APPENDIX C: BIOLOGICAL RESOURCES TECHNICAL STUDY

Ion Exchange Treatment Plant 7991 Construction Project

Biological Resources Technical Study

prepared for

Woodard & Curran
9665 Chesapeake Drive, Suite 320
San Diego, California 92123

prepared with the assistance of

Rincon Consultants, Inc.
1980 Orange Tree Lane, Suite 105
Redlands, California 92374

April 2021

RINCON CONSULTANTS, INC.
Environmental Scientists | Planners | Engineers
rinconconsultants.com

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1 Introduction

Rincon Consultants, Inc. (Rincon) prepared this Biological Resources Technical Study (BRTS) to document the current existing conditions and evaluate the potential for project-related impacts to biological resources during the construction of the Ion Exchange Treatment Plant (IXTP) 7991 Construction Project (project). Coachella Valley Water District (CVWD) is the project's lead agency. The project is in the community of Mecca, Riverside County, California.

1.1 Project Location

The project site is located in the Coachella Valley of central Riverside County within the United States Geological Survey (USGS) Mecca, California 7.5-minute topographic quadrangle. The approximate center of the project is located at latitude 33.561693° and longitude -116.068975°. The project site is located east of State Route 111 and approximately 0.5 mile south of Mecca (Figure 1). Regional land uses surrounding the project site are primarily ruderal lots and agriculture.

The project site is located within the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP/NCCP) area, but outside any CVMSHCP/NCCP Conservation Areas. The Coachella Valley Stormwater Channel and Delta CVMSHCP/NCCP Conservation Area is located approximately 0.6 mile west of the project site on the other side of State Route 111.

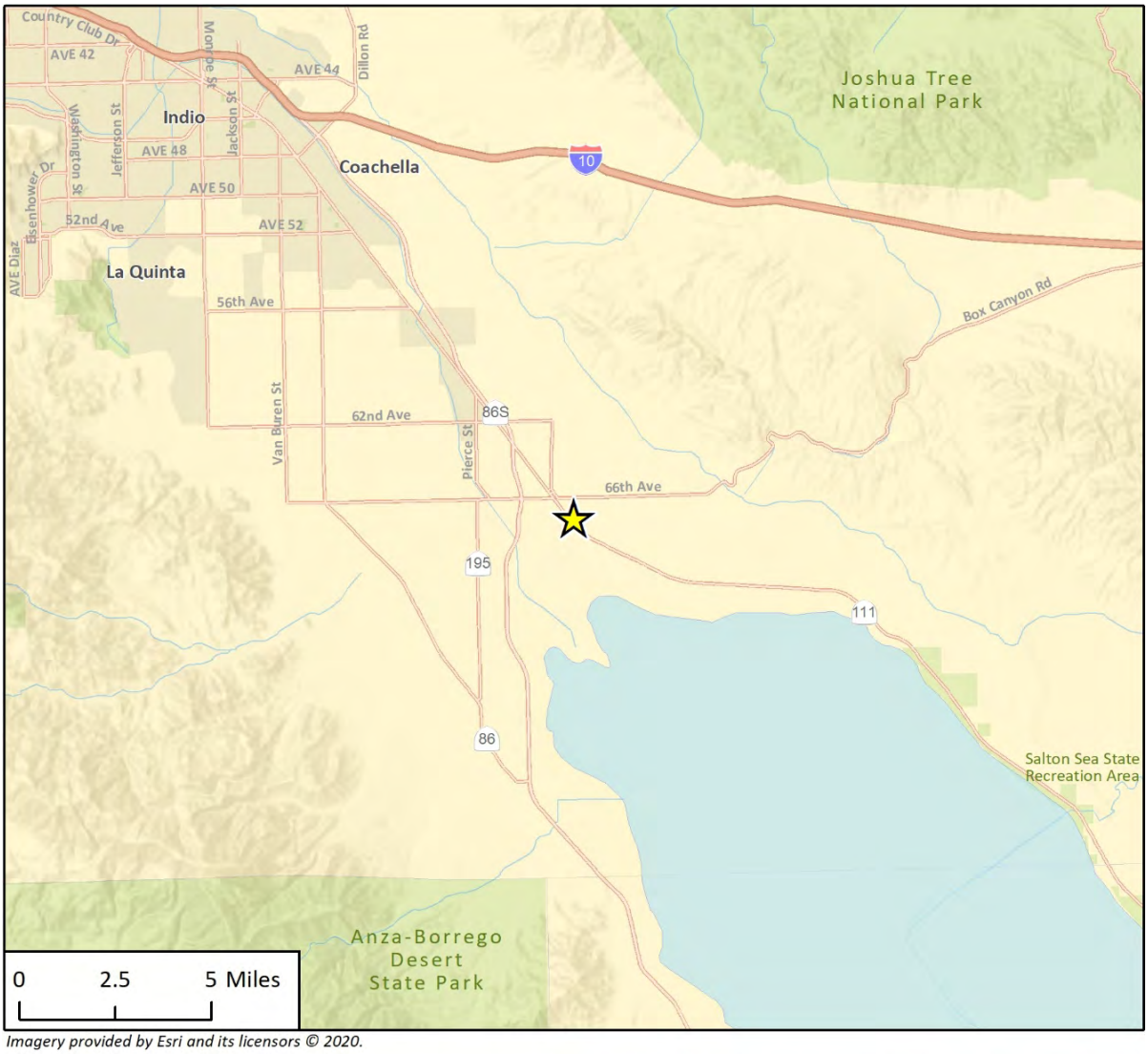
1.2 Project Description

The CVWD operates an IXTP at Well 7991 to treat high arsenic levels in the groundwater. Well 7991 and Well 6806 serve the southeastern portion of the CVWD service area, including the unincorporated community of Mecca and the Area 23 pressure zone via a single 18-inch pipeline. IXTP 7991 is routinely out of service and in poor condition, resulting in poor water supply reliability for Mecca and Area 23. In order to provide adequate water supply and fire flows, IXTP 7991 must be replaced. The project consists of replacing the existing IXTP 7991 with a new 1,800 gallon per minute (gpm) to 2,000 gpm adsorption treatment system, new sulfuric acid and caustic soda systems within new buildings on site, backwash pumps and piping, pre-filters, backwash tank, and demolition of the existing IXTP.

The groundwater arsenic concentration is an average of approximately 20 parts per billion (ppb), which is above the Maximum Contaminant Limit (MCL) of 10 ppb. The existing facilities on site include the well pump, a bypass and pressure reducing station, the arsenic treatment system, and a retention basin. All the components of the existing treatment system are in very poor condition and in need of replacement, except for the sodium hypochlorite chemical feed system.

Project construction would occur within the IXTP 7991 site and would involve excavation to a depth of approximately 15 feet for booster suction cans and potential activities within the adjacent roadway. Construction schedule is dependent on funding availability, but currently anticipated to begin in March 2022 and last for approximately eight months.

