

## **APPENDIX B: BIOLOGICAL RESOURCES ASSESSMENT**



# Airport Boulevard Sewer Consolidation Project

## Biological Resources Technical Study

*prepared for*

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# 1 Introduction

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Rincon Consultants, Inc. (Rincon) prepared this Biological Resources Technical Study (BRTS) to document the existing conditions and evaluate the potential for project-related impacts to biological resources associated with the Airport Boulevard Sewer Consolidation Project (project). Coachella Valley Water District (CVWD) is the project's lead agency. The project is located in the community of Thermal, within unincorporated Riverside County, California.

## 1.1 Project Location

The project is generally located in the central portion of the Coachella Valley in Riverside County, California (Figure 1). More specifically, the project is located along Desert Cactus Drive, Fillmore Street, Airport Boulevard, Avenue 57, Soto Street, and State Route (SR) 111 in the unincorporated community of Thermal (Figure 2). The project site is within the boundaries of the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) but outside of the CVMSHCP Mecca Hills/Orocopia Mountains Conservation Area.

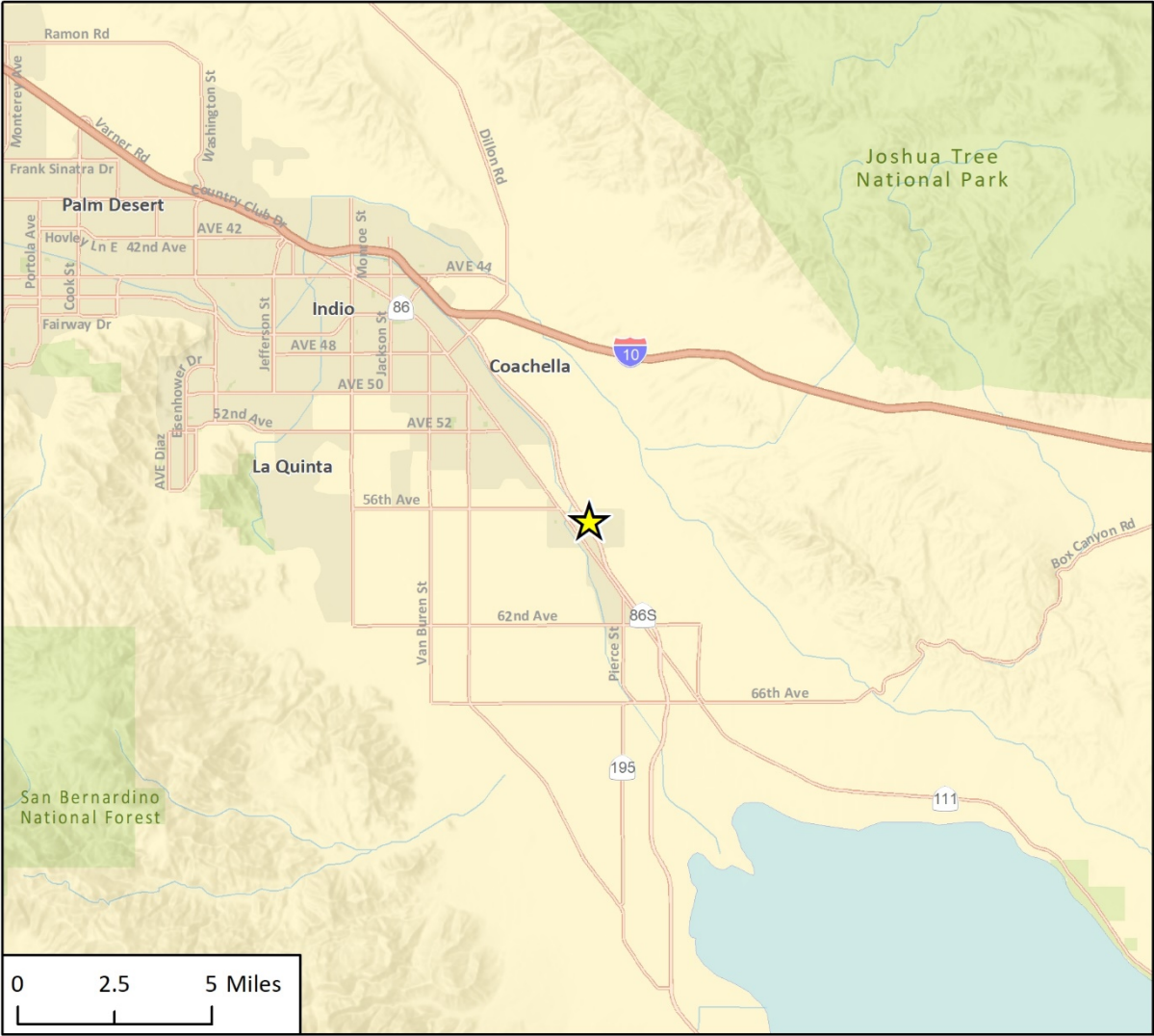
The project site is depicted on Township 6S, Range 8E, Sections 13, 14, 15, 22 and 23 of the U.S. Geological Survey *Indio* and *Thermal Canyon*, CA 7.5-minute topographic quadrangles, San Bernardino Baseline and Meridian. The project site is in a rural setting consisting of a mix of agricultural, rural residential, and vacant lands.

## 1.2 Project Description

The project proposes to construct a portion of a sanitary sewer system that will connect 13 small water systems currently reliant on septic systems to the CVWD sanitary sewer system. Approximately 17,700 linear feet of new sewer mains, sewer laterals, a new sewer lift station, and approximately 12,150 linear feet of onsite service lines would be constructed to consolidate the system that serves an existing population of approximately 692 people. The project would consist of 8-inch and 10-inch vitrified clay pipe gravity sewers, 4-inch service laterals, 4-inch force main, a new sewer lift station, and on-site sewer pipes and connections to complete service to the small water systems.

Sewer lines would generally be installed via open-trench construction, with trenches measuring approximately 3 to 5 feet wide and ranging in depth from 7 feet to 19 feet. Trenchless jack-and-bore construction methods would be used to install sewer lines where the proposed alignment crosses SR 86 and SR 111, and existing Union Pacific Railroad (UPRR) tracks (previously Southern Pacific Railroad). The proposed 4-inch force main would include an aerial crossing of the Coachella Valley Stormwater Channel (CVSC) via the existing SR 111 bridge. The 4-inch force main would be suspended alongside the existing bridge or if space is available, inside the bridge cavity. Excavation to approximately 40 feet deep is anticipated for trenchless construction. Project construction is anticipated to occur over approximately 24 months.

Figure 1 Regional Project Location



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★ Project Location



BIO Fig 1 Regional Location

**Figure 2 Project Location**



## 1.3 Area of Potential Effects

The project Area of Potential Effects (APE) generally depicts all areas expected to be affected by the proposed project, including construction staging areas. For this study, the APE includes the project disturbance footprint associated with the construction of the sanitary sewer system. The project site must additionally be considered as a three-dimensional space and includes any ground disturbance associated with the project. As such, the APE also includes a 50-foot buffer around the project site, which includes staging areas, to address potential indirect project effects such as noise and dust. The APE is 38.07 acres.

## 2 Methodology

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### 2.1 Regulatory Setting

This section provides a general summary of the applicable federal and state regulations related to biological resources that could occur within the APE and immediate vicinity. Regulated or sensitive biological resources considered and evaluated in this BRTS include special-status plant and wildlife species, nesting birds and raptors, sensitive plant communities, jurisdictional waters and wetlands, wildlife movement, and locally protected resources, such as protected trees.

CVWD is the lead agency for this project under the California Environmental Quality Act (CEQA).

#### 2.1.1 Environmental Statutes

For the purposes of this BRTS, potential project-related impacts to biological resources were analyzed according to the following regulatory statutes and guiding documents:

##### **Federal**

- Federal Endangered Species Act (ESA)
- Federal Clean Water Act (CWA)
- Migratory Bird Treaty Act (MBTA)
- The Bald and Golden Eagle Protection Act
- Coastal Zone Management Act
- Protection of Wetlands – Executive Order 11990
- Wild and Scenic Rivers Act
- Magnuson-Stevens Fishery Conservation and Management Act
- Fish and Wildlife Coordination Act
- Coastal Barriers Resources Act

With respect to the requirements of the federal Fish and Wildlife Coordination Act, it is anticipated that the State Water Resources Control Board would perform either formal or informal consultation with the U.S. Fish and Wildlife Service (USFWS) as part of its review of the project's eligibility for Drinking Water State Revolving Fund program assistance. Furthermore, coordination with the California Department of Fish and Wildlife (CDFW) would occur, as appropriate, pending a determination of CDFW as a trustee agency for the purposes of CEQA.

##### **State**

- California Environmental Quality Act (CEQA)
- California Endangered Species Act (CESA)
- California Fish and Game Code (CFGF)
- Porter-Cologne Water Quality Control Act

## Local

- Riverside County Ordinance No. 559 Regulating the Removal of Trees
- CVMSHCP

### 2.1.2 Guidelines for Determining CEQA Significance

The following threshold criteria, as defined within the CEQA Guidelines, Appendix G – Initial Study Checklist, are used as the basis to evaluate potential environmental effects. Centered on these criteria, a proposed project would have a significant effect on biological resources if it would:

- a) Have substantial adverse effects, either directly or through habitat modifications, on any species identified as a candidate, sensitive or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
- c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional or state habitat conservation plan.

## 2.2 Database and Literature Review

Prior to conducting the biological field survey for this BRTS, Rincon reviewed a variety of literature sources to obtain baseline information about the biological resources with potential to occur within the APE and in the surrounding areas. The literature review included information from standard biological reference materials and regionally applicable regulatory guiding documents including (but not limited to) the following: *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et al. 2012) and *A Manual of California Vegetation, 2nd edition* (Sawyer et al. 2009). Rincon also conducted queries of several relevant scientific databases that provide background information about the potential occurrences of sensitive biological resources: the CDFW California Natural Diversity Data Base (CNDDB) (CDFW 2020a) and Biogeographic Information and Observation System (CDFW 2020b); the USFWS Critical Habitat Portal (USFWS 2020a) and Information, Planning, and Conservation (IPaC) System Query (USFWS 2020b); National Wetlands Inventory (NWI) (USFWS 2020c); the United States Department of Agriculture (USDA), Natural Resource Conservation Service (NRCS) Web Soil Survey (NRCS 2020); the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants of California (CNPS 2020), and the CVMSHCP (Coachella Valley Association of Governments 2007). The CNDDB query included a five-mile radius centered on the APE; the CNPS query included the *Indio*, California USGS 7.5-minute topographic quadrangle and the

other eight USGS quadrangles that surround it (*Myoma, West Berdoo Canyon, Rockhouse Canyon, Thermal Canyon, Mecca, Valerie, Martinez Mountain, and La Quinta*).

