

Burrowing Owl Habitat Suitability Assessment  
And MSHCP Consistency Analysis

*For*

DPR2021-009

TTM-36864

Single Family Home 6-Lot Subdivision

757 Corona Ave

Corona, California 92876

APN 910-210-028

*Prepared for*

Fathi Manasrah, Trustee

Al-Wafaa Family Trust

9319 Alta Cresta Avenue

Riverside, CA 92508

*Prepared by*

Debra Kinsinger

Kinsinger Environmental Consulting

8885 Rio San Diego Drive, #237

San Diego, CA 92108

*Project # KE-20200918-BI*

December, 2020



## Contents

1.0	Executive Summary.....	1
2.0	Introduction .....	6
2.1	Project Area and General Setting.....	6
2.2	Project Description.....	6
2.2.1	Topography and Soils .....	7
2.2.2	Current and Historical Land Uses.....	7
3.0	Reserve Assembly Analysis .....	8
4.0	Survey Methods .....	9
5.0	Flora and Fauna Onsite and Within 500-Foot Survey Buffer .....	10
6.0	Vegetation Communities Mapping .....	11
6.1	Vegetation Communities Mapping Methods.....	11
6.2	Existing Conditions .....	11
6.2.1	Non-native Grassland (NNG) Code 42200 .....	11
6.2.2	Valley Foothill Riparian (VRI); Red Willow (Salix laevigata) Alliance.....	12
7.0	Wildlife Habitat Mapping.....	12
7.1	Wildlife Habitat Mapping Methods .....	12
7.1.1	Urban / Developed.....	12
7.1.2	Grasslands, Pastures and Fields (Non-native Grassland Code 42200).....	13
7.1.3	Riparian/Riverine and Vernal Pool.....	13
8.0	Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools.....	13
8.1	Riparian, Riverine and Wetland Resources.....	14
8.1.1	Methods.....	14
8.1.2	Existing Conditions .....	14
8.1.3	Impacts.....	15
8.1.4	Mitigation.....	16
8.2	Riparian Birds .....	16
8.2.1	Methods .....	16
8.2.2	Existing Conditions .....	16
8.2.3	Impacts.....	17
8.2.4	Mitigation.....	17
8.3	Species Not Adequately Covered by the MSHCP (Vol. 2 Section 6.1.2 species).....	18
9.0	Additional Survey Needs and Procedures.....	18
9.1	Burrowing Owl .....	18

9.1.1	Methods .....	18
9.1.2	Impacts .....	19
9.1.3	Mitigation .....	19
10.0	Guidelines Pertaining to the Urban/Wildland Interface .....	19
11.0	Best Management Practices .....	20
12.0	California Environmental Quality Act (CEQA) Compliance .....	21
12.1	Threatened and Endangered Species .....	21
13.0	Mandatory Findings of Significance and Consistency Analysis .....	22
13.1	Impacts .....	22
14.0	CEQA Significance Determination .....	22
14.1	Direct, Indirect and Cumulative Impacts to Habitats, Species and Biological Resources .....	22
14.1.1	Riparian/Riverine and Wetland Habitats .....	22
14.1.2	Sensitive and non-sensitive avian species including bats and nesting birds .....	23
14.1.3	Sensitive flora .....	23
14.1.4	Habitat Loss .....	23
14.2	Consistency With Local Regulations and Ordinances .....	23
15.0	Summary Conclusions and Recommendations .....	23
15.1.1	Riparian/Riverine and Wetlands .....	24
15.1.2	Riparian Birds .....	24
16.0	Certification .....	25
17.0	Bibliography .....	26
A	PHOTOS .....	28
B	SOILS .....	31
C	PARCEL REPORT .....	38

## Table of Figures

Figure 1-1	Location and Vicinity of Project Site and 500-Buffer for TTM-36864 in Corona, CA .....	2
Figure 1-2	Vegetation and Habitat within 500-Buffer of TTM-36864 .....	3
Figure 1-3	Site Plans for TTM-36864 .....	4
Figure 1-4	Riverside County Flood Control and FEMA Designations for TTM-36864 .....	5

## Table of Tables

Table 2-1	Survey Dates and Weather Conditions .....	9
Table 3-1	Flora Observed Onsite .....	10
Table 3-2	Fauna Observed on Site .....	11

## 1.0 Executive Summary

This document investigates the potential impacts to biological and natural resources that could occur as a result of developing, a six-lot subdivision for single family homes in Corona, CA. It evaluates those impacts according to the California Environmental Quality Act (CEQA) and Western Riverside Multiple Species Habitat Conservation Plan (MSHCP) significance parameters. (PRC, 2020) (RCTLMA a, 2003)

Kinsinger Environmental Consulting (KEC) conducted a Biological Resources Analysis (BRA) for the project located at 757 Corona Avenue in Corona, CA (Figure 1-1). KEC evaluated the potential for sensitive species or other sensitive resources including riparian/riverine habitat to occur on site and mapped the vegetation communities within a 500-foot buffer of the site perimeter (Figure 1-2). These resources are considered in relationship to the site plan to meet the criteria set for the City of Corona (City) as signatory participants in the MSHCP (Figure 1-3). (RCTLMA a, 2003)

An evaluation of potential riparian/riverine wetland resources found that:

- Riparian habitat occurs on site and within the 500-foot buffer (Figure 1-2).
- A portion of the site is within the FEMA base flood elevation (BFE) for 1% or 1 in 100-year flood events (Figure 1-4).
- There are no “isolated” wetlands on the project site.
- Potential to impact riparian/riverine habitat within the 500-foot buffer shall be avoided or mitigated

As a requirement of CEQA, this study also assesses the project for consistency within the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP).

- The project site is not within a MSHCP designation that contributes to conservation or to the MSHCP Reserve Assembly such as a:
  - Criteria Cell
  - Conservation Area
  - Constrained Linkage Area,
  - Wildlife Movement Corridor
  - Burrowing Owl Survey Area
- A pedestrian survey of the project site and 500-foot survey buffer yielded negative results for the presence of sensitive species to occur on site
- Evaluation of distribution of occurrence records within the California Natural Diversity Data Base (CNDDB) located sensitive species within the riparian habitat and fields north of the site.

The BRA finds the project to be consistent with CEQA, the MSHCP and CEQA “Mandatory Findings of Significance” and local policies. The project’s potential direct and indirect impacts to biological resources will be less-than-significant with mitigation for biological and riparian/riverine resources within the jurisdiction of the California Department of Fish and Wildlife (CDFW), U.S. Army Corps of Engineers (USACE), U.S. Fish and Wildlife Service (USFWS) and the Riverside County Flood Control and Water Conservation Division (RCFC).

## 2.0 Introduction

The study is being conducted at the request of the City of Corona (City) on behalf of the Al-Wafaa Family Trust to subdivide APN 122-180-027 into 6 lots and build single family homes (Project). The study evaluates potential impacts to natural resources by the Project and determines mitigation measures to avoid “significant impacts” as defined by the California Environmental Quality Act (CEQA). It also determines consistency with the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP). In addition to assessing individual project-related impacts, CEQA statutes require consistency with local regulations and a determination of whether incremental impacts constitute a significant cumulative impact, in the light of past, present and future impacts permitted by the discretionary authority, of the City (PRC, 2020).

### 2.1 Project Area and General Setting

The project is located on 2.09 acres at 757 Corona Ave. in the County of Riverside and City of Corona, California (APN 122-180-027). It lies on the south side of Corona Avenue immediately adjacent to and west of the Interstate 15 overpass. The project is adjacent to residential housing on the south and within R1-7.2 zone (Single Family Home with 7,200 square (sq) foot (ft) lot minimum). (Figure 1-1)

To the north are vacant lots on either side of the Riverside County Flood Control and Water Conservation District (RCFC) basin with a mature riparian/riverine forest habitat that is not a part of a U.S. Army Corps of Engineers (USACE) jurisdiction (Figure 1-2). It is a constructed waterway that does not connect to upstream or downstream tributaries. Connections are to storm drains throughout the City from the east that terminate within the basin (Figure 1-4). There is an approved residential tentative tract on the east side of the riparian habitat within the RCFC basin that has not initiated construction.

### 2.2 Project Description

The project proponent plans to subdivide the 2.09-acre lot into six numbered lots and two lettered lots. Lot A is an ingress/egress easement from Corona Ave. that terminates in a cul-de-sac. Lot B is an engineered bio-retention basin that fronts along Corona Ave. immediately north of the access easement (Figure 1-3).

The homes are each two-stories with front yards and driveways opening onto the access easement to the south. Back yards face north toward the embankment slope of the I-15 freeway and the existing sound wall at the top of the embankment.

The project lies 20 to 30 feet below the I-15 Freeway embankment which is topped with a sound wall. The length of the embankment will have a three-foot wide, two-foot deep concrete ditch along its length and bounded by a fence on the uphill side. It carries stormwater runoff from the embankment to the bio-retention basin.

The bio-retention basin also receives water from the access easement. It conveys all the collected water through infiltration of engineered soil and perforated pipes into an existing storm drain that runs under Corona Ave. and discharges into the RCFC flood basin (Figure 1-3).

Although the flood control basin is not a natural feature, it does support riparian habitat and may support sensitive species. For this reason, the bio-retention basin is designed to protect the natural resources by mitigating impacts for hazardous materials contained in stormwater runoff, excess sediment and excess volume of water to a level that is less-than-significant (Figure 1-4).

### 2.2.1 Topography and Soils

The project site slopes downward from the east at 618 feet above mean sea level (AMSL) to 604 feet AMSL on the west end. The average slope from lot 6 on the west to lot 2 on the east is less than 3 percent. Lot 1 slopes steeply from 612 to 608 feet at about 25%. Lot B is almost entirely within the FEMA Base Flood elevation of 604 feet AMSL. It is within the "Zone AE" with 1 % annual chance of flood (100-year) (FEMA, 2008) (Appendix A Photos, Figure 13 - 15). The buildable lots avoid the FEMA AE zone (See Figure 1-3 Site Plans for TTM-36864 and compare with Figure 1-4). The project's soil infiltration study (Crescent Engineering, 2014) and Water Quality Management Plan (WQMP) confirm the Natural Resource Conservation Service (NRCS) maps and provide solutions for the soil limitations (Akbarpour, 2021)

Soils on the site are Placentia fine sandy loam, 5 to 15 percent slopes (PID), and Ramona very fine sandy loam, 0 to 8 percent slopes (ReC2). Placentia soils comprise approximately 50% of the land area of the site on the northwest end and Ramona comprises approximately 43% of the land area on the southeast end (NRCS, 2014). The remaining area is paved and/or unrated soil types (Appendix B, NRCS Soils Map).

