AM		PM	
Amber Francis Eliza McLean Corrina Tapia	Time (24 hr)	Start: 0800	End: 0945	Start:	End:
	Temp* (°F) 6" above ground in shade	Start: 60.6	End: 71.4	Start:	End:
	Wind (mph)	Start: 0	End: 0	Start:	End:
	% Cloud Cover	Start: 0	End: 0	Start:	End:

Site Information

Project Name: Hillwood - Ethanac
Location: Perris - Menifee
County: Riverside
Photos Taken? [Y] [N]
Area Surveyed: Project area + 500-ft buffer

Physical Characteristics

Elevation:	Soils:
Land Form*:	Other:
* e.g. mesa, bajada, wash	
Land Uses:	
N:	S:
E:	W:

Disturbances on Site: [e.g. tracks (vehicle, human, livestock); trash; dump sites; blading; other]

Transect Width: 10-20 meters Portions of the southern buffer (S of Ethanac) not surveyed due to time constraints.

Field Observations

Vegetation Communities:

Plants

Animals: [include: B - burrow, S - scat, O - observed, T - tracks, C - carcass, or Other (specify)]

WEME	CAKI	RWBL	CA ground squirrel
CORA	HOFI	HOSP	
EUST	MODO	LEBO	
ANHU	KILL	NOMO	
WCSP	RTHA	SASP	
		CLSW	

Comments

Dense, high vegetation (grasses + nonnatives) ≥ 4' high. Difficult to see any burrows

Date:_____
Survey Season:_____
Survey #:_____
GPS File Name:_____

Burrowing Owl Survey

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Project #:_____
Client: _____

Burrowing Owl Sign

Sign	# features	Location (UTM Northing/Easting)	Comments (aspect, dimensions, etc.)
pot burrow	1	33.742368, -117.187095	4"x5", no sign, N
pot burrow	1	33.742390, -117.187128	no sign, 4"x5", NW
prev burrow		33.738655, -117.180415	collapsed

Comments:

Date: 4-28-23
Survey Season: Breeding
Survey #: 3
GPS File Name:

Burrowing Owl Survey

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Project #: 2022-238
Client:

General Information	Weather Data		
Observers:		AM	PM
Amber Francis Corina Tapia	Time (24 hr)	Start: 0600 End: 0920	Start: ____ End: ____
	Temp* (°F) 6" above ground in shade	Start: 51.3 End: 76.0	Start: ____ End: ____
	Wind (mph)	Start: 0-2 End: 0-1	Start: ____ End: ____
	% Cloud Cover	Start: 0 End: 0	Start: ____ End: ____

Site Information

Project Name: Hillwood - Ethanac
Location: Perris / Romoland
County: Riverside
Photos Taken? (Y) [N]
Area Surveyed: Project site + 500-foot buffer in suitable habitat

Physical Characteristics

Elevation:	Soils:
Land Form*:	Other:
* e.g. mesa, bajada, wash	
Land Uses:	
N: development	S: development
E: residential	W: undeveloped

Disturbances on Site: [e.g. tracks (vehicle, human, livestock); trash; dump sites; blading; other]
Tracks (vehicles), trash, dumpsite. Site and areas of buffer had been recently disced (since last survey)

Transect Width: 10-20 meters ~20m

Field Observations

Vegetation Communities:

Plants

Animals: [include: B - burrow, S - scat, O - observed, T - tracks, C - carcass, or Other (specify)]

CORA
BLPH
SAPH
KILL
EUST
NOMO
WEME
gopher
CA ground squirrel
MODO
CAKI
ANHU
RWBL
HOFI
HOSP
RTHA
CLSW
MALL
ROPI

Comments

Vegetation was still dense throughout many areas in the buffer. Some areas in the buffer as well as ~40m perimeter around project site were recently disced. All burrows previously mapped, aside from object ID 19, 44, & 45, could not be located due to dense vegetation.

Burrows along slope of on ramp & off ramp to Ethanac appeared unchanged.

Date:_____
Survey Season:_____
Survey #:_____
GPS File Name:_____

Burrowing Owl Survey

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Project #:_____
Client: _____

Burrowing Owl Sign			
Sign	# features	Location (UTM Northing/Easting)	Comments (aspect, dimensions, etc.)

Comments:

Date: May 11, 2023
Survey Season: Breeding
Survey #: 4
GPS File Name: _____

Burrowing Owl Survey

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Project #: 2022-238
Client: Hillwood - Ethanac

General Information	Weather Data		
Observers: Verity Richardson, Maddy Panzio, Sam Hamison		AM	PM
	Time (24 hr)	Start: 0510 End: 0752	Start: _____ End: _____
	Temp* (°F) 6" above ground in shade	Start: 51 End: 59.2	Start: _____ End: _____
	Wind (mph)	Start: 1-4 End: 1-4	Start: _____ End: _____
	% Cloud Cover	Start: 80 End: 80	Start: _____ End: _____

Site Information

Project Name: Hillwood Ethanac
Location:
County:
Photos Taken? [Y] [N]
Area Surveyed:

Physical Characteristics

Elevation:	Soils:
Land Form*:	Other:
* e.g. mesa, bajada, wash	
Land Uses:	
N:	S:
E:	W:

Disturbances on Site: [e.g. tracks (vehicle, human, livestock); trash; dump sites; blading; other]

Transect Width: 10-20 meters

Field Observations

Vegetation Communities:

Plants

Animals: [include: B - burrow, S - scat, O - observed, T - tracks, C - carcass, or Other (specify)]

WEKI, WEME, HOFI, CLSW, CANG, MODO, CAKI
ANHU, SASP, RWBL, NRWS, desert cottontail
California ground squirrel.

Comments

Date: 5/11/23
Survey Season: ____________
Survey #: 4
GPS File Name: ________________

Burrowing Owl Survey

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Project #: 2022-238
Client: Hillwood-Ethanac

Burrowing Owl Sign		Decimal degrees	
Sign	# features	Location (~~UTM Northing/Easting~~)	Comments (aspect, dimensions, etc.)
B	2	33.743620, -117.184469	4.5"x4.5", potential burrow no sign
			>2' deep, SE + SW aspects

Comments:

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Safety Meeting Form

Project Number: 2022-238
Date: May 11, 2023
Project Name: Millwood Ethanol
Start time/End Time: 0510 - 0810
Meeting Leader: VRichardson
Location: Ethanol road, Riverside County.

Specific Activities Planned (check all that apply)

- ☑Walking/hiking long distances
- ☐Using all-terrain vehicles
- ☐Using mechanized equipment (i.e. chainsaw)
- ☐Towing trailer
- ☑Driving between sites
- ☑Driving steep or narrow roads
- ☐Driving 4X4 roads
- ☐Driving wet/muddy roads
- ☐Driving in snow/ice
- ☑Crossing paved roads
- ☐Crossing flowing water (walking/driving)
- ☐Working in deep (>1m) ponded water
- ☐Working in flowing water (creek/river)
- ☐Working on steep cliffs
- ☐Working near active forestry site
- ☑Working in area of unknown property ownership
- ☑Working under transmission lines
- ☐Working near active construction
- ☐Working on a boat
- ☑Working in brushy, overgrown areas
- ☐Working on mine tailings (cobbles)
- ☐Working in mine site (shafts, pits)
- ☑Working near abandoned buildings
- ☑Working in "suspect" neighborhood
- ☐Capturing live animals
- ☐Performing dipnet surveys
- ☐Working along railroad tracks
- ☐Lifting/carrying heavy equip.
- ☐Other (list)

_____

Potential Hazards (check all that apply)

- ☑Venomous snakes
- ☑Trip/slip/fall hazards/uneven ground/slick rocks
- ☑Landowners/other people
- ☑Dogs
- ☑Barbed wire fences
- ☐Electric fence lines
- ☑Spiny/thorny vegetation (inc. vines)
- ☑Heat-related illness (heat stroke/exhaustion/sunburn)
- ☑Cold-related illness (hypothermia/frost-bite)
- ☐Swift currents/water crossings
- ☑Stinging and biting insects (bees, wasps, mosquitoes, ticks, scorpions)
- ☑Poison oak/other irritating vegetation
- ☐Unexploded ordinance
- ☑Dry brush/fire hazards
- ☐Mine shafts
- ☑Vehicular traffic
- ☐Livestock
- ☐Falling rocks/cliffs/steep edges
- ☑Refuse/rusty nails/junk piles
- ☐Hantavirus
- ☐Inhalation hazards (e.g., Valley Fever)
- ☑Predatory mammals
- ☐Lightning
- ☑Overhead electrical hazards
- ☑Driving conditions/treacherous road hazards
- ☐Active railroad use
- ☑Animal burrow (trip/fall)
- ☐Military/high-security areas
- ☑High winds
- ☐Snow/hail
- ☐Other (list)

_____

Supplies and PPE Needed

- ☐Water
- ☑Food/snacks
- ☑Hiking boots
- ☐Wading boots
- ☐Rubber boots/waders
- ☑Large hat/bandanas
- ☐Hard hat
- ☑Safety vest
- ☑Personal first aid kit
- ☑Sunscreen/SHADE
- ☑Long-sleeved shirt
- ☐Steel-toed boots
- ☐Rain gear
- ☑Cold weather gear
- ☑Magnetic vehicle signs
- ☐Other
- ☐ Does project have a project-specific safety plan?

Hazard Response

Location of nearest first aid kit (check all that apply):
- ☑ Personal field gear
- ☐ Truck
- ☐ Construction trailer
- ☐ Other (list)

_____

Location of nearest Medical Provider Network:
Menifee Global Medical Center
28400 McCall Blvd.
Location/phone of nearest MPN (if not in a 911 service area); **draw map on reverse, or attach a printout with directions**:

_____

_____

Snakebite/California Poison Control: 1-800-222-1222
Site-specific contact person/number:

_____

Site-specific emergency #:_____
Other:
_____

Current Worker's Compensation Carrier:
State Compensation Insurance Fund
Medical Provider Network (MPN) - http://www.statefundca.com/mpn

ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Safety Meeting Form

Attendees

Print Name	Field Lead?	Signature	Field Cell Number
Verity Richardson	Yes		760-704-7249
M. Panzino	N		714-335-8058
Isaiah Harrison	N		562-754-8428

Current Worker's Compensation Carrier:
State Compensation Insurance Fund
Medical Provider Network (MPN) - http://www.statefundca.com/mpn

APPENDIX G

Aquatic Resources Delineation

AQUATIC RESOURCE DELINEATION REPORT

Hillwood-Ethanac Project
Perris, Riverside County, CA
January 2023

Prepared by:
Hernandez Environmental Services
17037 Lakeshore Drive
Lake Elsinore, CA 92530

Prepared for:
ECORP
215 North 5th Street
Redlands, CA 92374

TABLE OF CONTENTS

FIGURES

APPENDICES

1.0 Introduction

Hernandez Environmental Services (HES) was contracted by ECORP Consulting, Inc. to prepare an aquatic resources delineation report for the approximately 40.7-acre project area which consists of the 20.1-acre project site and approximately 20.6 acres of areas that will be potentially impacted for road and drainage improvements (project). The purpose of this report is to identify and describe aquatic resources in the project area. This report facilitates efforts to document aquatic resource boundary determinations for review by regulatory authorities.

1.1 Project Site Location

The project site is located northwest of the intersection of Ethanac Road and Sherman Road, in the City of Perris, Riverside County, California. To access the site from Interstate 215, take exit 14 toward Ethanac Road and continue east, turn left on Sherman Road and the project site is on your left. The proposed project also includes road improvements to portions of Ethanac Road, Sherman Road, Trumble Road, and Illinois Avenue. The project site consists of Assessor's Parcel Numbers (APNs) 329-240-016, -017, -018, -019, -020 -025, -026, and -027. Specifically, the project site is in Section 10 of Township 5 south, Range 3 west within the *Romoland* United States Geological Survey (USGS) 7.5' topographic quadrangle. The center point latitude and longitude coordinates for the project site are 33° 44' 39.8985" N, 117° 10' 56.4851" West (Figures 1 and 2).

1.2 Project Description

The proposed project consists of the construction of a 412,348 square foot warehouse building with offices (Figure 3). The proposed project includes potential offsite road and drainage improvements to Illinois Avenue, Trumble Road, Ethanac Road, and Sherman Road.