Results of the special-status species queries were compiled and analyzed to determine which have potential to occur within the APE (Appendix A). The habitat requirements for each regionally occurring special-status species were assessed and compared to the type and quality of habitats observed in the APE during the biological field survey. Conclusions regarding which special-status species have the potential to occur were based not only on the background research and literature review previously mentioned, but also on the data collected in the field during the survey. Several regionally occurring special-status species were eliminated due to lack of suitable habitat within the APE, range in elevation, and/or geographic distribution. Special-status species determined to have the potential to occur within the APE are discussed in Section 4, Sensitive Biological Resources. Special-status species determined to have low or no potential to occur within the APE are not discussed further in this BRTS. Definitive surveys to confirm the presence or absence of special-status species were not performed and are not included in this analysis. The findings and opinions conveyed in this report are based exclusively on the methodology described above.

## 2.3 Biological Field Survey

Rincon Senior Biologist Jared Reed conducted a biological field survey for this BRTS on August 13, 2020 from 0730 to 1015. Weather conditions during the survey included temperatures ranging from 91°F to 108°F, with calm winds and 40% to 70% cloud cover. The survey area included the APE, as defined above. The pedestrian survey was supplemented with remote observation of inaccessible areas and/or private property using binoculars.

During the field survey an inventory of all plant and wildlife species observed was compiled, the existing vegetation communities classified, and the general site conditions were documented. Plant species nomenclature and taxonomy follows *The Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et al. 2012). The vegetation classification used for this analysis is based on Sawyer et al. (2009) but it has been modified as needed to most accurately describe the existing land covers and/or vegetation communities in the APE. All species encountered were noted and identified to the lowest possible taxonomic level. Photographs were taken of representative areas of the APE as well as notable features (Appendix B).

The habitat requirements of each regionally occurring special-status species were assessed and compared to the type and quality of habitats observed within the APE during the survey. The survey was conducted to make an initial determination regarding the presence or absence of terrestrial biological resources including plants, birds, and other wildlife.

## 3 Existing Conditions

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This section summarizes the results of the literature and database review as well as the biological field survey effort and provides further analysis of the data collected. Discussions regarding the general environmental setting, vegetation communities present, plant and wildlife species observed, special-status species potential, and other biological resource constraints in the APE are presented below. Representative photographs of the APE are provided in Appendix B and a complete list of all the plant and wildlife species observed in the APE during the field survey is presented in Appendix C.

### 3.1 Topography, Watershed, and Soils

The APE is located in the unincorporated community of Thermal in central Riverside County, within the Coachella Valley (Figure 1). The Coachella Valley is a desert valley that is bounded by the Little San Bernardino Mountains and Joshua Tree National Park in the north and east, the San Jacinto Mountains and Santa Rosa Mountains to the west and southwest, the Salton Sea to the southeast, and San Geronio Mountain to the north. The APE is located in the Whitewater River watershed and has an elevation ranging from 135 feet (41 meters) below mean sea level to 110 feet (33 meters) below mean sea level.

Based on the most recent soil survey for Riverside County (NRCS 2020) the APE contains five mapped soil types. These soil units are from the USDA NRCS Soil Survey of Riverside County, California, which was conducted on a broader scale than this study and did not necessarily include on-site observations. The physical characteristics of the soil units, as described below, are general and not necessarily indicative of characteristics currently present within the APE.

- Fluvents
- Gilman fine sandy loam, wet, 0 to 2 percent slopes
- Gilman silt loam, wet, 0 to 2 percent slopes
- Indio fine sandy loam, wet
- Indio very fine sandy loam, wet

Fluvents soils are more or less freely drained that formed in recent water-deposited sediments on flood plains, fans, and deltas along rivers and small streams. Fluvents are frequently flooded, unless they are protected by dams or levees. Most Fluvents are used as rangeland, forest, pasture, or wildlife habitat. Some are used as cropland. Fluvents soils are considered hydric.

The Gilman series consists of very deep, well drained soils formed in stratified stream alluvium from mixed sources. The Gilman series is typically used for livestock grazing and irrigated cropland. In an undeveloped state, natural vegetation typically found on these soils include mesquite (*Prosopis* sp.), catclaw (*Senegalia greggii*), creosote bush (*Larrea tridentata*), arrow-weed (*Pluchea sericea*), and saltbush (*Atriplex* sp.). Cottonwoods (*Populus* sp.), willows (*Salix* sp.) and saltcedar (*Tamarix ramosissima*) grow in open areas.

The Indio series consists of very deep, well or moderately well drained soils formed in alluvium derived from mixed rock sources. The Indio series is typically used for irrigated cropland and

livestock grazing. In other areas, natural vegetation typically present includes shadscale (*Atriplex confertifolia*), bursage (*Ambrosia* sp.), and arrow-weed.

## 3.2 Land Cover and Vegetation

The APE is within the lower Colorado desert which is a subdivision of the Sonoran Desert Region (DSon) geographic subdivision of California. The DSon subdivision is a component of the larger Desert Province (D) geographic region, which occurs within the larger California Floristic Province (Baldwin et al. 2012). While the project site is located almost entirely within a developed area, additional vegetation communities are present within the APE adjacent to the project site. Two land cover types and three vegetation communities occur within the APE and are discussed in more detail below: developed, disturbed, quailbush scrub, Goodding's willow – red willow riparian woodlands and tamarisk thickets (Figure 3a, Figure 3b, Figure 3c, and Figure 3d).

Twenty-five plant species were observed within the APE during the field survey (Appendix C).

### 3.2.1 Developed

Developed land includes areas that have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. It is characterized by permanent or semi-permanent structures, pavement or hardscape, and landscaped areas that often require irrigation (Oberbauer et al. 2008). Developed land comprises the majority of the APE (23.22 acres, or 61% of the APE), which includes irrigated residential lots, paved roads, and other buildings. Ornamental trees and shrubs in these areas include fan palm (*Washingtonia* sp.), oleander (*Nerium oleander*), and palo verde (*Parkinsonia* sp.).

### 3.2.2 Disturbed

Disturbed habitat are areas which have been significantly modified by human activity. Disturbed areas are mostly devoid of vegetation and are generally located along road shoulders in the APE. The open field west of Desert Cactus Drive and east of the Whitewater River which is comprised of compost piles was also classified as disturbed. Vegetative species present include Russian thistle (*Salsola tragus*), tumbleweed (*Amaranthus albus*) and common puncture vine (*Tribulus terrestris*). Approximately 10.47 acres of disturbed habitat occurs within the APE; therefore, disturbed habitat comprises approximately 27.5% of the APE.

### 3.2.3 Quailbush Scrub

The quailbush scrub habitat in the APE corresponds to natural shrubland stands more recently described by Sawyer et al. (2009). Quailbush scrub is dominated by quailbush (*Atriplex lentiformis*), and also contains saltbush and honey mesquite (*Prosopis glandulosa* var. *torreyana*). Within the APE, this plant community has varying levels of disturbance. It occupies 3.79 acres and is located throughout the APE. Quailbush scrub occupies approximately 10% of the APE.

