

# Appendix BIO

## **Biological Resources Technical Report**

The Appendices herein contain supporting information referenced in the Environmental Impact Report. These appendices contain highly detailed figures and other graphic information which are difficult to translate for screen reading software; therefore, the Appendices have not been translated into an auditory format. If you have a disability and/or have difficulty accessing any material in this document, please contact us by mail, email, or telephone, and we will work with you to make all reasonable accommodations. Please indicate 1) the nature of the accessibility need; 2) your preferred format; 3) the material you are trying to access and its location within this document; and 4) how to reach you if questions arise while fulfilling your request. You can direct your requests to William Patterson ([wpatterson@cvwd.org](mailto:wpatterson@cvwd.org)).



# WATER RECLAMATION PLANT NO. 4 NON-POTABLE WATER IMPROVEMENTS PROJECT

## Biological Resources Technical Report

Prepared for  
Coachella Valley Water District

November 2024





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# Acronyms and Other Abbreviations

<b>Abbreviation</b>	<b>Definition</b>
BC	Business Council
BSA	biological study area
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CNDDB	California Natural Diversity Data Base
CNDDB	California Natural Diversity Data Base
CVCC	Coachella Valley Conservation Commission
CVMSHCP	Coachella Valley Multiple Species Habitat Conservation Plan
CVSC	Coachella Valley Stormwater Channel
CVWD	Coachella Valley Water District
CWA	Clean Water Act
ECORP	ECORP Consulting, Inc.
FESA	Federal Endangered Species Act
HANS	Habitat Evaluation and Acquisition Negotiation Strategy
IPaC	Information for Planning and Consultation
JPR	Joint Project Review
MBTA	Migratory Bird Treaty Act
MCV	Manual of California Vegetation
MGD	million gallons per day
NCCP	Natural Community Conservation Plan
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
RWQCB	Regional Water Quality Control Board
SSC	species of special concern
SWRCB	State Water Resources Control Board
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
WEAP	Workers Environmental Awareness Program
XS	Cross section

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# CHAPTER 1

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## Introduction

### 1.1 Project Location and Background

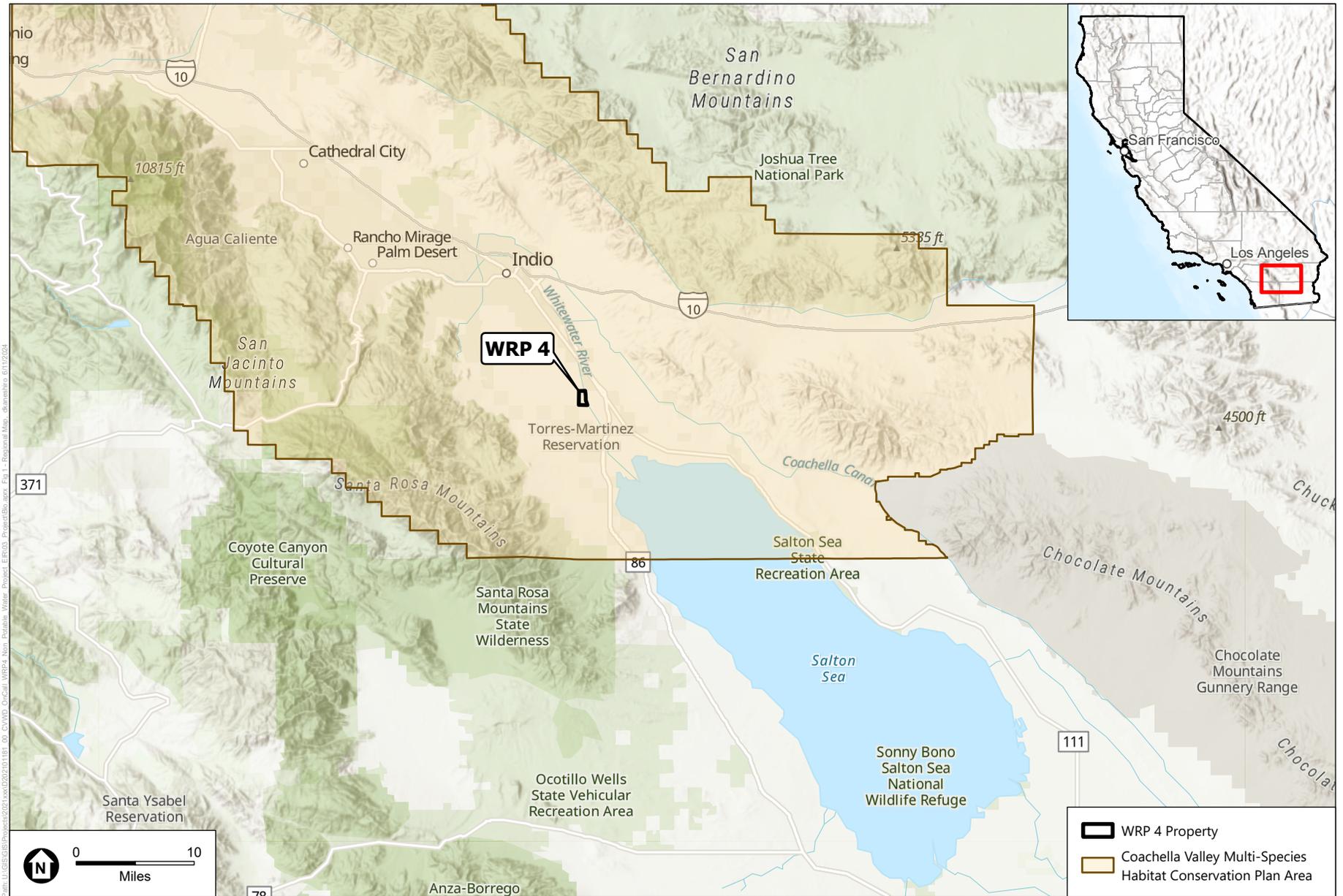
CVWD service area provides water, wastewater, recycled water, irrigation, stormwater protection and groundwater management and covers approximately 1000 square miles from the San Geronio Pass to the Salton Sea, in Riverside County, California. CVWD's service boundary also extends into small portions of Imperial and San Diego counties. The Salton Sea forms the southern boundary of the CVWD service area, with the Chocolate Mountains on the east and the Santa Rosa Mountains on the west. The southern tip of the San Bernardino Mountains forms the northern extent of the service area.

The proposed WRP 4 project is in the city of Thermal in eastern Riverside County within CVWD's service area (**Figure 1**) located southeast of Avenue 62 and Filmore Street . The property is bordered by Avenue 62 to the north, Avenue 64 on the south, Filmore Street on the west, and by the Coachella Valley Stormwater Channel (CVSC) to the east. (**Figure 2**). The WRP 4 facility and proposed project is located North of the Coachella Valley Stormwater Channel and Delta Conservation Area of the CVMSHCP.