2.0 Regulatory Background

2.1 California Department of Fish and Wildlife Lake and Streambed Alteration Agreement

The California Department of Fish and Wildlife (CDFW) is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, the California Fish and Game Code (F&GC), requires that the CDFW be consulted if a proposed development project has the potential to detrimentally effect a stream and thereby wildlife resources that depend on a stream for continued viability (F&GC Division 2, Chapter 5, section 1600-1616). A Section 1602 Lake or Streambed Alteration Agreement is required, should the CDFW determine that the proposed project may do one or more of the following:

- Substantially divert or obstruct the natural flow of any river, stream or lake;
- Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or

- Deposit debris, waste or other materials that could pass into any river, stream, or lake.

For the purposes of clarification, a stream is defined by CDFW as "a body of water that flows perennially or episodically and that is defined by the area in which water currently flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators." The historic hydrologic regime is defined as circa 1800 to the present (CDFW 2010).

2.2 United States Army Corps of Engineers Clean Water Act 404 Permit

The Clean Water Act (CWA) establishes the basic structure for regulating discharges of pollutants into the waters of the United States (WUS) and regulating quality standards for surface waters. Under Section 404 of the CWA, the United States Army Corps of Engineers (USACE) regulates the discharge of dredged or fill material into wetlands and WUS, which includes tidal waters, interstate waters, and "all other waters, interstate lakes, rivers, streams (including intermittent streams), mud flats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce or which are tributaries to waters subject to the ebb and flow of the tide" (33 C.F.R. 328.3(a)), pursuant to provisions of Section 404 of the Clean Water Act. Section 404 requires a permit from the USACE or authorized state for the discharge of dredged or fill material into WUS, including wetlands.

For purposes of Section 404 of the CWA, the lateral limits of jurisdiction over non-tidal WUS extend to the ordinary high-water mark (OHWM), in the absence of adjacent wetlands. Under 33 CFR 328.3(e), the USACE defines the term OHWM 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 soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."

According to the Environmental Protection Agency (EPA) and USACE, "wetlands are areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas." Water saturation (hydrology) largely determines how the soil develops and the types of plant and animal communities living in and on the soil. Wetlands may support both aquatic and terrestrial species. The prolonged presence of water creates conditions that favor the growth of specially adapted plants (hydrophytes) and promote the development of characteristic wetland (hydric) soils. The EPA and the Corps use the 1987 Corps of Engineers Wetlands Delineation Manual and Regional Supplements to define wetlands for the CWA Section 404 permit program. To qualify for wetlands status, vegetation, soils, and hydrologic parameters must all be met.

For the purposes of this section, the term "fill" is defined as material placed in waters of the United States where the material has the effect of:

- Replacing any portion of a WUS with dry land; or
- Changing the bottom elevation of any portion of a WUS.

Examples of such fill material include, but are not limited to rock, sand, soil, clay, plastics, construction debris, wood chips, overburden from mining or other excavation activities, and materials used to create any structure or infrastructure in the WUS. The term fill material does not include trash or garbage.

The definition of "discharge of dredged material" is defined as any addition of dredged material into, including redeposit of dredged material other than incidental fallback within, the WUS. The term includes, but is not limited to, the following:

- The addition of dredged material to a specified discharge site located in WUS;
- The runoff or overflow, associated with a dredging operation, from a contained land or water disposal area; and
- Any addition, including redeposit other than incidental fallback, of dredged material, including excavated material, into WUS which is incidental to any activity, including mechanized land clearing, ditching, channelization, or other excavation.

The term discharge of dredged material does not include the following:

- Discharges of pollutants into WUS resulting from the onshore subsequent processing of dredged material that is extracted for any commercial use (other than fill). These discharges are subject to section 402 of the CWA even though the extraction and deposit of such material may require a permit from the Corps or applicable State.
- Activities that involve only the cutting or removing of vegetation above the ground (e.g., mowing, rotary cutting, and chain-sawing) where the activity neither substantially disturbs the root system nor involves mechanized pushing, dragging, or other similar activities that redeposit excavated soil material.
- Incidental fallback.

2.3 Regional Water Quality Control Board Clean Water Act / Porter-Cologne Act

The State Water Resources Control Board (State Water Board) and the Regional Water Quality Control Boards (RWQCB) (collectively Water Boards) have the authority to regulate discharges of dredged or fill material to waters of the state under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act (Porter-Cologne). CWA Section 401 water quality certifications are issued to applicants for a federal license or permit for activities that may result

in a discharge into WUS, including but not limited to the discharge or dredged or fill material (as defined in Section 2.2 above). Waste discharge requirements under Porter-Cologne are issued for discharges of dredged or fill material to waters of the state.

In accordance with Porter-Cologne (Water Code, § 13000 et seq.), the Water Boards are authorized to regulate discharges of waste, which includes discharges of dredged or fill material, that may affect the quality of waters of the state. The Water Code defines waters of the state broadly to include "any surface water or groundwater, including saline waters, within the boundaries of the state." Waters of the state includes all WUS. On April 2, 2019, the State Water Board adopted State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures), which contained a wetland definition and wetland delineation procedures. The Procedures state that "an area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation." The following wetlands are waters of the state:

1. Natural wetlands;
2. Wetlands created by modification of a surface water of the state;
3. Artificial wetlands that meet any of the following criteria:
    a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
    b. Specifically identified in a water quality control plan as a wetland or other water of the state;
    c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape;
    d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):
        i. Industrial or municipal wastewater treatment or disposal,
        ii. Settling of sediment,
        iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,

iv. Treatment of surface waters,

v. Agricultural crop irrigation or stock watering,

vi. Fire suppression,

vii. Industrial processing or cooling,

viii. Active surface mining – even if the site is managed for interim wetlands functions and values,

ix. Log storage,

x. Treatment, storage, or distribution of recycled water, or

xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits);

xii. Fields flooded for rice growing.

All artificial wetlands that are less than an acre in size and do not satisfy the criteria set forth in 2, 3.a, 3.b, or 3.c are not waters of the state. If an aquatic feature meets the wetland definition, the burden is on the applicant to demonstrate that the wetland is not a water of the state.

3.0 Methodology

3.1 Literature Review

Prior to the site visit, a literature review was conducted to aid in determining the potential for perennial, intermittent, or ephemeral drainages, wetlands, and riparian vegetation. Project background documents, topographic maps, satellite imaging, soils maps, and land use maps were examined to establish an accurate project site location, project description, potential for onsite drainages and wetlands, records of on-site vegetation, watershed, soils, and surrounding land uses.

3.2 Field Survey

On December 6 and 26, 2022, HES conducted field surveys of the approximate 40.7-acre project area which consists of the 20.1-acre project site and approximately 20.6 acres of areas that will be potentially impacted for road and drainage improvements. The field survey was conducted to delineate jurisdictional drainages and wetlands resources associated with jurisdictional drainages. Special attention was paid to areas that will be impacted by the proposed project. Representative site photographs were taken and are included within Appendix A.

Jurisdictional drainages were identified by looking for features such as a bed, bank, or channel. Where riparian vegetation was present, the drip line of the outer edge of the vegetation was used as the measuring criteria. Furthermore, the presence of an ordinary high-water mark (OHWM) was recorded. The OHWM is defined as: “on non-tidal rivers, the line on the shore established by the

fluctuations of water and indicated by the physical characteristics such as a clear, natural line impressed on the bank; shelving; changes in the character of soil; destruction of terrestrial vegetation; the presence of litter and debris; or other appropriate means that consider the characteristics of the surrounding area." Where the presence of an OHWM was evident, a measurement was taken for the width of the OHWM, and the measurement was recorded. Areas measured were also recorded using hand-held Global Positioning System (GPS) for accurate location reference. Any man-made features on site that were measured were also recorded using hand-held Garmin GPSMAP 64s for accurate location reference.

Where changes in plant community composition were apparent, the area was examined for the possibility of wetlands. Whether or not adjacent to "waters of the U.S.", the potential wetland area was evaluated for the presence of the three wetland indicators: hydrology, hydric soils and hydrophytic vegetation. The guidelines followed are those established in the 1987 Army Corps of Engineers Manual as well as the 2006 Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region.

4.0 Results

4.1 Environmental Setting

The 40.7-acre project area consists of paved roads and vacant disturbed land. The portions of the site that remain undeveloped had been previously graded and appears to be continually disturbed by weed abatement activities. The entire project area was field verified by HES biologists. A portion of a manmade earthen canal is located adjacent to the southern portion of Trumble Road within the project area. Onsite elevations range from 1,417 feet above mean sea-level (AMSL) to 1,453 feet AMSL. The site is bordered by commercial development to the north, residential development to the east, industrial development to the south, and vacant land to the west.

4.2 Existing Hydrological Features

4.2.1 Overview

The proposed project area contains a portion of a manmade earthen canal and a portion of a cement lined channel that are tributaries to the San Jacinto River. All other culverts or other man-made storm drain features found within the project area were found to not be jurisdictional due to lack of natural flows. There are areas on site that have evidence of ponding water such as cracked soils and shifts in vegetation. However, these areas were found to not qualify as wetlands due to lack of suitable vegetation and soils.

4.3 Soils

Seven soil classes are identified to occur on the project site by the United States Department of Agriculture Web Soil Survey (Appendix B). Soils at the project site are classified as:

- Exeter sandy loam (EnA), 0 to 2 percent slopes;
- Exeter sandy loam (EnC2), 2 to 8 percent slopes, eroded;
- Greenfield sandy loam (GyC2), 2 to 8 percent slopes, eroded;
- Madera fine sandy loam (MaA), 0 to 2 percent slopes;
- Monserate sandy loam (MmB), 0 to 5 percent slopes;
- Monserate sandy loam (MnD2), shallow, 5 to 15 percent slopes, eroded; and
- Ramona sandy loam (RaA), 0 to 2 percent slopes, MLRA 19.

None of these soils qualify as hydric and they all are considered to have well drained soil classes. The onsite soils do not allow for water pooling on the site to remain for any significant length of time after rain events or have any characteristics of hydric soils. The onsite soils do not qualify as hydric or mesic soils associated with vernal pools or wetlands.

4.4 Vegetation

The project site primarily consists of developed paved roads bordered by developed areas or disturbed areas with ruderal habitat. The vegetation within the portion of the manmade earthen canal on site includes mulefat (*Baccharis salicifolia*), barbary fig (*Opuntia ficus-indica*), palo verde (*Parkinsonia* sp.), and tamarisk (*Tamarix* sp.). The dominant species in the herbaceous layer within the canal was shortpod mustard (*Hirschfeldia incana*). Tamarisk and shortpod mustard are nonnative species. The mulefat within the project area was confined to the area directly adjacent to Trumble Road. and has a wetland indictor of Facultative Plant (FAC) which occurs in wetlands and non-wetlands. Palo verde also has a wetland indicator of FAC. The cement lined channel within the project area does not contain any vegetation.

4.5 Hydrology

The site is located within the Santa Ana Basin Plan, the San Jacinto Valley hydrologic unit, the Perris hydrologic area, and the Perris Valley sub-area. Due to the disturbed nature of the site, historical aerials from Google Earth were viewed in order to determine if the manmade canal was carrying natural flows. In a historical aerial from 2002, a depression is noticeable in the area where the manmade canal now occurs (Figure 4). The manmade earthen canal collects ephemeral flows and directs them northwest. The canal leads to an offsite catch basin which carries the flows across the Interstate 215 and eventually to the San Jacinto River. The cement lined channel that crosses the project area carries ephemeral flows west across the Interstate 215 and then heads northwest eventually flowing to the San Jacinto River. The San Jacinto River is a tributary to Canyon Lake.

No other natural drainages occur on site. Google Earth aerials, topo maps, elevation ranges, and field findings were used to determine the source and direction of flows to and from other manmade ditches or stormwater features on site. There is a large box culvert at the western end of Illinois

Avenue within the project area that collects runoff from Illinois Avenue and Interstate 215. Based on the field findings and literature review, the box culvert does not collect flows from any jurisdictional features and is not a tributary to a jurisdictional feature; therefore, the box culvert and adjacent ditch are not jurisdictional.