Figure 3a Land Cover and Vegetation

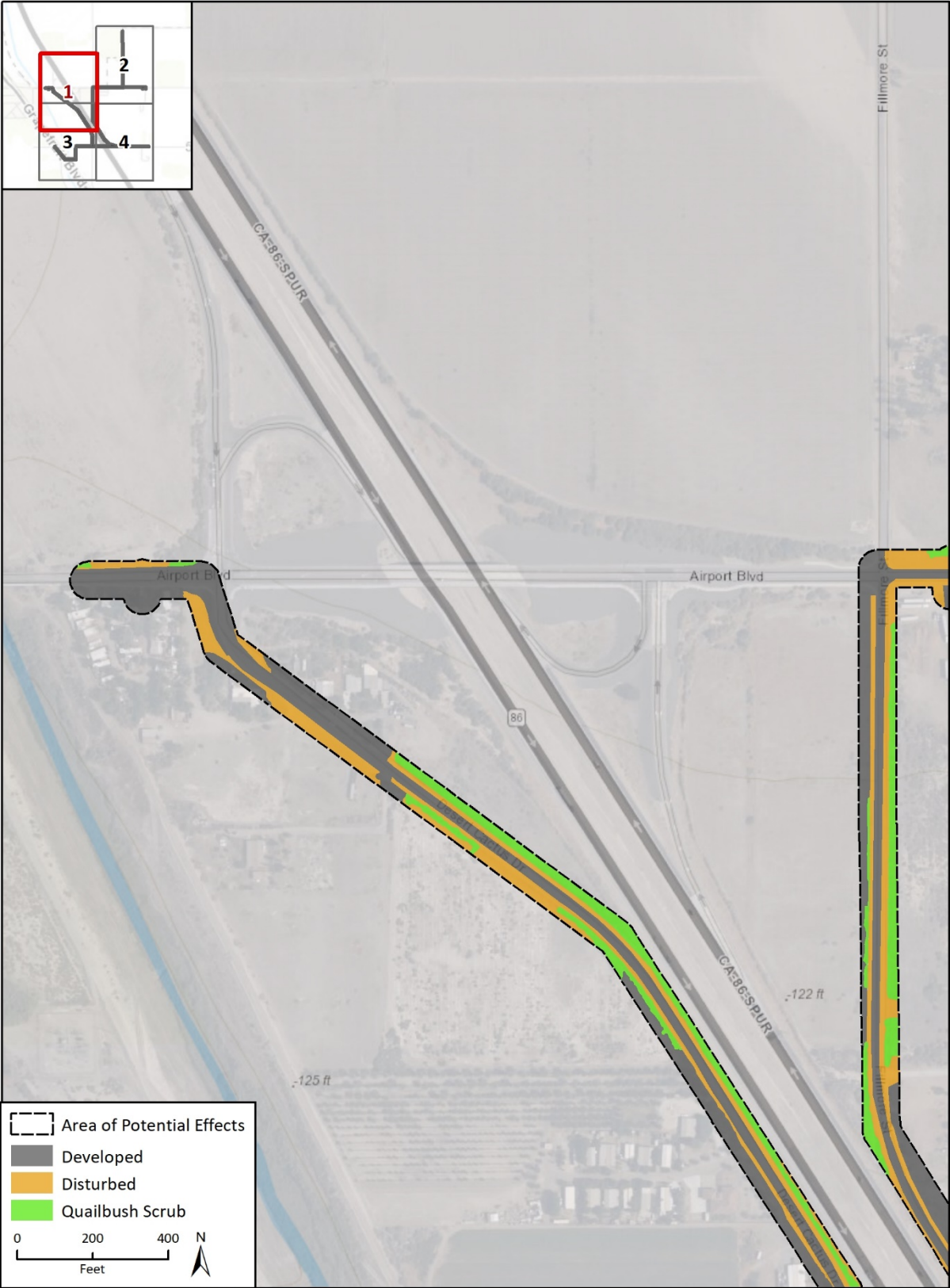


Figure 3b Land Cover and Vegetation

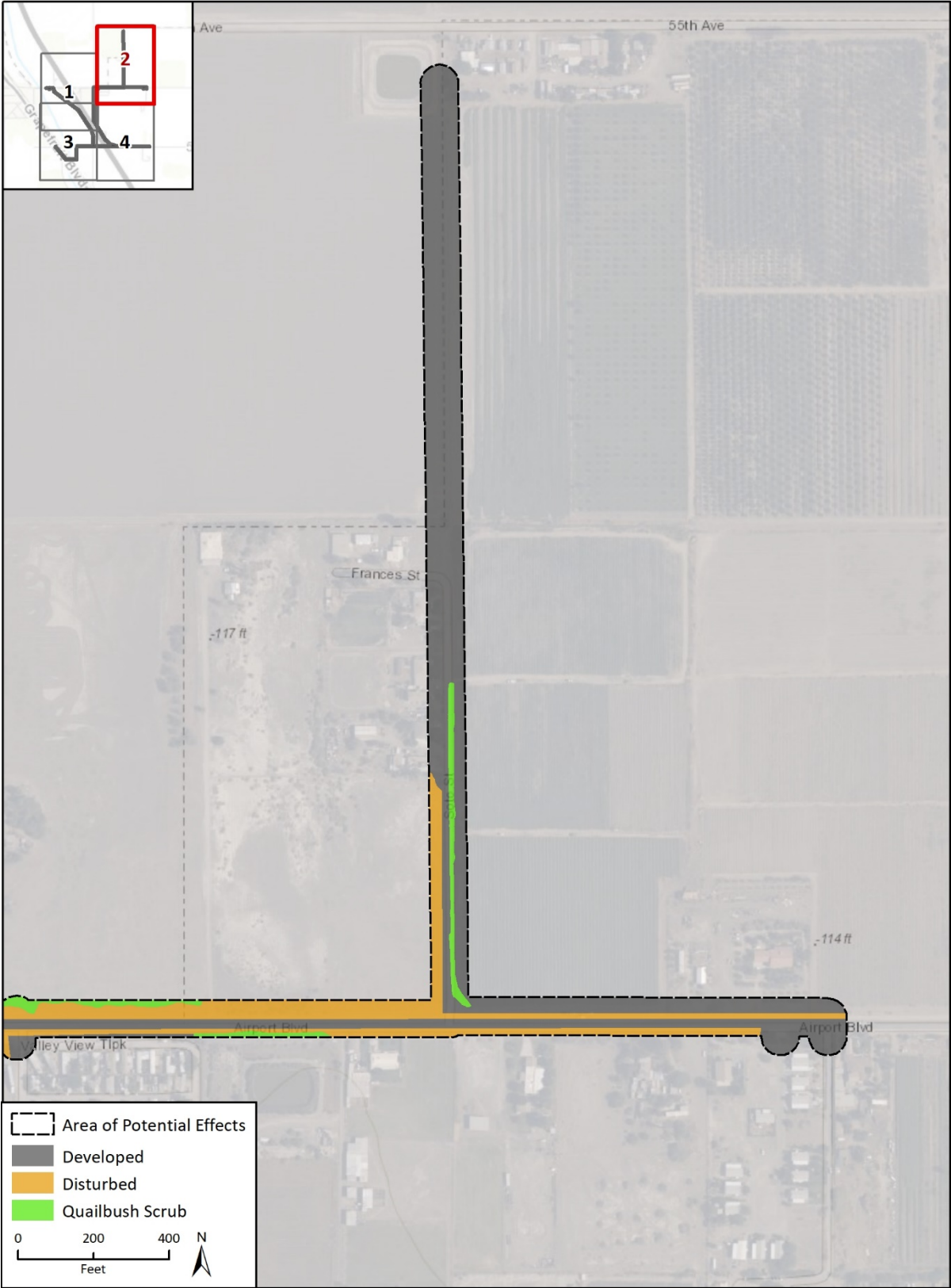


Figure 3c Land Cover and Vegetation

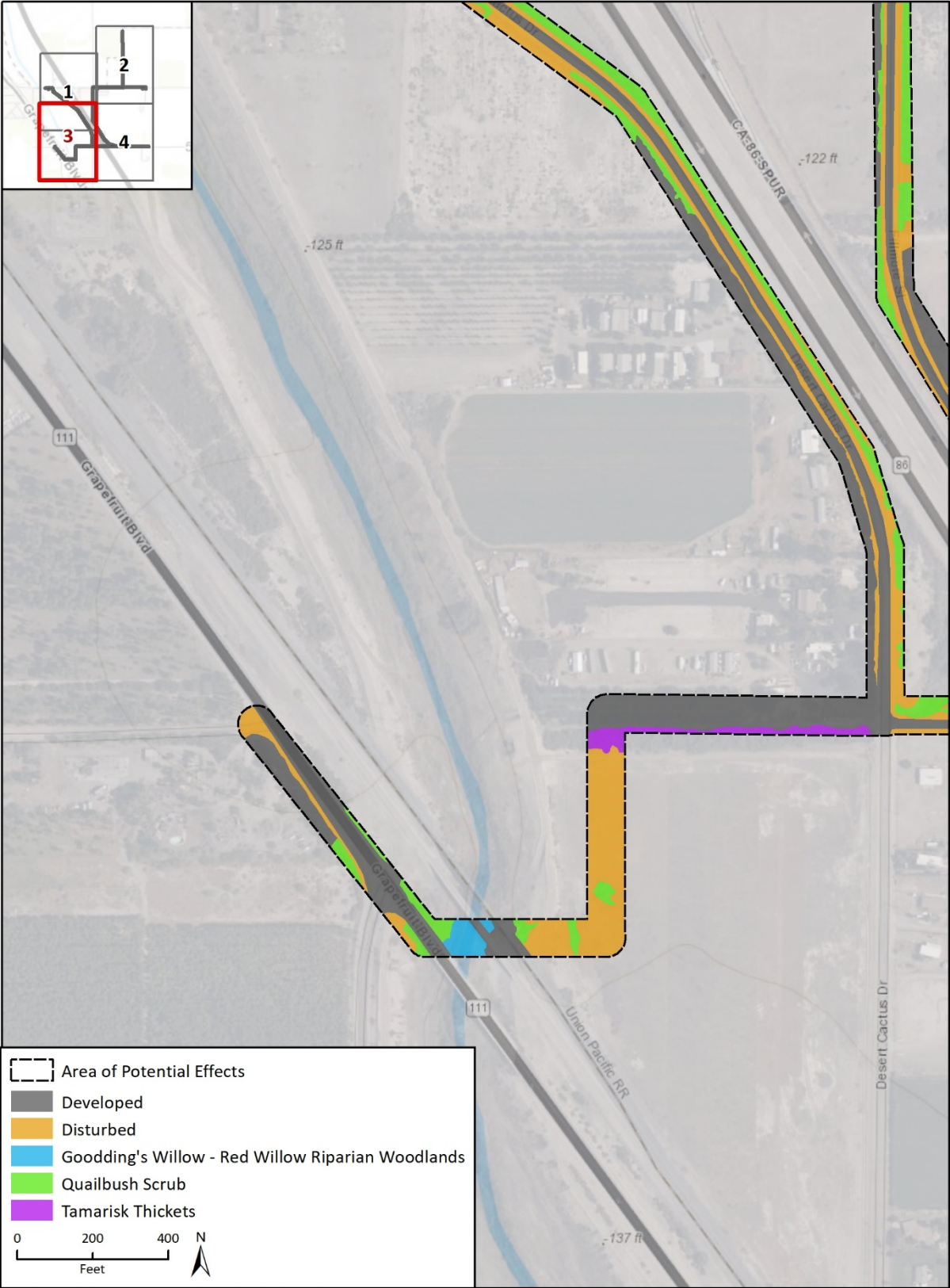
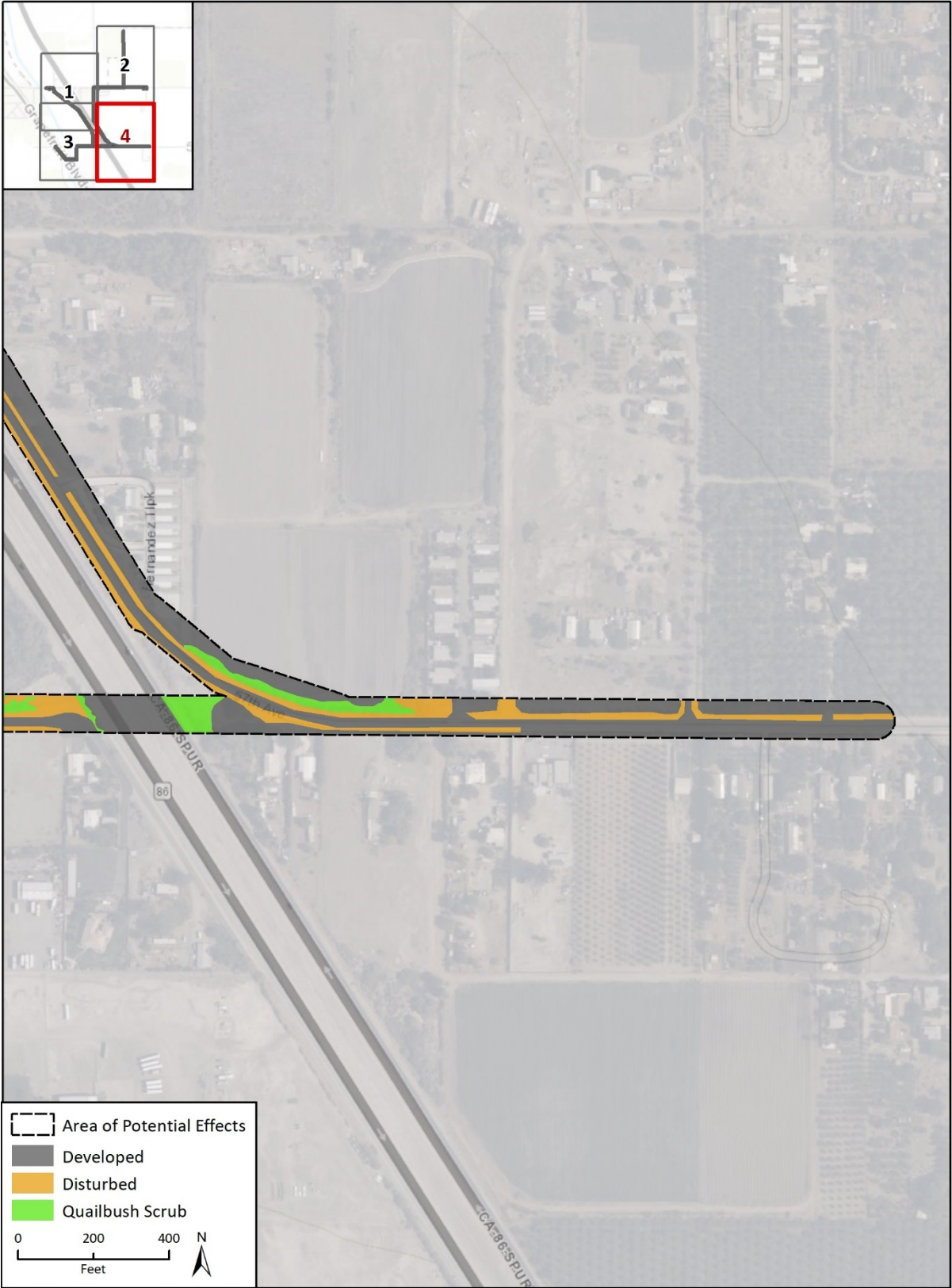


Figure 3d Land Cover and Vegetation



Basemap provided by Esri, Microsoft Bing and its licensors © 2020.