Figure 1 Regional Project Location



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Project Location

N

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 (Figure 2). For this study, the APE includes the project disturbance footprint associated with the replacement and demolition of the existing IXTP 7991. It also includes a 25-foot buffer, which includes the adjacent roadways and any staging areas, and also addresses potential indirect project effects such as noise and dust.

Figure 2 Area of Potential Effects

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2 Methodology

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. 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.

Coachella Valley Water District 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 United States Department of Agriculture would perform either formal or informal consultation with the U.S. Fish and Wildlife Service (USFWS), as needed, as part of its review of the project's eligibility for funding assistance. Furthermore, should the California Department of Fish and Wildlife (CDFW) provide comments as part of the CEQA process, coordination with them may occur, as appropriate, pending a determination of their status as a trustee agency under CEQA.

State

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

Local

- Riverside County Ordinance No. 559 Regulating the Removal of Trees
- Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP/NCCP)

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 US 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: Baldwin et al., 2012; and Sawyer et al., 2009. Rincon also conducted queries of several relevant scientific databases that provide information about occurrences of sensitive biological resources: the California Department of Fish and Wildlife (CDFW; formerly the California Department of Fish and Game) California Natural Diversity Data Base (CNDDB) (CDFW 2020a) and Biogeographic Information and Observation System (CDFW 2020b); the U.S. Fish and Wildlife Service (USFWS) Critical Habitat Portal (USFWS 2020a) and Information, Planning, and Conservation (IPaC) System Query (Appendix E; USFWS 2020b); National Wetlands Inventory (NWI) (USFWS 2020c); the United States Department of Agriculture, Natural Resource Conservation Service (NRCS) Web Soil Survey (NRCS 2020); and the California Native Plant Society (CNPS) Online Inventory of Rare and Endangered Plants of California (CNPS 2020).The CNDDB query included a 5-mile radius centered on the APE; the CNPS query included the *Mecca*, California 7.5-minute topographic quadrangle, in which the APE is located, and the eight USGS quadrangles that surround it (*Indio, Thermal Canyon, Cottonwood Basin, Valerie, Mortmar, Rabbit Peak, Oasis, and Salton*).

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 background research and literature review previously mentioned, but also on the data collected in the field during the field 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. The results of the field survey and 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 not to have 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 Ryan Gilmore conducted a biological field survey for this BRTS on the morning of April 30, 2020, from 0900 to 0930, to document the existing site conditions and to evaluate the potential for presence of sensitive biological resources including special-status plant and wildlife species, sensitive plant communities, potentially jurisdictional waters of the U.S. and wetlands, and habitat for federally and state protected species. Weather conditions during the survey included an average temperature of 77 degrees Fahrenheit, with calm winds up to four miles per hour, and partially cloudy skies with good visibility. The survey area included the APE, as defined above. The survey was conducted on foot and by remote observation with 10x30 binoculars.

During the field survey an inventory of all plant and wildlife species observed was compiled, the existing vegetation communities were further 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 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 for each regionally occurring special-status species were assessed and compared to the type and quality of the 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

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. A complete list of all the plant and wildlife species observed in the APE during the field survey is presented in Appendix B and representative photographs of the project site are provided in Appendix C.

3.1 Topography, Watershed, and Soils

The project is located in the unincorporated community of Mecca 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, San Jacinto Mountains and Santa Rosa Mountains to the west and southwest, the Salton Sea to the southeast, and San Gorgonio Mountain to the north. The APE is generally flat with an elevation of 191 feet below mean sea level. The APE is located in the Whitewater River watershed. Surface drainage in the surrounding area would flow toward the Whitewater River located west of the APE, on the other side of State Route 111, and then to the Salton Sea located south of the APE. However, surface flows likely only occur during sufficiently substantial precipitation events. Considering that the APE is located in an agricultural area, hydrology has been greatly modified from its original state and is likely influenced by agricultural water use.

The APE contains two soil types: Indio fine sandy loam (wet) and Myoma fine sand (wet). Myoma fine sand (wet) is listed as hydric by the NRCS (NRCS 2020). These soil types are common in lowland alluvial fans and are moderately well drained. Most on-site soil appears to have been subject to varying degrees of topsoil removal through grading and excavation and is highly compacted with poor soil structure.

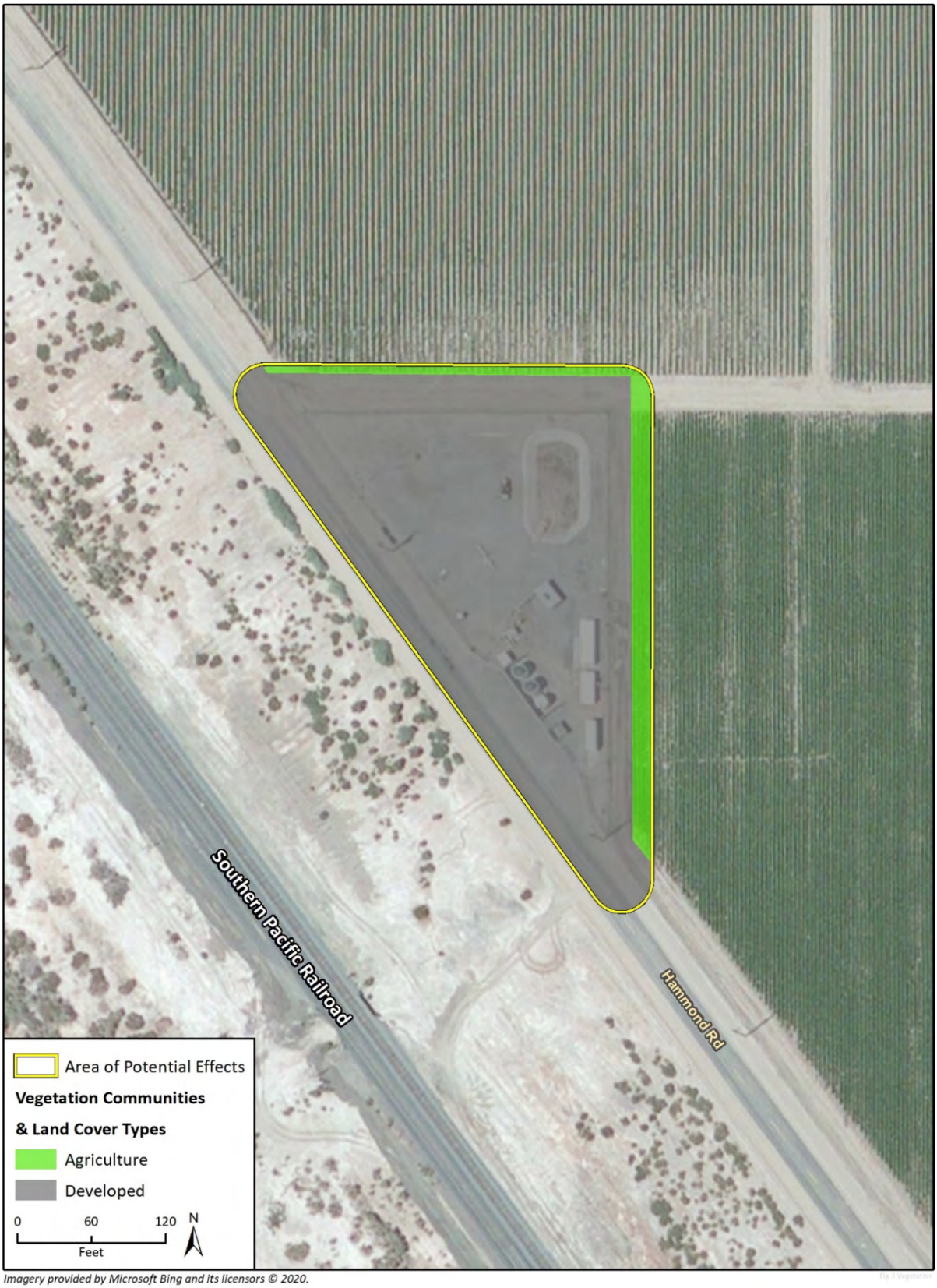
These soil units are from the USDA NRCS Soil Survey of Riverside County, California, which was conducted on a broader scale than this study and did not necessarily include on-site observations. The physical characteristics of the soil units, as described above, are general and not necessarily indicative of characteristics currently present within the APE.