Table 1. Aquatic Resources within the Manmade Canal in the Survey Area

Jurisdictional Agency	Aquatic Resource Size (acre)	Aquatic Resource Size (linear feet)
CDFW	0.02	108
RWQCB	0.01	108
USACOE	0.01	108
Location (lat/long)	33° 44' 21.9155" North, 117° 11' 05.6112" West	

Table 2. Aquatic Resources within the Cement Lined Channel in the Survey Area

Jurisdictional Agency	Aquatic Resource Size (acre)	Aquatic Resource Size (linear feet)
CDFW	0.03	24
RWQCB	0.03	24
USACE	0.03	24
Location (lat/long)	33° 44' 12.2882" North, 117° 11' 05.7293" West	

4.6 California Department of Fish and Wildlife Jurisdiction

The project site contains approximately 0.05 acre (132 linear feet) of CDFW jurisdictional ephemeral features and associated vegetation regulated under Section 1602 of the Fish and Game Code (Figure 5). CDFW jurisdiction was measured from top of bank to top of bank or outside the dripline of associated riparian habitat. The CDFW jurisdictional areas on the project site include 0.02 acre of canal and associated mulefat and palo verde.

4.7 Waters of the United States

The project site contains approximately 0.04 acre (132 linear feet) of Waters of the United States which are regulated by the USACE Sections 404 and 401 of the CWA (Figure 6). The stream located on site is tributary to San Jacinto River which connects to Canyon Lake.

4.8 Regional Water Quality Control Board Jurisdiction

The project site contains approximately 0.04 acre (132 linear feet) of an earthen canal and cement lined channel that carries ephemeral flows that are considered waters of the state subject to the Porter-Cologne Act (Figure 7). Beneficial uses for the Perris Valley Channel have been identified by the Santa Ana Basin Plan as Municipal and Domestic Supply (MUN), Non-Contact Water Recreation (REC2), Wildlife Habitat (WILD), and Rare, Threatened or Endangered Species (RARE).

5.0 Impacts to Jurisdictional Areas

5.1 California Department of Fish and Wildlife

The project is expected to impact approximately 0.05 acre (132 linear feet) of an ephemeral stream and associated habitat that would be regulated under Section 1602 of the Fish and Game Code. Impacts to these drainages would require the CDFW to be notified of these impacts under a Notification of Lake of Streambed Alteration Agreement pursuant to F&GC Section 1602.

5.2 Waters of the United States

The project site is expected to impact approximately 0.04 acre (132 linear feet) of an ephemeral stream on site which is considered a WUS. Impacts to onsite WUS will qualify for a Nationwide Permit (NWP) 14 from the USACE. The Decision Document for NWP 14 this permit covers "Linear Transportation Projects. Activities required for crossings of waters of the United States associated with the construction, expansion, modification, or improvement of linear transportation projects (e.g., roads, highways, railways, trails, driveways, airport runways, and taxiways) in waters of the United States. For linear transportation projects in non-tidal waters, the discharge of dredged or fill material cannot cause the loss of greater than 1/2-acre of waters of the United States." The impacts to WUS within the manmade earthen canal and the cement lined channel would each require their own permit, according to Decision Document NWP 14 "each crossing is considered a single and complete project for purposes of NWP authorization".

5.3 Regional Water Quality Control Board

The project site is expected to impact approximately 0.04 acre (132 linear feet) of an ephemeral stream that are waters of the state subject to the Porter-Cologne Act. Impacts to onsite waters of the state that require a USACE 404 permit will also need a 401 State Water Quality Certification. The Santa Ana RWQCB will determine if waste discharge requirements (WDR) are required for impacts to Waters of the State.

6.0 Recommendation

CDFW and RWQCB jurisdictional waters are regulated by state and local governments under a no-net-loss policy, and all impacts are considered significant and should be avoided to the greatest

extent possible. Impacts to jurisdictional waters require mitigation through habitat creation, restoration, or enhancement as determined by consultation with the regulatory agencies during the permitting process. Any impacts to CDFW jurisdiction would require a Section 1602 Streambed Alteration Agreement from CDFW. Any impacts to WUS would require a Section 404 permit and would qualify for a Nationwide Permit 14 authorization from the USACE. It would also need a 401 Certification from the Santa Ana RWQCB.

7.0 Certification

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

DATE 01/26/2023 SIGNED _____

Project Manager

Fieldwork Performed By:

Elizabeth Gonzalez

SENIOR BIOLOGIST

Sarah Vasquez

ASSOCIATE BIOLOGIST

8.0 References

CDFW (California Department of Fish and Wildlife). 2010. A Review of Stream Processes and Forms in Dryland Watersheds. Prepared by Kris Vyverberg, Conservation Engineering.