BIO Fig 3 Landcover

### 3.2.4 Goodding's Willow – Red Willow Riparian Woodland

Goodding's willow – red willow riparian woodland in the APE corresponds to natural woodlands more recently described by Sawyer et al. (2009). Goodding's willow – red willow riparian woodland is dominated by Goodding's willow (*Salix gooddingii*) and cattail (*Typha* sp.), and contains other native species such as Fremont cottonwood (*Populus fremontii*), cocklebur (*Xanthium strumarium*) and common sunflower (*Helianthus annuus*). This plant community is limited to the CVSC in the western portion of the APE. It occupies approximately 0.21 acre in the APE, or approximately 0.5% of the APE.

### 3.2.5 Tamarisk Thickets

The tamarisk thickets habitat in the APE corresponds to semi-natural stands more recently described by Sawyer et al. (2009). Tamarisk thickets are dominated by tamarisk (*Tamarix* sp.), but also contain native species such as arrow-weed, honey mesquite and quailbush. Within the APE, this plant community occupies approximately 0.38 acre (or approximately 1%) and primarily exists along a drainage ditch west of Desert Cactus Drive and east of the CVSC.

## 3.3 General Wildlife

The APE and surrounding areas provide habitat suitable for some wildlife species that can be found in the Rural and suburban areas in the region. Wildlife observed within or adjacent to the APE are listed in Appendix C and included bird species such as house sparrow (*Passer domesticus*), rock pigeon (*Columbia livia*), American kestrel (*Falco sparverius*), Eurasian collared-dove (*Streptopelia decaocto*), northern mockingbird (*Mimus polyglottos*), and black phoebe (*Sayornis nigricans*).

## 4 Sensitive Biological Resources

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This section discusses the general presence or potential for sensitive biological resources to occur within the APE.

### 4.1 Special-Status Species

Potential to occur assessments are based on the presence or absence of suitable habitat for each special-status species reported in the scientific database queries that were conducted for the proposed project. Several scientific databases were queried, multiple sources of pertinent scientific literature were reviewed, and the technical expertise of Rincon's staff was utilized to determine the habitat requirements, ecology, and distribution of the special-status plant and wildlife species potentially affected by the proposed project. All occurrences of special-status species, sensitive vegetation communities, and USFWS-designated critical habitats that have been reported by the resource agencies within a five-mile radius of the APE were plotted on a map using geographic information system (GIS) software. As discussed in Section 2.2, an analysis was conducted to determine which of the regionally occurring special-status species have potential to occur within the APE (Appendix A). The potential for each special-status species to occur in the APE was evaluated according to the following criteria:

- **Not Expected.** Habitat on and adjacent to the APE is clearly unsuitable for the species requirements (foraging, breeding, cover, substrate, elevation, hydrology, plant community, site history, disturbance regime).
- **Low Potential.** Few of the habitat components meeting the species requirements are present, and/or the majority of habitat on and adjacent to the APE is unsuitable or of very poor quality. The species is not likely to be found in the APE.
- **Moderate Potential.** Some of the habitat components meeting the species requirements are present, and/or only some of the habitat on or adjacent to the APE is unsuitable. The species has a moderate probability of being found in the APE.
- **High Potential.** All of the habitat components meeting the species requirements are present and/or most of the habitat on or adjacent to the APE is highly suitable. The species has a high probability of being found in the APE.
- **Present.** Species was observed in the APE or has been recorded (e.g., CNDDb, other reports) in the APE recently (within the last 5 years).

Plant or animal taxa may be considered "special-status" due to declining populations, vulnerability to habitat change, or because they have restricted ranges. Some are listed as threatened or endangered by the USFWS, the CDFW, or both and are protected by the federal and state ESAs. Others have been identified as special-status species by the USFWS, the CDFW, or by private conservation organizations, including the CNPS. Unlisted species of special concern do not have formal state or federal status.

For the purpose of this report, special-status species are those plants and animals listed, proposed for listing, or candidates for listing as Threatened or Endangered by the USFWS under the ESA; those listed or candidates for listing as Rare, Threatened, or Endangered by the CDFW under the CESA or Native Plant Protection Act; those designated as Fully Protected (FP) by the CFGC; those recognized

as Species of Special Concern (SSC) and Watch List (WL) species identified by the CDFW; and plants occurring on lists 1 and 2 of the CNPS California Rare Plant Rank (CRPR) system, per the following definitions:

- **Rank 1A** = Plants presumed extirpated in California and either rare or extinct elsewhere;
- **Rank 1B** = Rare, threatened or endangered in California and elsewhere;
- **Rank 2A** = Plants presumed extirpated in California but more common elsewhere.
- **Rank 2B** = Rare, threatened or endangered in California but more common elsewhere.

Additionally, the CNPS Threat Rank definitions are as follows:

- **.1** = seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat);
- **.2** = moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat); and
- **.3** = not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known)

In addition, special-status species are ranked globally (G) and subnationally (S) on a scale of 1 through 3 based on NatureServe's (2010) methodologies:

- **G1 or S1** - Critically Imperiled Globally or Statewide
- **G2 or S2** - Imperiled Globally or Statewide
- **G3 or S3** - Vulnerable to Extirpation or Extinction Globally or Statewide

#### 4.1.1 Special-Status Plant Species

Rincon evaluated four special-status plant species documented by the CNDDDB and CNPS within a five-mile radius of the APE for their potential to occur within the APE (Appendix A). The assessment of the potential for these species to occur is based upon the presence of suitable habitat as identified during surveys and existing knowledge of species occurrences and distributions in the region. Of the four species evaluated, none have a moderate or high potential to occur based on the existing developed and disturbed nature of the project site, lack of suitable soils, inappropriate hydrologic conditions, and absence of appropriate vegetation communities in the APE. In addition, many of the species' CNDDDB occurrences are historical, dating from the early to mid-1920s. Therefore, special-status plant species either have a low potential or are not expected within the APE. Further, no special-status plant species were detected within the APE during the survey.

#### 4.1.2 Special-Status Wildlife Species

Rincon evaluated 22 special-status wildlife species documented by the CNDDDB within five miles of the APE and listed on the USFWS' iPac resource list for their potential to occur within the APE (Appendix A). The assessment is based upon the presence of suitable habitat as identified during surveys and existing knowledge of species occurrences and distributions in the region. Of the 22 species evaluated, none have a moderate or high potential to occur within the APE based on low habitat quality in the developed and disturbed areas, lack of suitable vegetation that would support special-status wildlife species, and regular maintenance of the grounds or other disturbance from frequent human activity. While native vegetation does exist within the APE (within the project site's 50-foot buffer), the habitat quality is low relative to species requirements, and many CNDDDB

occurrences are historical (dating from the early to mid-1900s). Therefore, special-status wildlife species either have a low potential or are not expected within the APE.

### 4.1.3 Nesting Birds

While not all birds are designated as special-status species, destruction of their eggs, nests, and nestlings is prohibited by federal and state law. Section 3503.5 of the CFGC specifically protects birds of prey, and their nests and eggs, against take, possession, or destruction. Section 3503 of the CFGC also incorporates restrictions imposed by the federal MBTA with respect to migratory birds (which consists of all native bird species). The APE provides suitable nesting habitat for numerous species of birds common in the area and nesting birds are likely to be present within the APE during the bird nesting season (January 1 through July 1 for raptors, February 1 through August 31 for burrowing owl (*Athene cunicularia*), and March 1 through September 15 for passerines).

## 4.2 Sensitive Plant Communities

Plant communities are considered sensitive biological resources if they have limited distributions, have high wildlife value, include sensitive species, or are particularly susceptible to disturbance. CDFW ranks sensitive communities as "threatened" or "very threatened" and keeps records of their occurrences in CNDDDB. Similar to special-status plant and wildlife species, vegetation alliances are ranked 1 through 5 based on NatureServe's (2010) methodology, with those alliances ranked globally (G) or statewide (S) as 1 through 3 considered sensitive, though there are some exceptions.

According to the CNDDDB, no occurrences of sensitive plant communities are recorded within a five-mile radius of the APE. However, Goodding's willow – red willow riparian woodland, which has a G4S3 ranking, occurs within a small portion of the APE located in the CVSC.

## 4.3 Jurisdictional Waters and Wetlands

In accordance with Section 1602 of the CFGC, the CDFW has jurisdiction over lakes and streambeds (including adjacent riparian resources). CDFW regulates wetland areas only to the extent that those wetlands are part of a river, stream, or lake. Under Section 404 of the Clean Water Act (CWA), the United States Army Corps of Engineers (USACE) has authority to regulate activities that discharge dredge or fill material into wetlands or other "waters of the United States" through issuance of a Section 404 Permit. Finally, the Regional Water Quality Control Board (RWQCB) has jurisdiction over "waters of the state" pursuant to the Porter-Cologne Water Quality Control Act and has the responsibility for review of the project water quality certification per Section 401 of the federal CWA.

Areas potentially subject to USACE, RWQCB, and CDFW jurisdiction were assessed during the literature review and field visit; however, a formal jurisdictional delineation was not performed. The APE contains a small portion of the CVSC. A dry drainage ditch is also within the APE, but outside of the proposed project disturbance area. The CVSC is mapped as a Riverine Wetland by the NWI, while the drainage ditch is not mapped by the NWI (USFWS 2020c). Review of aerial imagery suggests that the drainage ditch may have connectivity with the CVSC.

Within the APE, the CVSC is comprised of Goodding's willow – red willow riparian woodland with dense cattail as codominant. This section of the channel will be under construction in 2021 (CVSC 54-thermal) and the section of the channel the APE crosses will be completely concrete lined.

Evidence of human presence underneath SR 111 and the UPRR tracks, including trash and debris, was observed in the CVSC. Review of aerial photography indicates that the channel contains a surface connection to the Salton Sea. Due to the presence of a defined bed and bank, riparian vegetation and downstream connectivity, the CVSC would likely be subject to the jurisdiction of the USACE, RWQCB and CDFW.

The drainage ditch to the south of the project site east of the CVSC and west of Desert Cactus Drive appeared to be man-made from review of aerial imagery and field conditions. Dense tamarisk thickets are present within the feature which was dry at the time of the survey. Design of the drainage appears to contribute to managing irrigation runoff from surrounding residential properties. If precipitation and resulting overland flows are great enough, connectivity to downstream features may occur. The *Navigable Waters Protection Rule to define "Waters of the United States"* that was recently published by the USACE and U.S. Environmental Protection Agency and became effective on June 22, 2020, states that "ephemeral features that flow only in direct response to precipitation including ephemeral streams, swales, gullies, rills, and pools," are not considered jurisdictional. As a result, the drainage ditch would not be considered waters of the U.S. under USACE jurisdiction. However, the drainage ditch could potentially be subject to the jurisdiction of the CDFW, under Section 1602 of the CFGC, and RWQCB, under the Porter-Cologne Water Quality Control Act, given the presence of bed and bank and potential surface flow connection.