The proposed buildable lots 2 through 6 are on the Ramona soils. Ramona soils are classified as Fine-loamy, mixed thermic Typic Haploxeralfs. This soil has a dense clay subsoil beginning at 29 inches and has "moderately slow" permeability with a high water-holding capacity of 8.5 to 9.5 inches. Ramona soils have a "somewhat limited" erosion potential rating by NRCS which means that "the soil has features that are moderately favorable [with respect to erosion potential] for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected." (NRCS, 2014)

The proposed bio-retention basin will be located on Placentia series soils. These soils are classified as a Fine montmorillonitic thermic Haplic Natrixeralfs. They have a dense clay subsurface or "claypan" at approximately 18 inches which has "very slow" permeability to infiltration (NRCS, 2014). On-site infiltration studies for this site show that water movement through the soil's profile is low and therefore prone to more surface runoff and erosion potential (Crescent Engineering, 2014).

The Placentia soils are "very limited", with respect to erosion. This rating indicates that the "soil has one or more features that are unfavorable [with respect to erosion potential] for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures" (NRCS, 2014). In this case, the bio-retention basin will resolve those problems as well as the low infiltration problem by adding the sand and gravel layers around the buried perforated pipe (Akbarpour, 2021) (See Figure 1-3 Site Plans for TTM-36864 for bio-retention detail).

Lot 1 will be located on Placentia soil and subject to the same limitations; however, the site will be over excavated and leveled, mixing and compacted the Ramona and Placentia soils in the final grade. The site is anticipated to have low soil water movement and high to moderate runoff potential throughout the site (Appendix E Geology and Soils) (GeoMat, 2014) concerns which are addressed in the WQMP (Akbarpour, 2021).

### 2.2.2 Current and Historical Land Uses

The site is currently vacant and historical aerial photos indicate that the site was in a natural condition in 1931 except for a single-lane dirt road that bisected the lower west end. Sometime between 1931 and 1938 the eastern end of the parcel was completely graded for what appears to be a water conservation basin or spreading ground. Given its proximity to Temescal Wash, it may have been placed there to capture water from the channel and conserve it for recharge within the basin (Zeiser Kling, 2005).

The year 1938 was marked with intense flooding between February and March (RCFC, 2021). The aerial photos from 1938 do not indicate the month of the photo was from before or after the flooding. This basin feature completely disappeared in the 1953 aerial photo and row crop appears within what was previously the boundary of the basin feature. Perhaps containment failed during the flooding? These aerial photos are contained in the Appendix of the 2005 Environmental Site Assessment (ESA) Phase 1 study conducted by Zeiser Kling that is attached to the 2021 Phase 1 ESA. (Zeiser Kling, 2005).

In 1953 RCFS had developed the South Norco CH Line Storm Basin (debris basin) at its present location on the north side of what is now Corona Avenue. The darker color from surrounding land indicates it is holding moisture (Zeiser Kling, 2005).

After 1953, the site was fallow. A small residence was present within what is now the I-15 right-of-way as early as 1966 and was demolished prior to freeway construction in 1994. Succeeding years showed the site as vacant (NETR, 2021).

### 3.0 Reserve Assembly Analysis

The City of Corona is a signatory City to the MSHCP under a Memorandum of Understanding with the California Department of Fish and Wildlife (CDFW) and U.S. Fish and Wildlife Service (USFWS) (USFWS, 2004). The City requires project proponents to provide an MSHCP "Consistency Determination" wetland or riparian/riverine habitats occur on site. There are also designated survey areas outside conservation areas when suitable habitat is present for species that are not adequately covered under the MSHCP.

The MSHCP provides guidance for these sensitive habitats that are not within the MSHCP Conservation Area boundaries or MSHCP "Criteria Areas" or "Cell Groups". When there are impacts to these habitats the Riverside Conservation Authority (RCA) implements a process called Determination of Biologically Equivalent or Superior Habitat (DBESP) to ensure adequate mitigation. (RCTLMA a, 2003).

This project site is being evaluated for Riparian/Riverine and Wetland resources because of the presence of cattails and ponded water in the ditch that parallels Corona Ave. However, the project site is not within a MSHCP designation that contributes to conservation or to the MSHCP Reserve Assembly by any of the following classifications:

- Criteria Cell
  - Plant Criteria Area Species survey area
  - Narrow Endemic Plant Species survey area
  - Sensitive animal species survey area
- Conservation Area
- Constrained Linkage Area,
- Wildlife Movement Corridor
- Burrowing Owl Survey Area
- Urban/Wildlands Interface area

Although no "focused surveys" are required, a general biological survey and riparian, riverine, wetlands evaluation is needed to ensure consistency with all local, state and federal laws and planning. This Biological Resources Analysis (BRA) provides the background for the consistency determination and includes evaluation of riparian, riverine and wetland resources under the jurisdiction of RCFC, CDFW and USACE. The general survey identifies plant and animal species and vegetation communities onsite. It considers the project's potential to impact sensitive habitat within the 500-foot project buffer off-site. It evaluates the CEQA-required "mandatory findings of significance" for common species.



## 4.0 Survey Methods

Riverside County’s “Map My County” is an interactive mapping service that generates individual parcel reports. The report for this project did not identify any MSHCP or focused survey areas. KEC used information from the parcel report (See Appendix C) field study and literature review to determine issues of consistency with the MSHCP (RCIT, 2020).

KEC biologist Debra Kinsinger conducted a literature review that includes:

- The MSHCP Vol. I MSHCP Section 3 Conservation Plan and Vol. II Species Accounts (RCTLMA a, 2003; RCTLMA b, 2003)
- USFWS List of Threatened and Endangered Plants and Animals as updated daily at: <http://ecos.fws.gov/> (ECOS, 2020)
- CDFW Habitat Conservation Planning Branch Threatened and Endangered Plants, updated quarterly at: <https://www.wildlife.ca.gov/Conservation> (CDFW, 2020). Sensitive species plant names and taxonomy in Table 2 follow, Roberts et. al. (Roberts, 2004) or the Jepson Online Interchange <http://ucjeps.berkeley.edu/interchange/index.html> (Jepson Flora Project (eds.), 2021).
- Vegetation Alliances of Western Riverside, California (Klein & Evens, 2006)
- Explorer online Encyclopedia of Life (NatureServe, 2020)
- Birds of North and Middle America Checklist <http://checklist.aou.org/> (BNA, 2020).
- Cornell Lab of Ornithology Ebird hotspots interactive map (Ebird, 2021)

Additional research on Habitat and Distribution and Occurrence Probability are sourced from:

- The California Natural Diversity Data Base – GIS Interface (CDFW, 2019)
- The IUCN Red list of Threatened Species <http://www.iucnredlist.org> (IUCN, 2020)

KEC biologist, Debra Kinsinger, conducted a general biological survey to identify plants and animals onsite and the potential for threatened, endangered and sensitive plants or animals to occur on onsite or within The 500-foot buffer. The buffer includes the vacant lot to the north and the I-15 freeway embankment to the east (Figure 1-2).

KEC assessed the survey area for the presence riparian/riverine and vernal pool habitat and to determine the regulatory jurisdictions that apply to those resources. KEC also evaluated the potential impacts of the project on these resources for consistency with the MSCHP and CEQA.

Habitats within the 500-foot buffer around the site were fenced and inaccessible. To the extent possible, they were examined by binocular survey and aerial photo interpretation. The survey was conducted using GPS to mark boundaries of habitat and resources. GPS information was transferred to GIS in the office to prepare site maps.

**Table 4-1 Survey Dates and Weather Conditions**

Date	Begin/End Time	Temperature Degrees Fahrenheit (° F)	Wind Miles per hour (mph)	Cloud cover
12/08/2014	2:00 – 4:00 PM	79 - 82° F	3 - 5 mph	clear
09/28/2021	1:35 – 2:26 PM	73 – 75° F	11 – 13 mph	clear
10/28/2021	9:36 -11:25 AM	81 – 84 ° F	3 – 12 mph	clear

## 5.0 Flora and Fauna Onsite and Within 500-Foot Survey Buffer

The surveys were all conducted in fall or winter when many plant species were dry and dead and during a lower-than-normal rain years so the plant species list does not represent the full diversity of the site.

The surveys revealed wetland plant species, cattails (*Typha* sp.), growing in a ditch “catch basin” next to the culvert that crosses under Corona Avenue to the RCFC “South Norco CH Storm Basin” (debris basin) across the street. Cattails are an obligate wetland species. One facultative shrub grew in the catch basin along with the cattails, mule fat (*Baccharis salicifolia*), and two upland facultative species common sunflower (*Helianthus annuus*) and Russian thistle (*Salsola tragus*). A detailed analysis of this habitat is in Section 8 Protection of Riparian Riverine and Wetland Resources.

Typical plants on the site were mostly ruderal or “weedy” species, non-native grasses, non-native mustard, and a few flowering forbs. There were a few horticultural trees and shrubs around the perimeter of the site escaping the irrigated lawns of neighboring residences.

**Table 5-1 Flora Observed Onsite**

FAMILY NAME	SCIENTIFIC NAME	COMMON NAME	WETLAND STATUS
Poaceae	<i>Avena fatua</i>	Wild oats	NI
Poaceae	<i>Bromus madritensis</i> *	Mediterranean brome	NI
Typhaceae	<i>Typha</i> sp.	Cat-tail	OBL
Anacardiaceae	<i>Schinus molle</i> *	Peruvian pepper	FACU
Anacardiaceae	<i>Schinus terebinthifolia</i> *	Brazilian pepper	FAC
Asteraceae	<i>Baccharis salicifolia</i>	Mule-fat	FAC
Asteraceae	<i>Cichorium intybus</i> *	Mediterranean chicory	NI
Asteraceae	<i>Conyza canadensis</i>	Horseweed	NI
Asteraceae	<i>Helianthus annuus</i>	Sunflower	FACU
Asteraceae	<i>Oncosiphon piluliferum</i> *	Globe chamomile	FACU
Brassicaceae	<i>Brassica geniculata</i> <i>[Hirschfeldia incana]</i> *	Short-pod Mustard	NI
Chenopodiaceae	<i>Salsola tragus</i> *	Russian-thistle, Tumbleweed	FACU
Convolvulaceae	<i>Convolvulus arvensis</i> *	Field bindweed	NI
Fabaceae	<i>Parkinsonia aculeata</i> *	Mexican palo verde	FAC
Fagaceae	<i>Quercus agrifolia</i>	Coast live oak	NI Offsite by riparian forest
Geraniaceae	<i>Erodium cicutarium</i> *	Red-stem Filaree/storksbill	NI
Myrtaceae	<i>Eucalyptus camaldulensis</i>	River red gum	FAC Offsite by riparian forest
Polygonaceae	<i>Eriogonum fasciculatum</i> var. <i>fasciculatum</i>	California Buckwheat	NI
Salicaceae	<i>Salix laevigata</i>	Red willow	FACW

\* indicates the species is non-native.

Wetland Indicator abbreviations are from the 2014 National Wetland Plant List for the US Army Corps of Engineers (USACE)

NI = Not included in list

FAC = Facultative wetland species

FACU = Facultative upland species

OBL = Obligate wetland species

Wildlife included typical species of urban habitats, desert cottontail (*Sylvilagus audubonii*), Opossum (*Didelphis virginiana*) and resident birds such as house finches (*Haemorhous mexicana*) and mourning dove (*Zenaida macroura*) and an occasional migrant such as the dark-eyed junco (*Junco hyemalis*).