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FIGURES

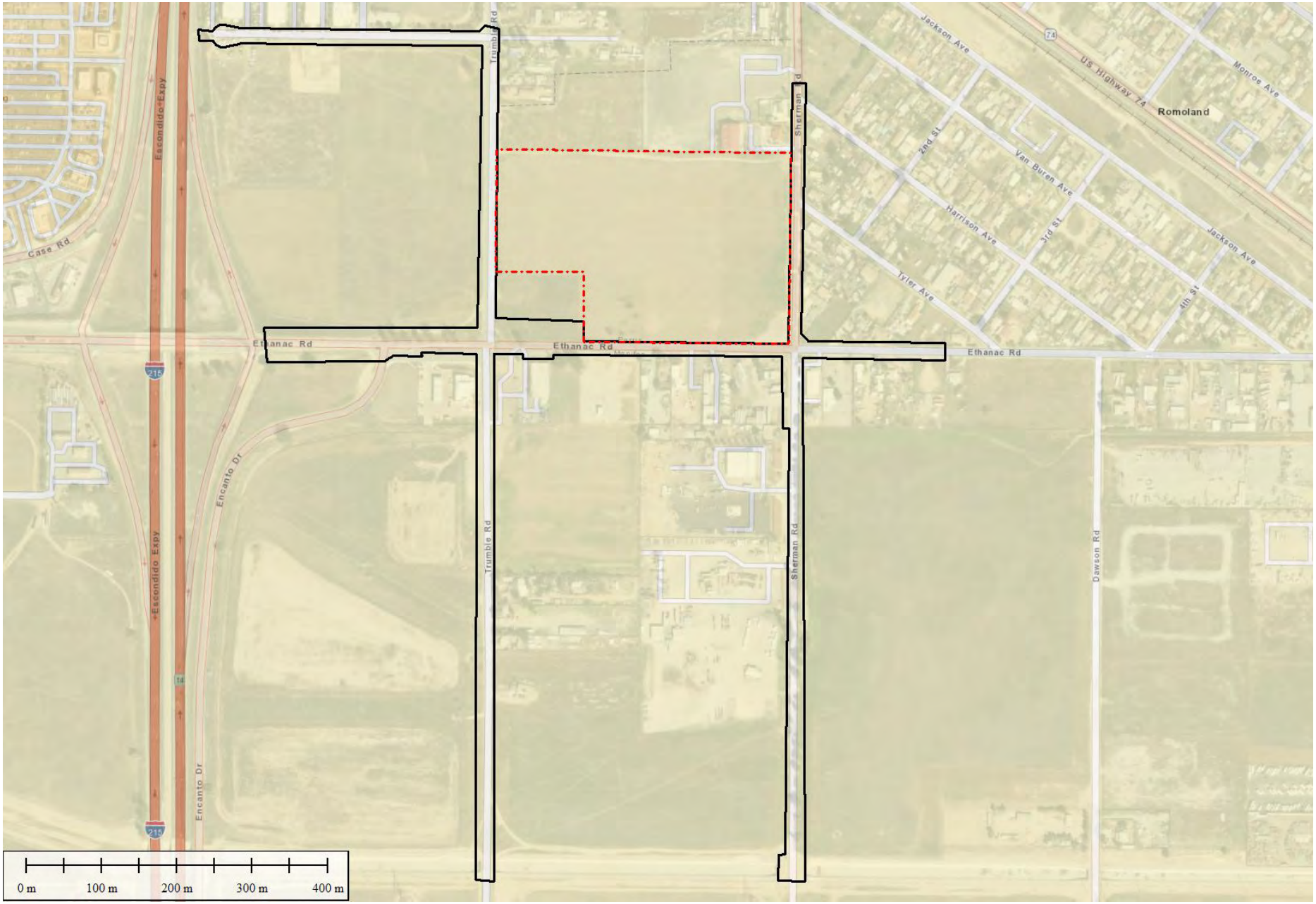


Figure 1

Location Map
Hillwood-Ethanac
City of Perris, Riverside County, California

Legend

Project Site

Offsite Project Area

N

Hernandez Environmental Services

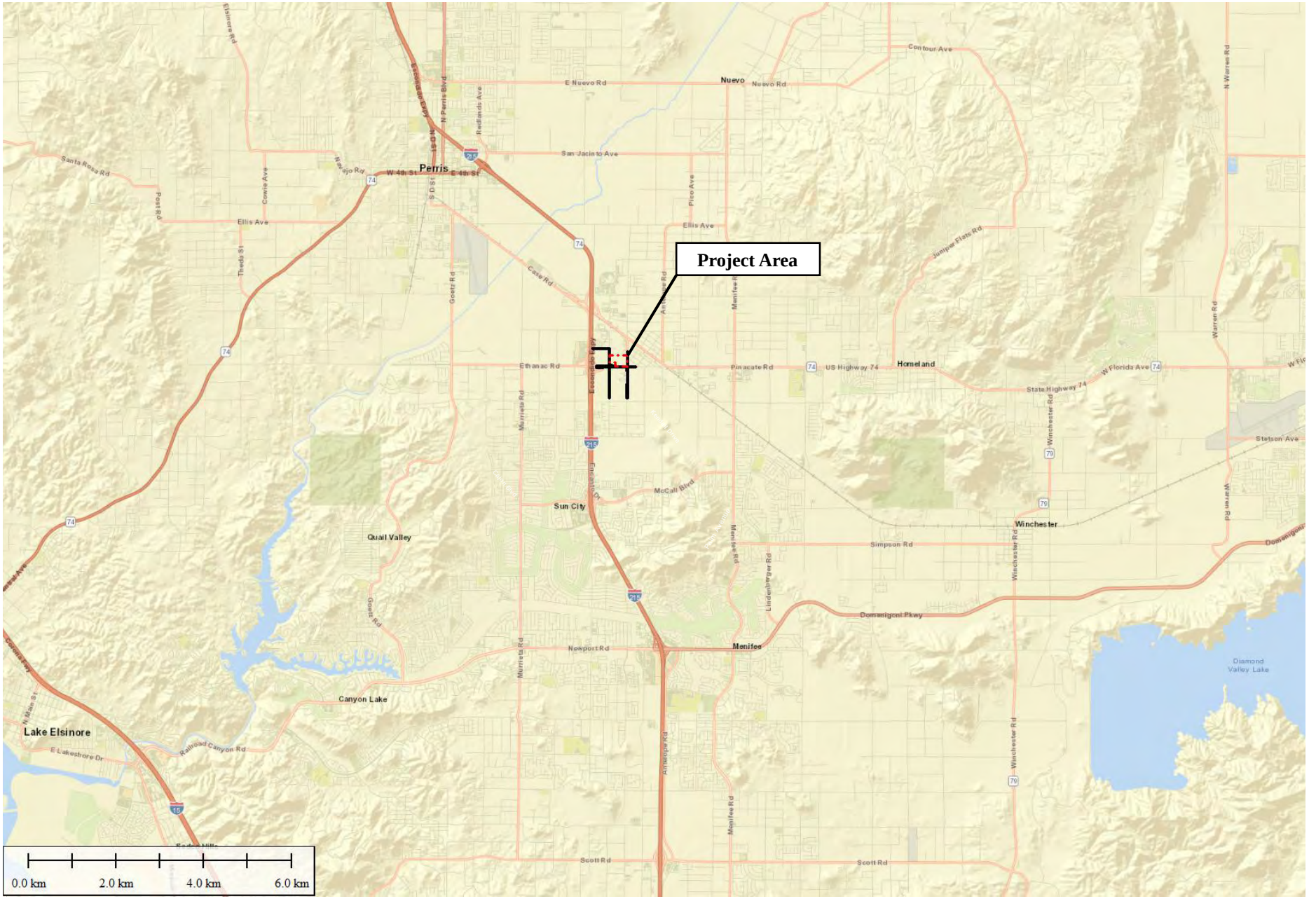


Figure 2

Vicinity Map
Hillwood-Ethanac
City of Perris, Riverside County, California

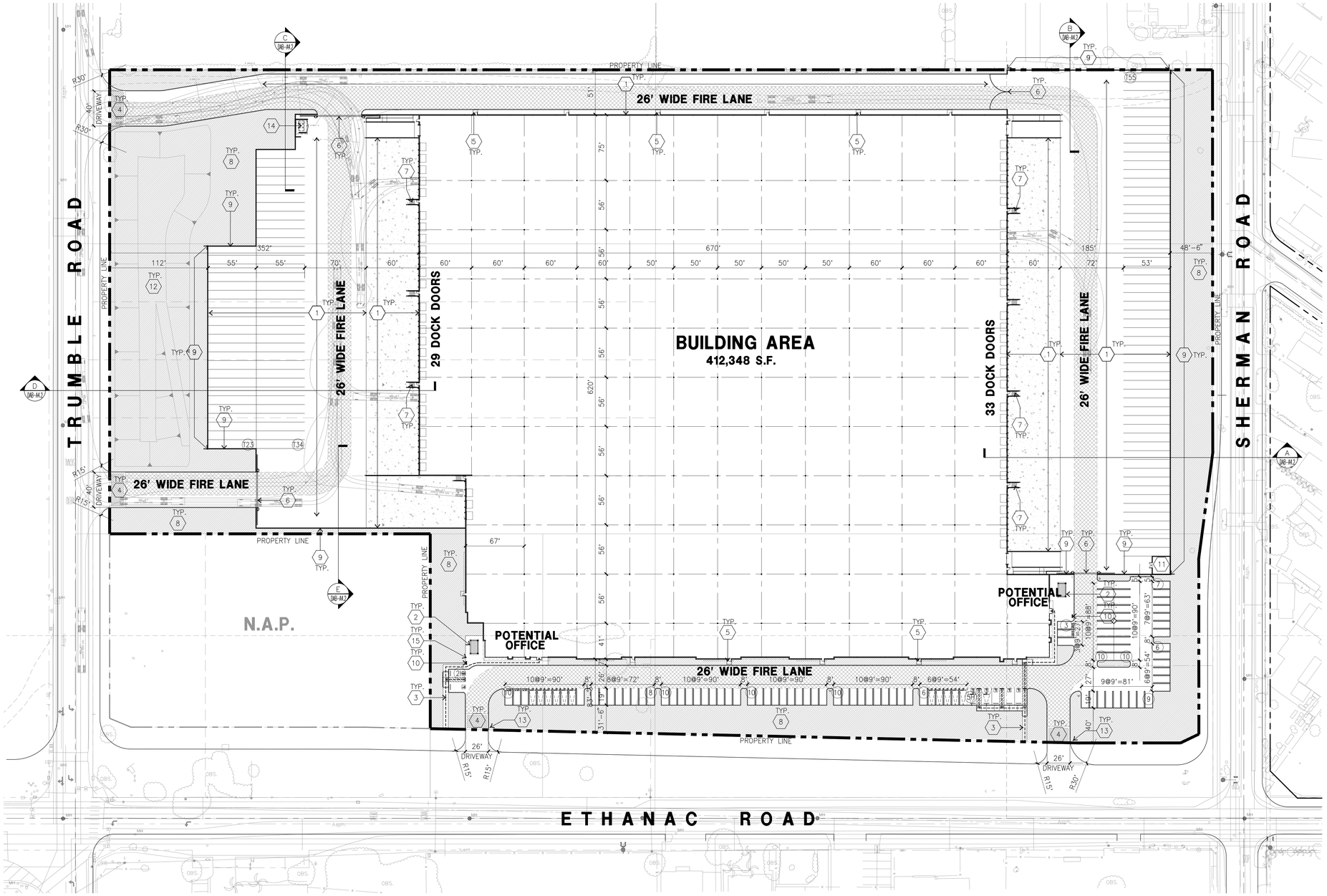
Legend

Project Site

Offsite Project Area

N

Hernandez Environmental Services



OVERALL SITE PLAN (A)
scale: 1" = 50'-0"

SCALE: 1" = 50'-0"
0 50' 100' 150'
TRUE NORTH

SITE PLAN KEYNOTES

1. HEAVY BROOM FINISH CONC. PAVEMENT,
2. EMPLOYEE BREAK AREA
3. CONCRETE WALKWAY, MEDIUM BROOM FINISH.
4. DRIVEWAY APRONS TO BE CONSTRUCTED PER "C" AND "L" DRAWINGS.
5. 5'-6"X5'-6"X4" MIN. THICK CONCRETE EXTERIOR LANDING PAD TYP. AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREAS. FINISH TO BE MEDIUM BROOM FINISH. SLOPE TO BE 1/4" : 12" MAX.
6. 8' H PROVIDE METAL, MANUAL OPERATED GATES W/ VIEW OBSCURING MESH. KNOX-PAD LOCK PER FIRE DEPARTMENT STANDARDS PER DRIVEWAY.
7. EXTERIOR CONC. STAIR.
8. LANDSCAPE. NOTED BY SHADING. SEE "L" DWGS.
9. 14'H CONCRETE TILT-UP SCREEN WALL W/ DECORATIVE PILASTERS EVERY 100'.
10. BIKE RACK
11. PROPOSED PUMPHOUSE LOCATION
12. DETENTION BASIN. SEE "C" DWGS.
13. ACCESSIBLE ENTRY SIGN
14. TRASH ENCLOSURE PER CITY STANDARD
15. DESIGNATED SMOKER'S AREA

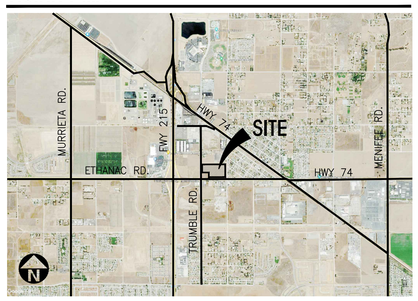
SITE PLAN GENERAL NOTES

1. THE SITE PLAN BASED ON THE SOILS REPORT PREPARED BY
2. IF SOILS ARE EXPANSIVE IN NATURE, USE STEEL REINFORCING FOR ALL SITE CONCRETE
3. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE WALL, FACE OF CONCRETE CURB OR GRID LINE U.N.O.
4. SEE "C" PLANS FOR ALL CONCRETE CURBS, GUTTERS AND SWALES
5. PROVIDE STRUCTURAL CALCULATION AND CONSTRUCTION ANCHORAGE DETAIL FOR TRANSFORMER PRIOR TO INSTALLATION.
6. SEE "C" DRAWINGS FOR POINT OF CONNECTIONS TO OFF-SITE UTILITIES. CONTRACTOR SHALL VERIFY ACTUAL UTILITY LOCATIONS.
7. PROVIDE POSITIVE DRAINAGE AWAY FROM BLDG. SEE "C" DRAWINGS.
8. CONTRACTOR TO REFER TO "C" DRAWINGS FOR ALL HORIZONTAL CONTROL DIMENSIONS. SITE PLANS ARE FOR GUIDANCE AND STARTING LAYOUT POINTS.
9. SEE "C"DRAWINGS FOR FINISH GRADE ELEVATIONS.
10. CONCRETE SIDEWALKS TO BE A MINIMUM OF 4" THICK W/ TOOLED JOINTS AT 6' O.C. EXPANSION/CONSTRUCTION JOINTS SHALL BE A MAXIMUM 12' EA. WAY W/ 1:20 MAX. SLOPE. EXPANSION JOINTS TO HAVE COMPRESSIVE EXPANSION FILLER MATERIAL OF 1/4". FINISH TO BE A MEDIUM BROOM FINISH
11. U.N.O. PROVIDE KNOX BOXES AT ALL OFFICE ENTRANCES.
12. PAINT CURBS AND PROVIDE SIGNS TO INFORM OF FIRE LANES AS REQUIRED BY FIRE DEPARTMENT.
13. ON-SITE FIRE MAIN, FIRE SPRINKLER, AND SPRINKLER MONITORING SYSTEM SHALL BE SUBMITTED SEPARATELY TO THE FIRE DEPARTMENT FOR REVIEW AND PERMITTING.
14. ALL VERTICAL MOUNTING POLES OF FENCING SHALL BE CAPPED.
15. LANDSCAPED AREAS SHALL BE DELINEATED WITH A MINIMUM SIX INCHES (6") HIGH CURB
16. ALL INTERIOR AND EXTERIOR WALK SURFACES TO BE NON-SLIP TYPE

SITE PLAN GENERAL NOTES

- CONCRETE PAVING. SEE "C" DRWGS. FOR THICKNESS
- STANDARD PARKING STALL (9' X 19')
- CLEAN AIR/VANPOOL/EV CONDUIT STUB FOR FUTURE EV
- CLEAN AIR/ VANPOOL/EV WITHOUT CONDUIT STUB FOR FUTURE EV
- TRAILER PARKING (10' X 53')
- LANDSCAPED AREA
- NON-ACCESSIBLE PATH
- ACCESSIBLE PARKING STALL (9' X 19') + 5' W/ ACCESSIBLE AISLE
- ACCESSIBLE PARKING (VAN) STALL (12'-0" X 19') + 5' W/ ACCESSIBLE AISLE
- PATH OF TRAVEL. MINIMUM WIDTH TO BE 4'. SLOPE NOT TO EXCEED 5% IN THE DIRECTION OF TRAVEL AND CROSS SLOPE NOT TO EXCEED 2%, SEE CIVIL FOR GRADING PLAN
- PROPERTY LINE
- 26' WIDE FIRE LANE FIRE DEPT STANDARD

VICINITY MAP



PROPERTY OWNER

HILLWOOD
901 VIA PIEMONTE, STE 175
ONTARIO, CA 91764
TEL: 909-256-5924
ATTN: JOHN GRACE

ADDRESS OF THE PROPERTY

TBD
NEC ETHANAC ROAD AND TRUMBLE ROAD

ASSESSOR'S PARCEL NUMBERS

329-240-016 to 20, 23 to 27

ZONING

CURRENT: COMMERCIAL COMMUNITY (CC)
PROPOSED: LIGHT INDUSTRIAL (LI)

LEGAL DESCRIPTION

SEE CIVIL DRAWINGS

APPLICANT

HILLWOOD
901 VIA PIEMONTE, STE 175
ONTARIO, CA 91764
TEL: 909-256-5924
ATTN: JOHN GRACE

ARCHITECT

HPA, INC.
18831 BARDEEN AVE SUITE 100
IRVINE CA 92612
TEL: 949-862-2122
ATTN: INKON KIM

CIVIL

WEBB ASSOCIATES
3788 CMCRAY STREET
RIVERSIDE, CA 92506
TEL: 951-320-6088
ATTN: OSCAR VALDEZ

PROJECT DATA

SITE AREA		
In s.f.	864,675	sf
In acres	19.9	ac
BUILDING AREA		
Office - 1st floor	10,000	sf
Office - 2nd floor	5,000	sf
Warehouse	397,348	sf
TOTAL	412,348	sf
FLOOR AREA RATIO		
Maximum Allowed	0.75	
Actual	0.477	
SITE COVERAGE		
Maximum Allowed	50%	
Actual	47.1%	
AUTO PARKING REQUIRED		
High Cube:		
Office: 1/300 (only if less than 10% GFA)	N/A	stalls
Whse: 1st 20k @ 1/1,000 s.f.	20	stalls
2nd 20k @ 1/2,000 s.f.	10	stalls
above 40k @ 1/5,000 s.f.	75	stalls
TOTAL	105	stalls
AUTO PARKING PROVIDED		
Standard (9' x 19')	83	stalls
ADA Standard (9' x 19')	3	stalls
ADA Van (12' x 19')	2	stalls
EV Standard (9' x 19')	11	stalls
EV ADA Standard (9' x 19')	1	stalls
EV Van (12' x 19')	1	stalls
Clean Air/Vanpool/EV (9' x 19')	5	stalls
TOTAL	106	stalls
TRAILER PARKING REQUIRED		
Trailer: 1/5,000 s.f.	82	stalls
TRAILER PARKING PROVIDED		
Trailer (10' x 55')	112	stalls
ZONING ORDINANCE		
Current Zoning - Commercial Community		
Proposed Zoning - Light Industrial (LI)		
MAXIMUM BUILDING HEIGHT ALLOWED		
Height - 50'		
LANDSCAPE REQUIREMENT		
Percentage - 15% of the site area		
LANDSCAPE PROVIDED		
In s.f.	154,543	sf
Percentage	17.9%	
SETBACKS		
Building	Landscape	
Ethanac Rd. - 15' (Arterial)	15'	
Trumble Rd. - 10' (Collector)	10'	
Sherman Rd. - 10' (Collector)	10'	
Side / rear- 0', adjoining R zone - 20'		
- Loading/unloading - 30'		