## 4.4 Wildlife Movement

Wildlife corridors are generally defined as connections between habitat patches that allow for physical and genetic exchange between otherwise isolated animal populations. Such linkages may serve a local purpose, such as between foraging and denning areas, or they may be regional in nature, allowing movement across the landscape. Some habitat linkages may serve as migration corridors, wherein animals periodically move away from an area and then subsequently return. Examples of barriers or impediments to movement include housing and other urban development, roads, fencing, unsuitable habitat, or open areas with little vegetative cover. Regional and local wildlife movements are expected to be concentrated near topographic features that allow convenient passage, including roads, drainages, and ridgelines.

The APE is not located within or adjacent to a natural landscape block or an essential habitat connectivity corridor. The APE is within the boundaries of the CVMSHCP plan area /Natural Community Conservation Plan but also outside of a Specific Conservation Area. Most of the APE is within a previously developed and routinely managed residential area that offers little to no value to wildlife movement. The APE is also mostly located within and along roadways which are existing deterrents to wildlife movement. The proposed project disturbance areas are subject to frequent human disturbance that do not provide linkage to wildlife habitat. The CVSC may provide a corridor for localized wildlife movement.

## 4.5 Local Policies and Ordinances

Riverside County Ordinance 559 protects oak (*Quercus*) woodlands and requires a permit for removal of any native trees on parcels greater than one-half acre in size and above 5,000 feet in elevation. No trees in the APE meet these criteria. No other local policies or ordinances would apply to the project.

## 4.6 Conservation Plans

The APE is within the CVMSHCP area. The CVMSHCP is a comprehensive, multi-jurisdictional habitat conservation plan focusing on the conservation of species and their associated habitats in the Coachella Valley region of Riverside County, and in which the CVWD is a participating entity. The overall goal of the CVMSHCP is to maintain and enhance biological diversity and ecosystem processes within the region while allowing for future economic growth (CVAG 2007).

The CVMSHCP covers 27 special-status plant and wildlife species (CVMSHCP covered species) as well as 27 natural communities and includes 21 conservation areas. Covered species include both listed and non-listed species that are conserved by the CVMSHCP. The overall provisions for the Plan are subdivided according to specific resource conservation goals that have been organized according to geographic areas defined as Conservation Areas. These areas are identified as Core, Essential, or Other Conserved Habitat for special-status plant, invertebrate, amphibian, reptile, bird, and mammal species, Essential Ecological Process Areas, and Biological Corridors and Linkages.

Each Conservation Area has specific Conservation Objectives that must be satisfied. The CVMSHCP received final approval on October 1, 2008. The approval of the CVMSHCP and execution of the Implementing Agreement (IA) provides the signatories to the Plan coverage for take (with the exception of three species) during covered activities in concurrence with the appropriate wildlife agency. The three species not covered for take include peninsular bighorn sheep (*Ovis canadensis nelsoni*), Yuma clapper rail (*Rallus longirostris yumanensis*), and California black rail (*Laterallus jamaicensis coturniculus*). The CDFW acknowledges and agrees that if measures put forth in the CVMSHCP are fully complied with, the covered activities are not likely to result in the take of these species.

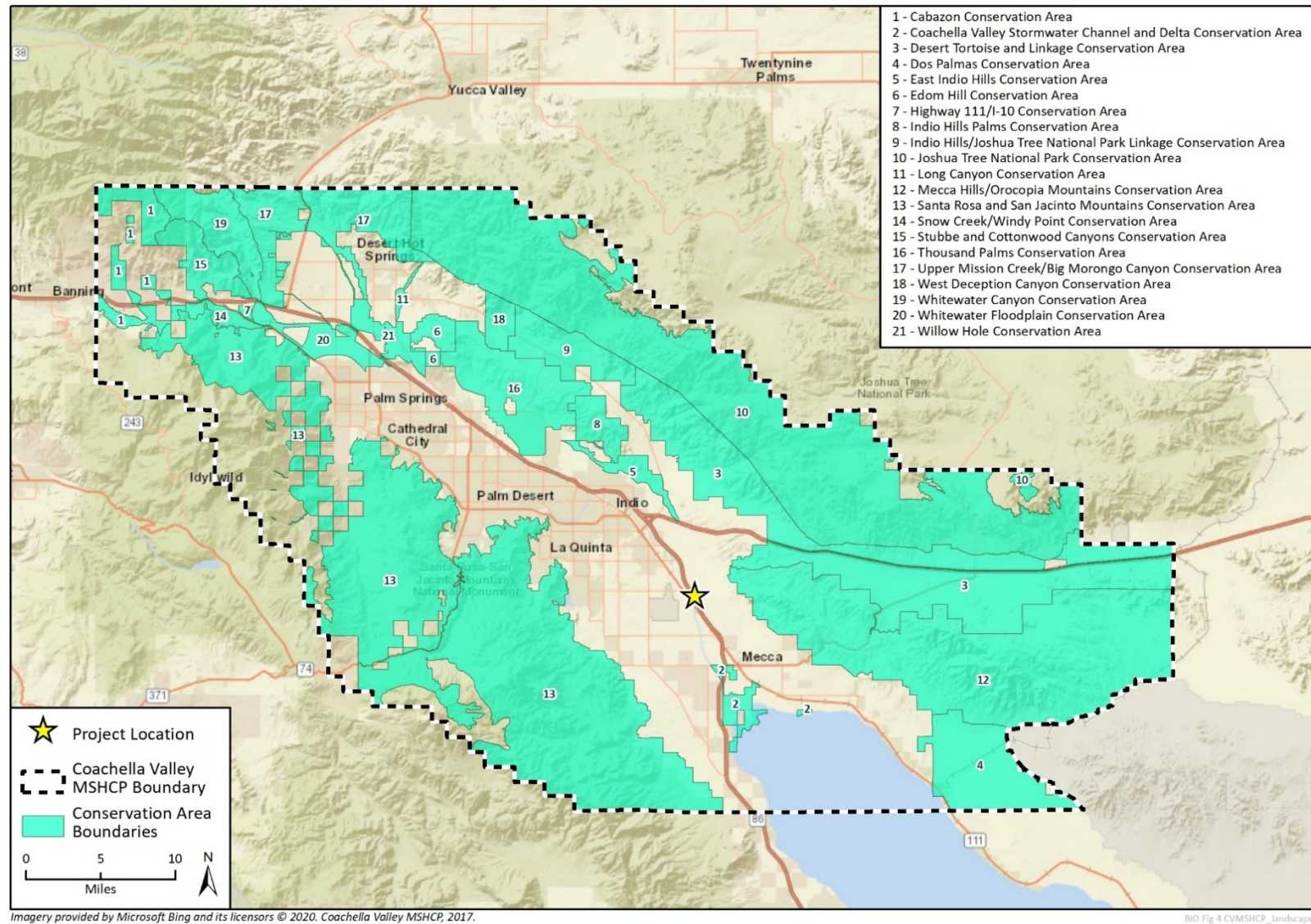
In addition, the purpose of CVMSHCP Section 4.5 Land Use Adjacency Guidelines is to avoid or minimize indirect effects from development adjacent to or within the Conservation Areas. In this context, “adjacent” means to share a common boundary with any parcel in a designated Conservation Area. Indirect effects include noise, lighting, drainage, intrusion of people, and the introduction of nonnative plants and nonnative predators such as dogs and cats.

The APE occurs within the planning boundary of the CVMSHCP but is not a part of any CVMSHCP Conservation Area (Figure 4). The closest Conservation Area is the Mecca Hills/Orocopia Mountains CVMSHCP Conservation Area, which is approximately five miles to the east of the APE. Per Section 4.3.18 of the CVMSHCP, this Conservation Area provides Core Habitat for the Mecca aster (*Xylorhiza cognata*), Orocopia sage (*Salvia greatae*), and desert tortoise (*Gopherus agassizii*), which is comprised of the Mecca Hills Wilderness and the Orocopia Mountains Wilderness (refer to Figure 4-23b in the CVMSHCP). In addition, the CVMSHCP Section 7.1 Covered Activities Outside Conservation Areas indicates that CVMSHCP permittee-proposed activities, and their associated potential impacts to covered species, outside of Conservation Areas would be covered by the CVMSHCP. Potential impacts to non-covered species would not be covered.

## 4.7 Critical Habitat, Coastal Zone, Wild and Scenic Rivers, Essential Fish Habitat, and Coastal Barrier Resources

The APE is not within or adjacent to the Coastal Zone or any federally designated Wild and Scenic Rivers. The APE is located approximately five miles west of the desert tortoise critical habitat associated with the Mecca Hills/Orocopia Mountains Conservation Area. Furthermore, the APE is not within or adjacent any Essential Fish Habitat or within lands covered by the Coastal Barrier Resources System.

Figure 4 CVMSHCP Conservation Areas



## 5 Impact Analysis and Mitigation Measures

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This section discusses the possible adverse impacts to sensitive biological resources that may occur from implementation of the proposed project and from operation/maintenance activities and suggests appropriate mitigation measures that would reduce those impacts to less than significant levels. The criteria used to evaluate potential project-related impacts to biological resources are presented in Section 2.1.2.

### 5.1 Special-Status Species

#### 5.1.1 Special-Status Plant Species

As discussed in Section 4.1, the APE does not provide suitable habitat for most special-status plant species given the disturbance history of the APE, lack of suitable soils, inappropriate hydrologic conditions, or absence of appropriate vegetation communities. No special-status plant species have a moderate or high potential to occur within the APE. As a result, project impacts to special-status plant species are not expected and no mitigation measures are recommended.

#### 5.1.2 Special-Status Wildlife Species

As discussed in Section 4.1, the APE does not provide suitable habitat for most special-status wildlife species given their known distributions and habitat requirements relative to existing site conditions that include existing development, low quality habitat relative to species needs, and regular maintenance or other disturbance from frequent human activity. No special-status wildlife species have a moderate or high potential to occur. Project impacts are mostly limited to previously-disturbed areas with high human activity, with the exception of the portion of the APE associated with the CVSC. As described in Section 1.2 above, the project would tunnel approximately 40 ft. under the channel. As a result, no direct impacts to habitat that may be suitable for special-status species are expected. Other indirect impacts from construction activities and resulting development would be addressed through implementation of Mitigation Measure (MM) BIO-1 and the erosion control measures further described below. Additionally, no operational impacts to habitat that may be suitable for special-status species are expected. No additional mitigation measures are recommended.