WRP 4 has a design capacity of 9.9 million gallons per day (MGD) and currently treats an average daily flow of approximately 5.7 MGD. Treated effluent from the plant is discharged to the CVSC, which leads into the Salton Sea approximately 8 miles downstream.

### 1.2 Project Description

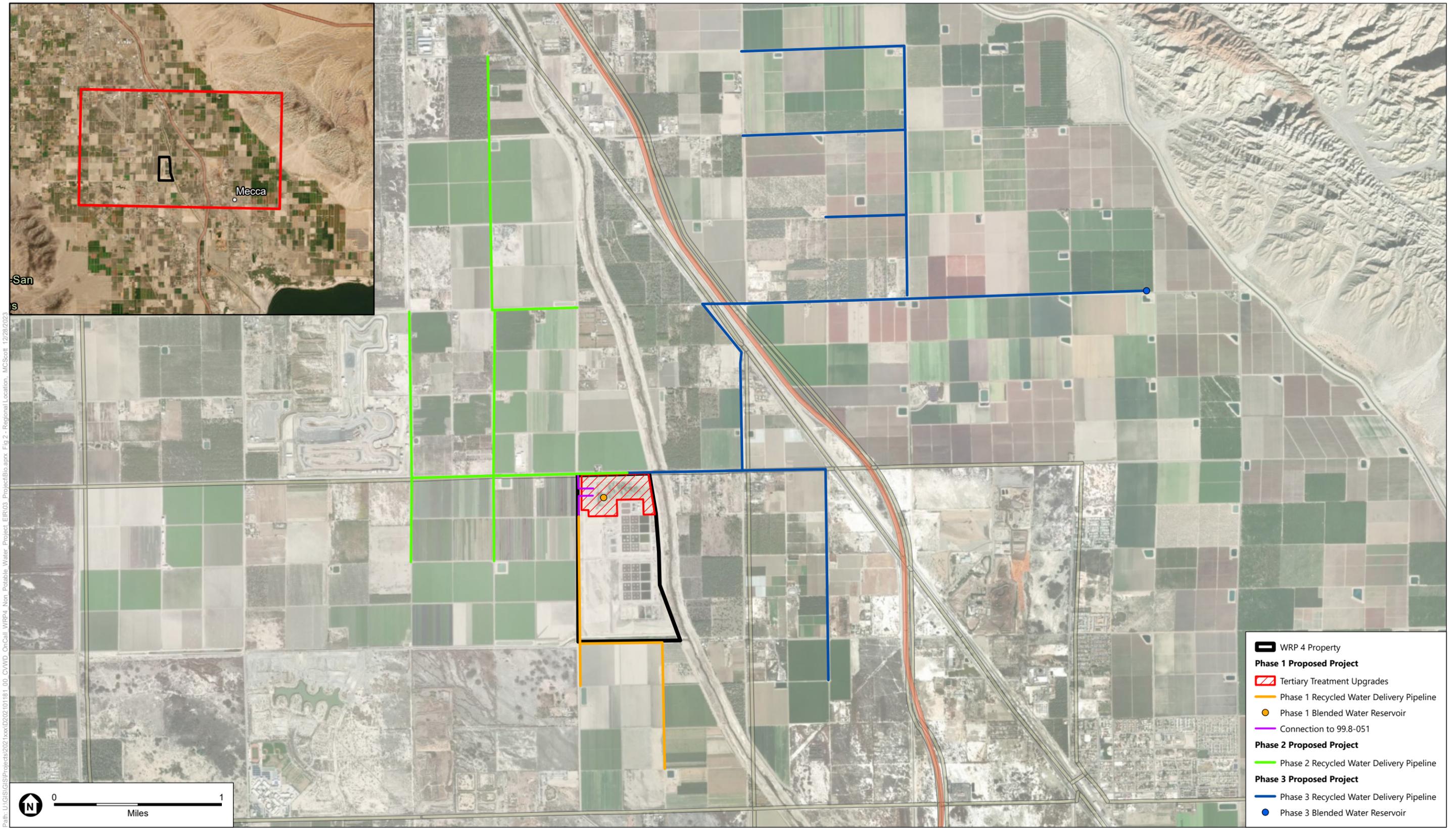
The proposed upgrades at WRP 4 would increase recycled water available for beneficial uses including agriculture in the area surrounding WRP 4. The project would construct new treatment facilities on the existing WRP 4 site (**Figure 3**) and would install new conveyance pipelines from the treatment facility to agricultural operations in the vicinity. The proposed project would reduce the amount of treated wastewater currently being discharged to the Coachella Valley Storm Channel (CVSC).