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 California Floristic Province (Baldwin et al. 2012). The APE is disturbed/developed and surrounded by an agricultural area adjacent to State Route 111. Two land cover / vegetation types occur within the APE and are discussed in more detail below: developed and agriculture (Figure 3).

Nine plant species were observed within the APE during the field survey (Appendix C).

Figure 3 Land Cover and Vegetation



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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).

The entire fenced project site within the APE is developed consisting of structures, tanks, compacted open areas for vehicle access, and a water blow off basin. Roadways surround the fenced project site. This land cover type comprises 1.81 acres within the APE.

3.2.2 Agriculture

Areas mapped as agriculture include fields adjacent to the fenced project site to the north and east. This land cover type comprises 0.2 acre within the APE.

3.3 General Wildlife

The APE provides limited habitat for wildlife species due to its developed nature, surrounding agricultural fields, and the lack of native vegetation. Species observed during the survey included common raven (*Corvus corax*) and house finch (*Haemorhous mexicanus*) (Appendix A).

The lack of suitable buildings (with sufficient crevices and overhangs) and dense tree canopies reduces the likelihood that bats or nesting birds utilize the site. Evidence of roosting bats was not observed during the survey nor were nesting birds seen. However, they may forage in the area considering the surrounding agricultural land use that offers potential insect prey.

4 Sensitive Biological Resources

This section discusses sensitive biological resources observed within the APE and evaluates the potential for the APE to support other sensitive biological resources.

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 is 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, by 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 extinct in California;
- **Rank 1B.1** = Rare or endangered in California and elsewhere; seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat);
- **Rank 1B.2** = Rare or endangered in California and elsewhere; fairly endangered in California (20-80% occurrences threatened);
- **Rank 1B.3** = Rare or endangered in California and elsewhere, not very endangered in California (<20% of occurrences threatened or no current threats known);
- **Rank 2** = Rare, threatened or endangered in California, but more common elsewhere.

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

- **G1 or S1** - Critically Imperiled Globally or State-wide
- **G2 or S2** - Imperiled Globally or State-wide
- **G3 or S3** - Vulnerable to extirpation or extinction Globally or State-wide

4.1.1 Special-Status Plant Species

The CNDDB and CNPS query results include 11 special-status plant species tracked within 5 miles of the APE (Appendix A). Special-status plant species typically have specialized habitat requirements, including plant community types, soils, elevational ranges. No suitable habitat exists within the APE for any of these plant species and none have a moderate or high potential to occur within the APE based on a variety of factors, including the disturbance history of the APE, lack of suitable soils, inappropriate hydrologic conditions, or the absence of appropriate vegetation communities. No special-status plant species were observed during the survey.

4.1.2 Special-Status Wildlife Species

The CNDDB query results include 27 special-status wildlife species tracked within 5 miles of the APE. The IPaC query results include an additional three special-status wildlife species within the project region. The potential for special-status wildlife species to occur within the APE was assessed based on known distribution, habitat requirements, and existing site conditions. No special-status wildlife species were determined to have potential to occur within the APE and similarly none were detected within or immediately surrounding the APE during the reconnaissance survey. Consideration was given to the burrowing owl (*Athene cunicularia*; BUOW) which is known to inhabit desert scrub habitats in the region. There are seven CNDDB records of BUOW within 5 miles of the APE. The closest CNDDB record is located approximately 2.6 miles northwest of the APE. However, no burrows where observed within the APE and soil conditions were severely compacted. Additionally, the site is heavily maintained and kept free of debris piles commonly used by BUOW. As a result, BUOW is not expected to occur within the APE. Lands west of the APE, west of Hammond Road, and along State Route 111 could provide potential BUOW habitat, but these roads are frequently traveled with existing high sound levels. Overall, the lack of potential for special-status wildlife species occurrence is based on low habitat quality in disturbed and developed areas

of the APE, lack of native vegetation, and isolation of the APE from other suitable habitat due to surrounding developed land uses.

4.1.3 Nesting Birds

Destruction of bird eggs, nests, and nestlings is prohibited by federal and state law. Section 3503 of the CFGC states that it is “unlawful to take, possess or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.” Section 3503.5 of the CFGC specifically protects birds of prey, and their nests and eggs against take, possession, or destruction. Section 3513 of the CFGC also incorporates restrictions imposed by the federal MBTA (which applies to native migratory bird species), stating that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the United States Secretary of the Interior under the MBTA. Active nests with eggs or young are protected in any location where they are found.

Trees or other vegetation are not present within the APE. No nesting birds were observed within existing buildings, and no significant features such as ledges or overhangs were identified during field survey that would be expected to support nesting of common species such as the common raven and house finch. The site is bordered by roads and a railroad on one side, which may generate regular noise, a probable deterrent for preferred nesting locations. No burrows were observed within the APE that could be inhabited by BUOW.

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 CNDDB. 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 CNDDB, no sensitive plant communities are recorded within a 5-mile radius of the APE. No sensitive plant communities were observed within the APE during the survey.

4.3 Jurisdictional Waters and Wetlands

Areas potentially subject to United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW jurisdiction were assessed during the literature review and field visit; however, a formal jurisdictional delineation was not performed. A water blow-off basin exists within the fenced area of the APE. It is periodically filled with water which appears to drain rapidly as described by the CVWD employee in attendance at the time of the survey. Because this feature was constructed in an upland area for the purpose of water management, does not hold water for extended periods of time, and is isolated from other potentially jurisdictional waters, it is not likely subject to the jurisdiction of the USACE, RWQCB, or CDFW. No water features mapped by the NWI occur within the APE.