Table 5-2 Fauna Observed on Site

ORDER	SCIENTIFIC NAME	COMMON NAME	FREQUENCY
Birds	<i>Columba livia</i>	Rock pigeon (feral pigeon)	Common
	<i>Haemorhous mexicanus</i>	House finch	Common
	<i>Junco hyemalis</i>	Dark-eyed junco	Few
	<i>Spinus psaltria</i>	Lesser goldfinch	Common
	<i>Tyrannus vociferans</i>	Cassin's kingbird	Common
	<i>Zenaida macroura</i>	Mourning dove	Common
	Insects	<i>Pogonomyrmex</i> sp.	Harvester ants
Mammals	<i>Canis latrans</i>	Coyote	Scat
	<i>Didelphis virginiana</i>	Opossum	Found dead in catch basin
	<i>Sylvilagus audubonii</i>	Desert cottontail	Scat, common

## 6.0 Vegetation Communities Mapping

### 6.1 Vegetation Communities Mapping Methods

KEC mapped the project site including a catch basin supporting riparian habitat by walking its perimeter with GPS. We used the MSHCP Vegetation Maps provided by the Riverside Conservation Authority (RCA) to map vegetation within the debris basin in the 500-foot buffer. A chain link fence and additional barbed wire fence inside the chain link barrier prohibited access to this portion of the survey area (RCA, 2018). We added National Wetland Inventory (NWI) Maps to the MSHCP maps as an additional overlay that provides more context to these vegetation types by indicating the limits of wetland habitats within the overall vegetation type. Figure 1-1 Location and Vicinity of Project Site and 500-Buffer for TTM-36864 in Corona, CA

### 6.2 Existing Conditions

#### 6.2.1 Non-native Grassland (NNG) Code 42200

The best description of the vegetation mapped as Urban Interface (URB/I) on site is non-native or California Annual Grasslands (CAG). It is converted from its original vegetation community, Coastal Sage Scrub (CSS), into CAG because of extensive disturbance. This vegetation community is described in the MSHCP vegetation mapping inventory as URB/I habitat because it is frequently mowed or bladed to remove vegetation. The vegetation that does grow; therefore, is mostly non-native grass, ruderal species and here and there a coastal sage species. Within the 500-foot survey buffer are other URB/I areas.

The CSS species on site are also present in the URB/I habitat on the I-15 embankment adjacent to the project site. The converted condition of the barren or CAG communities is evident by the relictual species from CSS habitat that remain both on site and in the surrounding communities. Given time without continuing disturbance, these communities would revert to CSS.

The CAG community, by definition does not include any native grass species (Klein & Evens, 2006). When native grasses are present, they are referred to as Native Grasslands. The CAG community within the

survey area is dominated by brome species, wild oat grass and shortpod mustard. These CAG communities often include native dicots such as rancher's fiddleneck (*Amsinckia menziesii*) as well as ruderal dicots including filaree and mustard species which are indicators of CAG communities. The project site and surrounding areas have many non-natives, "ruderal" or weedy species such as: filaree, mustard, brome.

#### 6.2.2 Valley Foothill Riparian (VRI); Red Willow (*Salix laevigata*) Alliance

This mature forested habitat seen in occurs only in the 500-foot buffer area on the north side of Corona Avenue. It is classified by the MSHCP as Valley Foothill Riparian (VRI). The area mapped as VRI is part of the RCFC storm "debris basin". Although it appears as a natural setting, it is managed for flood control and is not part of conservation area. The MSHCP does require surveys for "narrow endemic plant species" within the debris basin but not on the project site. We observed the dominant species composition in the basin from the road edge and from photos of the interior of the habitat found on Google Earth.

The Willow (*Salix laevigata*) alliance is defined by greater than 50% relative cover in the tree canopy or greater than 30% relative cover with arroyo willow (*S. lasiolepis*) in the sup-canopy (Klein & Evens, 2006). In the National Vegetation Classification System (NVCS) the Red willow (*Salix laevigata*) alliance is described as a, "Temporarily flooded woodland alliance". It occurs in ditches, floodplains, lake edges, and low gradient depositions along streams.

The map also shows the overlay of the National Wetlands Inventory (NWI), identifying the portion of the riparian habitat that is temporarily or permanently flooded. The NWI classification is Freshwater Forested/Shrub Wetland (FFW). The RCFC Map, Figure 1-4 Riverside County Flood Control and FEMA Designations for TTM-36864, shows the source of the water from run off discharged from an urban storm drain east of the I-15 Freeway. NWI maps show that area as Riverine (RIV) and FFW.

KEC observed the trees in the VRI mapping unit from street level and from the freeway embankment on the north side of Corona Avenue. At the street level we saw a freshwater marsh that was completely shaded by trees. From the I-15 embankment and from the photos we could see that the dominant trees were red willow averaging 40 feet high with quite a few that were 60 or more feet tall. The edges of the VRI habitat had more scrub species and lower heights around 6 feet tall. In places the vegetation appeared multi-tiered.

## 7.0 Wildlife Habitat Mapping

### 7.1 Wildlife Habitat Mapping Methods

Wildlife habitats differ from plant communities in that a wildlife habitat may contain several plant communities, which will be similar in structure but different in their plant species composition, location, and soil substrate. This distinction becomes an important factor when assessing the sensitivity of a particular wildlife habitat. An example of this would be a mowed lawn which does not support wildlife versus grassland that supports enough burrowing mammals to form a prey base for raptors and suitable dens for sensitive species like the Western burrowing owl.

#### 7.1.1 Urban / Developed

Urban/Developed habitat can include formal landscaping in developed sites, urban trees, roofs, and chimneys which are used by urban birds and constitute a habitat mixed in among streets, roads and freeways that imperil wildlife and are barriers to movement. At the project site urban developed land includes nearby residences and their landscaping and trees.

The I-15 overpass bridge is good potential habitat for a variety of potentially occurring bat species because of its proximity to the well-developed forested wetlands in the RCFC debris basin. Of the sensitive bat species found in the 2-mile CNDDDB query for this site, Yuma myotis and pocketed-free-tail bat would be expected to occur there since their essential habitat components, permanently flooded riparian habitat and a bridge for roosting are present. The bridge and trees with loose bark on site may also support hibernacula or nursery habitat. Fan palms in residences and in the debris basin may support yellow bat, (*Lasiurus xanthinus*) adjacent to the project site on the east and south. Birds may use these horticultural trees for roosting and in some cases, for nesting. Other bat species are expected to occur here also. Western mastiff bat, one of the species from the CNDDDB query is not expected as it depends on cliffs, boulders and buildings.

#### 7.1.2 Grasslands, Pastures and Fields (Non-native Grassland Code 42200)

Non-native grasslands are important habitats for raptors because they support small burrowing animals that forage on herbs and seeds. Fences and utility poles serve as perches for raptors such as hawks, which prey on ground squirrels, snakes, mice and lizards. The BUOW, is attracted to agricultural fields near irrigation canals and areas of permanent water that support an insect prey base. They use California ground squirrel burrows as a den and prefer locations in open fields without tall vegetation like that found in RCFC debris basin mapped as URB/I.

That habitat in the debris basin is mapped by the MSHCP as a focused survey area for BUOW but the project site is not. There were no suitably sized burrows on the project site but suitable habitat does occur in the debris basin on the north side of Corona Ave. The CAG communities are important for other ground nesting birds.

#### 7.1.3 Riparian/Riverine and Vernal Pool

Riparian habitats occur along the banks of channels and waterbodies as well as marshes and vernal pools. Many of the species in a riparian habitat are found only where a consistent supply of water occurs, these are obligate species. Other riparian species may be found in wet or dry areas and these are referred to as facultative species.

There were several riparian habitats within the survey area. Onsite there was a small patch of Freshwater Marsh (FWM) in a catch basin with obligate species, cattails and facultative species, mulefat. The catch basin is on the project site adjacent to Corona Avenue and is routinely maintain by the RCFC by mowing it (See Appendix A photos 13 – 15).

The area mapped as VRI in Figure 1-1 is riparian and may be flooded temporarily. The area mapped as FFW is riverine and is permanently flooded. This diversity of wetland habitats can be important for supporting sensitive plants and animals because these habitats, in general, are in decline.

## 8.0 Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools

While no threatened, endangered or sensitive species are expected to occur on the project site, there is potential for them to occur in habitat on the north side of Corona Avenue in habitat that is within the 500-foot buffer. The riparian habitat on site is discussed in terms of potential impacts and the jurisdiction for the ditch or “catch basin” and its habitat. Sensitive species are expected to occur in the off-site riparian habitat and adjacent uplands within the 500-foot buffer and are discussed in the sections on riparian birds (Section 2.4) and species named in Vol. 1 Section 6.1.2 of the MSHCP (Section 2.5). (RCTLMA a, 2003)

## 8.1 Riparian, Riverine and Wetland Resources

### 8.1.1 Methods

KEC biologist and certified wetland delineator, Debra Kinsinger, visited the site and conducted a pedestrian survey with 100% visual coverage. KEC's biologist walked the perimeter of the wetland habitat and the Ordinary High-Water Line using a standard accuracy GPS and cross-checked boundary perimeters using GIS with an overlay of one-foot contour intervals and aerial photos from several years. KEC identified plant and animal species and also surveyed specifically for the invasive scale broom weed, (*Lepidospartum squamatum*). No sensitive riparian species were detected. No scale broom was detected.

### 8.1.2 Existing Conditions

The ditch or "catch basin" on the northwest end of the project along Corona Avenue is a "created wetland". It was created when Corona Avenue was constructed with road grade fill across the edge of the 100-year flood plain (See FIRM map). Corona Avenue thus created a closed depression on the south side that collected urban runoff from the curb storm drain. The storm drain was intended to deliver storm flow and runoff into the storm sewer system but the design failed to adequately deliver the urban discharges and thus artificially created the conditions to support wetland vegetation. The culvert is connected to the RCFC "debris basin" on the north side of Corona Avenue.

The area within the Ordinary High-Water Mark of this drainage is approximately 0.046 acres (2,2012 sq. ft.) The CDFW jurisdiction includes its banks which are grass and the drainage bottom with its riparian vegetation which is an area of approximately 0.059 Acres (2,549.74 sq. ft.).

The length of the catch basin is approximately 25 feet long and six (6) feet wide with the low point at the end nearest the storm drain. It collects runoff from the project site as well as from impervious surfaces delivered via Corona Circle. Because of the low topographic position and low soils permeability, this area captures water for long enough periods to support emergent wetland vegetation including Cattails, *Typha* sp.

#### 8.1.2.1 Waters of the State (WOS)

Vegetation removal is periodically maintained by the RCFC under a CDFW 1602 regional permit (RCFC a, 2017). The RCFC submitted a Streambed Authorization Agreement (SAA) notification to CDFW on July 29, 2015 specifically for the culvert and catch basin on Corona Ave.