SOURCE: ESA, 2022

WRP4-CVWD

**Figure 1**  
Regional Map



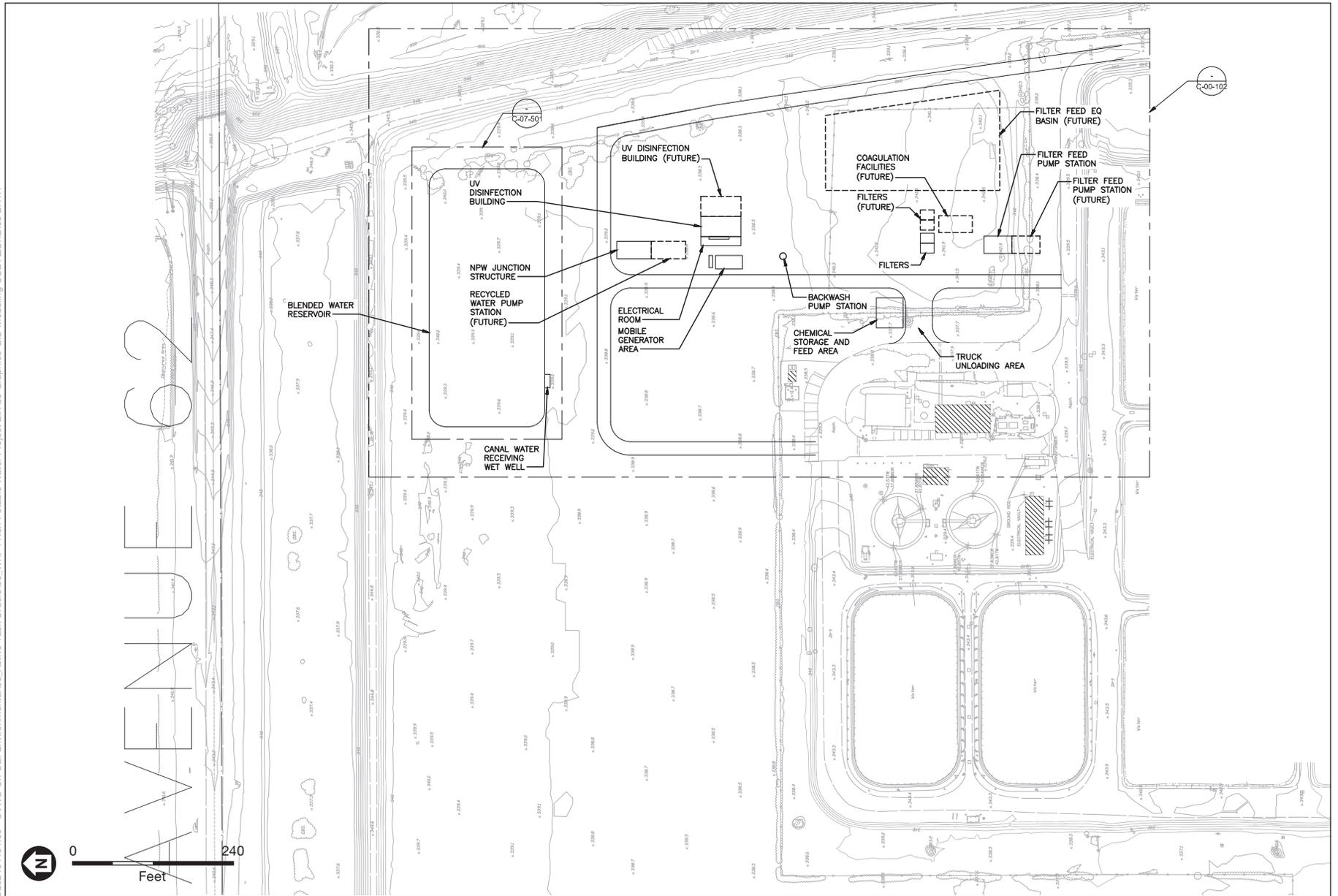
Path: U:\GIS\Projects\2021\02\202101181\_00\_CVWD\_OnCall\_WRP4\_Non\_Potable\_Water\_Project\_ER\03\_ProjectBldg.aprx Fig 2--Regional Location, MCSScott 12/28/2023

SOURCE: ESA, 2023

WRP4-CVWD

**Figure 2**  
Regional Location

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SOURCE: Black & Veatch, 2023

WRP 4 Non-Potable Water Improvements Project

**Figure 3**  
Proposed Site Plan

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# CHAPTER 2

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## Methodology

### 2.1 Project Area and Biological Study Area

This report evaluates the Salton Sea and current shoreline, and portions of the Coachella Valley northwest of the Salton Sea. Areas to the northwest of the Salton Sea include the WRP 4 facility, the Coachella Valley Stormwater Channel (CVSC) from WRP 4 to the Salton Sea, existing lateral drains, proposed recycled water delivery pipelines, and surrounding 500-foot buffer are herein referred to as the Biological Study Area (BSA) (see **Figure 4**). The BSA and the Salton Sea and existing shoreline situated to the southeast of the BSA are collectively referred to as the project area (**Figure 5**).

### 2.2 Existing Literature and Database Review

ESA reviewed previous environmental documentation and publications related to biological and aquatic resources previously documented in the region and conducted queries of available resource inventory databases to analyze the potential for sensitive resources to occur within or immediately adjacent to the BSA. The literature and database review included the following sources (also provided in **Appendix A, Literature Review**):

- *Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP) and Final major amendment* (CVAG 2007).
- *Coachella Valley Water District (CVWD) Sanitation Master Plan Update 2020. Biological Resources Technical Report* (ECORP 2020).
- California Department of Fish and Wildlife (CDFW) *California Natural Diversity Data Base (CNDDB)*. The database was queried for special-status species records in the Indio USGS 7.5-minute quadrangle and nine surrounding quadrangles (CDFW 2023a).
- *California Sensitive Natural Communities* (CDFW 2023b).
- *BIOS Habitat Connectivity Viewer* (CDFW 2023c).
- *Inventory of Rare and Endangered Vascular Plants of California* (CNPS 2023). The database was queried for special-status species records in the Indio USGS 7.5-minute quadrangle and eight surrounding quadrangles.
- Natural Resources Conservation Service (NRCS) *Web Soil Survey* (USDA 2023).
- *Salton Sea Management Program (SSMP) Phase 1: Ten-Year Plan Imperial and Riverside Counties Draft Environmental Assessment* (USACE 2022).
- U.S. Fish and Wildlife Service (USFWS) *Critical Habitat Portal* (USFWS 2023a).
- *Information for Planning and Consultation (IPaC)* (USFWS 2023b).