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 CDFW BIOS (2020b) does not include any mapped essential habitat connectivity areas or natural landscape blocks mapped near the APE. The closest mapped natural landscape blocks include the Mecca Hills area approximately three miles northeast of the APE and the Santa Rosa Mountains approximately seven miles southwest of the APE. The APE is separated from these areas by existing development, agricultural areas, and transportation corridors including State Route 111. It is located within a developed and agricultural area that is subject to frequent human disturbance and is not connected to other contiguous habitats and open space areas. As a result, the APE does not occur within a wildlife movement corridor.

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. There are no trees in the APE; therefore, this ordinance would not apply to activities within the APE.

4.6 Conservation Plans

The APE is within the CVMSHCP/NCCP area as shown (Figure 4). The CVMSHCP/NCCP 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/NCCP is to maintain and enhance biological diversity and ecosystem processes within the region while allowing for future economic growth (Coachella Valley Association of Governments [CVAG] 2007).

The CVMSHCP/NCCP covers 27 sensitive plant and wildlife species (CVMSHCP/NCCP 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/NCCP. 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.

Figure 4 CVMSHCP/NCCP Conservation Areas

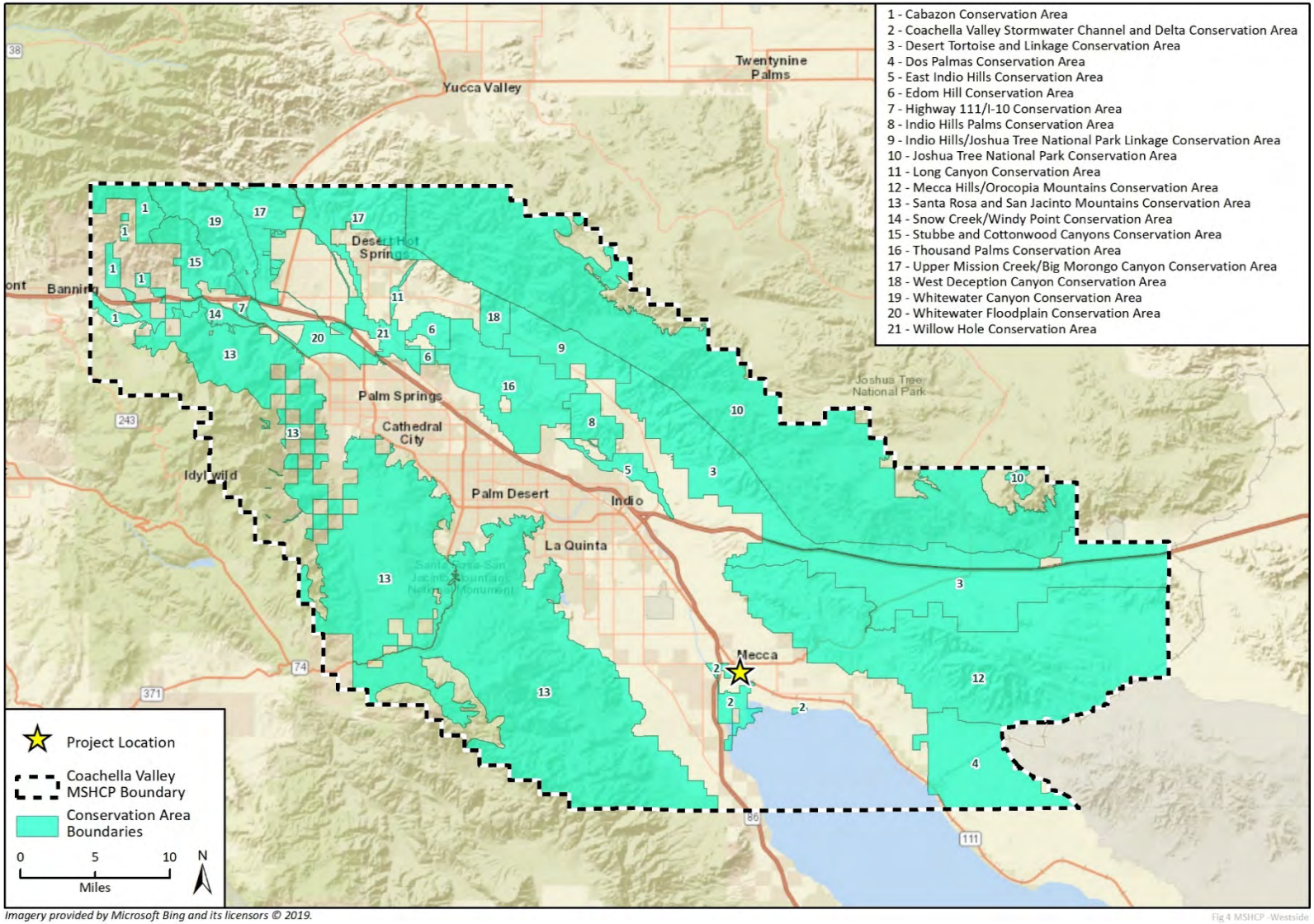

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Fig 4 MSHCP -Westside

Each Conservation Area has specific Conservation Objectives that must be satisfied. The CVMSHCP/NCCP received final approval on October 1, 2008. The approval of the CVMSHCP/NCCP 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*). As stated in the CVMSHCP/NCCP Section 7.0, Take Authorization for Covered Activities and Term of Permit, the CDFW "acknowledges and agrees that if measures put forth in the CVMSHCP/NCCP are fully complied with, the covered activities are not likely to result in the take of these species except as provided for pursuant to CFGC Section 2081.7."

In addition, the purpose of CVMSHCP/NCCP 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/NCCP but is not a part of any CVMSHCP/NCCP Conservation Area. The closest Conservation Area is the Coachella Valley Stormwater Channel and Delta CVMSHCP/NCCP Conservation Area, approximately 0.6 mile west of APE on the other side of State Route 111. Per the CVMSHCP/NCCP Section 4.5 Land Use Adjacency Guidelines, the APE would not be considered "adjacent" to this Conservation Area. In addition, the CVMSHCP/NCCP Section 7.1 Covered Activities Outside Conservation Areas indicates that CVMSHCP/NCCP permittee-proposed activities, and their associated potential impacts to covered species, outside of Conservation Areas would be covered by the CVMSHCP/NCCP. 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 any federally designated critical habitat areas or within or adjacent to the Coastal Zone or any federally designated Wild and Scenic Rivers. Furthermore, the APE is not within or adjacent any Essential Fish Habitat or within lands covered by the Coastal Barrier Resources System.

5 Impact Analysis and Mitigation Measures

This section discusses the possible adverse impacts to sensitive biological resources that may occur from implementation of the proposed project 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 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 special-status wildlife species given their known distributions and habitat requirements relative to existing site conditions that include low habitat quality in disturbed and developed areas of the APE, lack of native vegetation, and the isolation from other suitable habitat due to the surrounding developed land. No special-status wildlife species have a moderate or high potential to occur within the APE. As a result, project impacts to special-status wildlife species are not expected and no mitigation measures are recommended.