#### 5.1.3 Nesting Birds

Nesting bird habitat is present within and adjacent to the APE, particularly within landscape trees, quailbush scrub, tamarisk thickets and riparian habitat associated with the CVSC. Nesting bird species are protected by the CFGC 3503, CFGC 3503.5, and MBTA. If initial ground disturbance and vegetation/tree trimming or removal is required during the nesting bird season, the project may impact nesting birds through injury, mortality, or disruption of normal adult behaviors resulting in the abandonment or harm to eggs and nestlings. Construction occurring within the vicinity of nesting birds may also indirectly impact individuals through construction noise, dust, and vibration from equipment. Measures necessary for compliance with CFGC 3503, CFGC 3503.5, and the MBTA are provided below.

### *BIO-1 Nesting Birds*

Project-related activities should occur outside of the bird breeding season (typically January 1 to September 15 to account for both passerines and raptors) to the extent practicable. If construction must occur within the bird breeding season, then no more than three days prior to initiation of ground disturbance and/or vegetation removal, a nesting bird and raptor pre-construction survey shall be conducted by a qualified biologist within the disturbance footprint plus a 100-foot buffer (500-foot for raptors), where feasible..

Pre-construction nesting bird and raptor surveys shall be conducted during the time of day when birds are active and shall factor in sufficient time to perform this survey adequately and completely. A report of the nesting bird and raptor survey results, if applicable, shall be submitted to the lead agency for review and approval prior to ground and/or vegetation disturbance activities.

If nests are found, their locations shall be flagged. An appropriate avoidance buffer ranging in size from 25 to 50 feet for passerines, and up to 500 feet for raptors depending upon the species and the proposed work activity, shall be determined and demarcated by a qualified biologist with bright orange construction fencing or other suitable flagging. Active nests shall be monitored at a minimum of once per week until it has been determined that the nest is no longer being used by either the young or adults. No ground disturbance shall occur within this buffer until the qualified biologist confirms that the breeding/nesting is completed and all the young have fledged. If no nesting birds are observed during pre-construction surveys, no further actions would be necessary.

## 5.2 Sensitive Vegetation Communities

Goodding's willow – red willow riparian woodland occurs in the CVSC within the APE. No other sensitive plant communities were documented within the APE. It is understood that the proposed sewer line would be constructed as an aerial crossing over the CVSC, either within or adjacent to the existing SR 111 bridge. Project activities are therefore not anticipated to have a direct impact to the Goodding's willow – red willow riparian woodland community. Other indirect impacts from construction activities and resulting development would be addressed through erosion control measures recommended in Section 5.3, below. Operational impacts to sensitive vegetation communities are also not expected. Any impacts to this community would therefore not be significant. No additional mitigation measures are recommended.

## 5.3 Jurisdictional Waters and Wetlands

As discussed in Section 4.3, features potentially under the jurisdiction of the USACE, CDFW and RWQCB are present within the APE. Project activities are located outside of the limits of these features and, therefore, direct impacts are not anticipated. However, construction activities could result in indirect impacts (e.g., oil leaks from vehicles, soil erosion) that may affect adjacent potential jurisdictional features and be potentially significant. Additionally, Fish and Game Code Section 1602 requires any entity to notify CDFW before beginning any activity that may substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of any river, stream, or lake. If CDFW determines that the activity may substantially adversely affect fish and wildlife resources, a Streambed Alteration Agreement will be prepared.

### *Pollution Prevention and Hazardous Materials*

As part of the project design and in compliance with the National Pollutant Discharge Elimination System (NPDES) Construction General Permit (2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ) requirements, control measures would be implemented to prevent potential erosion, stormwater, and/or hazardous materials impacts to adjacent, potentially jurisdictional features. These requirements include preparation of a project-specific Stormwater Pollution Prevention Plan (SWPPP). As part of a SWPPP, best management practices would be developed and implemented to ensure avoidance of indirect impacts to potential jurisdictional resources. Erosion control measures that may be used include silt fences, sandbags, certified weed-free straw wattles and straw bales, and other control measures as needed. In addition, a hazardous materials and remediation control plan would be developed and implemented to reduce the potential for release of hazardous materials (e.g., petroleum-based products used in construction equipment and vehicles) and to minimize associated impacts with an inadvertent spill. This plan would evaluate potential spill scenarios, identify avoidance and prevention measures, and outline appropriate response actions.

## 5.4 Wildlife Movement

Wildlife movement and habitat fragmentation are important issues in assessing impacts to wildlife. Habitat fragmentation occurs when a proposed action results in a single, unified habitat area being divided into two or more areas in such a way that the division isolates the two new areas from each other. Isolation of habitat occurs when wildlife cannot move freely from one portion of the habitat to another or from one habitat type to another, as in the fragmentation of habitats within and around “checkerboard” residential development. Habitat fragmentation also can occur when a portion of one or more habitats is converted into another habitat, as when annual burning converts scrub habitats to grassland habitats.

While the project APE crosses the CVSC, a potential habitat connectivity corridor, the project would involve an aerial crossing of the channel and therefore would avoid disturbance of the riparian habitat on the channel bed and banks. As a result, the project would not inhibit wildlife movement. Additionally, this section of the channel will be under construction in 2021 (CVSC 54-thermal) and the section of the channel the APE crosses will be completely concrete lined.

The proposed project footprint is mostly located within previously developed and disturbed areas that offer little to no value to wildlife movement. The project components that would be installed in these areas would be installed underground and would also not inhibit wildlife movement. The proposed project is not anticipated to have an incremental effect on localized and urban adapted wildlife movement or create habitat fragmentation in the region, nor is it anticipated to have significant impact on regional wildlife movement. Direct impacts to wildlife movement as a result of project implementation would be less than significant. No additional lighting is proposed, and no nocturnal noise generating activities are proposed. Therefore, indirect wildlife movement impacts would be less than significant, and no mitigation measures are recommended. Additionally, any operational activities are not expected to impact wildlife movement.

## 5.5 Local Policies and Ordinances

The proposed project is not expected to conflict with any local policies or ordinances. In addition, no protected trees are proposed for removal.

## 5.6 Adopted or Approved Plans

As discussed in Section 4.8, the CVWD participates in the CVMSHCP and the proposed project is within the CVMSHCP plan area. The APE is entirely outside of the nearest Conservation Area. As a result, proposed activities at the project site would avoid direct impacts to CVMSHCP Conservation Areas and would not conflict with the CVMSHCP Conservation Objectives. Additionally, no CVMSHCP covered or otherwise special-status species have a moderate or high potential to occur within the APE. The project therefore would avoid impacts to any such species and would not conflict with the CVMSHCP.

## 5.7 Critical Habitat, Coastal Zone, Wild and Scenic Rivers, Essential Fish Habitat, and Coastal Barrier Resources

Since the APE is not within any Essential Fish Habitat or within or adjacent to the Coastal Zone, Coastal Barrier Resources System, or any federally designated Wild and Scenic Rivers, no impacts would occur and, therefore, no mitigation measures are recommended. The APE is approximately five miles west of the desert tortoise critical habitat area associated with the Mecca Hills/Orocopia Mountains Conservation Area. As a result, direct or indirect impacts to federally designated critical habitat are not expected. No additional mitigation measures are recommended.

## 6 Limitations, Assumptions, and User Reliance

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This BRTS has been performed in accordance with professionally accepted biological investigation practices conducted at this time and in this geographic area. Botanical field surveys for the presence or absence of certain taxa were not conducted as part of this assessment. The general biological field survey effort was limited by the environmental conditions present at the time of the survey. In addition, general biological (or protocol) surveys do not guarantee that the organisms are not present and will not be discovered in the future within the APE. Our botanical and biological field studies were based on current industry practices, which change over time and may not be applicable in the future. No other guarantees or warranties, expressed or implied, are provided. The findings and opinions conveyed in this report are based on findings derived from review of specified database and literature sources and one site visit. Standard data sources relied upon during the completion of this report, such as the CNDDDB, may vary with regard to accuracy and completeness. In particular, the CNDDDB is compiled from research and observations reported to CDFW that may or may not have been the result of comprehensive or site-specific field surveys. Although Rincon considers the data sources reasonably reliable, Rincon cannot and does not guarantee the authenticity or reliability of the data sources it has used. Furthermore, pursuant to our contract, the data sources reviewed included only those that are practically reviewable without the need for extraordinary research and analysis.

## 7 References

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# Appendix A

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Regionally Occurring Special-Status Species

## Regionally Occurring Special-Status Species

| Scientific Name<br>Common Name                                                      | Status<br>Fed/State ESA<br>CRPR,CDFW<br>G-Rank/S-Rank | Habitat Requirements                                                                                                                                                                                                           | Potential for Occurrence/Basis for Determination                                                                                                                                                        |
|-------------------------------------------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Plants</b>                                                                       |                                                       |                                                                                                                                                                                                                                |                                                                                                                                                                                                         |
| <i>Astragalus lentiginosus</i> var. <i>cochellae</i><br>Coachella Valley milk-vetch | Endangered/<br>None<br>G5T1/S1<br>1B.2                | Sonoran desert scrub, desert dunes. Sandy flats, washes, outwash fans, sometimes on dunes. 40-655 m. annual/perennial herb. Blooms Feb-May                                                                                     | <b>Not Expected.</b> Sonoran desert scrub (quailbush scrub) present within APE but no sandy flats or washes present. The majority of the APE is located outside of this species' known elevation range. |
| <i>Astragalus sabulonum</i><br>gravel milk-vetch                                    | None/None<br>G4G5/S2<br>2B.2                          | Desert dunes, Mojavean and Sonoran desert scrub. Usually in sandy areas, sometimes in gravelly areas. Flats, washes, and roadsides. -60-930 m. annual/perennial herb. Blooms Feb-Jun (Nov-Apr in southeast California).        | <b>Low Potential.</b> Suitable habitat (Sonoran desert scrub [quailbush scrub] and roadsides) present within APE but heavily disturbed.                                                                 |
| <i>Nemacaulis denudata</i> var. <i>gracilis</i><br>slender cottonheads              | None/None<br>G3G4T3?/S2<br>2B.2                       | Coastal dunes, desert dunes, Sonoran desert scrub. In dunes or sand. -50-400 m. annual herb. Blooms Jan-May                                                                                                                    | <b>Low Potential.</b> Suitable habitat (Sonoran desert scrub [quailbush scrub]) present within APE but heavily disturbed.                                                                               |
| <i>Petalonyx linearis</i><br>narrow-leaf sandpaper-plant                            | None/None<br>G4/S3?<br>2B.3                           | Mojavean and Sonoran desert scrub. Sandy or rocky canyons, generally in creosote-bush scrub. -25-1115 m. perennial shrub. Blooms Jan-Dec                                                                                       | <b>Not Expected.</b> Though Sonoran desert scrub (quailbush scrub) present at project site, APE is outside of this species' known elevation range.                                                      |
| <b>Insects</b>                                                                      |                                                       |                                                                                                                                                                                                                                |                                                                                                                                                                                                         |
| <i>Euparagia unidentata</i><br>Algodones euparagia                                  | None/None<br>G1G2/S1S2                                | No known habitat descriptions in CNDDDB. Found 4 miles east of Indio in Coachella Valley in 1973.                                                                                                                              | <b>Not Expected.</b> No known records of this species since 1973.                                                                                                                                       |
| <i>Oliarces clara</i><br>cheeseweed owlfly (cheeseweed moth lacewing)               | None/<br>None<br>G1G3/S2                              | Inhabits the Lower Colorado River Drainage. Found under rocks or in flight over streams. Creosote bush is suspected larval host.                                                                                               | <b>Not Expected.</b> Disturbance history of the project site limits the possibility of occurrence. The APE is located outside of the known range of this species. No creosote-bush present in APE.      |
| <b>Fish</b>                                                                         |                                                       |                                                                                                                                                                                                                                |                                                                                                                                                                                                         |
| <i>Xyrauchen texanus</i><br>razorback sucker                                        | Endangered/<br>Endangered<br>G1/S1S2                  | Found in the Colorado River bordering California. Adapted for swimming in swift currents but also needs quiet waters. Spawns in sandy/gravelly/rocky areas in shallow water.                                                   | <b>Not Expected.</b> No suitable aquatic habitat present within or adjacent to the APE.                                                                                                                 |
| <b>Reptiles</b>                                                                     |                                                       |                                                                                                                                                                                                                                |                                                                                                                                                                                                         |
| <i>Gopherus agassizii</i><br>desert tortoise                                        | Threatened/<br>Threatened<br>G3/S2S3                  | Most common in desert scrub, desert wash, and Joshua tree habitats; occurs in almost every desert habitat. Requires friable soil for burrowing and nesting. Prefers creosote bush habitat with large annual wildflower blooms. | <b>Not Expected.</b> Suitable habitat (creosote bush and friable soils) not present. Wildflowers are also limited in APE. Desert scrub habitat that is present (quailbush scrub) is heavily disturbed.  |