## 2.3 Field Surveys

### 2.3.1 Biological Resources Assessment

#### **Biological Study Area – Coachella Valley Stormwater Channel**

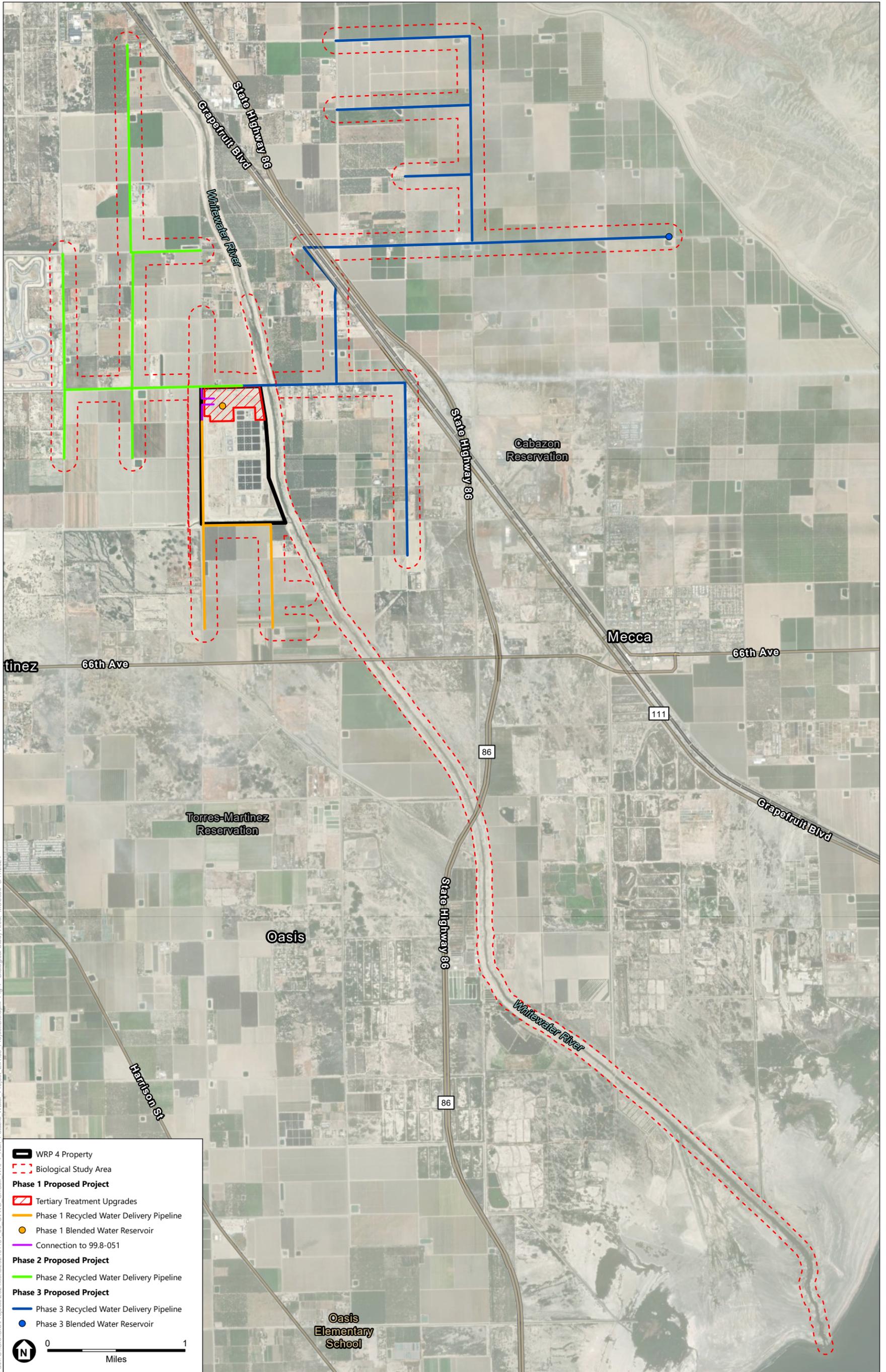
A general biological resources assessment was conducted, and vegetation was mapped by ESA biologists Brenda McMillan and Brandon Mukogawa on August 14, 15 and 16, 2023. The biologists conducted the survey through a combination of driving and walking the BSA to map existing natural communities and land cover types, and to assess the potential for special-status plants and wildlife to occur. A field survey was not conducted around the Salton Sea shoreline, outside of the BSA.

All native and non-native natural communities and land cover types were mapped on aerial maps using Geographic Information System software (i.e., ArcGIS). Most descriptions of vegetation were characterized in the field in accordance with *A Manual of California Vegetation* (MCV) (Sawyer et al. 2009); however, in instances where a description listed in the MCV was not appropriate, the community was instead characterized using species dominance or other notable descriptor.

All incidental visual observations of flora and fauna, including signs (i.e., presence of scat), as well as any audible detections were noted during the site investigation and considered when assessing potential for special-status species to occur. Photos depicting the vegetative communities and other related site photos can be found at **Appendix B, Representative Site Photos**.

#### **Outside of the Biological Study Area – Salton Sea**

Field surveys were not conducted of the Salton Sea, outside of the BSA. Alternatively, existing conditions were established through review of existing environmental documentation and publications, including the Salton Sea Management Program (SSMP) Phase 1: Ten-Year Plan Imperial and Riverside Counties Draft Environmental Assessment (Draft EA) drafted by the USACE in 2022 (USACE 2022).



Path: U:\GIS\GISProjects\2023\02\02\101181\_00\_CVWD\_OnCall\_WRP4\_Non\_Potable\_Water\_Project\_EIR\03\_Project\Bio\aprx\_Fig 4 - Biological Study Area\_MCScott\_6/11/2024

SOURCE: ESA, 2023

WRP4-CVWD

**Figure 4**  
Biological Study Area



Path: U:\GIS\GISProjects\2023\02\02101181\_00\_CVWD\_OnCall\_WRP4\_Non\_Potable\_Water\_Project\_EIR\03\_ProjectDER.aprx Fig 3.4-1 - Project Area, MCS\Scott 6/11/2024

SOURCE: ESA, 2023

WRP4-CVWD

**Figure 5**  
Project Area



# CHAPTER 3

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## Regulatory Framework

This chapter provides a summary of the federal, state, and local environmental regulations that govern the biological resources applicable to the BSA. This chapter also provides a summary of other state and local environmental guidelines or listings that evaluate the rarity of species or the habitats they depend on.

### 3.1 Federal Regulations

#### 3.1.1 Federal Endangered Species Act

The United States Congress passed the Federal Endangered Species Act (FESA) in 1973 to protect those species that are endangered or threatened with extinction. FESA is intended to operate in conjunction with the National Environmental Policy Act to help protect the ecosystems upon which endangered and threatened species depend. FESA prohibits the “take” of endangered or threatened wildlife species. “Take” is defined to include harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct (FESA Section 3 [(3)(19)]). Harm is further defined to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns (50 Code of Federal Regulations [CFR] Section 17.3). “Harass” is defined as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns (50 CFR Section 17.3). Actions that result in take can result in civil or criminal penalties.

#### 3.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) generally prohibits the killing, possessing, or trading of migratory birds, bird parts, eggs, and nests, except as provided by the statute. The MBTA authorizes the Secretary of the Interior to regulate the taking of migratory birds. It further provides that it is unlawful, except as permitted by regulations, “to pursue, take, or kill any migratory bird, or any part, nest or egg of any such bird...” (16 United States Code [USC] 703).

The MBTA, first enacted in 1916, prohibits any person, unless permitted by regulations, to “pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention...for the protection of migratory birds...or any part, nest, or egg of any such bird” (16 USC 703).

### 3.1.3 Clean Water Act

Pursuant to Section 404 of the Clean Water Act (CWA), the U.S. Army Corps of Engineers (USACE) is authorized to regulate any activity that would result in the discharge of dredged or fill material into jurisdictional waters of the United States, which include those waters listed in 33 CFR Part 328 (Definitions). USACE, with oversight by the U.S. Environmental Protection Agency (USEPA), has the principal authority to issue CWA Section 404 Permits.

Pursuant to Section 401 of the CWA, the Regional Water Quality Control Board (RWQCB) certifies that any discharge into jurisdictional waters of the United States will comply with state water quality standards. The RWQCB, as delegated by USEPA, has the principal authority to issue a CWA Section 401 water quality certification or waiver. Based on the literature and database review and biological resources assessment, the project site does not support waters that would be subject to the CWA.