*The SAA notification requests long-term authorization to clear downstream of the culvert to allow low-flows to drain better. (Randy Shepheard, RCFC, Pers. Com. 09-03-2015).*

Therefore, the current condition of the catch basin is established in the record as within CDFW jurisdiction. The existing drainage fails to provide its intended function and would not adequately accommodate increased runoff without modification. This project will be modifying the drainage as a bioretention swale to collect water from the brow ditch that runs along the length of the parcel at the base of the I-15 embankment. Lots are designed to drain runoff to the north or backyards of the residences. The modification involves filling the lower (south) end of the catch basin at the location of the proposed access easement and lowering the elevation of the upper end of the basin.

#### 8.1.2.2 Waters of the U.S. (WOUS)

The new bio-retention basin is designed with an engineered infiltration system and lowers the elevation from 604' to 602' AMSL (two feet below the FEMA Base Flood Elevation of 604'). It will deliver water to the Norco CH Line SB debris basin (debris basin) on the north side of Corona Avenue through the existing

culvert. The debris basin is a “controlled release point” and is exempt from Hydrologic Conditions of Concern (HCOC) rules requiring hydro-modifications governed under the RCFS MS4 permit to achieve Maximum Extent Practical (MEP) standards (WQMP Figure or Appendix).

The debris basin is listed on the USACE 404/401 “Regional General Permit for Maintenance of Existing Flood Control Facilities” as a “Controlled Release Point” (Figure ) (RCFC, 2021).

*A controlled release point (CRP) is a detention or debris basin that provides regional flood protection for the downstream watershed areas and mitigates flows for the hydrologic conditions of concern such that any new development or significant redevelopment upstream of the basins will not cause a significant change in the flow conditions downstream of the basin. (RCFC b, 2017)*

Under this permit, the RCFS may conduct maintenance activities without processing individual USACE 404/401 permits. The RCFC already has a regional agreement with the CDFW for actions requiring approval pursuant to California Fish and Game Code Section 1600 *et seq.* The Regional General Permit is for maintenance actions only and does not include anything beyond an as-built. (RCFC a, 2017).

#### 8.1.2.3 Riverside Conservation Authority (RCA)

The Western Riverside County MSHCP also has provisions to mitigate for impacts to riparian/riverine habitats outside of conservation areas using a process called Determination of Biologically Equivalent or Superior Habitat (DBESP) (RCTLMA b, 2003). The MSHCP has provisions to exclude certain riparian/riverine habitats from the DBESP process if they qualify as:

- Having no long-term conservation value
- Are a “created wetland”
- It is a flood control facility or Riverside County RCFC activity

This drainage is a “created wetland” maintain by the RCFC and connected to an RCFS facility, the debris basin, by a culvert under Corona Avenue. to the South Norco Line debris basin.

Furthermore, “long term conservation value” of the riparian vegetation in the drainage is compromised by its small size and permitted maintenance activities conducted by Riverside County FCWCD. The drainage may also present a hazard to wildlife that may attempt to use it and then cross Corona Avenue to the habitat on the other side. (RCTLMA b, 2003, p. Vol. 1 Sec 7.1). The DBESP is not required when there is no long-term conservation value.

#### 8.1.3 Impacts

Indirect impacts to USSACE/CDFW jurisdiction within the South Norco Debris basin will be less than significant. The RCFC is the principal permittee for the Santa Ana Region National Pollutant and Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4). The City of Corona is a co-permittee under the RCFC MS4 permit. With respect to the catch basin on the project site, construction of the bio-retention basin is covered by the MS4 permitting process and not covered under the same Regional General Permit for the debris basin. (RCFC a, 2017)

Since maintenance removal of cattails at this storm drain has been covered under the MS4 permit, it has been treated as covered under existing 404/401 permitting as well as 1600 permitting. MS4 permittees are required to “reduce discharge of pollutants to the Maximum Extent Practicable (MEP)” (NACWA, 2018). The bio-retention basin in the project’s WQMP was designed to meet the MEP standard; therefore, the indirect impact of the bio-retention basin on the debris basin will be less-than-significant. (Akbarpour, 2021)

Direct impacts to the 0.046 acres (2,2012 sq. ft.) USACE/CDFW riparian habitat that occurs onsite from construction of the bio-retention basin will be permanent and less-than-significant since vegetation removal is already permitted. The terms of the permit are not aligned to maintain the habitat as a functional freshwater marsh. The bio-retention basin will prevent the catch basin from ponding and is intended to preclude freshwater marsh vegetation from growing.

Direct and indirect impacts to RCA riparian/riverine habitat is less-than-significant because it is a created wetland with no long-term conservation value that is managed by the RCFC; therefore, no mitigation is required and it is exempt from the Western Riverside MSHCP DBESP process.

CDFW does not have a statewide permitting process except that they must be notified through the 1602 application process and get concurrence that the project with mitigations and project design features as described, does not require mitigation. It is currently managed as “nuisance” habitat under an existing CDFW long-term maintenance permit. It does not support sensitive flora or fauna and does not contribute habitat value to the MSHCP or the RCFC habitat.

#### 8.1.4 Mitigation

No habitat loss replacement is required since impacts vegetation reduction management under existing permits from these agencies render the habitat unable to contribute resource or habitat value. This catch basin and freshwater marsh vegetation is understood to be within the jurisdiction of USACE and CDFW by existing long-term maintenance permits.

For that reason, the applicant must “submit a pre-construction notification to the USACE district engineer prior to commencing the activity”. This project is applicable under USACE Nationwide Permit (NWP) 29, Residential Development and NWP 43, Stormwater Management Facilities. Both apply to actions impacting less than ½ acre and no mitigation is required for impacts less than  $\frac{1}{10}$  acre, unless by discretion of the district engineer or other provision of the permit. These NWPs are effective since March 15, 2021 (USACE, 2021a) (USACE, 2021b).

Notification to CDFW for concurrence that the habitat loss does not require habitat replacement mitigation is under the 1602 application process.

Mitigation Measure 1 (MM-1) The applicant must “submit a pre-construction notification to the USACE district engineer prior to commencing the activity”. This project is applicable under USACE Nationwide Permit (NWP) 29, Residential Development and NWP 43, Stormwater Management Facilities. In addition, the applicant must notify CDFW under the 1602 Streambed Alteration Agreement (SAA) application and include this BRA with the application for their concurrence that: 1) the existing freshwater marsh (FFW) riparian habitat on site does not contribute habitat value to CDFW resources under the existing long-term RCFC maintenance agreement and that 2) and no habitat replacement is required.

## 8.2 Riparian Birds

### 8.2.1 Methods

The mature riparian forest (FFW and VRI) in the debris basin is fenced and inaccessible. On-site surveys included only birds observed or heard near the perimeter of the site in late summer. Potentially occurring species were researched through a CNDDDB data query and E-bird.

### 8.2.2 Existing Conditions

Many sensitive species of riparian birds have potential to occur in the riparian Freshwater Forest Wetland (FFW) habitat in the debris basin on the north side of Corona Avenue (Figure 1-2). A dense multi-tiered canopy of mature red willows and lower shrubs over permanent water, like the FFW habitat, are USFWS



“primary constituent elements” for certain riparian birds listed as threatened and/or endangered like: least Bell’s vireo, western willow flycatcher and yellow-billed cuckoo. Yet, the MSHCP does not indicate the VRI and FFW as requiring focused surveys for riparian birds, although it does require focused surveys for burrowing owl in the URB/I habitat and for Narrow Endemic Plant Species (NEPS). More common riparian birds listed as sensitive by the CNDDDB are likely to occur in FFW and VRI habitat within the debris basin including: common yellowthroat, yellow warbler, yellow-breasted chat, hermit warbler, to name a few, and many other more common birds of riparian habitats. Of the few birds observed at the project site, all of which were common, most also used this riparian habitat across the street.

Looking at species occurrence data for the debris basin, KEC found only one CNDDDB species record for any species (bird or otherwise). The CNDDDB record is from a museum specimen from 1914. The CNDDDB notation reads:

*Specimen localities given as “Corona; 5 Mi E” & 5 Mi W. Corona.” 1914 article describes location “near Corona.” Mapped generally to include given localities. Swampy meadow covered thickly with marsh grass and tules. Collected on 31 Jan 1914. 1 collected on 6 Feb 1914; an unknown number heard calling. None detected on subsequent visit later in 1914.*

But it may not have been from this exact location because aerial photos don’t show the basin as existing until after 1938; however, it may have been swampy before it was a basin. More likely it occurred in habitat adjacent to Temescal wash.

E-bird did not show any hotspots for this location so little is known about existing species. A residential development is approved for the URB/I east of the FFW riparian forest. The biological study for that project (TTM 35851) should have a list of species that occur in this area and results for NEPS focused surveys, burrowing owl surveys and possibly focused surveys for state and federally listed riparian birds (City of Corona, 2021).

### 8.2.3 Impacts

Indirect impacts to riparian birds that nest in the adjacent willow riparian forest FFW habitat may include temporary impacts from construction noise and project activity. The new bio-retention basin will be designed to infiltrate flows so that the basin doesn’t pond water and will no longer support riparian vegetation.

There are direct impacts to 0.046 acres (2,2012 sq. ft.) of FWM on site but this habitat is mowed annually and too small to support nesting of birds that are dependent on Freshwater Marsh (FWM) habitat. Long-term direct impacts to this habitat from RCFC maintenance are already accounted for in their 1602 permit from CDFW as less than significant. No direct impacts to riparian birds will occur.

### 8.2.4 Mitigation

Mitigation Measures (MM-2) to avoid impacts to riparian birds include:

- If site brushing, grading and/or removal of any trees or vegetation on site or within 150 meters (500 feet) of the site will occur between February 1 and August 31 (CDFW, 2012), the following mitigation measures are required:
  - A 72-hour pre-construction survey for migratory birds and raptors, including ground nesting birds such as killdeer and burrowing owl. If nesting birds occur on-site, a biological monitor shall:
    - Prevent impacts to the birds by setting up work nest buffers or temporarily halt actions that could impact the nesting birds or bats.

- Ensure compliance with the Migratory Bird Treaty Act (USFWS, 1918)
- If pre-construction surveys find that raptors are nesting within 100 meters (300 feet) of the site, or 150 meters (500 feet) for burrowing owls, a biological monitor shall remain on site during the vegetation and earth disturbing activity and/or construction to:
  - Prevent impacts to the birds by setting up work nest buffers or temporarily halt actions that could impact the nesting birds or bats.
  - Ensure compliance with the Migratory Bird Treaty Act (USFWS, 1918)

### 8.3 Species Not Adequately Covered by the MSHCP (Vol. 2 Section 6.1.2 species)

The debris basin supports suitable breeding, nesting and foraging habitat for the potentially occurring 6.1.2 species western willow flycatcher, least Bell's vireo and western yellow-billed cuckoo as well as some narrow endemic plant species (NEPS). Other potentially occurring 6.1.2 species may include bald eagle or peregrine falcon but not as nesting species.

Many of the freshwater riparian, permanent water riparian plants species have at least a low potential to occur in the debris basin. However, there is no potential for any of the plant species to occur on the project site due to the constant disturbance and anthropogenic origin of the habitat. There is no nesting habitat on the project site suitable for riparian birds.