5.1.3 Nesting Birds

Active nests with eggs or young in them are protected under the CFGC Section 3503 and the MBTA in any location where they are found. If initial ground disturbance is required during the nesting bird season nesting could be disrupted (e.g., injury, mortality, or disruption of normal adult behaviors resulting in the abandonment or harm to eggs and nestlings). As discussed in Section 4.1, there are no trees or other vegetation within the APE; nor do the existing buildings have prominent features such as ledges or overhangs that could support nesting by common species such as the common raven and house finch. Based on a lack of suitable habitat and observations of nesting birds during the field survey, no impact to nesting birds is anticipated; therefore no mitigation is recommended.

5.2 Sensitive Vegetation Communities

No sensitive vegetation communities were documented within or adjacent to the APE. Furthermore, project impacts are limited to previously developed areas with high human activity. Therefore, the proposed project does not have the potential to result in direct or indirect impacts to sensitive vegetation communities. Due to the absence of potential impacts, no mitigation measures are recommended.

5.3 Jurisdictional Waters and Wetlands

As discussed in Section 4.3, the APE does not contain any features potentially subject to the jurisdiction of USACE, RWQCB, or CDFW. The proposed project does not have the potential to result in direct or indirect impacts to jurisdictional areas, wetlands, other waters, or riparian habitats. As a result, no mitigation measures are recommended.

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.

The proposed project footprint is located within a previously developed and routinely managed area that offers little to no value to 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.

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 4.6, the CVWD participates in the CVMSHCP/NCCP and the proposed project is within the CVMSHCP/NCCP plan area, but not within any specific CVMSHCP/NCCP Conservation Area. The closest Conservation Area is the Coachella Valley Stormwater Channel and Delta CVMSHCP/NCCP Conservation Area, approximately 0.6 mile west of the APE on the other side of State Route 111. The proposed project would avoid direct impacts to CVMSCHCP Conservation Areas and will not conflict with the CVMSHCP/NCCP Conservation Objectives. The project will comply with CVMSHCP/NCCP Section 4.5 Land Use Adjacency Guidelines to avoid and minimize indirect effects (CVAG 2007).

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

The APE is not within any federally designated critical habitat areas or within or adjacent to the Coastal Zone, Coastal Barrier Resources System, or any federally designated Wild and Scenic Rivers. Therefore, no impacts would occur and no mitigation measures are recommended.

6 Limitations, Assumptions, and User Reliance

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 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 CNDDB, may vary with regard to accuracy and completeness. In particular, the CNDDB 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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7.2 List of Preparers

Rincon Consultants, Inc.