### 3.1.4 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act was originally enacted in 1940 as the Bald Eagle Protection Act to protect bald eagles and was later amended to include golden eagles. The Act prohibits the taking, possession, or commerce of bald and golden eagles, parts, feathers, nests, or eggs with limited exceptions. Take is defined as “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb”, and includes both direct taking of individuals and take due to disturbance. “Disturb” is defined as (50 CFR 22.3):

*“to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to any eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior.”*

The definition of “disturb” is further defined by USFWS (2007) as follows:

*“In addition to immediate impacts, this definition also covers impacts that result from human-caused alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagles return, such alterations agitate or bother an eagle to a degree that injures an eagle or substantially interferes with normal breeding, feeding, or sheltering.”*

Bald eagles may not be taken for any purpose unless a permit is issued prior to the taking. Activities which can be authorized by permit include scientific collection/research, exhibition, tribal religious, depredation, falconry, and the taking of inactive golden eagle nests, which interfere with resource development or recovery operations. Currently, USFWS has a permitting process proposed for other activities that would allow disturbance to bald eagles or take of an eagle nest where their location poses a risk to human or eagle safety.

## 3.2 State Regulations

### 3.2.1 California Environmental Quality Act Guidelines, Section 15380

Although threatened and endangered species are protected by specific federal and state statutes, California Environmental Quality Act (CEQA) Guidelines Section 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definition in FESA and the section of the CFGC dealing with rare or endangered plants or animals. This section was included in CEQA primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on, for example, a candidate species that has not been listed by either USFWS or CDFW. Thus, CEQA provides an agency with the ability to protect a species from the potential impacts of a project until the respective government agencies have an opportunity to designate the species as protected, if warranted. CEQA also calls for the protection of other locally or regionally significant resources, including natural communities. Although natural communities do not at present have legal protection of any kind, CEQA calls for an assessment of whether any such resources would be affected and requires findings of significance if there would be substantial losses. Natural communities listed by CNDDDB as sensitive are considered by CDFW to be significant resources and fall under the State CEQA Guidelines for addressing impacts. Local planning documents such as General Plans often identify these resources as well.

### 3.2.2 California Fish and Game Code

The California Fish and Game Code (CFGC) regulates the taking or possession of birds, mammals, fish, amphibians, and reptiles, as well as natural resources such as wetlands and waters of the state. It includes the California Endangered Species Act (CESA) (Sections 2050–2115) and Streambed Alteration Agreement regulations (Sections 1600–1616). These sections are described further below.

#### **CFGC Sections 1600-1616**

Pursuant to Section 1600 et seq. of the CFGC, the CDFW regulates activities of an applicant’s project that would substantially alter the flow, bed, channel, or banks of streams or lakes, unless certain conditions outlined by CDFW are met by the applicant. The limits of CDFW jurisdiction are defined in CFGC Section 1600 et seq. as the “bed, channel, or bank of any river, stream, or lake designated by CDFW in which there is at any time an existing fish or wildlife resource or from which these resources derive benefit CDFW may extend its jurisdictional limit and assertion to the top of a bank of a stream, the bank of a lake, or outer edge of the riparian vegetation.. No stream banks or other CFGC Section 1600 resources occur within the construction limits; therefore, this regulation is not applicable to the project.

#### **California State Fish and Game Code Sections 3503, 3503.5, and 3513**

Under these sections of the CFGC, the project operator is not allowed to conduct activities that would result in the taking, possessing, or destroying of any birds of prey; the taking or possessing of any migratory nongame bird; the taking, possessing, or needlessly destroying of the nest or eggs of any raptors or nongame birds; or the taking of any nongame bird pursuant to CFGC Section 3800. CFGC §3513 adopts the federal migratory bird take provisions under the MBTA that prohibit the intentional take

or possession of birds designated by the MBTA as migratory nongame birds except as allowed by federal rules and regulations pursuant to the MBTA. CFGC Section 3513 does not prohibit the incidental take of birds if the underlying purpose of the activity is not to take birds.

### **Native Plant Protection Act (CFGC Section 1900 et seq.)**

The Native Plant Protection Act (NPPA) was enacted in 1977 and allows the Fish and Game Commission to designate plants as rare or endangered. There are 64 species, subspecies, and varieties of plants that are protected as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants but includes some exceptions for agricultural and nursery operations; emergencies; and after properly notifying CDFW for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations.

### **California Endangered Species Act (CFGC Section 2050 et seq.)**

CESA establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. CESA mandates that state agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no state agency consultation procedures under CESA. For projects that would affect a listed species under both CESA and FESA, compliance with FESA would satisfy CESA if CDFW determines that the federal incidental take authorization is “consistent” with CESA under CFGC Section 2080.1. For projects that would result in take of a species listed under the CESA only, the project operator would have to apply for a take permit under Section 2081(b). Further details about the regional MSHCP are discussed in Section 3.3.1 below.

### **CFGC Sections 2080 and 2081**

Section 2080 of the CFGC states that “No person shall import into this state [California], export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the Commission [State Fish and Game Commission] determines to be an endangered species or threatened species, or attempt any of those acts, except as otherwise provided in this chapter, or the Native Plant Protection Act, or the California Desert Native Plants Act.” Pursuant to Section 2081, CDFW may authorize individuals or public agencies to import, export, take, or possess state-listed endangered, threatened, or candidate species. These otherwise prohibited acts may be authorized through Incidental Take permits or Memoranda of Understanding if the take is incidental to an otherwise lawful activity, impacts of the authorized take are minimized and fully mitigated, the permit is consistent with any regulations adopted pursuant to any recovery plan for the species, and the project operator ensures adequate funding to implement the measures required by CDFW, which makes this determination based on available scientific information and considers the ability of the species to survive and reproduce.

Since the NCCP/HCP provides coverage for take of some State-listed species, there would not be a need for an additional 2081 permit process unless a project does not comply with NCCP/HCP requirements and may result in unauthorized take of a State-listed species, or if a State-listed species not covered by the NCCP/HCP were subject to take. Further details about the regional MSHCP are discussed in Section 3.3.1 below.

### 3.2.3 Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.)

The State Water Resources Control Board (SWRCB) and the RWQCB (together “Boards”) are the principal State agencies with primary responsibility for the coordination and control of water quality. The Boards regulate activities pursuant to Section 401(a)(1) of the federal CWA as well as the Porter-Cologne Water Quality Control Act (Porter-Cologne) (Water Code Section 13260). Section 401 of the CWA specifies that certification from the State is required for any applicant requesting a federal license or permit to conduct any activity including but not limited to the construction or operation of facilities that may result in any discharge into Waters of the United States navigable waters. The certification shall originate from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable water at the point where the discharge originates or will originate. Any such discharge will comply with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the CWA.

In Porter-Cologne, the Legislature declared that the “State must be prepared to exercise its full power and jurisdiction to protect the quality of the waters in the State from degradation...” (California Water Code Section 13000). Porter-Cologne grants the Boards the authority to implement and enforce the water quality laws, regulations, policies and plans to protect the groundwater and surface waters of the State. It is important to note that enforcement of the State's water quality requirements is not solely in the purview of the Boards and their staff. Other agencies (e.g., CDFW) have the ability to enforce certain water quality provisions in state law. Based on the literature and database review and biological resources assessment, the project site does not appear to support waters that would be subject to the Porter-Cologne.