The project site lacks all habitat criteria required by the 6.1.2 plant and animal riparian species. The Freshwater Marsh is an annually mowed catch basin of 0.046 acres (2,2012 sq. ft.). Therefore, no direct impacts to 6.1.2. species will occur. There is potential for indirect impacts to these species if they occur in the off-site willow riparian forested FFW habitat. Mitigation for these threatened and/or endangered species, if they occur, is the same as for any nesting bird or raptors as described above in section 8.2.4 MM-2 for riparian birds.

## 9.0 Additional Survey Needs and Procedures

The project area is not within any of the MSHCP special survey needs areas although the habitat in the RCFC debris basin on the north side of Corona Avenue is in a focused burrowing owl survey area and a Narrow Endemic Plant Species (NEPS) survey area. KEC assessed the habitat on the project site for its potential to support sensitive habitats and sensitive species. If the habitat assessment indicated potential, KEC would have recommended any necessary additional survey needs and procedures.

### 9.1 Burrowing Owl

Because the MSHCP maps the debris basin on the north side of Corona Avenue as a focused survey area for burrowing owl, we assessed the habitat on the project site as well, even though it's not indicated because the habitat value and composition appear to be similar.

#### 9.1.1 Methods

KEC evaluated the habitat on the project site for its potential to support burrowing owls according to the MSHCP step I Part A methods. We walked transects on the project site, 33 feet on the center, taking GPS waypoints for ground squirrel burrows on site. The criteria for marking a burrow are an entrance greater than three inches in diameter and/or den complexes with a sloping entry apron typical to burrowing owl dens. There were no burrows on the project site or the I-15 embankment that met those criteria. The MSHCP does not require BUOW surveys on site even though the 500-foot buffer area outside of the site

is slated for focused BUOW surveys. KEC's negative finding for the MSHCP Step I Part A ground squirrel burrow mapping survey on the project site resolves this ambiguity between survey requirements for the buffer area versus the project site. For this reason, and guidance given in the MSHCP Consistency Analysis Template, we do not recommend BUOW focused surveys (RCA, 2019).

### 9.1.2 Impacts

The debris basin to the north of Corona Ave. may or may not have suitable burrowing owl habitat but there was no access to the site. There is a high potential for burrowing owl to occur within the 500-foot buffer area because of its isolation from pedestrian traffic, proximity to a water source and vegetation that is grassland or open. There is low potential for BUOW to occur on the project site because there are no burrows on site that meet the criteria for BUOW to occupy and no alternative burrows like discarded concrete.

Direct impacts to potentially occurring burrowing owl within the 500-foot buffer caused by activity and noise on the project site can be avoided by mitigation. Indirect impacts to BUOW from loss of habitat are less than significant because loss of the potential habitat does not fragment existing habitat and there is no evidence that it was occupied by BUOW within the last three years (CDFW, 2012).

### 9.1.3 Mitigation

Mitigation Measures (MM-3) to avoid impacts to burrowing owl are:

**MM-3:** Conduct a 30-day take avoidance survey to identify if BUOW are present at any time of year.

A BUOW-qualified biologist will conduct a "30-day preconstruction burrowing owl study" according to the protocol set by the Riverside County MSHCP 30-day Pre-Construction Burrowing Owl Survey Report Format (RTLMA-EPD, 2006). This survey consists of one site visit and should be conducted within 30 days and not less than 14 days before surface disturbing activity to ensure that BUOW has not occupied the site since surveys were concluded the previous season.

If active BUOW dens are detected, then the biologist will recommend mitigation buffers during the work period to avoid impacting BUOW in conjunction with CDFW concurrence. In the unlikely event that BUOW are detected on site, a BUOW biologist who possesses current CDFW BUOW collection permits can make site-specific recommendations for passive relocation and implement relocation with the concurrence of CDFW according to protocol set by the CDFW Staff Report on Burrowing Owl Mitigation (CDFW, 2012). Alternatively, work can be postponed until the BUOW abandon the site at the end of their breeding and rearing.

## 10.0 Guidelines Pertaining to the Urban/Wildland Interface

KEC used the Riverside Conservation Authority's (RCA) "data downloads" for Vegetation mapping to classify the vegetation community/land- use types shown in . The MSHCP mapping designation for the project site and the non-native grasslands within the 500-foot buffer area is "Urban Interface" URB/I not to be confused with "urban wildlands interface" which is not a vegetation or land-use classification, it is a guideline for protecting conservation land or land targeted for acquisition as part of the MSHCP reserve assembly.

*All proposed projects that are located adjacent or have on-site connection to either existing conservation or land described for conservation are required to address how they plan to implement all of the [Urban Wildlands/Interface Guidelines] UWIG guidelines (RCA, 2019).*

The RCFC South Norco debris storm basin, is never going to be part of the reserve assembly and it is not currently a conservation area. However, since the MSHCP's additional survey needs apply to it for actions occurring on the site and it is habitat for potentially occurring sensitive, threatened or endangered species, KEC recommends applying the guidelines pertaining to the Urban/Wildland Interface as Conditions Of Approval (COA).

Guidelines that are applicable to development of this project include:

- Measures to control the quantity and quality of runoff from the site
  - A bio-retention basin is already included as project design feature that will ensure that water quality is not degraded by untreated surface runoff
  - A WMQP is already included as a project design feature to reduce quantity of runoff from impervious surfaces and the whole site to no more than the existing condition.
  - A Stormwater Pollution Prevention Plan (SWPPP) will be a Condition of Approval to prevent siltation and erosion during construction
  - Measures pertaining to toxic chemicals are not applicable to a residential site except that HOA bylaws should include rules for preventing landscape fertilization overspray and runoff.
  - Siting and design of fencing that impedes wildlife movement is not applicable to the residential site.
  - Incorporating barriers to minimize unauthorized public access, domestic animal predation, illegal trespass, or dumping are currently in place around the RCFC basin and maintained by the RCFC.
  - Night lighting shall be directed away from the RCFC basin to protect potentially occurring sensitive, threatened and endangered species from direct night lighting. Shielding shall be incorporated in project designs to ensure ambient lighting in the RCFC basin is not increased.
  - Proposed noise-generating guidelines are not applicable to the residential use that is already subject to City ordinance noise abatement.
  - Landscaping shall not use invasive species and should avoid species in the MSHCP list Vol. 1 Table 6-2 "Plants that Should be Avoided". (RCTLMA a, 2003)
  - Manufactured slopes in the urban interface are not applicable to the residential project.
  - Weed abatement and fuel modification zones encroachment to the urban interface is not applicable to the residential project.

## 11.0 Best Management Practices

The project shall implement Best Management Practices (BMP) named in the MSHCP Volume 1 Section 7.0 Appendix C that are applicable to the residential project. Items 1, 2, 7, 8 and 13.

- 1. Because sensitive, threatened and endangered species have potential to occur in the habitat in the RCFC debris basin within the 500-foot project buffer, the applicant shall include these BMPs.
  - A condition shall be placed on grading permits requiring a qualified biologist to conduct a training session for project personnel prior to grading. The training shall include a

description of the species of concern and its habitats, the general provisions of the Endangered Species Act (Act) and the MSHCP, the need to adhere to the provisions of the Act and the MSHCP, the penalties associated with violating the provisions of the Act, the general measures that are being implemented to conserve the species of concern as they relate to the project, access routes to and from the site and project site boundaries within which the project activities must be accomplished.

- 2. These BMPs shall be implemented within the SWPPP for construction and WQMP for operation and are statutory requirements for developing the project.
  - Water pollution and erosion control plans shall be developed and implemented in accordance with RWQCB requirements.
- 7. RWQCB statutory requirements for project runoff BMPs
  - Silt fencing of other sediment trapping materials shall be installed at the downstream end of construction activity to minimize the transport of sediments offsite.
  - Settling ponds where sediment is collected shall be cleaned out in a manner that prevents the sediment from reentering the stream. Care shall be exercised when removing silt fences, as feasible, to prevent debris or sediment from returning to the stream.
- 8. These BMPs will be implemented as part of the SWPPP for protecting the riparian/wetland habitat in the RCFC debris basin.
  - Equipment storage, fueling, and staging areas shall be located on upland sites with minimal risks of direct drainage into riparian areas or other sensitive habitats. These designated areas shall be located in such a manner as to prevent any runoff from entering sensitive habitat. Necessary precautions shall be taken to prevent the release of cement or other toxic substances into surface waters. Project-related spills of hazardous materials shall be reported to appropriate entities including but not limited to applicable jurisdictional city, USFWS, and CDFW, and RWQCB and shall be cleaned up immediately and contaminated soils removed to approved disposal areas.
- 13. Maintaining a clean site, ensure that construction site crews are aware of these BMPs at the Worker's Environmental Awareness Program (WEAP) training.
  - To avoid attracting predators of the species of concern, the project site shall be kept as clean of debris as possible. All food-related trash items shall be enclosed in sealed containers and regularly removed from the site(s).

## 12.0 California Environmental Quality Act (CEQA) Compliance

CEQA requires a determination of consistency with the MSHCP as well as local regulations and a significance analysis for impacts to biological and natural resources not adequately conserved under those regulations. (PRC, 2020).

### 12.1 Threatened and Endangered Species

The MSHCP is approved by the State of California and the U.S. Fish and Wildlife Service (USFWS) to cover threatened or endangered species listed under the California Endangered Species Act (CESA) (California, State of, 2014) and the federal Endangered Species Act (ESA) (U.S.C., 1973). The City may permit development without additional consultation for potentially occurring listed species, because these species

are determined to be adequately covered under their respective plans. The project as planned is in compliance with CEQA with respect to listed species because it is consistent with the MSHCP and those provisions of the MSHCP that apply to natural resources not adequately conserved under its provisions. It includes appropriate mitigation measures that will reduce impacts to potentially occurring threatened and endangered species below the threshold of significance.

## 13.0 Mandatory Findings of Significance and Consistency Analysis

CEQA "Mandatory Findings of Significance" require evaluation of actions that may "substantially reduce the habitat of a fish or wildlife species: cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; substantially reduce the number or restrict the range of an endangered, rare or threatened species" (PRC, 2020) CCR 15065 (a) (1)). While threatened and endangered species and many other non-listed species are covered for take and conserved within existing Habitat Conservation Plans and Mitigation Banks within Riverside County, CEQA requires that any species or population, whether covered by an HCP or not, be considered for the potential to experience "significant impacts" according to this definition.

### 13.1 Impacts

Impacts to endangered, rare or threatened species are all less-than-significant. No common or sensitive species on the project site represent populations at the extent of their range or isolated breeding populations where they might as a population experience significant impacts; therefore, there no species on site falls under the definition of protections under Mandatory Findings of Significance.

## 14.0 CEQA Significance Determination

### 14.1 Direct, Indirect and Cumulative Impacts to Habitats, Species and Biological Resources

#### 14.1.1 Riparian/Riverine and Wetland Habitats

Less-than-significant.