Field Survey/Primary Author

- Ryan Gilmore, Senior Biologist

Secondary Author

- Sarah Toback, Associate Biologist

Technical Review

- Steven Hongola, Principal Biologist
- Brenna Vredeveld, Senior Biologist

Graphics

- Doug Carreiro, GIS Analyst

Appendix A

Regionally Occurring Special-Status Species

Regionally Occurring Special-Status Species

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Plants and Lichens				
Abronia villosa var. *aurita* chaparral sand-verbena	None/None G5T2?/S2 1B.1	Annual herb. Blooms Jan-Sept. Occurs in chaparral, coastal scrub. Sandy areas of the South Coast and Sonoran Desert Floristic Provinces. 80-1600m (260-5250ft).	**Not Expected**	No suitable habitat (chaparral, coastal scrub, desert dunes) present.
Ambrosia monogyra singlewhorl burrobrush	None/None G5/S2 2B.2	Chaparral, Sonoran desert scrub. sandy. 10 - 500 m. perennial shrub. Blooms Aug-Nov	**Not Expected**	No suitable habitat (chaparral, coastal scrub, desert dunes) present.
Astragalus lentiginosus var. *coachellae* Coachella Valley milk-vetch	FE/None G5T1/S1 1B.2	Desert dunes, Sonoran desert scrub (sandy). Sandy flats, washes, outwash fans, sometimes on dunes. 40 - 655 m. annual/perennial herb. Blooms Feb-May	**Not Expected**	No suitable habitat present (desert dunes, desert scrub).
Astragalus sabulonum gravel milk-vetch	None/None G4G5/S2 2B.2	Desert dunes, Mojavean desert scrub, Sonoran desert scrub. Usually sandy, sometimes gravelly. Flats, washes, and roadsides. -60 - 930 m. annual/perennial herb. Blooms Feb-Jun	**Low Potential**	Suitable habitat (roadsides) present but are heavily disturbed.
Chylismia arenaria sand evening-primrose	None/None G4?/S2S3 2B.2	Sonoran desert scrub (sandy or rocky). -70 - 915 m. annual/perennial herb. Blooms Nov-May	**Not Expected**	No suitable habitat (desert scrub) present.
Ditaxis claryana glandular ditaxis	None/None G3G4/S2 2B.2	Mojavean desert scrub, Sonoran desert scrub. sandy. 0 - 465 m. perennial herb. Blooms Oct, Dec, Jan, Feb, Mar	**Not Expected**	No suitable habitat (desert scrub) present.
Nemacaulis denudata var. *gracilis* slender cottonheads	None/None G3G4T3?/S 2 2B.2	Coastal dunes, Desert dunes, Sonoran desert scrub. -50 - 400 m. annual herb. Blooms (Mar)Apr-May	**Not Expected**	No suitable habitat (coastal dunes, desert dunes, desert scrub) present.
Petalonyx linearis narrow-leaf sandpaper-plant	None/None G4/S3? 2B.3	Mojavean desert scrub, Sonoran desert scrub. Sandy or rocky canyons. -25 - 1115 m. perennial shrub. Blooms (Jan-Feb) Mar-May (Jun-Dec)	**Not Expected**	No suitable habitat (desert scrub) present.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Salvia greatae Orocopia sage	None/None G2G3/S2S3 1B.3	Mojavean desert scrub, Sonoran desert scrub. -40 - 825 m. perennial evergreen shrub. Blooms Mar-Apr	**Not Expected**	No suitable habitat (desert scrub) present.
Wislizenia refracta ssp. *palmeri* Palmer's jackass clover	None/None G5T3T5/S1 2B.2	Chenopod scrub, Desert dunes, Sonoran desert scrub, Sonoran thorn woodland. 0 - 300 m. perennial deciduous shrub. Blooms Jan-Dec	**Not Expected**	No suitable habitat (chenopod scrub, desert dunes, desert scrub, thorn woodland) present.
Xylorhiza cognata Mecca-aster	None/None G2/S2 1B.2	Sonoran desert scrub. Steep canyon slopes, in sandstone and clay. 20 - 400 m. perennial herb. Blooms Jan-Jun	**Not Expected**	No suitable habitat (desert scrub, canyon slopes) present.
Invertebrates				
Oliarces clara cheeseweed owlfly (cheeseweed moth lacewing)	None/None G1G3/S2	Inhabits the lower Colorado River drainage. Found under rocks or in flight over streams. Larrea tridentata is the suspected larval host.	**Not Expected**	No suitable aquatic habitat present on or adjacent to the APE.
Fish				
Cyprinodon macularius desert pupfish	FE/SE G1/S1	Desert ponds, springs, marshes and streams in Southern California. Can live in salinities from freshwater to 68 ppt; can withstand temps from 9 - 45 C and dissolved oxygen levels down to 0.1 ppm.	**Not Expected**	No suitable aquatic habitat present on or adjacent to the APE.
Xyrauchen texanus razorback sucker	FE/SE G1/S1S2 FP	Found in the Colorado River bordering California. Adapted for swimming in swift currents but also need quiet waters. Spawn in areas of sand/gravel/rocks in shallow water.	**Not Expected**	No suitable aquatic habitat present on or adjacent to the APE.
Amphibians				
Scaphiopus couchii Couch's spadefoot	None/None G5/S2 SSC	Temporary desert rainpools that last at least 7 days, with water temps > 15 C, and with subterranean refuge sites close by. An insect food base, especially termites, must be available.	**Not Expected**	No suitable aquatic habitat present on or adjacent to the APE.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Reptiles				
Gopherus agassizii desert tortoise	FT/ST G3/S2S3	Most common in desert scrub, desert wash, and Joshua tree habitats; occurs in almost every desert habitat. Require friable soil for burrow and nest construction. Creosote bush habitat with large annual wildflower blooms preferred.	**Not Expected**	Suitable habitat (desert scrub, desert wash, Joshua tree, creosote bush) are not present.
Phrynosoma mcallii flat-tailed horned lizard	None/None G3/S2 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.	**Not Expected**	Species is highly dependent on sand dunes, which are absent from the APE.
Uma inornata Coachella Valley fringe-toed lizard	FT/SE 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.	**Not Expected**	Species is highly dependent on sand dunes, which are absent from the APE.
Birds				
Ardea alba great egret	None/None G5/S4	Colonial nester in large trees. Rookery sites located near marshes, tide-flats, irrigated pastures, and margins of rivers and lakes.	**Not Expected**	Elements of suitable habitat required for nesting (large trees, marshes, tide-flats) are not present.
Ardea herodias great blue heron	None/None G5/S4	Colonial nester in tall trees, cliffsides, and sequestered spots on marshes. Rookery sites in close proximity to foraging areas: marshes, lake margins, tide-flats, rivers and streams, wet meadows.	**Not Expected**	Elements of suitable habitat required for nesting (tall trees, cliffsides, marshes) are not present.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Athene cunicularia burrowing owl	None/None G4/S3 SSC	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	**Not Expected**	While there are unpaved portions of the APE, suitable habitat is not present. Small mammal burrows were not observed in or adjacent to the APE. Additionally, soil conditions were severely compacted. The APE is regularly maintained and kept free of debris piles commonly used by the species. The nearest CNDDB observation is located approximately 2.6 miles northwest of the APE.
Egretta thula snowy egret	None/None G5/S4	Colonial nester, with nest sites situated in protected beds of dense tules. Rookery sites situated close to foraging areas: marshes, tidal-flats, streams, wet meadows, and borders of lakes.	**Not Expected**	Elements of suitable habitat required for nesting (dense tules, marshes, wet meadows) are not present.
Empidonax traillii extimus southwestern willow flycatcher	FE/SE G5T2/S1	Riparian woodlands in southern California.	**Not Expected**	Required riparian woodland habitat is not present.
Falco mexicanus prairie falcon	None/None G5/S4 WL	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores.	**Not Expected**	Elements of suitable habitat required for breeding and foraging (cliffs, marshlands) are not present.
Gelochelidon nilotica gull-billed tern	None/None G5/S1 SSC	Only known breeding colonies at San Diego Bay and the Salton Sea. Nests on low, sandy islets. Known to feed on fishes at mouth of Colorado River and on grasshoppers in alfalfa fields.	**Not Expected**	Elements of suitable habitat required for breeding (sandy islets) are not present.
Icteria virens yellow-breasted chat	None/None G5/S3 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.	**Not Expected**	Elements of suitable habitat required for nesting (dense riparian thickets) are not present.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Nycticorax nycticorax black-crowned night heron	None/None G5/S4	Colonial nester, usually in trees, occasionally in tule patches. Rookery sites located adjacent to foraging areas: lake margins, mud-bordered bays, marshy spots.	**Not Expected**	Elements of suitable habitat required for breeding (trees, marshy spots) are not present.
Plegadis chihi white-faced ibis	None/None G5/S3S4 WL	Shallow freshwater marsh. Dense tule thickets for nesting, interspersed with areas of shallow water for foraging.	**Not Expected**	Elements of suitable habitat required for breeding (dense tule thickets and areas of shallow water) are not present.
Polioptila melanura black-tailed gnatcatcher	None/None G5/S3S4 WL	Primarily inhabits 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 introduced.	**Not Expected**	Elements of suitable habitat required for breeding (wooded desert washes, desert scrub habitat) are not present.
Rallus obsoletus yumanensis Yuma Ridgway's rail	FE/ST G5T3/S1S2 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; principle food is crayfish.	**Not Expected**	Elements of suitable habitat required for breeding (freshwater marshes) are not present.
Rynchops niger black skimmer	None/None G5/S2 SSC	Nests on gravel bars, low islets, and sandy beaches, in unvegetated sites. Nesting colonies usually less than 200 pairs.	**Not Expected**	Elements of suitable habitat required for breeding (gravel bars, low islets, sandy beaches) are not present.
Toxostoma crissale Crissal thrasher	None/None G5/S3 SSC	Resident of southeastern deserts in desert riparian and desert wash habitats. Nests in dense vegetation along streams/washes; mesquite, screwbean mesquite, ironwood, catclaw, acacia, arrowweed, willow.	**Not Expected**	Elements of suitable habitat required for breeding (desert riparian and desert wash habitats) are not present.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Toxostoma lecontei Le Conte's thrasher	None/None G4/S3 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.	**Not Expected**	Elements of suitable habitat required for breeding (desert wash, desert scrub, densely branched cactus) are not present.
Vireo bellii pusillus least Bell's vireo	FE/SE G5T2/S2 SSC	Summer resident of southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft. Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	**Not Expected**	Required habitat (riparian, mesquite, water source) are not present.
Mammals				
Chaetodipus fallax pallidus pallid San Diego pocket mouse	None/None G5T34/S3S4 SSC	Occurs in desert and arid coastal border areas in eastern San Diego, Riverside, and San Bernardino Counties. Habitats include desert wash, desert scrub, desert succulent scrub, and pinyon-juniper. Prefers sandy soils, usually with rocks or coarse gravel.	**Not Expected**	Required habitat (desert wash, desert scrub, pinyon-juniper) not present in the APE.
Corynorhinus townsendii Townsend's big-eared bat	None/None G3G4/S2 SSC	Occurs throughout California in a wide variety of habitats. Most common in mesic sites, typically coniferous or deciduous forests. Roosts in the open, hanging from walls and ceilings in caves, lava tubes, bridges, and buildings. This species is extremely sensitive to human disturbance.	**Not Expected**	Required habitat and roosting sites (coniferous or deciduous forest, caves, bridges) not present in the APE.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations
Euderma maculatum spotted bat	None/None G4/S3 SSC	Occupies a wide variety of habitats from arid deserts and grasslands through mixed conifer forests. Typically forages in open terrain; over water and along washes. Feeds almost entirely on moths. Roosts in rock crevices in cliffs or caves. Occasionally roosts in buildings.	**Not Expected**	Required foraging and roosting habitats (water, rock crevices, grasslands) not present in the APE.
Eumops perotis californicus western mastiff bat	None/None G5T4/S3S4 SSC	Occurs in open, semi-arid to arid habitats, including coniferous and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces and caves, and buildings. Roosts typically occur high above ground.	**Not Expected**	Required habitat (coniferous and deciduous woodlands, coastal scrub, grasslands, and chaparral) not present in the APE.
Neotoma albigula venusta Colorado Valley woodrat	None/None G5T3T4/S1 S2	Low-lying desert areas in southeastern California. Closely associated with beaver-tail cactus & mesquite. Intolerant of cold temps. Eats mainly succulent plants. Distribution influenced by abundance of nest building material	**Not Expected**	Required nest building material and food source (succulents and mesquite) not present in the APE.
Taxidea taxus American badger	None/None G5/S3 SSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	**Not Expected**	Required habitat and soil types (shrub, forest, and herbaceous habitats with friable soils) not present in the APE.
Xerospermophilus tereticaudus chlorus Palm Springs round-tailed ground squirrel	None/None G5T2Q/S2 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.	**Not Expected**	Required habitat (desert succulent scrub, desert wash, alkali scrub, grassy areas) not present in the APE.