OFFICIAL USE ONLY

HPA architecture

hpa, inc.
18831 bardeen avenue, - ste. #100
irvine, ca
92612
tel: 949•863•1770
fax: 949•863•0851
email: hpa@hparchs.com

Owner:

HILLWOOD
A PEROT COMPANY

Hillwood
901 Via Piemonte, Ste 175
Ontario, CA 91764
909-256-5924
ATTN: John Grace

Project:

NEC Ethanac Road & Trumble Road

Perris, CA

Consultants:

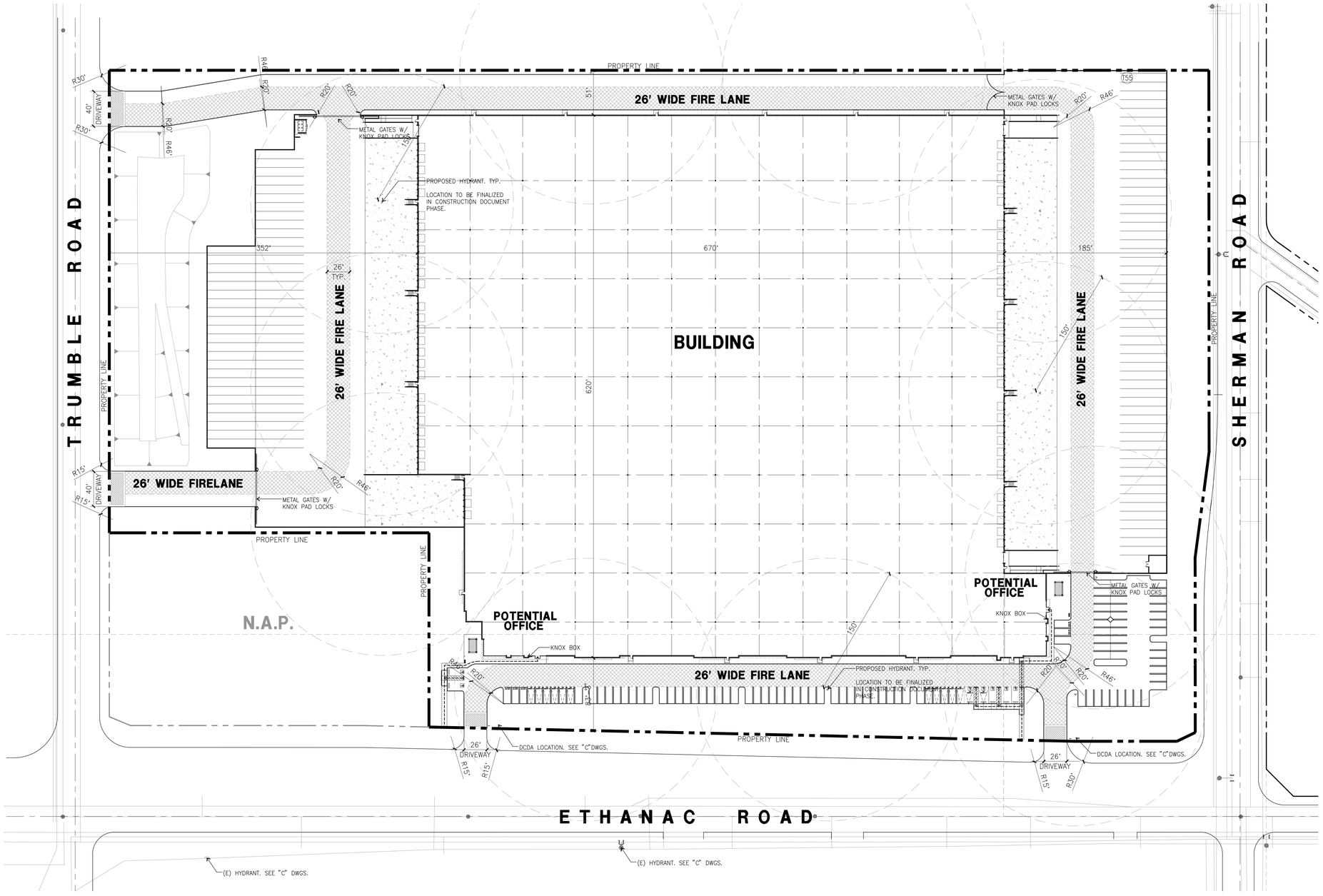
CIVIL	WEBB
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	WEBB
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: OVERALL SITE PLAN

Project Number:	22215
Drawn by:	KT
Date:	03/29/2023
Revision:	
1ST SUBMITTAL	10/21/2022
2ND SUB / PC1	01/11/2023
3RD SUB / PC2	03/29/2023

Sheet:

DAB-A1.1



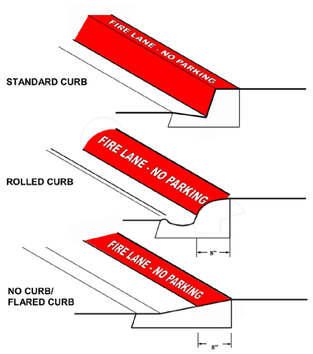
FIRE ACCESS PLAN A

scale: 1" = 50'-0"

SCALE: 1" = 50'-0"

0 50' 100' 150' TRUE NORTH

Fire Lane Identification – Red Curbs



1. Fire lane entrance sign(s) shall also be provided per Attachment 10 or 11.
2. Curbs shall be painted OSHA safety red.
3. "FIRE LANE – NO PARKING" shall be painted on top of curb in 3" white lettering at a spacing of 30' on center or portion thereof.

FIRE LANE IDENTIFICATION 1

scale: N.T.S.

Specifications for Fire Lane Entrance Signs

To be used only at vehicle entry points to areas that contain "Fire Lane—No Parking" signs or red curbs

All sign and lettering dimensions shown are minimums. "Arial Narrow" font used is used in sample above though other legible sans-serif fonts may be acceptable.

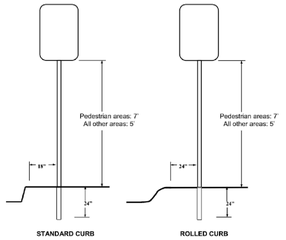
This sign shall be posted at all vehicle entrances to areas marked with either red curbs or fire lane "No Parking" signs. Signs shall be securely mounted facing the direction of travel and clearly visible to oncoming traffic entering the designated area. Signs shall be made of durable material and installed per Attachments 13 and 14.

Towing company contact information is required for all properties with a standing written agreement for services with a towing company per the California Vehicle Code.

SIGNAGE DETAIL 2

scale: N.T.S.

Mounting Specifications for Fire Lane Entrance and No Parking Signs



Signs shall be mounted facing the direction of vehicular travel.

Signs may be mounted on existing posts or buildings where the centerline of the sign is no more than 24' from the edge of the roadway.

Depth of bury shall be a minimum of 24" and rebar, a concrete footing, or another method to prevent removal of the sign is recommended. Footings for signs located in the public right-of-way shall be per the local jurisdiction's requirements.

SIGNAGE DETAIL 3

scale: N.T.S.

Specifications for Fire Lane No Parking Signs

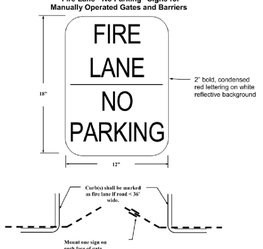
All sign and lettering dimensions shown are minimums. "Arial Narrow" font used is used in sample above though other legible sans-serif fonts may be acceptable.

Signs shall be securely mounted facing the direction of travel and clearly visible to oncoming traffic entering the designated area. Signs shall be made of durable material and installed per Attachments 13 and 14.

SIGNAGE DETAIL 5

scale: N.T.S.

Specifications for "Fire Lane - No Parking" Signs for Manually Operated Gates and Barriers



All sign and lettering dimensions shown are minimums. "Arial Narrow" font used is used in sample above though other legible sans-serif fonts may be acceptable.

"Fire Lane—No Parking" sign shown in Attachment 12 may be used as an alternative. Signs shall be securely mounted on the front and back face of the gate clearly visible to traffic entering the designated area. Signs shall be made of a durable material.

SIGNAGE DETAIL 4

scale: N.T.S.

Specifications for Alternate Location of Towing Company Information

Towing company contact information is required for all properties with a standing written agreement for services with a towing company per the California Vehicle Code.

To facilitate periodic changes in towing company contracts, the towing company contact information may be posted on a separate sign mounted directly below the fire lane entrance sign instead of on the entrance sign itself. The method of attachment to the post shall not obscure the wording on either sign.

SIGNAGE DETAIL 6

scale: N.T.S.

FIRE LANE NOTES

- 75,000 LBS MINIMUM CAPACITY
- 2.5% SLOPE MAX. SEE "C" DWGS

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Owner:

HILLWOOD
A PEROT COMPANY

Hillwood
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Ontario, CA 91764
909-256-5924
ATTN: John Grace

Project:

NEC Ethanac Road & Trumble Road

Perris, CA

Consultants:

CIVIL	WEBB
STRUCTURAL	-
MECHANICAL	-
PLUMBING	-
ELECTRICAL	-
LANDSCAPE	WEBB
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: FIRE ACCESS PLAN

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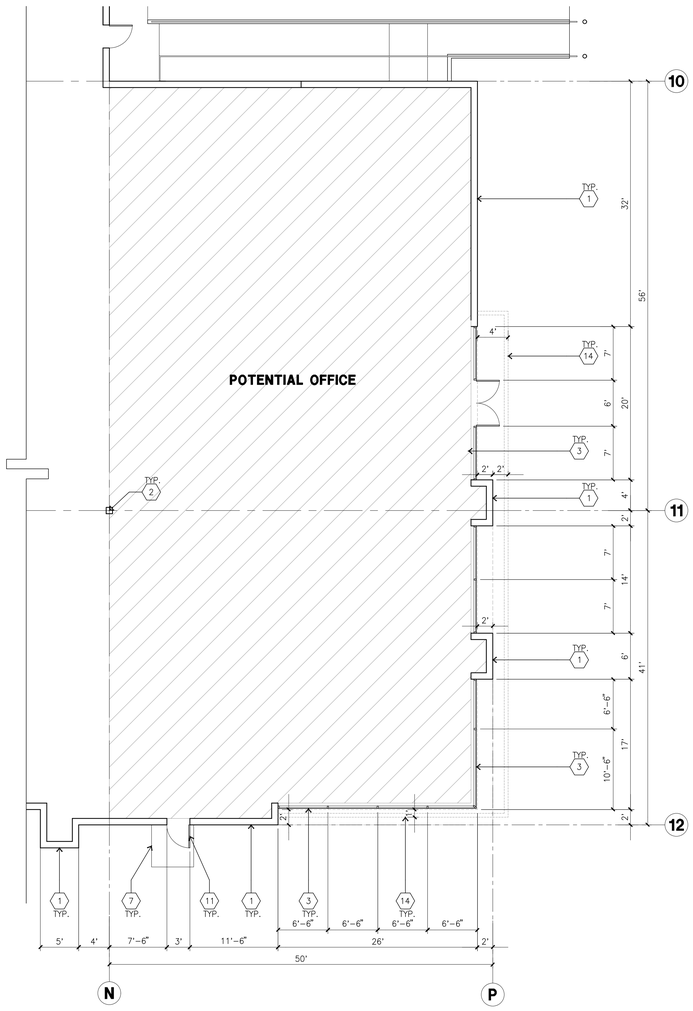