## 3.3 Regional or Local Regulations

### 3.3.1 Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP)

Per CFGC Sections 2800–2840, the Natural Community Conservation Plan (NCCP) Act (the Act), authorized the preparation of NCCPs to protect natural communities and species while allowing a reasonable amount of economic development.

The BSA and northwestern portion of the project area is covered by the CVMSHCP, which was finalized in 2008 and amended by USFWS in 2015 and CDFW in 2016. The CVMSHCP is managed by the Coachella Valley Conservation Commission (CVCC) and participants include Riverside County, the Cities of Cathedral City, Coachella, Desert Hot Springs, Indian Wells, Indio, La Quinta, Palm Desert, Palm Springs, Rancho Mirage, as well as Coachella Valley Water District, Imperial Irrigation District, Mission Springs Water District, Coachella Valley Association of Governments, and Caltrans (CVAG 2007). The CVMSHCP is a long-term program designed to conserve federally protected species, state protected species, and/or other species of concern. The CVMSHCP program aims to conserve over 240,000 acres of open space and protect 27 plant and animal species by providing comprehensive compliance with federal and state endangered species laws. The CVMSHCP includes most of the Coachella Valley floor portion of Riverside County, and (CVAG 2007).

The project is a covered activity within a Conservation Area under the CVMSHCP (see Table 7-6 in Section 7.3.1 of the CVMSHCP) and implementation of the CVMSHCP will provide coverage for take of species covered under the plan. Under the CVMSHCP, covered facility maintenance projects, and projects outside of conservation areas are not subject to a Joint Project Review (JPR). The proposed project is located partially within the Coachella Valley Stormwater Channel and Delta Conservation Area.

# CHAPTER 4

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## Existing Conditions

Land use within the project area includes the Salton Sea and the BSA to the northwest of the Salton Sea shoreline. The BSA has previously been developed or heavily disturbed for agricultural or recreational uses, bisected by a network of paved and unpaved, arterial roadways. Developments noted within the BSA primarily include agriculture (e.g., dates) and The Thermal Club raceway. The southern portion of the BSA includes the bed and banks of the CVSC, beginning at the WRP 4 facility and terminating at the Salton Sea. Topography within the BSA generally slopes very gradually in a slight northwest-southeast direction, toward the Salton Sea.

The Salton Sea is the largest lake in California, measuring approximately 35 miles long and 9 to 15 miles wide with about 360 square miles of water surface area and 120 miles of shoreline. The Salton Sea lies in a geographic depression known as the Salton Basin located approximately 278 feet below mean sea level. Information regarding the current ecological conditions at the Salton Sea used in this analysis can be found in the Salton Sea Management Program SSMP Draft EA (USACE 2022).

### 4.1 Soils

#### 4.1.1 Biological Study Area – Coachella Valley Stormwater Channel

Seven soil series were mapped within the boundary of the BSA and are presented below (USDA 2023). The extent and locations of the soils on the project site are shown in **Figure 6**.

- **Carsitas gravelly sand (0 to 9 percent slopes):** Soils in this series are found on alluvial fans that are excessively well drained and includes soils that have altered drainage because of irrigation seepage. The soils formed in coarse textured gravelly or cobbly granitic alluvium and are level to moderately sloping. This is considered by NRCS to be a hydric soil.
- **Myoma fine sand (5 to 15 percent slopes):** Soils in this series are somewhat excessively drained with very slow runoff and rapid permeability. These soils are usually level to rolling and developed from sand blown from recent alluvium. This is considered by NRCS to be a hydric soil.
- **Coachella fine sand (0 to 2 percent slopes):** Soils in this series are well-drained soils on lacustrine basins. These soils developed from igneous rocks and slopes are gently to nearly level. This is not considered by NRCS to be a hydric soil.
- **Fluvents:** Fluvents are nearly level soils that have been exposed by the Whitewater River and the CVSC. This soil is found on the built-up dikes and sloped banks of the flood control channel. This is considered by NRCS to be a hydric soil.

- **Gilman sandy loam (0-5 percent slopes):** Soils in this series are well drained soils on alluvial fans and flood plains and includes soils that have altered drainage because of irrigation seepage. This is not considered by NRCS to be a hydric soil.
- **Indio fine sandy loam, wet (0-2 percent slopes):** Soils in this series consists of well drained to moderately well drained soils found on nearly level alluvial fans and flood plains. This is not considered by NRCS to be a hydric soil.
- **Salton sandy loam and silty clay loam (0-2 percent slopes):** Soils in this series are poorly drained soils that formed in alluvium in flood plains. The soil is alkaline and generally strongly saline. This is not considered by NRCS to be a hydric soil.

#### 4.1.2 Outside of the Biological Study Area – Salton Sea

Soils were not mapped within the Salton Sea, outside of the BSA.

## 4.2 Natural Communities and Land Cover Types

### 4.2.1 Biological Study Area – Coachella Valley Stormwater Channel

The 3,332.17-acre BSA includes the 218.6-acre project site and 2,991.89 acres of surrounding survey buffer. A total of 16 natural communities and land cover types were mapped within the BSA (**Figure 7** and **Table 1**). Vegetation within the BSA, surrounding the paved and unpaved roadways consists of agriculture and various fragmented swaths of desert scrub, including arrow weed, allscale and tamarisk. Vegetation along the CVSC consists primarily of dense native and non-native riparian forest and scrub, and freshwater wetland along the low-flow channel, surrounded with successional scrub cover dominated by arrow weed, allscale, and tamarisk, among others due to flood control practices. Precipitation generated by Hurricane Hilary<sup>1</sup> in August of 2023 caused flows and scour within the CVSC and resulted in modification/removal of some of the vegetation within the channel; this occurred after completion of the biological resources assessment and is not reflected in this document.