Scientific Name Common Name	Status	Habitat Requirements	Potential to Occur in Project Area	Habitat Suitability/ Observations

Regional Vicinity refers to within a 5-mile radius of site.

Status (Federal/State)

FE = Federal Endangered
FT = Federal Threatened
SE = State Endangered
ST = State Threatened
SSC = CDFW Species of Special Concern
FP = CDFW Fully Protected
WL = CDFW Watch List

CRPR (CNPS California Rare Plant Rank)

1B = Rare, Threatened, or Endangered in California and elsewhere
2B= Rare, Threatened, or Endangered in California, but more common elsewhere

CRPR Threat Code Extension

.1 = Seriously endangered in California (>80% of occurrences threatened/ high degree and immediacy of threat)
.2 = Moderately threatened in California (20-80% of occurrences threatened/ moderate degree and immediacy of threat)
.3 = Not very endangered in California (<20% of occurrences threatened/ low degree and immediacy of threat)

Other Statuses

G1 or S1 Critically Imperiled Globally or Subnationally (state)
G2 or S2 Imperiled Globally or Subnationally (state)
G3 or S3 Vulnerable to extirpation or extinction Globally or Subnationally (state)
G4/5 or S4/5 Apparently secure, common and abundant
GH or SH Possibly Extirpated – missing; known from only historical occurrences but still some hope of rediscovery

Additional notations may be provided as follows

T – Intraspecific Taxon (subspecies, varieties, and other designations below the level of species)
Q – Questionable taxonomy that may reduce conservation priority
? – Inexact numeric rank

Appendix B

Plant and Wildlife Species Observed in the APE

Plant and Wildlife Species Observed in the APE on April 30, 2020

Scientific Name	Common Name	Status	Origin
Plants			
Ambrosia salsola	cheesebush	–	Native
Atriplex lentiformis	big saltbush	–	Native
Erodium cicutarium	red-stemmed filaree	Cal-IPC Limited	Non-native
Lactuca serriola	prickly lettuce	–	Non-native
Polypogon monspeliensis	annual beard grass	Cal-IPC Limited	Non-native
Salsola tragus	Russian thistle	Cal-IPC Limited	Non-native
Schismus barbatus	schismus	Cal-IPC Limited	Non-native
Sonchus oleraceus	sowthistle	–	Non-native
Tamarix sp.	tamarisk	Cal-IPC High	Non-native
Wildlife			
Birds			
Corvus brachyrhynchos	common raven	–	Native
Haemorhous mexicanus	house finch	–	Native

Codes: California Invasive Plant Council (Cal-IPC) rankings of Limited, Moderate, and High indicate the invasiveness of certain non-native plant species in California.

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Appendix C

Representative Photographs of the APE – April 30, 2020

Photograph 1. View looking northeast at the water blow-off basin.

Photograph 2. View looking into the water blow-off basin.

Photograph 3. View looking north along the west side of the project site.

Photograph 4. View looking east within the center portion of the project site.

Appendix D

Resumes

Ryan Gilmore, MURP

SENIOR BIOLOGIST/URBAN FORESTER/PROJECT MANAGER

Ryan Gilmore serves as a Senior Biologist/Urban Forester/Project Manager and ISA Certified Arborist under Rincon's Biological Services group. He has 12 years of professional consulting experience in the environmental field including work throughout California. His responsibilities include field surveys for habitat evaluation, nesting bird surveys, burrowing owl surveys, bighorn sheep surveys, resource constraints analysis, construction and mitigation monitoring, habitat restoration and success monitoring, general biological surveys, and the preparation of biological reports for compliance with both NEPA and CEQA. Additionally, he has performed a multitude of tasks in the field of forestry. These projects include assessment and inventory of native woodlands, managing and monitoring the relocation and preservation of trees on development sites, urban tree health assessments (including tree decay studies), global positioning system (GPS) mapping, construction monitoring, data analysis, hazardous tree assessments, invasive pests studies (GSOB & PSHB), and preparation of various arboricultural reports (including urban forestry management plans, street tree management plans, and native tree restoration plans). Additionally, has provided on-call arborist services for multiple Southern California cities and large land managers.