Woodard & Curran  
**Airport Boulevard Sewer Consolidation Project**

| <i>Scientific Name</i><br>Common Name                               | Status<br>Fed/State ESA<br>CRPR,CDFW<br>G-Rank/S-Rank | Habitat Requirements                                                                                                                                                                                                                             | Potential for Occurrence/Basis for Determination                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Phrynosoma mcallii</i><br>flat-tailed horned lizard              | None/None<br>G3/S2<br>SSC                             | Restricted to desert washes and desert flats in central Riverside, eastern San Diego, and Imperial counties. Critical habitat element is fine sand, into which lizards burrow to avoid temperature extremes; requires vegetative cover and ants. | <b>Not Expected.</b> Suitable habitat (desert washes and desert flats) not present. The single CNDDDB occurrence of this species was recorded in 1908.                                                                                                                                                                                                                                               |
| <i>Uma inornata</i><br>Coachella Valley fringe-toed lizard          | Threatened/<br>Endangered<br>G1Q/S1                   | Limited to sandy areas in the Coachella Valley, Riverside County. Requires fine, loose, windblown sand (for burrowing), interspersed with hardpan and widely-spaced desert shrubs.                                                               | <b>Not Expected.</b> Species is highly dependent on sand dunes, which are absent from the APE.                                                                                                                                                                                                                                                                                                       |
| <b>Birds</b>                                                        |                                                       |                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                      |
| <i>Athene cunicularia</i><br>burrowing owl                          | None/None<br>G4/S3<br>SSC                             | Open, dry annual, or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, depends upon burrowing mammals, especially California ground squirrel.                                          | <b>Low Potential.</b> Elements of suitable habitat required for nesting, including low-growing vegetation in disturbed areas and quailbush scrub, are limited in the APE. No potentially suitable burrows were observed.                                                                                                                                                                             |
| <i>Empidonax traillii extimus</i><br>southwestern willow flycatcher | Endangered/<br>Endangered<br>G5T2/S1                  | Riparian woodlands in Southern California.                                                                                                                                                                                                       | <b>Low Potential.</b> The Goodding's willow – red willow riparian woodland associated with the CVSC in the APE is not extensive enough to support this species. This riparian woodland is also subject to regular maintenance for stormwater carrying capacity and agricultural activities and high levels of disturbance from vehicle noise due to its location adjacent to SR 111 and UPRR tracks. |
| <i>Falco mexicanus</i><br>prairie falcon                            | None/None<br>G5/S4<br>WL                              | Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.                                                                                                    | <b>Not Expected.</b> Elements of suitable habitat required for nesting, including cliffs, are not present in the disturbed areas or quailbush scrub in the APE.                                                                                                                                                                                                                                      |
| <i>Icteria virens</i><br>yellow-breasted chat                       | None/None<br>G5/S3<br>SSC                             | Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses. Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground.                          | <b>Low Potential.</b> The willow riparian habitat associated with the CVSC in the APE is suitable for nesting. However, this riparian habitat is subject to high levels of disturbance from regular maintenance for stormwater carrying capacity and agricultural activities and vehicle noise due to its location adjacent to SR 111 and UPRR tracks.                                               |

| <i>Scientific Name</i><br>Common Name                                                               | Status<br>Fed/State ESA<br>CRPR,CDFW<br>G-Rank/S-Rank | Habitat Requirements                                                                                                                                                                                                                             | Potential for Occurrence/Basis for Determination                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Poliophtila melanura</i><br>black-tailed<br>gnatcatcher                                          | None/None<br>G5/S3S4<br>WL                            | Inhabits primarily wooded desert wash habitats; also occurs in desert scrub habitat, especially in winter. Nests in desert washes containing mesquite, palo verde, ironwood, acacia; absent from areas where salt cedar is introduced.           | <b>Low Potential.</b> Elements of suitable nesting habitat, including mesquite and palo verde, are limited in the APE. Tamarisk thickets is also dominant in a portion of the APE.                                                                                                                                                                        |
| <i>Pyrocephalus rubinus</i><br>vermillion flycatcher                                                | None/None<br>G5/S2S3<br>SSC                           | Nesting habitat includes desert riparian adjacent to irrigated fields, irrigation ditches, pastures, and other open, mesic areas. Nests in cottonwood, willow, mesquite, and other large desert riparian trees.                                  | <b>Low Potential.</b> Suitable nesting habitat associated with the CVSC present in APE, although this Goodding's willow – red willow riparian habitat is regularly maintained and adjacent to SR 111 and UPRR tracks from which vehicular noise would likely deter nesting activity.                                                                      |
| <i>Rallus obsoletus</i><br>[=longirostris]<br><i>yumamensis</i><br>Yuma Ridgway's<br>(clapper) rail | Endangered/<br>Threatened<br>G5T3/S1S2<br>FP          | Nests in freshwater marshes along the Colorado River and along the south and east ends of the Salton Sea. Prefers stands of cattails and tules dissected by narrow channels of flowing water; primarily eats crayfish.                           | <b>Not Expected.</b> Suitable nesting habitat is not present in APE, and the Goodding's willow – red willow riparian habitat in the CVSC is regularly maintained and adjacent to SR 111 and UPRR tracks from which vehicular noise would likely deter nesting activity.                                                                                   |
| <i>Toxostoma crissale</i><br>Crissal thrasher                                                       | None/None<br>G5/S3<br>SSC                             | Resident of southeastern deserts in desert riparian and wash habitats. Nests in dense vegetation along streams/washes; mesquite, screwbean mesquite, ironwood, catclaw, acacia, arrow-weed, willow.                                              | <b>Low Potential.</b> Suitable nesting habitat associated with the CVSC and drainage ditch present in APE, although this Goodding's willow – red willow riparian habitat and tamarisk thickets is adjacent to SR 111, UPRR tracks and developed rural residential areas from which vehicular and anthropogenic noise would likely deter nesting activity. |
| <i>Toxostoma lecontei</i><br>Le Conte's thrasher                                                    | None/None<br>G4/S3<br>SSC                             | Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground. | <b>Low Potential.</b> Elements of suitable habitat required for nesting, including desert scrub (quailbush scrub), are limited in the APE. Absence of dense spiny shrub or densely branched cactus.                                                                                                                                                       |
| <i>Vireo bellii pusillus</i><br>least Bell's vireo                                                  | Endangered/<br>Endangered<br>G5T2/S2                  | Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 ft. Nests along margins of bushes or on twigs projecting into pathways, usually willow, baccharis and mesquite.                 | <b>Low Potential.</b> Suitable nesting habitat associated with Goodding's willow – red willow riparian woodland in the CVSC present in APE, although this riparian habitat is regularly maintained and adjacent to SR 111 and UPRR tracks from which vehicular noise would inhibit nesting activity.                                                      |

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| <i>Scientific Name</i><br>Common Name                               | Status<br>Fed/State ESA<br>CRPR,CDFW<br>G-Rank/S-Rank | Habitat Requirements                                                                                                                                                                                                             | Potential for Occurrence/Basis for Determination                                                                                                                                                                                                                                                              |
|---------------------------------------------------------------------|-------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Mammals</b>                                                      |                                                       |                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                               |
| <i>Corynorhinus townsendii</i><br>Townsend's big-eared bat          | None/None<br>G3G4/ S2<br>SSC                          | Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Extremely sensitive to human disturbance.                                                  | <b>Low Potential.</b> Some residential buildings are within the APE. Considering the disturbed nature of the APE, the species has a low potential to occur.                                                                                                                                                   |
| <i>Euderma maculatum</i><br>spotted bat                             | None/None<br>G4/S3<br>SSC                             | Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests. Feeds over water and along washes, almost entirely on moths. Needs rock crevices in cliffs or caves for roosting.            | <b>Not Expected.</b> Suitable roosting habitat (rock crevices, cliffs, caves) not present.                                                                                                                                                                                                                    |
| <i>Eumops perotis californicus</i><br>western mastiff bat           | None/None<br>G5T4/S3S4<br>SSC                         | Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral, palm oases, desert scrub, and urban. Roosts in crevices in cliff faces, high buildings, trees and tunnels. | <b>Low Potential.</b> Suitable habitat (palm trees and desert scrub [quailbush scrub]) is present in the APE, however no crevices in the palm trees observed. Considering the disturbed nature of the APE, the species has a low potential to occur.                                                          |
| <i>Lasiurus xanthinus</i><br>western yellow bat                     | None/None<br>G5/S3<br>SSC                             | Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.                                                               | <b>Low Potential.</b> While palm trees are scattered throughout the APE, they offer only minimal roosting habitat. The trees appear to be maintained and trimmed regularly.                                                                                                                                   |
| <i>Perognathus longimembris bangsi</i><br>Palm Springs pocket mouse | None/None<br>G5T2/S2<br>SSC                           | Desert riparian, desert scrub, desert wash and sagebrush habitats. Most common in creosote-dominated desert scrub. Rarely found on rocky sites.                                                                                  | <b>Low Potential.</b> Suitable habitat (desert riparian [Goodding's willow – red willow riparian woodland] and desert scrub [quailbush scrub]) present within the APE, but creosote-dominated desert scrub is absent. Considering the disturbed nature of the APE, this species has a low potential to occur. |