Direct impacts to the 0.046 acres (2,2012 sq. ft.) of USACE/CDFW Freshwater Marsh (FWM) riparian habitat from construction of the bio-retention basin will be permanent and less-than-significant since vegetation removal under RCFC's permit already permit removal of riparian vegetation. The terms of RCFC's permit are not aligned to maintain the habitat as a functional freshwater marsh. The bio-retention basin will prevent the catch basin from ponding and is intended to preclude freshwater marsh from growing. The FWM mapping unit does not contribute habitat value to the existing VRI and FFW mapping units within the FCRC basin.

Direct and indirect impacts to RCA riparian/riverine habitat is less-than-significant because it is a "created wetland" with "no long-term conservation value" that is managed by the RCFC; therefore, no mitigation is required and it is exempt from the Western Riverside MSHCP DBESP process (RCA, 2019).

Cumulative impacts will be less-than-significant since the WQMP and SWPPP improve water quality and excess runoff from the pre-condition.

#### 14.1.2 Sensitive and non-sensitive avian species including bats and nesting birds

Less-than-significant.

This evaluation also includes those potentially occurring sensitive species within the RCFC debris basin whose habitats are within the 500-foot buffer of the project. Mitigation measures and project design features reduce all direct and indirect impacts to sensitive, threatened, endangered birds, bats and nesting birds below the threshold of significance.

Cumulative impacts are less than significant because the project will not reduce the value of the existing habitat to MSHCP species that are not adequately covered and habitat loss on-site does not contribute to the MSHCP reserve assembly.

#### 14.1.3 Sensitive flora

No impact.

There is no potential habitat on the project site for sensitive flora

#### 14.1.4 Habitat Loss

Less-than-significant

The loss of 2.09 acres of CAG vegetation mapped as Urban Interface URB/I in and raptor foraging habitat on the project site does not contribute to habitat fragmentation and it does not support sensitive species.

### 14.2 Consistency With Local Regulations and Ordinances

The project is consistent with the City of Corona. There are no local or City zoning overlays that apply to biological or natural resource protections for the project site. Corona's Municipal Code requires focused surveys for scale broom, a problem native species that can undermine and disrupt building foundations. No scale broom was detected in 2021 or in 2014 surveys therefore the project remains consistent with Corona Municipal Code Chapter 15.36.050 Grading Plans (A)(4). (City of Corona, 2021).

## 15.0 Summary Conclusions and Recommendations

Project development will result in loss of 2.09 acres of California Annual Grassland (CAG) vegetation mapped as UBR/I and raptor foraging habitat and 0.046 acres of freshwater marsh mapped as FWM . Potential impacts to water quantity and quality are accounted for in project design features of the WQMP. Impacts from project construction to Waters of the State (WOS) and Waters of the U.S. (WOUS) are mitigated with the statutory requirement of: a SWPPP, the BMPs listed in Section 11.0 of this document and mitigation measures summarized in this section. Rational for Freshwater Forested Wetland (FFW) riparian/riverine and wetland mitigation measures are described in Section 8.1.4 and summarized here.

The project is consistent with the City of Corona zoning and Municipal Code. There are no local or City zoning overlays that apply to biological or natural resource protections for the project site.

The project does not contribute to the MSHCP reserve assembly, criteria cells, core linkage, corridors, conservation areas, or public/quasi-public habitat. It does not have any conservation targets.

The project is consistent with the MSCHP as evaluated in all of the applicable subject areas including: riparian riverine/wetland habitat, riparian birds, species not adequately covered, additional survey needs (focused surveys for burrowing owl), wildlands/urban interface and best management practices as discussed in previous sections.

Project Recommendations are itemized in section 11.0. The following mitigation measures are Conditions of Approval to maintain consistency with state and federal regulations

#### 15.1.1 Riparian/Riverine and Wetlands

**MM-1** The applicant must “submit a pre-construction notification to the USACE district engineer prior to commencing the activity”. This project is applicable under USACE Nationwide Permit (NWP) 29, Residential Development and NWP 43, Stormwater Management Facilities. In addition, the applicant must notify CDFW under the 1602 Streambed Alteration Agreement (SAA) application. The application will include the Biological Resources Analysis (BRA) for CDFW concurrence with the finding that the existing freshwater marsh riparian habitat does not contribute habitat value to CDFW resources under the existing long-term maintenance agreement with RCFC and that no habitat replacement is required.

#### 15.1.2 Riparian Birds

**MM-2** to avoid impacts to riparian birds:

- If site brushing, grading and/or removal of any trees or vegetation on site or within 150 meters (500 feet) of the site will occur between February 1 and August 31 (CDFW, 2012), the following mitigation measures are required:
  - A 72-hour pre-construction survey for migratory birds and raptors, including ground nesting birds such as killdeer and burrowing owl. If nesting birds occur on site a biological monitor shall:
    - Prevent impacts to the birds by setting up work nest buffers or temporarily halt actions that could impact the nesting birds or bats.
    - Ensure compliance with the Migratory Bird Treaty Act (USFWS, 1918)
- If pre-construction surveys find that raptors are nesting within 100 meters (300 feet) of the site, or 150 meters (500 feet) for burrowing owls, a biological monitor shall remain on site during the vegetation and earth disturbing activity and/or construction to:
  - Prevent impacts to the birds by setting up work nest buffers or temporarily halt actions that could impact the nesting birds or bats.
  - Ensure compliance with the Migratory Bird Treaty Act (USFWS, 1918)

**MM-3:** Conduct a 30-day take avoidance survey to identify if BUOW are present at any time of year.

- A BUOW-qualified biologist will conduct a “30-day preconstruction burrowing owl study” according to the protocol set by the Riverside County MSHCP 30-day Pre-Construction Burrowing Owl Survey Report Format (RTLMA-EPD, 2006). This survey consists of one site visit and should be conducted within 30 days and not less than 14 days before surface disturbing activity to ensure that BUOW has not occupied the site since surveys were concluded the previous season.
- If active BUOW dens are detected, then the biologist will recommend mitigation buffers during the work period to avoid impacting BUOW in conjunction with CDFW concurrence. In the unlikely event that BUOW are detected on site, a BUOW biologist who possesses current CDFW BUOW collection permits can make site-specific recommendations for passive relocation and implement relocation with the concurrence of CDFW according to protocol set by the CDFW Staff Report on Burrowing Owl Mitigation (CDFW, 2012). Alternatively, work can be postponed until the BUOW abandon the site at the end of their breeding and rearing.



## 16.0 Certification

I hereby certify that the statements furnished above and in the attached exhibits/appendices present the data and information required for this Habitat Suitability Assessment, Western burrowing owl survey and MSHCP Consistency Analysis. The facts, statements, and information presented are true and correct to the best of my knowledge and belief.



Date: 12/24/2021

If you have any question regarding this biological technical report, please contact Debra Kinsinger at (877)-593-6275.