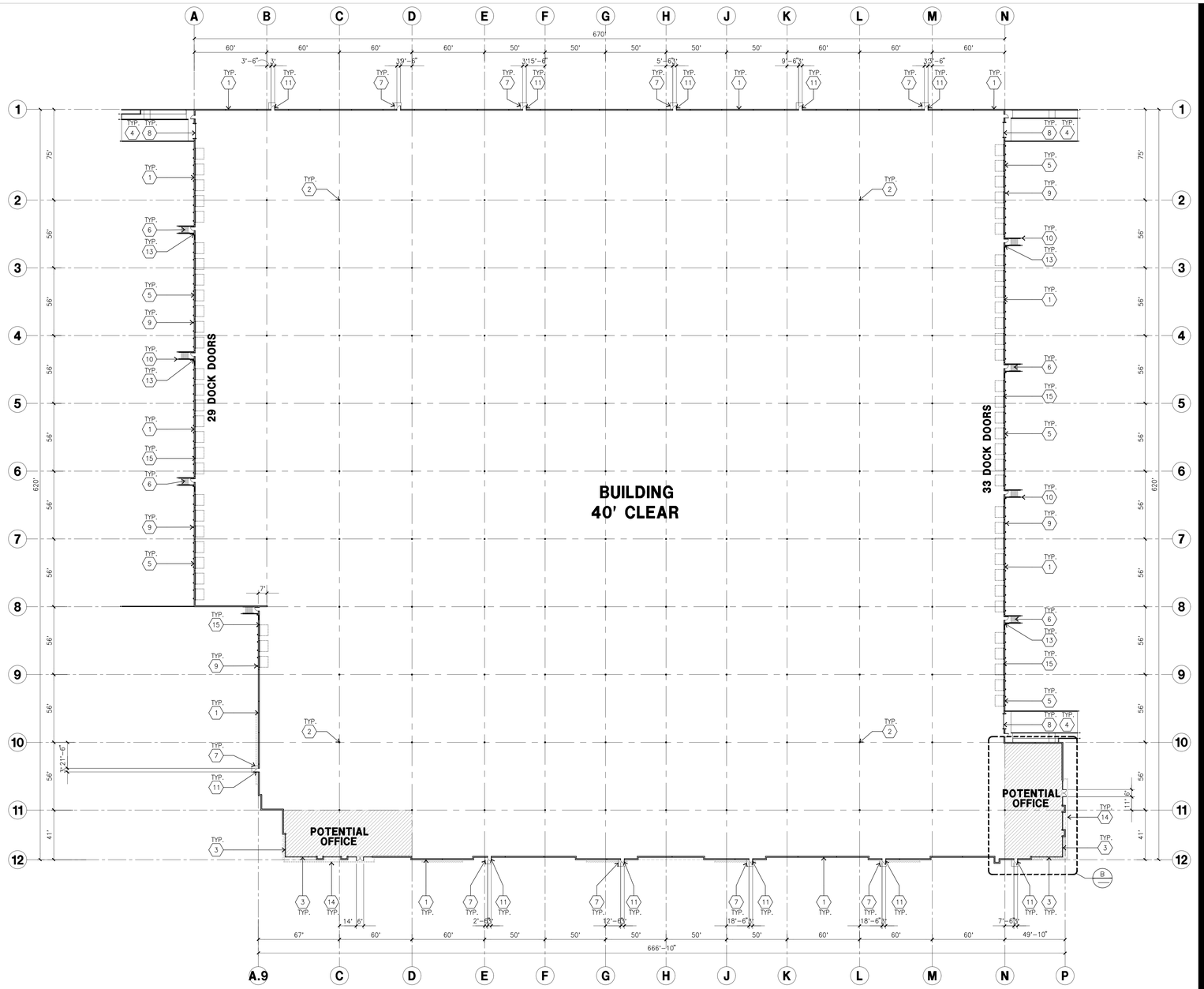
ENLARGED FLOOR PLAN B

scale: 1/8" = 1'–0"

SCALE: 1/8" = 1'–0"

0 8' 16' 24'

TRUE NORTH



OVERALL FLOOR PLAN A

scale: 1" = 40'–0"

SCALE: 1" = 40'–0"

0 40' 80' 120'

TRUE NORTH

KEYNOTES - FLOOR PLAN

1. CONCRETE TILT–UP PANEL.
2. STRUCTURAL STEEL COLUMN.
3. TYPICAL STOREFRONT SYSTEM WITH GLAZING. SEE OFFICE BLOW–UP AND ELEVATIONS FOR SIZE, COLOR AND LOCATIONS.
4. CONCRETE RAMP W/ 42"HIGH CONC TILT–UP GUARD WALL OR BUILDING WALL ON BOTH SIDE OF RAMP.
5. 9'–0" X 10' TRUCK DOOR, SECTIONAL O'H., STANDARD GRADE.
6. EXTERIOR CONCRETE STAIR
7. 5'–6"X5'–6"X4" THICK CONCRETE EXTERIOR LANDING PAD TYPICAL AT ALL EXTERIOR MAN DOORS TO LANDSCAPED AREA. FINISH TO BE MEDIUM BLOOM FINISH. SLOPE TO BE 1/4" - 12" MAX. PROVIDE WALK TO HARD SURFACE PER CITY REQUIREMENTS.
8. 12' X 14' DRIVE THRU. SECTIONAL OH., STANDARD GRADE.
9. DOCK DOOR BUMPER
10. CONC. FILLED GUARD POST. 6" DIA. U.N.O.. 42"H.
11. 3'X7' HOLLOW METAL EXTERIOR MAN DOOR.
12. SOFFIT LINE ABOVE
13. EXTERIOR DOWNSPOUT WITH OVERFLOW SCUPPER,
14. PAINTED I–BEAM CANOPY
15. Z GUARD
16. LONG TERM BICYCLE PARKING.

GENERAL NOTES - FLOOR PLAN

A. THIS BUILDING IS DESIGNED FOR HIGH PILE STORAGE WITH FIRE ACCESS MAN DOORS AT 100' MAXIMUM O.C. A SEPARATE PERMIT WILL BE REQUIRED FOR ANY RACKING/CONVEYER SYSTEMS.

B. FIRE HOSE LOCATIONS SHALL BE APPROVED PER FIRE DEPARTMENT.

C. THE BUILDING FLOOR SLAB IS SLOPED, SEE "C" DRAWINGS FOR FINISH SURFACE ELEVATIONS.

D. NOT USED

E. WAREHOUSE INTERIOR CONCRETE WALLS ARE PAINTED WHITE. COLUMNS ARE TO RECEIVE PRIMER ONLY. ALL GYP. BD. WALLS IN WAREHOUSE TO RECEIVE 1 COAT OF WHITE TO COVER.

F. SLOPE POUR STRIP 1/2" TO EXTERIOR AT ALL MANDOOR EXITS. SEE "S" DRAWINGS FOR POUR STRIP LOCATION.

G. ALL DIMENSIONS ARE TO THE FACE OF CONCRETE PANEL WALL, GRIDLINE, OR FACE OF STUD U.N.O.

H. SEE CIVIL DRAWINGS FOR POINT OF CONNECTIONS TO OFF–SITE UTILITIES. CONTRACTOR TO VERIFY ACTUAL UTILITY LOCATIONS. PLUMBING/ELECTRICAL COORDINATION.

I. FOR DOOR TYPES AND SIZES, SEE DETAIL SHEET AD.4. NOTE: ALL DOORS PER DOOR SCHEDULE ARE FINISH OPENINGS.

J. CONTRACTOR TO PROTECT AND KEEP THE FLOOR SLAB CLEAN. ALL EQUIPMENT TO BE DIAPERED INCLUDING CARS AND TRUCKS.

K. ALL EXIT MAN DOORS IN WAREHOUSE TO HAVE ILLUMINATED EXIT SIGN. HARDWARE.

L. HIGHLY FLAMMABLE AND COMBUSTIBLE MATERIAL SHALL NOT BE USED OR STORED IN THIS BUILDING.

M. EACH EXTERIOR EXIT DOOR SHALL BE IDENTIFIED BY A TACTILE EXIT SIGN WITH THE WORDS "EXIT". THE MOUNTING HEIGHT FOR SUCH SIGNAGE SHALL BE 60" FROM FINISH FLOOR LEVEL TO THE CENTER OF THE SIGN.

N. NON–ACCESSIBLE DOOR. PROVIDE WARNING SIGN LOCATED IN THE INTERIOR SIDE PER CBC 1133B.1.1.1

O. ALL ROOF MOUNTED MATERIALS SHALL BE FULLY SCREENED FROM PUBLIC VIEW, SEE A/A4.1 OFFICE SECTION.

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PLUMBING	-
ELECTRICAL	-
LANDSCAPE	WEBB
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: OVERALL FLOOR PLAN

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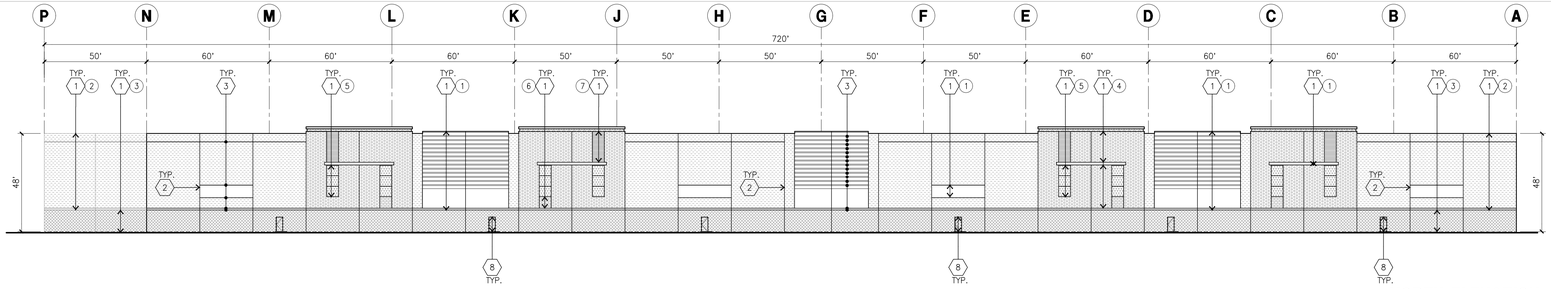
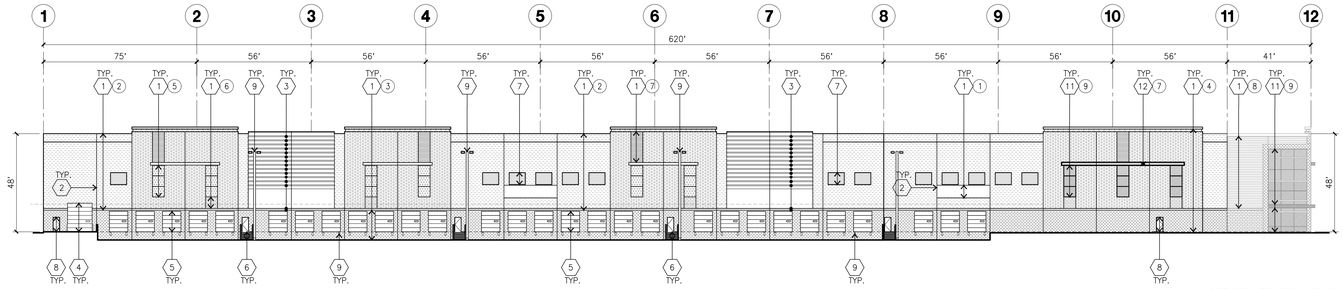
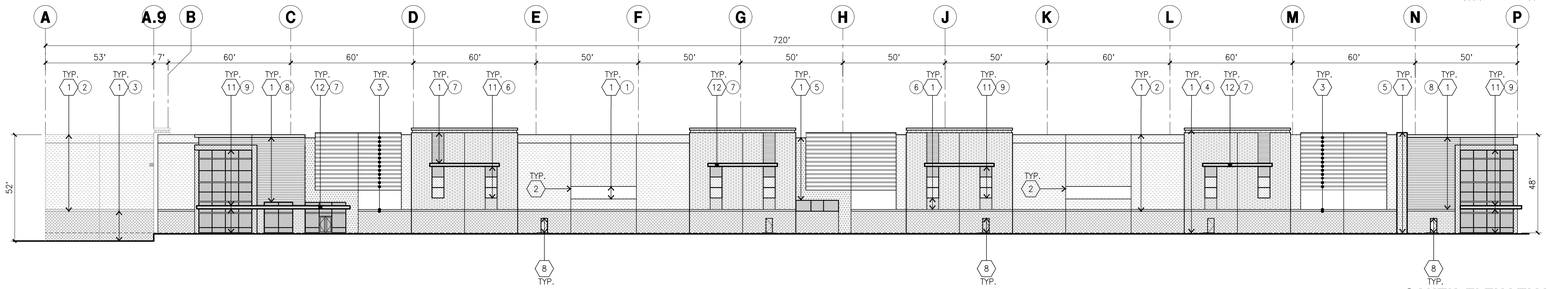