**TABLE 1**  
**NATURAL COMMUNITIES AND LAND COVER TYPES**

Vegetation Community	Project Components (Acres)		Survey Buffer (Acres) <sup>1</sup>	Total Study Area (Acres) <sup>2</sup>
	Permanent Impacts	Temporary Impacts		
<b>Natural Communities</b>				
Agriculture	0.00	0.00	1,619.63	1,619.63
Allscale Scrub	0.00	0.00	17.65	17.65
Arrow Weed Thickets	0.00	0.00	36.41	36.41
Barren	56.50	0.00	89.50	146.00
Bush Seepweed Scrub	0.00	0.00	0.39	0.39
Cattail Marsh	0.00	0.00	1.62	1.62
Common Reed Marsh	0.00	0.00	1.46	1.46

<sup>1</sup> <https://www.climate.gov/news-features/event-tracker/former-hurricane-hilary-brought-southern-california-its-first-ever>

Vegetation Community	Project Components (Acres)		Survey Buffer (Acres) <sup>1</sup>	Total Study Area (Acres) <sup>2</sup>
	Permanent Impacts	Temporary Impacts		
Iodine Bush Scrub	0.00	0.00	42.94	42.94
Salt Grass Flats	0.00	0.00	7.56	7.56
Sonoran Cottonwood-Willow Riparian Forest	0.00	0.00	98.07	98.07
Tamarisk Thickets	0.00	0.00	160.24	160.24
Mudflats	0.00	0.00	0.29	0.29
Open Water	0.00	0.00	19.09	19.09
Disturbed	0.00	62.71	494.91	557.62
Developed	0.00	99.42	401.81	501.23
<b>Unvegetated Channel</b>	<b>0.00</b>	<b>0.00</b>	<b>0.32</b>	<b>0.32</b>
<b>Total</b>	<b>56.50</b>	<b>162.1</b>	<b>2,991.89</b>	<b>3,332.17</b>

SOURCE: ESA 2023

NOTES:

1. Acreages may not sum due to rounding.
2. Acreage of natural communities for survey buffer and total study area remain the same in areas where project impacts are not proposed.

## Agriculture

Agriculture mapped within the BSA supports commercial crop production and includes grape vineyards, citrus and date palm orchards, and lettuce, broccoli and cauliflower fields. Agriculture was mapped throughout the BSA and is the dominant land cover type.

## Allscale Scrub

Allscale scrub is characterized by a dominance of allscale (*Atriplex polycarpa*) in the shrub layer, interspersed with arrow weed (*Pluchea sericea*) and iodine bush (*Allenrolfea occidentalis*). This community primarily occurs along the manufactured banks of the CVSC; however, was also observed elsewhere within the BSA, including along Polk Street. Allscale scrub is a form of desert saltbush scrub and is covered under the CVMSHCP.

## Arrow Weed Thickets

Arrow weed thickets are characterized by a dominance of arrow weed in the shrub canopy, interspersed with allscale and iodine bush. This community is most abundant along the constructed banks of the CVSC; however, was observed elsewhere within the BSA, including along Polk Street and within the limits of the WRP 4 facility. Arrow Weed thickets are also referred to as arrowweed scrub and are covered under the CVMSHCP.

## Bush Seepweed Scrub

Bush seepweed scrub is characterized by a dominance of bush seepweed (*Suaeda nigra*) in the herbaceous layer, interspersed with arrow weed and iodine bush in the surrounding shrub layer. This community was mapped along the pilot channel and manufactured banks of the CVSC within the BSA. Bush seepweed scrub is a form of desert sink scrub and is covered under the CVMSHCP.

## Cattail Marsh

Cattail marsh is characterized by a dominance of cattail (*Typha domingensis*), interspersed with common reed (*Phragmites australis*) and willow weed (*Persicaria lapathifolia*). This community was mapped along the pilot channel of the CVSC within the BSA. Cattail marsh is a form of freshwater marsh and is covered under the CVMSHCP.

## Common Reed Marsh

Common reed is characterized by a dominance of common reed (*Phragmites australis*), interspersed with cattail and willow weed. This community was mapped along the pilot channel of the CVSC within the BSA.

## Iodine Bush Scrub

Iodine bush scrub is characterized by a dominance of iodine bush in the shrub layer, interspersed with arrow weed and allscale. This community primarily occurs along the pilot channel and constructed banks of the CVSC; however, was also observed elsewhere within the BSA, including along Polk Street. Iodine bush scrub is a form of desert sink scrub and is a covered natural community under the CVMSHCP.

## Salt Grass Flats

Salt grass flats are characterized by a dominance of saltgrass (*Distichlis spicata*), interspersed with various emergent shrub species, including iodine bush and allscale. This community was mapped along the pilot channel of the CVSC and elsewhere within the BSA.

## Sonoran Cottonwood-Willow Riparian Forest

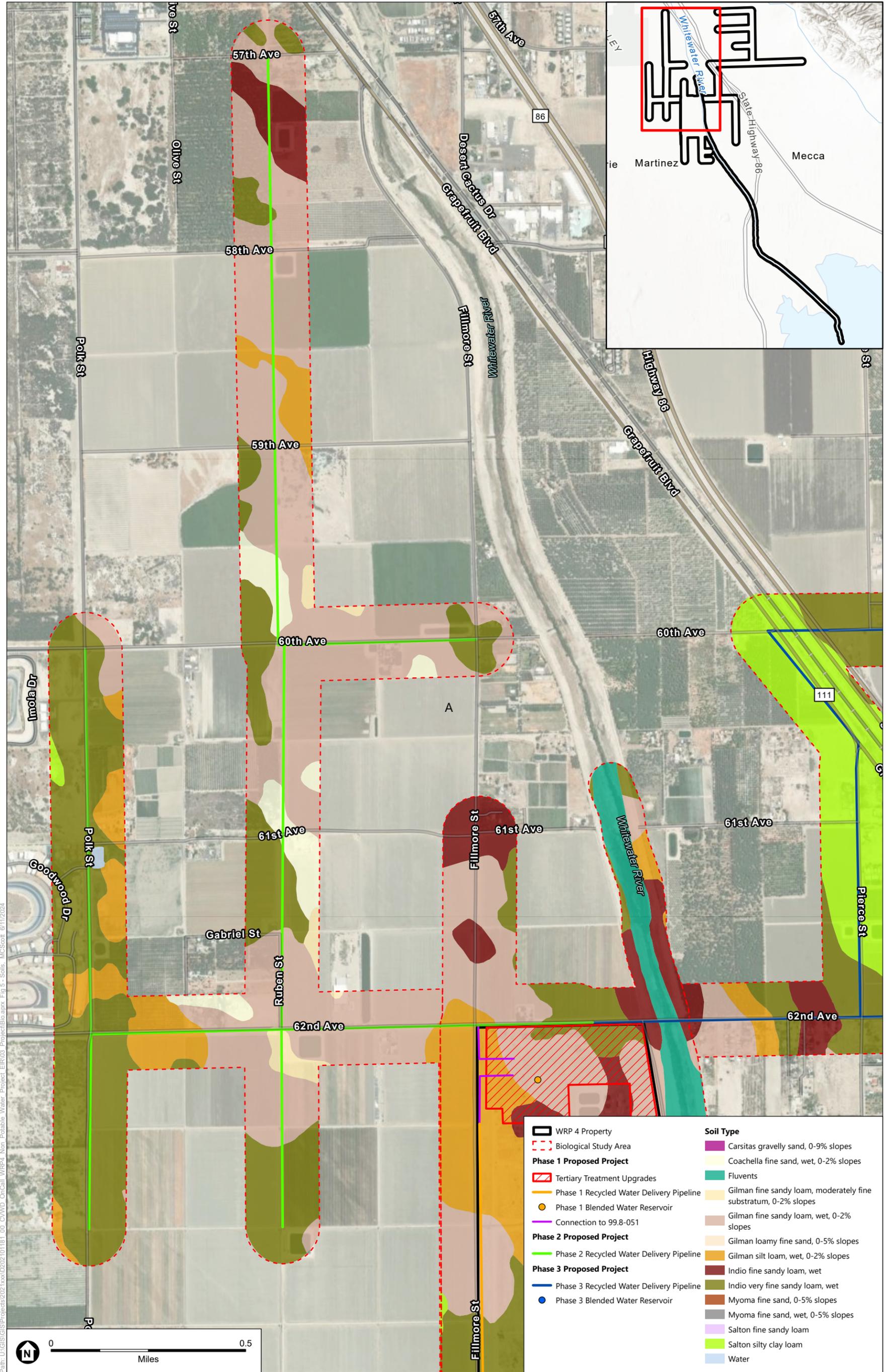
Sonoran cottonwood-willow forest is characterized by a co-dominance between Fremont cottonwood (*Populus fremontii*), Goodding's willow (*Salix gooddingii*) and red willow (*S. laevigata*) in the tree canopy, interspersed with various other tree and shrub species including arrow weed, iodine bush and tamarisk (*Tamarix* spp.). This community was mapped along the pilot channel of the CVSC, within the BSA. Sonoran cottonwood-willow riparian forest is covered under the CVMSHCP.