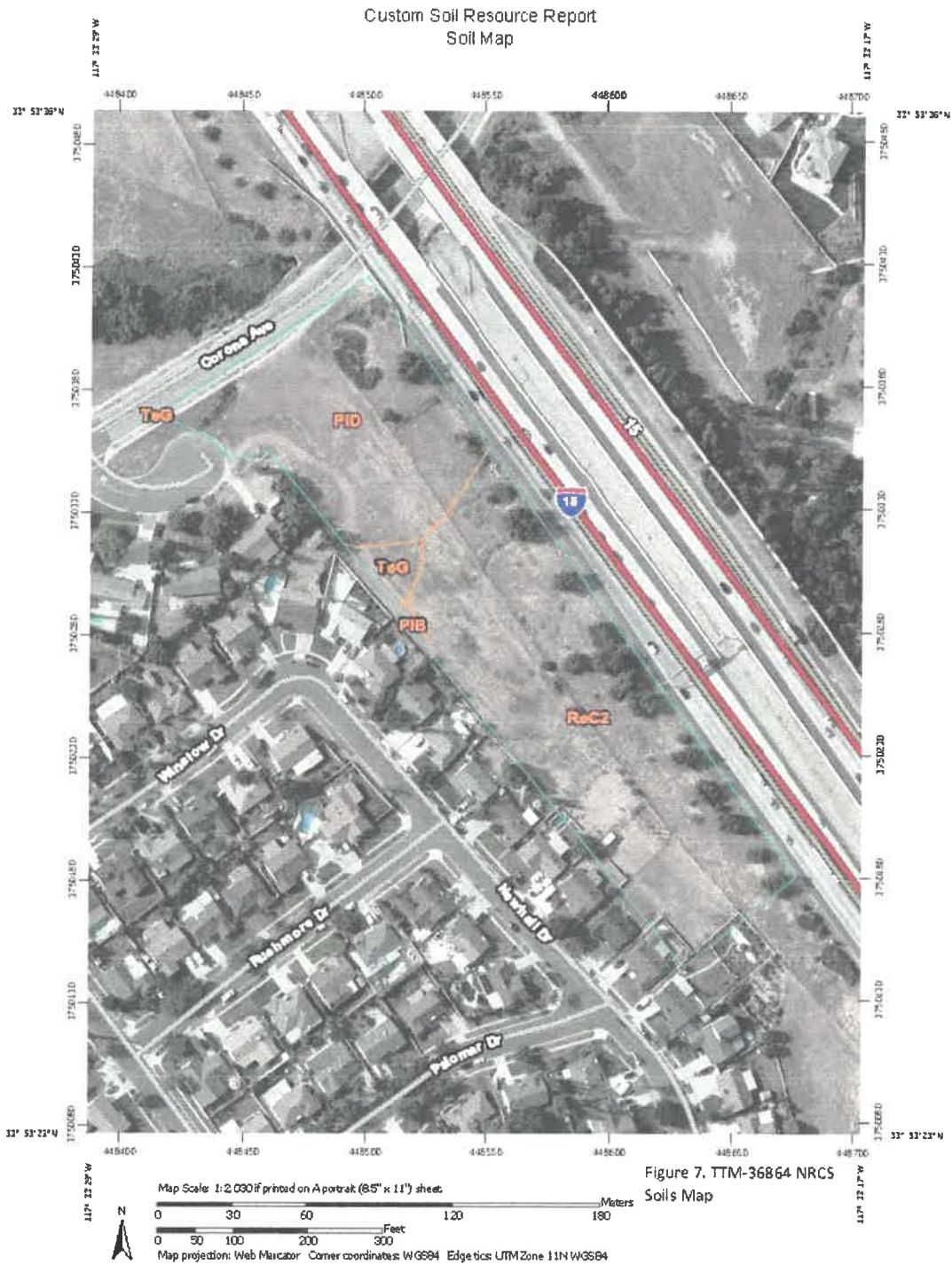
## 17.0 Bibliography

- Akbarpour, S. (2021). *Project Specific Water Quality Management Plan: TTM 36864*. Corona, CA: Sake Engineers.
- California, State of. (2014). *California Endangered Species Act. California Fish and Game Code Div. 3 Sections 2050-2069*. Retrieved 2014 from California Legislative Information: [http://leginfo.legislature.ca.gov/faces/codes\\_displayexpandedbranch.xhtml](http://leginfo.legislature.ca.gov/faces/codes_displayexpandedbranch.xhtml)
- CDFW. (2012). *Staff Report on Burrowing Owl Mitigation*. Sacramento, CA: California Department of Natural Resources. Retrieved from <https://nrm.dfg.ca.gov/documents/>
- City of Corona. (2021). *Chapter 15.36 Grading Regulations*. Retrieved from Corona Municipal Code: Grading Plans
- City of Corona. (2021). *Department of Planning Project Updates Story Map*. Retrieved from City of Corona: <https://cityofcorona.maps.arcgis.com/>
- Crescent Engineering. (2014). *Report of Percolation Testing*.
- Ebird. (2021). *Hotspots*. Retrieved from Cornell Lab of Ornithology: <https://ebird.org/hotspots>
- FEMA. (2008, 08 28). *Flood Map Service Center*. Retrieved from Federal Emergency Management Agency (FEMA).
- GeoMat. (2014). *Preliminary Soil Investigation Report, Six Proposed Single Family Residences, APN: 122- Riverside*.
- Klein, A., & Evens, J. (2006). California Native Plant Society. Sacramento, CA: Vegetation Alliances of Western Riverside County, CA, California Department of Fish and Game Habitat Conservation Division. Retrieved from [https://www.researchgate.net/publication/264842454\\_Vegetation\\_Alliances\\_of\\_Western\\_Riverside\\_County\\_California](https://www.researchgate.net/publication/264842454_Vegetation_Alliances_of_Western_Riverside_County_California)
- NACWA. (2018, March). *MS4 Stormwater Permitting Guide*. Retrieved from National Association of Clean Water Agencies: [https://www.nacwa.org/docs/default-source/news-publications/white-papers/2018-03-07permittingguide.pdf?sfvrsn=29e1f761\\_4](https://www.nacwa.org/docs/default-source/news-publications/white-papers/2018-03-07permittingguide.pdf?sfvrsn=29e1f761_4)
- NETR. (2021). *Historic Aerials Viewer*. Retrieved from National Environmental Title Research (NETR): <https://www.historicaerials.com/viewer>
- NRCS. (2014, 09 17). *Soil Data Mapper*. Retrieved from Web Soil Survey: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>
- PRC. (2020). Public Resources Code (PRC) Section 21083; California Code of Regulations (CCR) Title 14 Division 6, Chapter 3, Sections 15000-15387. In C. R. (CRA), *California Environmental Quality Act (CEQA) Statute and Guidelines*. Sacramento, CA: California Natural Resources Agency.
- RCA. (2018, 11 2). *Data Downloads*. Retrieved from Western Riverside County Regional Conservation Authority: <https://data-wrcrca.opendata.arcgis.com/search?tags=Vegetation>
- RCA. (2019, April). *Document Library*. Retrieved from Riverside County Regional Conservation Authority: <https://www.wrc-rca.org/document-library/>

- RCFC. (2021). *About the District / District History / Pre-District Years*. Retrieved from Riverside County Flood Control and Water Conservation District: <https://rcflood.org/About-the-District/District-History>
- RCFC. (2021). *Stormwater & Water Conservation Tracking Tool*. Retrieved from Riverside County Flood Control and Water Conservation District: <http://rcstormwatertool.org/SWCTT/>
- RCFC a. (2017, February). *Draft CEQA Initial Study for Regional General Permit for Maintenance of Existing Flood Control Facilities*. Retrieved from Riverside County Flood Control and Water Conservation Agency: <https://content.rcflood.org/Documents/CEQA/RGPIInitialStudy.pdf>
- RCFC b. (2017, January). *Santa Ana Region Hydromodification Management Plan*. Retrieved from Riverside County Flood Control and Water Conservation District: [https://content.rcflood.org/downloads/NPDES/Documents/SA\\_WAP/AppE\\_HydromodificationManagementPlan.pdf](https://content.rcflood.org/downloads/NPDES/Documents/SA_WAP/AppE_HydromodificationManagementPlan.pdf)
- RCTLMA a. (2003). *Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Final MSHCP - Volumes 1 Approved June 17, 2003*. Retrieved from Riverside County Transportation and Land Management Agency: <https://rctlma.org/Portals/0/mshcp/volume1/index.html>
- RCTLMA b. (2003). *Western Riverside Multiple Species Habitat Conservation Plan; Final MSHCP - Volume 2. Approved June 17, 2003*. Retrieved from Riverside County Transportation and Land Management Agency : <https://rctlma.org/Portals/0/mshcp/volume2/index.html>
- RTLMA-EPD. (2006, August 17). *MSHCP 30-day Pre-Construction Burrowing Owl Survey Report Format*. Retrieved from Riverside Transportation Land Management Agency - Environmental Programs Department: <http://rctlma.org/epd/Consultant-Resources>
- U.S.C. (1973). *U.S. Code Chapter 35 Endangered Species*. Retrieved from Cornell Law School Legal Information Institute: <https://www.law.cornell.edu/uscode/text/16/chapter-35>
- USACE. (2021a, March). *Nationwide Permit 29 - Residential Developments*. Retrieved from U.S. Army Corps of Engineers: <https://www.swt.usace.army.mil/Portals/41/docs/missions/regulatory/2021%20NWP/2021%20nwp-29.pdf?ver=kH2Uf1qbOVs-Dvx4jhzppg%3D%3D>
- USACE. (2021b, March). *Nationwide Permit 43 - Stormwater Management Facilities*. Retrieved from U.S. Army Corps of Engineers: <https://www.swt.usace.army.mil/Portals/41/docs/missions/regulatory/2021%20NWP/2021%20nwp-43.pdf?ver=kH2Uf1qbOVs-Dvx4jhzppg%3D%3D>
- USFWS. (1918, July 13). *Migratory Bird Treaty Act of 1918 (16 U.S. C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755) as amended*. Retrieved from Digest of Federal Resource Laws of Interest to the U.S. Fish and Wildlife Service: <https://www.fws.gov/laws/lawsdigest/MIGTREA.HTML>
- USFWS. (2004). *Findings and Recommendation for the Issuance of a Section 10(a)(1)(B) Incidental Take Permit Associated with the Western Riverside County Multiple habitat conservation Plan/Natural Community Conservation Plan*. Carlsbad, CA: US Fish and Wildlife Service. Retrieved from <http://www.fws.gov/carlsbad/HCPs/Riverside%20MSHCP%20BO/Findings%20-%20Western%20Riverside%20MSHCP.pdf>
- Zeiser Kling. (2005). *Phase I Environmental Site Assessment, APN 122-180-027*. Newport Beach, California.

## A PHOTOS

## B SOILS



Custom Soil Resource Report

## Map Unit Legend

Western Riverside Area, California (CA679)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
PIB	Placentia fine sandy loam, 0 to 5 percent slopes	0.0	0.4%
PID	Placentia fine sandy loam, 5 to 15 percent slopes	1.9	36.1%
ReC2	Ramona very fine sandy loam, 0 to 8 percent slopes, ero ded	3.2	61.2%
TeG	Terrace escarpments	0.1	2.3%
<b>Totals for Area of Interest</b>		<b>5.3</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that

Custom Soil Resource Report

## Western Riverside Area, California

### PIB—Placentia fine sandy loam, 0 to 5 percent slopes

#### Map Unit Setting

*National map unit symbol:* hcxv  
*Elevation:* 50 to 2,500 feet  
*Mean annual precipitation:* 12 to 18 inches  
*Mean annual air temperature:* 61 to 64 degrees F  
*Frost-free period:* 200 to 300 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Placentia and similar soils:* 85 percent  
*Minor components:* 15 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Placentia

##### Setting

*Landform:* Alluvial fans, terraces  
*Landform position (three-dimensional):* Tread  
*Down-slope shape:* Linear  
*Across-slope shape:* Linear  
*Parent material:* Alluvium derived from granite

##### Typical profile

*H1 - 0 to 18 inches:* fine sandy loam  
*H2 - 18 to 39 inches:* clay  
*H3 - 39 to 57 inches:* clay loam  
*H4 - 57 to 60 inches:* gravelly sandy loam

##### Properties and qualities

*Slope:* 0 to 5 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Moderately well drained  
*Runoff class:* Very high  
*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately low (0.00 to 0.06 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Calcium carbonate, maximum in profile:* 5 percent  
*Salinity, maximum in profile:* Nonsaline to slightly saline (2.0 to 8.0 mmhos/cm)  
*Sodium adsorption ratio, maximum in profile:* 50.0  
*Available water storage in profile:* Low (about 4.8 inches)

##### Interpretive groups

*Land capability classification (irrigated):* 4e  
*Land capability classification (nonirrigated):* 4e  
*Hydrologic Soil Group:* D  
*Ecological site:* Claypan (1975) (R019XD061CA)



## Custom Soil Resource Report

### Minor Components

#### Hanford

*Percent of map unit:* 5 percent

#### Greenfield

*Percent of map unit:* 5 percent

#### Ramona

*Percent of map unit:* 4 percent

#### Unnamed, ponded

*Percent of map unit:* 1 percent

*Landform:* Depressions

### PID—Placentia fine sandy loam, 5 to 15 percent slopes

#### Map Unit Setting

*National map unit symbol:* hcxw

*Elevation:* 50 to 2,500 feet

*Mean annual precipitation:* 12 to 18 inches

*Mean annual air temperature:* 61 to 64 degrees F

*Frost-free period:* 200 to 300 days

*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Placentia and similar soils:* 85 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Placentia

##### Setting

*Landform:* Alluvial fans, terraces

*Landform position (three-dimensional):* Tread

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Alluvium derived from granite

##### Typical profile

*H1 - 0 to 18 inches:* fine sandy loam

*H2 - 18 to 39 inches:* clay

*H3 - 39 to 57 inches:* clay loam

*H4 - 57 to 60 inches:* gravelly sandy loam

##### Properties and qualities

*Slope:* 5 to 15 percent

*Depth to restrictive feature:* More than 80 inches

*Natural drainage class:* Moderately well drained

*Runoff class:* Very high

Custom Soil Resource Report

Capacity of the most limiting layer to transmit water (*K<sub>sat</sub>*): Very low to moderately low (0.00 to 0.06 in/hr)  
Depth to water table: More than 80 inches  
Frequency of flooding: None  
Frequency of ponding: None  
Calcium carbonate, maximum in profile: 5 percent  
Salinity, maximum in profile: Nonsaline to slightly saline (2.0 to 8.0 mmhos/cm)  
Sodium adsorption ratio, maximum in profile: 50.0  
Available water storage in profile: Low (about 4.8 inches)

**Interpretive groups**

Land capability classification (irrigated): 4e  
Land capability classification (nonirrigated): 4e  
Hydrologic Soil Group: D  
Ecological site: Claypan (1975) (R019XD061CA)

**Minor Components**

**Greenfield**

Percent of map unit: 5 percent

**Hanford**

Percent of map unit: 5 percent

**Ramona**

Percent of map unit: 4 percent

**Unnamed, ponded**

Percent of map unit: 1 percent  
Landform: Depressions

**ReC2—Ramona very fine sandy loam, 0 to 8 percent slopes, ero ded**

**Map Unit Setting**

National map unit symbol: hcyg  
Elevation: 250 to 3,500 feet  
Mean annual precipitation: 10 to 20 inches  
Mean annual air temperature: 63 degrees F  
Frost-free period: 230 to 320 days  
Farmland classification: Prime farmland if irrigated

**Map Unit Composition**

Ramona and similar soils: 85 percent  
Minor components: 15 percent  
Estimates are based on observations, descriptions, and transects of the mapunit.