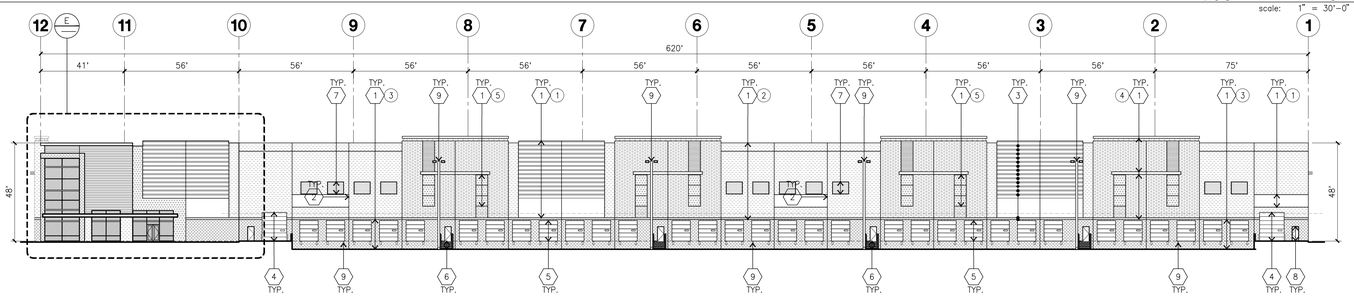
NORTH ELEVATION A
scale: 1" = 30'-0"



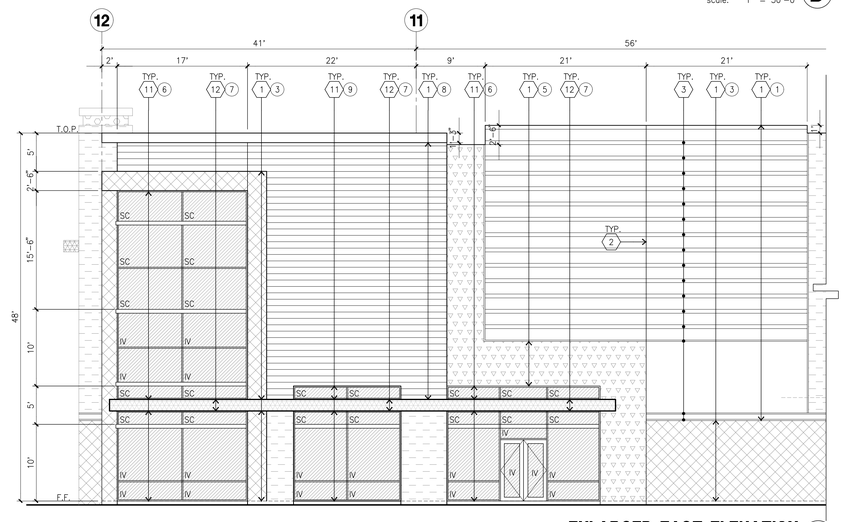
WEST ELEVATION B
scale: 1" = 30'-0"



SOUTH ELEVATION C
scale: 1" = 30'-0"



EAST ELEVATION D
scale: 1" = 30'-0"



ENLARGED EAST ELEVATION E
scale: 1/8" = 1'-0"

KEYNOTES - ELEVATIONS

1. CONCRETE TILT-UP PANEL(PAINTED). FINISH GRADE VARIES. SEE "C" DRAWINGS. WATERPROOF ALL WALLS WHERE GRADE IS HIGHER AND EXPOSED TO THE WEATHER ONE SIDE. WATERPROOFING TO BE PROTECTED WITH PROTECTION BOARD AND A MIN. OF 6" OF GRAVEL. PROVIDE TRENCH DRAIN AT BOTTOM AND DAYLIGHT TO CURB OR TAKE TO STORM DRAIN. NOT REQUIRED AT DOCK HIGH CONDITION OR AT RAMP WALLS.
2. PANEL JOINT.
3. PANEL REVEAL. ALL REVEALS TO HAVE A MAX. OF 3/8" CHAMFER. REVEAL COLOR TO MATCH ADJACENT BUILDING FIELD COLOR. U.N.O.
4. OVERHEAD DOOR @ DRIVE THRU. SEE DOOR SCHEDULE. PROVIDE COMPLETE WEATHER-STRIPPING PROTECTION ALL AROUND.
5. OVERHEAD DOOR @ DOCK HIGH. SEE DOOR SCHEDULE. PROVIDE COMPLETE WEATHER-STRIPPING PROTECTION ALL AROUND.
6. CONCRETE STAIR, LANDING AND GUARDRAIL W/ METAL PIPE HANDRAIL. PROVIDE NON SKID NOSING TO MEET ADA REQUIREMENTS. PROVIDE CONTRASTING COLORED 3" WIDE WARNING STRIPE INTEGRAL TO CONCRETE AT TOP LANDING AND BOTTOM TREAD PER ADA REQUIREMENTS.
7. METAL LOUVER, PAINT TO MATCH BUILDING COLOR.
8. 3'X7' HOLLOW METAL EXTERIOR MAN DOOR. PROVIDE COMPLETE WEATHER STRIPING ALL AROUND DOOR. PROVIDE FOR RAIN DIVERTER ABOVE DOOR.
9. EXTERIOR DOWNSPOUT AND OVERFLOW SCUPPER
10. DOCK BUMPER
11. ALUMINUM STOREFRONT FRAMING WITH TEMPERED GLAZING AT ALL DOORS, SIDELITES ADJACENT TO DOORS AND GLAZING WITH BOTTOMS LESS THAN 18" ABOVE FINISH FLOOR ELEVATION.
12. PAINTED I-BEAM CANOPY

GENERAL NOTES - ELEVATIONS

A. ALL PAINT COLOR CHANGES TO OCCUR AT INSIDE CORNERS UNLESS NOTED OTHERWISE.
B. ALL PAINT FINISHES ARE TO BE FLAT UNLESS NOTED OTHERWISE.
C. T.O.P. EL= TOP OF PARAPET ELEVATION.
D. F.F. = FINISH FLOOR ELEVATION.
E. STOREFRONT CONSTRUCTION: GLASS, METAL ATTACHMENTS AND LINTELS SHALL BE DESIGNED TO RESIST 90 MPH. EXPOSURE "C" WINDS. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS PRIOR TO INSTALLATION.
F. CONTRACTOR SHALL FULLY PAINT ONE CONCRETE PANEL W/ SELECTED COLORS. ARCHITECT AND OWNER SHALL APPROVE PRIOR TO PAINTING REMAINDER OF BUILDING.
G. BACK SIDE OF PARAPETS TO HAVE SMOOTH FINISH AND BE PAINTED WITH ELASTOMERIC PAINT.
H. FOR SPANDREL GLAZING, ALLOW SPACE BEHIND SPANDREL TO BREATH.
J. USE ADHESIVE BACK WOOD STRIPS FOR ALL REVEAL FORMS.
K. THE FIRST COAT OF PAINT TO BE ROLLED-ON AND THE SECOND COAT TO BE SPRAYED-ON

COLOR SCHEDULE - ELEVATIONS

1	CONCRETE TILT-UP PANEL	PAINT BRAND	SHERWIN WILLIAMS SW 7005 (255-C1) PURE WHITE
2	CONCRETE TILT-UP PANEL	PAINT BRAND	SHERWIN WILLIAMS SW 7071 (235-C1) GRAY SCREEN
3	CONCRETE TILT-UP PANEL	PAINT BRAND	SHERWIN WILLIAMS SW 7073 (235-C3) NETWORK GRAY
4	CONCRETE TILT-UP PANEL	PAINT BRAND	SHERWIN WILLIAMS SW 7074 (235-C5) SOFTWARE
5	CONCRETE TILT-UP PANEL	PAINT BRAND	SHERWIN WILLIAMS SW 6524 (185-C7) COMMODORE
6	CORONADO STONE	PAINT BRAND	WIRECUT BRICK - 2 1/2" x 8" COLOR: ICEBERG, GROUT: WHITE
7	METAL PANEL CLADDING	PAINT BRAND	BRIDGERSTEEL SHIPLAP WALL - 12" COLOR: SILVER METALLIC
8	METAL PANEL CLADDING	PAINT BRAND	BRIDGERSTEEL SHIPLAP WALL - 12" COLOR: SLATE GRAY
9	GLAZING/MULLIONS	COLOR	CLEAR GLAZING WITH CLEAR ANODIZED ALUMINUM MULLIONS
10	METAL CANOPY	PAINT BRAND	SHERWIN WILLIAMS SW 7005 (255-C1) PURE WHITE

GLAZING LEGEND

ALL GLAZING TO BE TEMPERED GLASS.

IV INSULATED VISION GLASS

SC SPANDREL GLASS WITH CONCRETE BEHIND

V SINGLE LITE VISION GLASS

IV : INSULATED VISION GLASS
1/4" **VISTACOOL PACIFICA** + 1/4" **SOLARBAN 60** CLEAR
1" INSULATED GLASS UNIT WITH 1/2" AIRSPACE AND 1/4" LITES
U: **0.27** SHGC: **0.21** VLT: **26%**
MINIMUM VT TO BE 0.42 PER 2016 CEC TABLE 140.3-B

SC : SPANDREL WITH CONCRETE BEHIND
1/4" **VISTACOOL PACIFICA** WITH **WARM GRAY** OPACICOAT PAINTED ON REFLECTIVE. INSTALLED ON CONCRETE.

V : VISION GLASS
1/4" **VISTACOOL PACIFICA**

MULLIONS : **ANODIZED CLEAR.**

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Project:

NEC Ethanac Road & Trumble Road

Perris, CA

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CIVIL	WEBB
STRUCTURAL	-
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LANDSCAPE	WEBB
FIRE PROTECTION	-
SOILS ENGINEER	-

Title: ELEVATIONS

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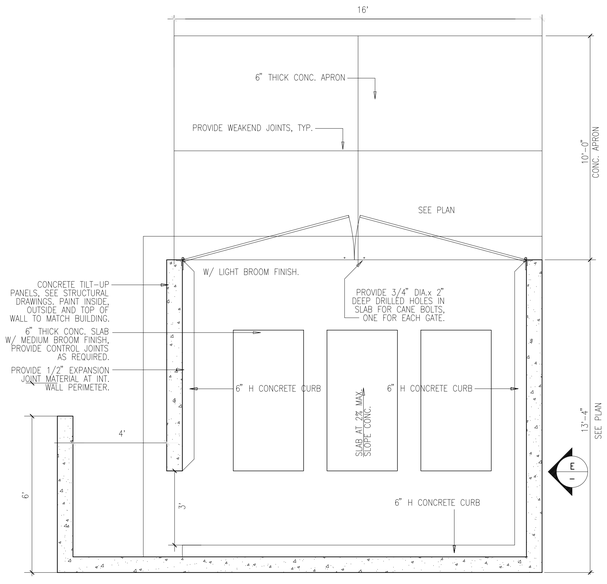
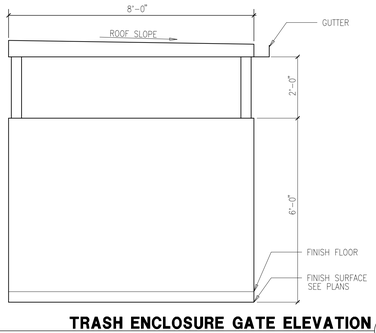
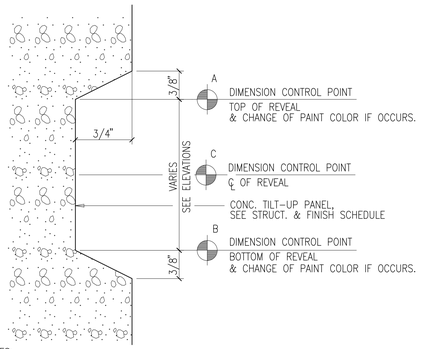


NOTES:
1. SEE SITE PLAN FOR LOCATIONS.
2. SEE STRUCTURAL DRAWINGS FOR STEEL REINFORCING.
3. SACK AND PATCH ALL PANEL LIFT POINTS ON OF WALL AND PAINT TO MATCH.

TRASH ENCLOSURE PLAN (D)
scale: N.T.S.

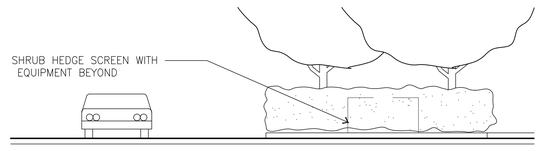


TRASH ENCLOSURE GATE ELEVATION (E)
scale: N.T.S.