| <i>Scientific Name</i><br>Common Name                                                                                                                                                                                                                                                                                                                                            | Status<br>Fed/State ESA<br>CRPR,CDFW<br>G-Rank/S-Rank | Habitat Requirements                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Potential for Occurrence/Basis for Determination                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>Xerospermophilus tereticaudus chlorus</i><br>Palm Springs round-tailed ground squirrel                                                                                                                                                                                                                                                                                        | None/None<br>G5T2Q/S2<br>SSC                          | Restricted to the Coachella Valley. Prefers desert succulent scrub, desert wash, desert scrub, alkali scrub, and levees. Prefers open, flat, grassy areas in fine-textured, sandy soil. Density correlated with winter rainfall.                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <b>Low Potential.</b> Suitable habitat (desert scrub [quailbush scrub] and levees) present within the APE. Considering the disturbed nature of the APE, this species has a low potential to occur. |
| Regional Vicinity refers to within a 5-mile radius of the APE.                                                                                                                                                                                                                                                                                                                   |                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                    |
| BCC = USFWS Bird of Conservation Concern<br>FC = Federal Candidate Species<br>FE = Federally Endangered<br>FP = CDFW Fully Protected<br>FT = Federally Threatened<br>SE = State Endangered<br>ST = State Threatened<br>SR = State Rare<br>SSC = CDFW Species of Special Concern<br><br>G-Rank/S-Rank = Global Rank and State Rank as per NatureServe and CDFW's CNDDB RareFind 5 |                                                       | <b>CRPR (CNPS California Rare Plant Rank):</b><br>1A=Presumed Extinct in California<br>1B=Rare, Threatened, or Endangered in California and elsewhere<br>2A= Presumed extirpated in California but more common elsewhere<br>2B= Rare, threatened or endangered in California but more common elsewhere.<br>3=Need more information (a Review List)<br>4=Plants of Limited Distribution (a Watch List)<br><br><b>CRPR Threat Code Extension</b><br>.1=Seriously endangered in California (> 80% of occurrences threatened/high degree and immediacy of threat)<br>.2=Fairly endangered in California (20-80% occurrences threatened)<br>.3=Not very endangered in California (<20% of occurrences threatened) |                                                                                                                                                                                                    |

# Appendix B

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Representative Photographs of the APE



**Photograph 1.** View looking southwest at the northwest portion of the APE at Airport Boulevard.



**Photograph 2.** View looking north along west side of Desert Cactus Drive.



**Photograph 3.** Small mammal burrows in APE west of Desert Cactus Drive.



**Photograph 4.** View looking north at intersection of Desert Cactus Drive and Avenue 57.



**Photograph 5.** Tamarisk thicket along south side of drainage ditch west of Desert Cactus Drive.



**Photograph 6.** View looking south at compost piles in southwest portion of APE.



**Photograph 7.** View looking north at Goodding's black willow – red willow riparian woodland in the CVSC next to SR 111 and UPRR tracks.



**Photograph 8.** View looking northwest along SR 111 in southwest portion of APE.



**Photograph 9.** View looking east along Airport Boulevard in northeast portion of APE.



**Photograph 10.** View looking west at intersection of Fillmore Street and Avenue 57. Note the quailbush scrub vegetation community along the northeast side of this intersection.



**Photograph 11.** View looking south at developed area along Soto Avenue.



**Photograph 12.** View looking west along Avenue 57 in southeastern portion of APE.

# Appendix C

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Plant and Wildlife Species Observed in the APE

## Plant and Wildlife Species Observed in the APE on August 13, 2020

| Scientific Name                                  | Common Name             | Origin     |
|--------------------------------------------------|-------------------------|------------|
| <b>Plants</b>                                    |                         |            |
| <i>Amaranthus albus</i>                          | tumbleweed              | Non-native |
| <i>Amsinckia</i> sp.                             | fiddleneck              | Native     |
| <i>Arundo donax</i>                              | giant reed              | Non-native |
| <i>Atriplex lentiformis</i>                      | quailbush               | Native     |
| <i>Atriplex</i> sp.                              | saltbush                | Unknown    |
| <i>Bromus</i> sp.                                | brome                   | Non-native |
| <i>Digitaria</i> sp.                             | crabgrass               | Non-native |
| <i>Helianthus annuus</i>                         | common sunflower        | Native     |
| <i>Lactuca serriola</i>                          | prickly lettuce         | Non-native |
| <i>Nerium oleander</i>                           | oleander                | Non-native |
| <i>Populus fremontii</i> ssp. <i>fremontii</i>   | Fremont cottonwood      | Native     |
| <i>Parkinsonia</i> sp.                           | palo verde              | Unknown    |
| <i>Pluchea sericea</i>                           | arrow-weed              | Native     |
| <i>Prosopis glandulosa</i> var. <i>torreyana</i> | honey mesquite          | Native     |
| <i>Salix gooddingii</i>                          | Goodding's black willow | Native     |
| <i>Salsola tragus</i>                            | Russian thistle         | Non-native |
| <i>Schismus</i> sp.                              | schismus                | Non-native |
| <i>Suaeda nigra</i>                              | bush seepweed           | Native     |
| <i>Sisymbrium</i> sp.                            | sisymbrium              | Non-native |
| <i>Tamarix</i> sp.                               | tamarisk                | Non-native |
| <i>Tribulus terrestris</i>                       | common puncture vine    | Non-native |
| <i>Triticum aestivum</i>                         | common wheat            | Non-native |
| <i>Typha</i> sp.                                 | cattail                 | Native     |
| <i>Washingtonia</i> sp.                          | fan palm                | Unknown    |
| <i>Xanthium strumarium</i>                       | cocklebur               | Native     |
| <b>Wildlife</b>                                  |                         |            |
| <b>Birds</b>                                     |                         |            |
| <i>Callipepla gambelii</i>                       | Gambel's quail          | Native     |
| <i>Columbia livia</i>                            | rock pigeon             | Non-native |
| <i>Falco sparverius</i>                          | American kestrel        | Native     |
| <i>Gallus gallus domesticus</i>                  | rooster                 | Non-native |

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| Scientific Name              | Common Name            | Origin     |
|------------------------------|------------------------|------------|
| <i>Mimus polyglottos</i>     | northern mockingbird   | Native     |
| <i>Passer domesticus</i>     | house sparrow          | Non-native |
| <i>Sayornis nigricans</i>    | black phoebe           | Native     |
| <i>Streptopelia decaocto</i> | Eurasian collared-dove | Non-native |

# Appendix D

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Resumes



## Jared Reed

### SENIOR BIOLOGIST

Jared Reed has substantial experience working in the desert environments of southern California. Mr. Reed performs client and agency interface as a regular aspect of his working responsibilities and routinely conducts and prepares desert biological assessments, and has written habitat assessments and focused reports for rare and sensitive desert species. He participates in jurisdictional wetland/"waters"/"streambeds" delineations and has substantial experience in surveying for desert tortoise, rare plants, and performing Joshua tree assessments. Additionally, Mr. Reed works directly in native habitat restoration projects throughout southern California, which has aided him in continued development of his extensive knowledge of and familiarity with diverse natural environments and ecosystems ranging from arid climates in semi-deserts to freshwater marshes and streams in cismontane and desert areas of California.

### EDUCATION

BS, Ecology and Evolution,  
University of California, Santa  
Barbara (UCSB), 2005

### CERTIFICATIONS/ PERMITS

State of California Scientific  
Collecting Permit No. SC-  
008050

Desert Tortoise Council:  
Survey, Monitoring and  
Handling Techniques  
Certification

Authorization to take, possess,  
and transport Flat-tailed  
Horned Lizards

### EXPERIENCE

Rincon Consultants, Inc. (2019  
– present)

Teracor Resource  
Management, Inc. (2001 –  
2019)

### DETAILED PROJECT EXPERIENCE

#### **Lead Biologist, Imperial Irrigation District All American Canal Seepage Recovery and East Highline Reservoir Projects, County of Imperial, California, 2020**

Mr. Reed conducted protocol-level rare plant, flat-tailed horned lizard and Coachella Valley fringe-toad lizard surveys. Mr. Reed also assisted with the preparation of these biological reports.

#### **Project Manager, Santa Monica Mountains Conservancy, East of the City of Palmdale, County of Los Angeles, California, 2016**

Mr. Reed conducted a general floral and faunal survey and performed mapping of on-site vegetation communities. Mr. Reed was also the primary author for this biological report.

#### **Assistant Project Manager, LightSource Renewables 460 and 317, County of San Bernardino, California, 2009**

Mr. Reed conducted a general biological survey, a desert tortoise survey, a Joshua tree and rare plant survey, and assisted with conducting a jurisdictional delineation. Mr. Reed also assisted with the preparation of these biological reports. Mr. Reed also coordinated with California Department of Fish and Wildlife personnel to determine an appropriate mitigation strategy for project impacts. Mr. Reed additionally assisted with formulating a survey methodology to efficiently complete the surveys in a timely manner.



## PROJECT EXPERIENCE

### DEVELOPMENT TECHNICAL STUDIES

- Lead Biologist, Imperial Irrigation District, All American Canal Seepage Recovery and East Highline Reservoir Projects, Imperial County, CA, 2020 – Protocol Surveys for Rare Plants, Flat-tailed Horned Lizard and Coachella Valley Fringe-toad Lizard.
- Project Assistant, Centex Homes, City of Victorville, CA, 2007 - Preconstruction survey for Desert Tortoise on approximately 150 acres.
- Project Assistant, Centex Homes, Hesperia Truss Plant, City of Hesperia, CA, 2006, Desert Tortoise Habitat Assessment and Joshua Tree Survey and Assessment for a 140.0 acre property
- Project Assistant, Lightsource Renewables, LLC, San Bernardino County, CA, Protocol survey for Desert tortoise on approximately 800 acres
- Project Assistant, Rice Communications Tower, Riverside County, CA, Desert Tortoise Pre-clearance survey
- Project Manager, Christopher A. Joseph & Associates, City of Palmdale in Los Angeles County, CA, Breeding and Wintering Season Burrowing Owl Focused Surveys and Report.
- Project Manager, Santa Monica Mountains Conservancy, Biological Constraints Analysis, City of Palmdale, Los Angeles County, CA.
- Multiple Mohave ground squirrel habitat assessments located in the High Desert within San Bernardino County, CA.
- Numerous focused surveys for sensitive bird species, such as Loggerhead Shrike and Sharp-shinned Hawk, located within the High Desert in San Bernardino County, CA.

### VEGETATION MAPPING

- Vegetation mapping for a 5.4-acre property in the City of Palmdale, Los Angeles County, CA
- Vegetation mapping for an approximate 80-acre property east of Palmdale in Los Angeles County, CA

### TREE SURVEYS

- Joshua tree Survey and Assessment for Centex Homes in Hesperia, CA
- Joshua tree Survey and Assessment for Centex Homes in Victorville, CA
- Joshua tree Survey and Assessment for LightSource Renewables, LLC on approximately 800 acres west of Kramer Junction, San Bernardino County, CA

## COMMUNITY VOLUNTEER/ TECHNICAL TRAINING

- Flat-Tailed Horned Lizard Survey and Monitoring Training, El Centro, CA 2010
- Desert Tortoise Survey and Handling Techniques Workshop, Ridgecrest, CA 2006