**Description of Ramona**

**Setting**

Landform: Terraces, alluvial fans  
Landform position (three-dimensional): Tread  
Down-slope shape: Linear, concave

## Custom Soil Resource Report

*Across-slope shape:* Linear, convex  
*Parent material:* Alluvium derived from granite

### Typical profile

*H1 - 0 to 14 inches:* very fine sandy loam  
*H2 - 14 to 23 inches:* fine sandy loam  
*H3 - 23 to 68 inches:* sandy clay loam  
*H4 - 68 to 74 inches:* gravelly sandy loam

### Properties and qualities

*Slope:* 0 to 8 percent  
*Depth to restrictive feature:* More than 80 inches  
*Natural drainage class:* Well drained  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately high (0.20 to 0.57 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None  
*Available water storage in profile:* Moderate (about 8.5 inches)

### Interpretive groups

*Land capability classification (irrigated):* 3e  
*Land capability classification (nonirrigated):* 3e  
*Hydrologic Soil Group:* C  
*Ecological site:* Loamy (1975) (R019XD029CA)

### Minor Components

#### Hanford

*Percent of map unit:* 5 percent

#### Greenfield

*Percent of map unit:* 5 percent

#### Tujunga

*Percent of map unit:* 5 percent

## TeG—Terrace escarpments

### Map Unit Composition

*Terrace escarpments:* 100 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Terrace Escarpments

#### Setting

*Landform:* Terraces  
*Down-slope shape:* Concave  
*Across-slope shape:* Convex  
*Parent material:* Alluvium derived from mixed sources

## C PARCEL REPORT



## Riverside County Parcel Report

APN(s): 122180027

### DISCLAIMER

Maps, point information and data are to be used for reference purposes only. Map features are approximate and are not necessarily accurate to surveying or engineering standards. The County of Riverside makes no warranty or guarantee as to the content (the source is often third party), accuracy, timeliness, or completeness of any of the data provided, and assumes no legal responsibility for the information contained on this map. Any use of the product with respect to accuracy and precision shall be the responsibility of the user.

### MAP IMAGES



PARCEL			
APN	122180027-3	Supervisorial District	KABER-GORRICH DISTRICT 2
Previous APN	122180027 122140014, 122180026	Township/Range	T35R0W SEC 19 R5EC
Owner Name	NOT AVAILABLE ONLINE	Elevation	529 ft
Address		Thomas Bros. Map Page/Grid	PAGE: 743, GRID: E3
Mailing Address	122180027 9019 ALTA CRESTA AVE RIVERSIDE CA 92508	Indian Tribal Land	NOT IN A TRIBAL LAND
Legal Description	122180027 Recorded Book/Page: RS 4651 Subdivision Name: TR 2437 Lot/Parcel: 1 Block: Tract Number:	City Boundary	CORONA
		City Spheres of Influence	NOT IN A CITY SPHERE
Lot Size	122180027 Recorded of size: 2.31 acres	March Joint Powers Authority	NOT IN THE JURISDICTION OF THE MARCH JOINT POWERS AUTHORITY
Property	122180027	County Service Area	NOT IN A COUNTY SERVICE AREA

Characteristics	Year Constructed:		
	Baths:		
	Bedrooms:		
	Construction Type:		
	Garage Type:		
	Property Area (sq ft):		
	Roof Type:		
	Stories:		
	Pool: NO		
	Central Cool: NO		
	Central Heat: NO		
Annexation Date	N/A	LAFCO Case	N/A
Proposals	N/A		

**PLANNING**

Specific Plans	NOT IN A SPECIFIC PLAN	Historic Preservation Districts	NOT IN A HISTORIC PRESERVATION DISTRICT
Land Use Designations	CITY	Agricultural Preserve	NOT IN AN AGRICULTURAL PRESERVE
General Plan Policy Overlays	N/A		
Area Plan (RCP)	Tamescal Canyon	Airport Influence Areas	NOT IN AN AIRPORT INFLUENCE AREA
General Plan Policy Areas	NOT IN A GENERAL PLAN POLICY AREA	Airport Compatibility Zones	NOT IN AN AIRPORT COMPATIBILITY AREA
Special Land Use Districts (SLUDs)	CHECK WITH THE CITY FOR MORE INFORMATION	Zoning Districts and Zoning Areas	NOT IN A ZONING DISTRICT/AREA
Zoning Overlays	NOT IN A ZONING OVERLAY	Community Advisory Councils	NOT IN A COMMUNITY ADVISORY COUNCIL
Environmental Justice Communities	NOT IN AN ENVIRONMENTAL JUSTICE COMMUNITY		
Residential Permit Stats	N/A		

**ENVIRONMENTAL**

Coacheila Valley Multi-Species Habitat Conservation Plan (CVMSHCP) Fee Area	NOT IN A COACHELLA VALLEY MSHCP FEE AREA	WRMSHCP (Western Riverside County Multi-Species Habitat Conservation Plan) Cell Group	NOT IN A CELL GROUP
CVMSHCP (Coachella Valley Multi-Species Habitat Conservation Plan) Conservation Area	NOT COACHELLA VALLEY CONSERVATION AREA	WRMSHCP Cell Number	NOT IN A CELL NUMBER
CVMSHCP Fluvial Sand Transport Special Provision Areas	NOT IN A FLUVIAL SAND TRANSPORT SPECIAL PROVISION AREA	HANS/ERP (Habitat Acquisition and Negotiation Strategy/Expedited Review Process)	NOT IN A HANS/ERP PROJECT
Western Riverside County Land Use Survey (WRLUS) Urban Interface Mapping Unit	WESTERN RIVERSIDE COUNTY	Vegetation (2005)	URBAN INTERFACE MAPPING UNIT URBAN OR DEVELOPMENT MAPPING UNIT

**FIRE**

Fire Hazard Classification (CAL FIRE)	NOT IN A FIRE HAZARD ZONE	Fire Responsibility Area	NOT IN A FIRE RESPONSIBILITY AREA
---------------------------------------	---------------------------	--------------------------	-----------------------------------

**DEVELOPMENT FEES**

Coacheila Valley Multi-Species Habitat Conservation Fee	NOT IN A COACHELLA	RBBB (Road & Bridge Benefit)	NOT IN A ROAD BRIDGE
---	--------------------	------------------------------	----------------------

Conservation Plan) Fee Area (C-1 Fee)	VALLEY MSHCP FEE AREA	District)	BENEFIT DISTRICT
WRMSHCP (Western Riverside County Multi-Species Habitat Conservation Plan) Fee Area (C-1 Fee)	WESTERN RIVERSIDE COUNTY	DIF (Development Agreement Fee Area)	TEMESCAL CANYON, AREA 6
Western TUMF (Tribal Use Management Fee Area) (C-1 Fee)	IN OR PARTIALLY WITHIN A TUMF FEE AREA	SKR Fee Area (Development Agreement Fee Area)	NOT IN THE SKR FEE AREA
Eastern TUMF (Tribal Use Management Fee Area) (C-1 Fee)	NOT IN THE EASTERN TUMF FEE AREA	DA (Development Agreements)	NOT IN A DEVELOPMENT AGREEMENT

**TRANSPORTATION**

Circulation Element	NOT IN A CIRCULATION ELEMENT	Road Book Page	18
Ultimate Right-of-Way	RIGHT-OF-WAY	Transportation Agreements	NOT IN A TRANS AGREEMENT
		CETAP (Community and Environmental Transportation Acceptability Process) Corridors	NOT IN A CETAP CORRIDOR

**HYDROLOGY**

Flood Plan Review	*MAYBE REQUIRED, CONTACT RIVERSIDE COUNTY FLOOD CONTROL TO VERIFY	Waterbody	SANTA ANA RIVER
Water District	WESTERN MUNICIPAL WATER DISTRICT		
Flood Control District	RIVERSIDE COUNTY FLOOD CONTROL DISTRICT		

**GEOLOGIC**

Fault Zone	NOT IN A FAULT ZONE	Paleontological Sensitivity	HIGH SENSITIVITY (HIGH A): BASED ON GEOLOGIC FORMATIONS OR MAPPABLE ROCK UNITS THAT ARE ROCKS THAT CONTAIN FOSSILIZED BODY ELEMENTS, AND TRACE FOSSILS SUCH AS TRACKS, NESTS AND EGGS. THESE FOSSILS OCCUR ON OR BELOW THE SURFACE
Faults	NOT IN A FAULT LINE		
Liquefaction Potential	HIGH		
Subsidence	SUSCEPTIBLE		

**MISCELLANEOUS**

School District	CORONA-NORCO UNIFIED
Communities	CORONA
Lighting (C-1 Fee)	NOT IN A PALOMAR OBSERVATORY ZONE
Census Tract	408.09
Farmland	URBAN-BUILT UP LAND
Special Notes	NO SPECIAL NOTES
Tax Rate Areas	004003 - CITY OF CORONA 004003 - CORONA LTG MAINT 84-1 004003 - CORONA NORCO UNIFIED SCHOOL 004003 - CSA 152 004003 - FLOOD CONTROL ADMIN 004003 - FLOOD CONTROL ZN 2 004003 - GENERAL 004003 - GENERAL PURPOSE 004003 - MWD WEST 1502599 004003 - NW MOSQUITO & VECTOR CNTL DIST 004003 - RIV CORONA RESOURCE CONSERVATION 004003 - RIVERSIDE CITY COMMUNITY COLLEGE 004003 - RIVERSIDE CO OFC OF EDUCATION 004003 - SO CALIF JT (19,30,33,36,37,56) 004003 - WESTERN MUNICIPAL WATER

**Department of Environmental Health Permits**

**Septic Permits**

Record Id	Application Date	Plan Check Approved Date	Final Inspection Date	Approved Date
N/A	N/A	N/A	N/A	N/A

**Well Water Permits**

Record Id	PE	Permit Paid Date	Permit Approved Date	Well Final Date
N/A	N/A	N/A	N/A	N/A

**PLLE PERMITS & CASES**

**Administrative Cases**

Case	Case Description	Status
N/A	N/A	N/A

**Building and Safety Cases**

Case	Case Description	Status
N/A	N/A	N/A

**Code Cases**

Case	Case Description	Status
N/A	N/A	N/A

**Fire Cases**

Case	Case Description	Status
N/A	N/A	N/A

**Planning Cases**

Case	Case Description	Status
N/A	N/A	N/A

**Survey Cases**

Case	Case Description	Status
MAP34018		ISSUED
MAP36864		ISSUED

**Transportation Cases**

Case	Case Description	Status
N/A	N/A	N/A