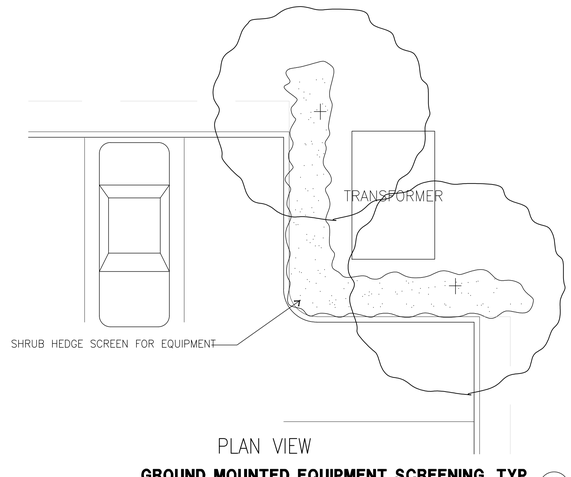


NOTES:
1. DIMENSION CONTROL POINTS AT REVEALS AND EDGE OF CONCRETE OPENINGS WHERE OCCUR, SEE WALL SECTIONS.
2. PAINT COLOR CHANGES TO ALWAYS OCCUR AT CONTROL POINT "A" OR "B"

TYP. CONCRETE REVEAL (B)
scale: N.T.S.

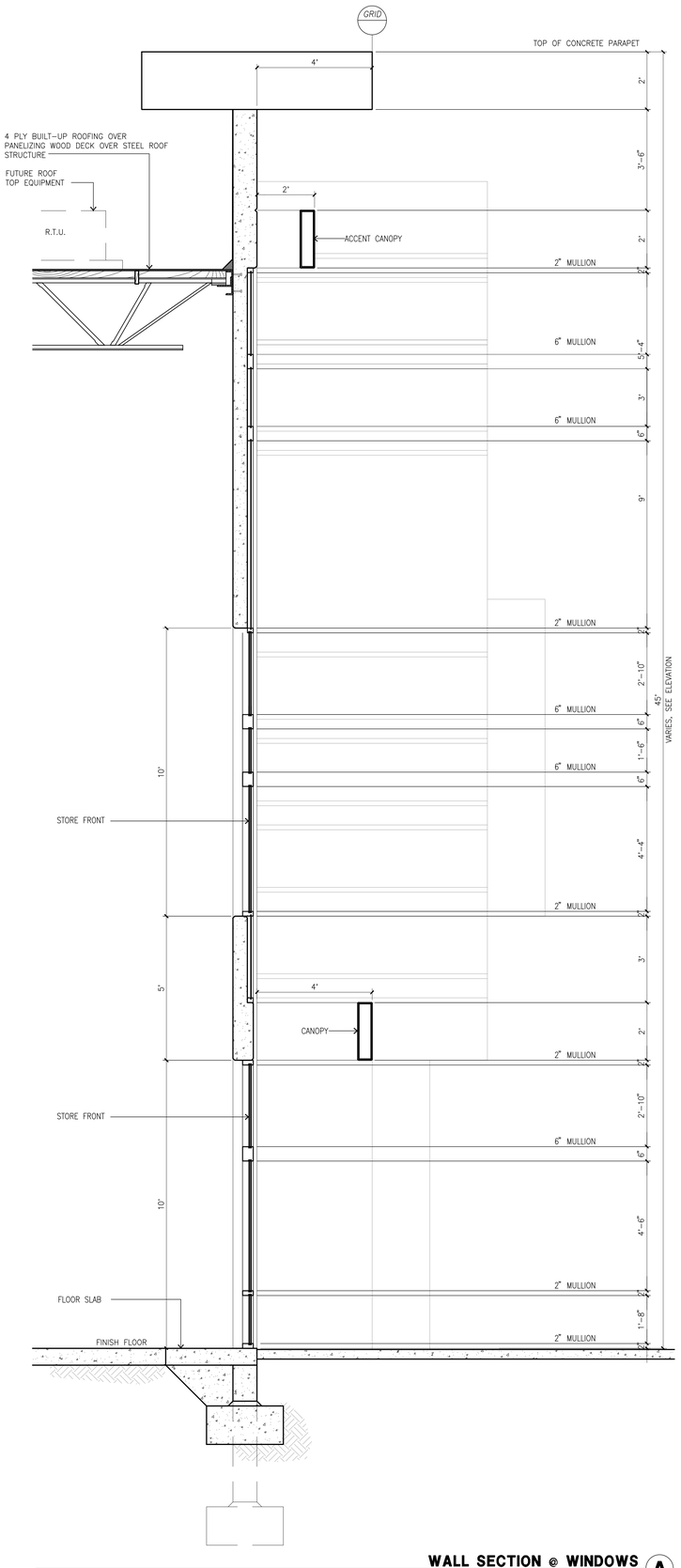


ELEVATION



PLAN VIEW

GROUND MOUNTED EQUIPMENT SCREENING, TYP. (C)
scale: N.T.S.



WALL SECTION @ WINDOWS (A)
scale: 1/2"=1'-0"

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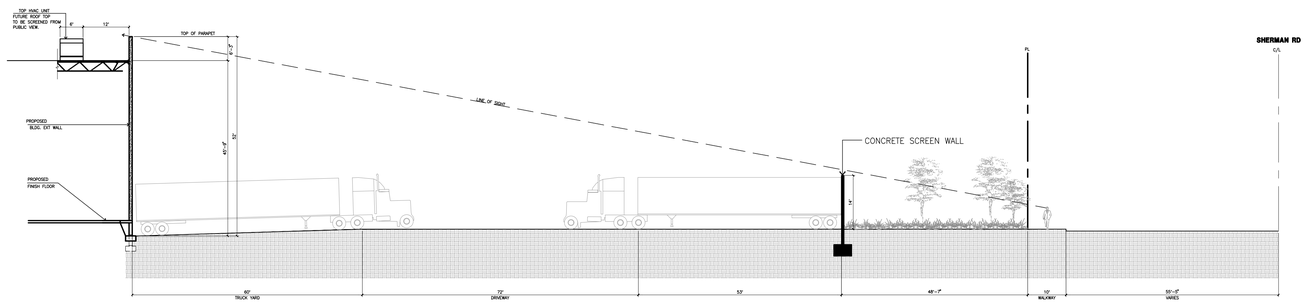
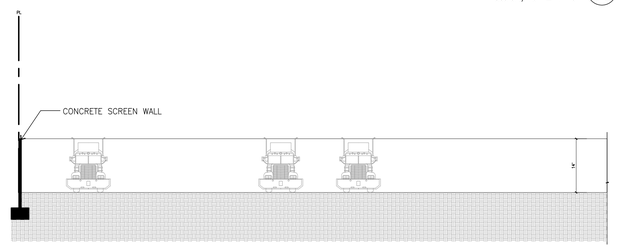
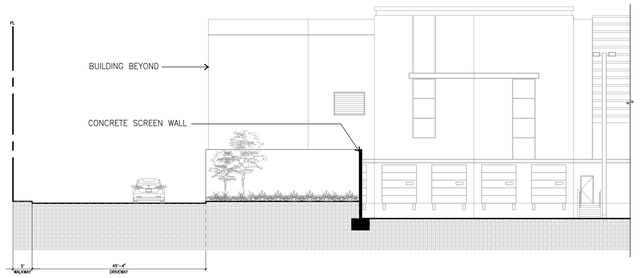


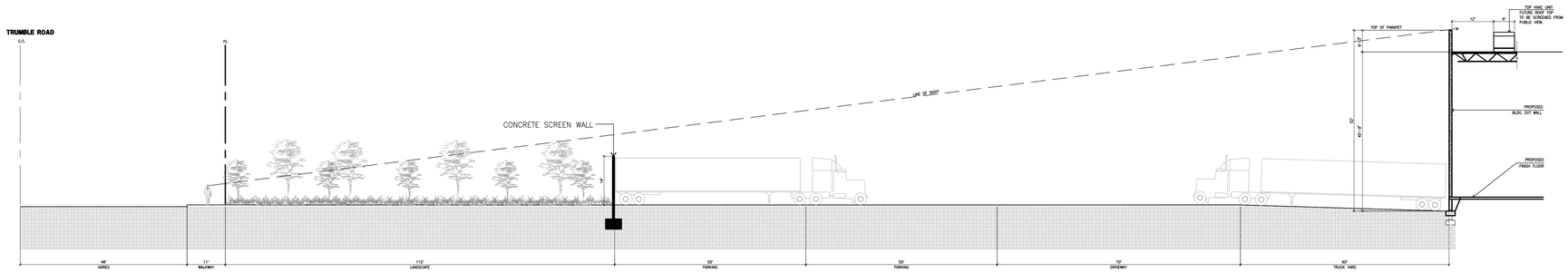
SITE SECTION (SHERMAN ROAD) A
scale:1/16" = 1'-0"



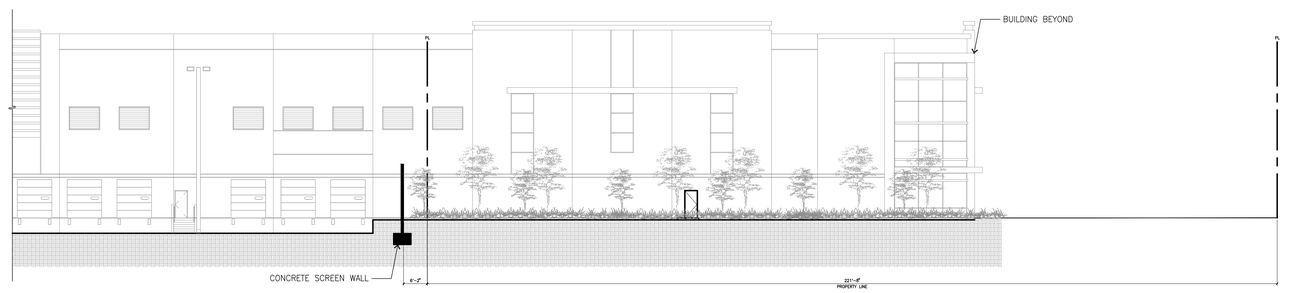
SITE SECTION B
scale:1/16" = 1'-0"



SITE SECTION C
scale:1/16" = 1'-0"



SITE SECTION (TRUMBLE ROAD) D
scale:1/16" = 1'-0"



SITE SECTION E
scale:1/16" = 1'-0"

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Figure 4

Google Historical Aerial 2002
Hillwood-Ethanac
City of Perris, Riverside County, California

N

Hernandez Environmental Services

Figure 5

CDFW Jurisdiction Map
Hillwood-Ethanac
City of Perris, Riverside County, California

Legend

Project Site

Offsite Project Area

CDFW Jurisdiction (0.05 acre, 132 linear feet)

N

Hernandez Environmental Services

Figure 6

Waters of the United States
Hillwood-Ethanac
City of Perris, Riverside County, California

Legend

Project Site

Offsite Project Area

Waters of the United States (0.04 acre, 132 linear feet)

N

Hernandez Environmental Services

Figure 7

Waters of the State
Hillwood-Ethanac
City of Perris, Riverside County, California

Legend

Project Site

Offsite Project Area

Waters of the State (0.04 acre, 132 linear feet)

N

Hernandez Environmental Services

APPENDIX A

View of mulefat at the start of the manmade earthen canal on site adjacent to Trumble Road.

View of tamarisk and palo verde in manmade earthen canal.

Hernandez Environmental Services

View of box culvert at the western end of Illinois Avenue that collects runoff from I-215.

View of ditch offsite that carries run off from I-215 to box culvert.

Hernandez Environmental Services

APPENDIX B

Soil Map—Western Riverside Area, California
(ECORP Hillwood PL)

Map Scale: 1:7,620 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 100 200 400 600

Feet
0 350 700 1400 2100

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Western Riverside Area, California
Survey Area Data: Version 15, Sep 6, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 14, 2022—Mar 17, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
EnA	Exeter sandy loam, 0 to 2 percent slopes	0.7	1.7%
EnC2	Exeter sandy loam, 2 to 8 percent slopes, eroded	0.8	1.9%
GyC2	Greenfield sandy loam, 2 to 8 percent slopes, eroded	0.0	0.0%
MaA	Madera fine sandy loam, 0 to 2 percent slopes	27.3	63.4%
MmB	Monserate sandy loam, 0 to 5 percent slopes	7.7	17.9%
MnD2	Monserate sandy loam, shallow, 5 to 15 percent slopes, eroded	6.5	15.0%
RaA	Ramona sandy loam, 0 to 2 percent slopes, MLRA 19	0.0	0.1%
Totals for Area of Interest		**43.1**	**100.0%**