EDUCATION

M.U.R.P., Urban and Regional Planning, emphasis in Environmental, California State Polytechnic University, Pomona, 2010

B.A., Anthropology, emphasis in Archaeology, University of California, Santa Cruz, 2000

CERTIFICATIONS + QUALIFICATIONS

International Society of Arboriculture (ISA) Certified Arborist & Municipal Specialist (WE-9009AM)

ISA Tree Risk Assessment Qualification, 2017

American Society of Consulting Arborists, Trees and Plants Appraisal Qualification, 2019

TRAINING

ISA Tree Appraisal Workshop

Urban and Wildland Forests: Tree Pests and Diseases Workshop

Hour ACOE Wetland Delineation Training Program

Goldspotted Oak Borer Workshop

Stephen's Kangaroo rat field training

Desert Tortoise Surveying, Monitoring, and Handling Techniques Workshop

PROJECT EXPERIENCE

BOTANICAL SURVEY EXPERIENCE

- TRTP Project, Southern California Edison, Riverside County, Los Angeles, and Kern County, California – Conducted pre-construction botanical surveys, tree inventory, mitigation assessments, and habitat assessments along 175-mile corridor.
- Newhall Ranch, Los Angeles County – Conducted rare plant surveys and San Fernando spineflower mapping.
- Caltrans, Districts 7 and 8, Los Angeles County and San Bernardino County, California – Conducted rare plant focused botanical surveys and vegetation mapping.
- Various Projects, Verizon, San Bernardino County, California – Conducted rare plant focused botanical surveys and vegetation mapping
- Big Tujunga Wash Mitigation Bank, Los Angeles County Department of Public Works, Los Angeles County, California – Conducted restoration monitoring and annual reporting.
- Eagle Canyon and Debris Basin Habitat Mitigation Project, Riverside Flood Control and Water Conservation District, Riverside County, California – Conducted focused habitat restoration success monitoring, water quality testing, and preconstruction surveys for bighorn sheep and burrowing owl.
- Various Projects and Clients, Throughout Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara, and Ventura counties - Performed large- and small-scale evaluation of protected trees Provided GIS-based tree mapping and analysis of potential tree impacts from construction. Compiled all fieldwork data and analysis into technical reports.

Wildlife Survey Experience

- Various Projects, Caltrans, District 7, Los Angeles County, California – Conducted bighorn sheep surveys and monitoring in the San Gabriel Mountains.
- Soitec Solar Project, San Bernardino County, California – Conducted bird mortality studies.
- Sunrise Powerlink, San Diego Gas & Electric (SDG&E), San Diego County, California – Conducted protocol gold-spotted oak borer surveys within the Sunrise Powerlink mitigation site project boundaries. Developed pest management plan and monitoring for success.
- Vista Chino Road Improvement Project, City of Palm Springs, California – Conducted focused burrowing owl and Palm Springs round-tailed ground squirrel surveys.
- ISHB Monitoring and Extent Surveys Project, Orange County Transit Authority, Orange County, California – Conducted focused ISHB extent surveys, trapping and monitoring program, and management plan.
- ISHB Monitoring and Extent Surveys Project, Yucaipa Water District, City of Yucaipa, California – Conducted focused ISHB extent surveys, trapping and monitoring program, and management plan.
- Pre-Construction Burrowing Owl Survey for the Nuevo Bridge Widening and Road Improvements Project, City of Perris – Conducted burrowing owl surveys.
- Castaic Conduit Project, Santa Clara Water District, City of Santa Clarita - Least Bell's Vireo Surveys.
- Honby Pipeline Project, Santa Clarita Valley Water District, City of Santa Clarita – Least Bell's Vireo Surveys.

Biological Technical Reports

- Various Protected Tree Inventories, Southern California Gas, Los Angeles County, California – Prepared various Protect Tree Reports
- Lakeview Plaza Project, Lakeview Centre, LLC, City of Lake Elsinore, California – Prepared Western Riverside Multiple Species Habitat Conservation Plan Consistency Analysis/Habitat Assessment
- Limonite Gap Closure Project, City of Eastvale California –Prepared Western Riverside Multiple Species Habitat Conservation Plan Consistency Analysis/Habitat Assessment
- Anza Electric Broadband Line Project, Riverside County, California – Prepared Western Riverside Multiple Species Habitat Conservation Plan Consistency Analysis/Habitat Assessment and Biological Resource Assessment
- Morgan Park Phase Two Project, City of Perris, California – Prepared Western Riverside Multiple Species Habitat Conservation Plan Consistency Analysis/Habitat Assessment

Appendix E

IPaC Query Results

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
Phone: (760) 431-9440 Fax: (760) 431-5901
http://www.fws.gov/carlsbad/

In Reply Refer To: January 13, 2021
Consultation Code: 08ECAR00-2021-SLI-0489
Event Code: 08ECAR00-2021-E-01082
Project Name: CVWD IXTP 7991

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated critical habitat, and candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Carlsbad Fish And Wildlife Office
2177 Salk Avenue - Suite 250
Carlsbad, CA 92008-7385
(760) 431-9440

Project Summary

Consultation Code: 08ECAR00-2021-SLI-0489
Event Code: 08ECAR00-2021-E-01082
Project Name: CVWD IXTP 7991
Project Type: WATER SUPPLY / DELIVERY
Project Description: The CVWD operates an IXTP at Well 7991 to treat high arsenic levels in the groundwater. Well 7991 and Well 6806 serve the southeastern portion of the CVWD service area, including the unincorporated community of Mecca and the Area 23 pressure zone via a single 18-inch pipeline. IXTP 7991 is routinely out of service and in poor condition, resulting in poor water supply reliability for Mecca and Area 23. In order to provide adequate water supply and fire flows, IXTP 7991 must be replaced. The project consists of replacing the existing IXTP 7991 with a new 1,800 gallon per minute (gpm) to 2,000 gpm adsorption treatment system, new sulfuric acid and caustic soda systems within new buildings on site, backwash pumps and piping, pre-filters, backwash tank, and demolition of the existing IXTP.

The groundwater arsenic concentration is an average of approximately 20 parts per billion (ppb), which is above the Maximum Contaminant Limit (MCL) of 10 ppb. The existing facilities on site include the well pump, a bypass and pressure reducing station, the arsenic treatment system, and a retention basin. All the components of the existing treatment system are in very poor condition and in need of replacement, except for the sodium hypochlorite chemical feed system.

Project construction would occur within the IXTP 7991 site and would involve excavation to a depth of approximately 15 feet for booster suction cans and potential activities within the adjacent roadway. Construction schedule is dependent on funding availability, but currently anticipated to begin in June 2021 and last for approximately eight months.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@33.5556297,-116.06082954651457,14z

Counties: Riverside County, California

Endangered Species Act Species

There is a total of 6 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

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1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Birds

NAME	STATUS
Least Bell's Vireo *Vireo bellii pusillus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/5945	Endangered
Southwestern Willow Flycatcher *Empidonax traillii extimus* There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/6749	Endangered
Yuma Ridgways (clapper) Rail *Rallus obsoletus [=longirostris] yumanensis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/3505	Endangered

Reptiles

NAME	STATUS
Desert Tortoise *Gopherus agassizii* Population: Wherever found, except AZ south and east of Colorado R., and Mexico There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/4481	Threatened

Fishes

NAME	STATUS
Desert Pupfish *Cyprinodon macularius*	Endangered
There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/7003	
Razorback Sucker *Xyrauchen texanus*	Endangered
There is **final** critical habitat for this species. The location of the critical habitat is not available. Species profile: https://ecos.fws.gov/ecp/species/530	

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.