## Tamarisk Thickets

Tamarisk thickets are characterized by a dominance of tamarisk in the tree/shrub canopy, interspersed with various native tree and shrub species including arrow weed, iodine bush, Goodding's willow, and red willow. This community was mapped adjacent to various paved and unpaved roadways within the BSA and along the pilot channel and manufactured banks of the CVSC. Tamarisk thickets are covered under the CVMSHCP. Additionally, while this species supports limited avian usage (e.g., hummingbirds and doves), it uses excess water, increases salinity and wildfire risk, and outcompetes native riparian vegetation; therefore, is generally not considered beneficial to maintain<sup>2</sup>.

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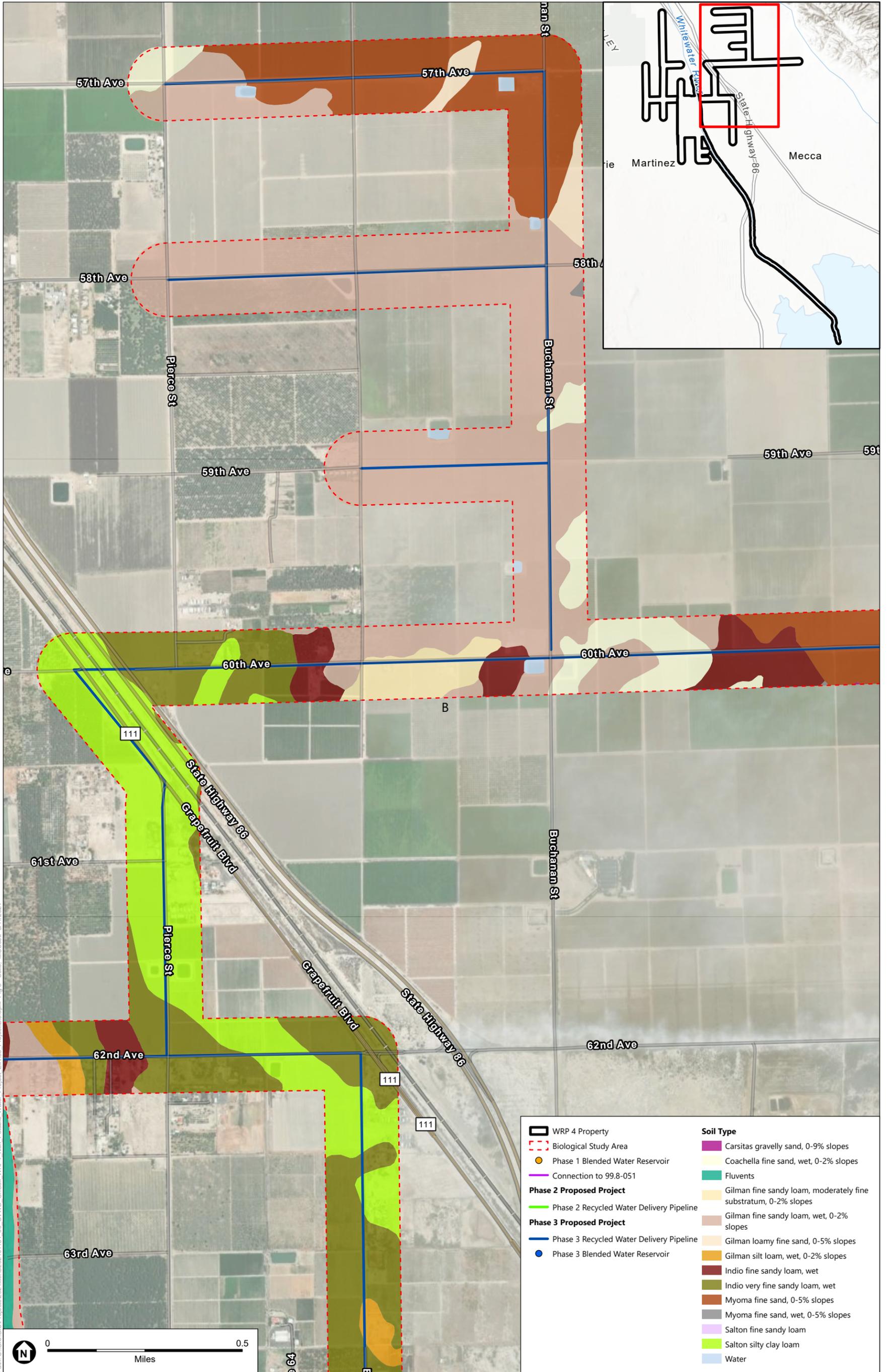
<sup>2</sup> Barrows, Cameron W. 1996. Tamarisk Control and Common Sense. [https://www.cal-ipc.org/wp-content/uploads/2017/12/1996\\_symposium\\_proceedings1826.pdf](https://www.cal-ipc.org/wp-content/uploads/2017/12/1996_symposium_proceedings1826.pdf)



SOURCE: ESA, 2023; USGS Web Soil Survey, 2023

WRP4-CVWD

**Figure 6A**  
Soils



SOURCE: ESA, 2023; USGS Web Soil Survey, 2023

WRP4-CVWD

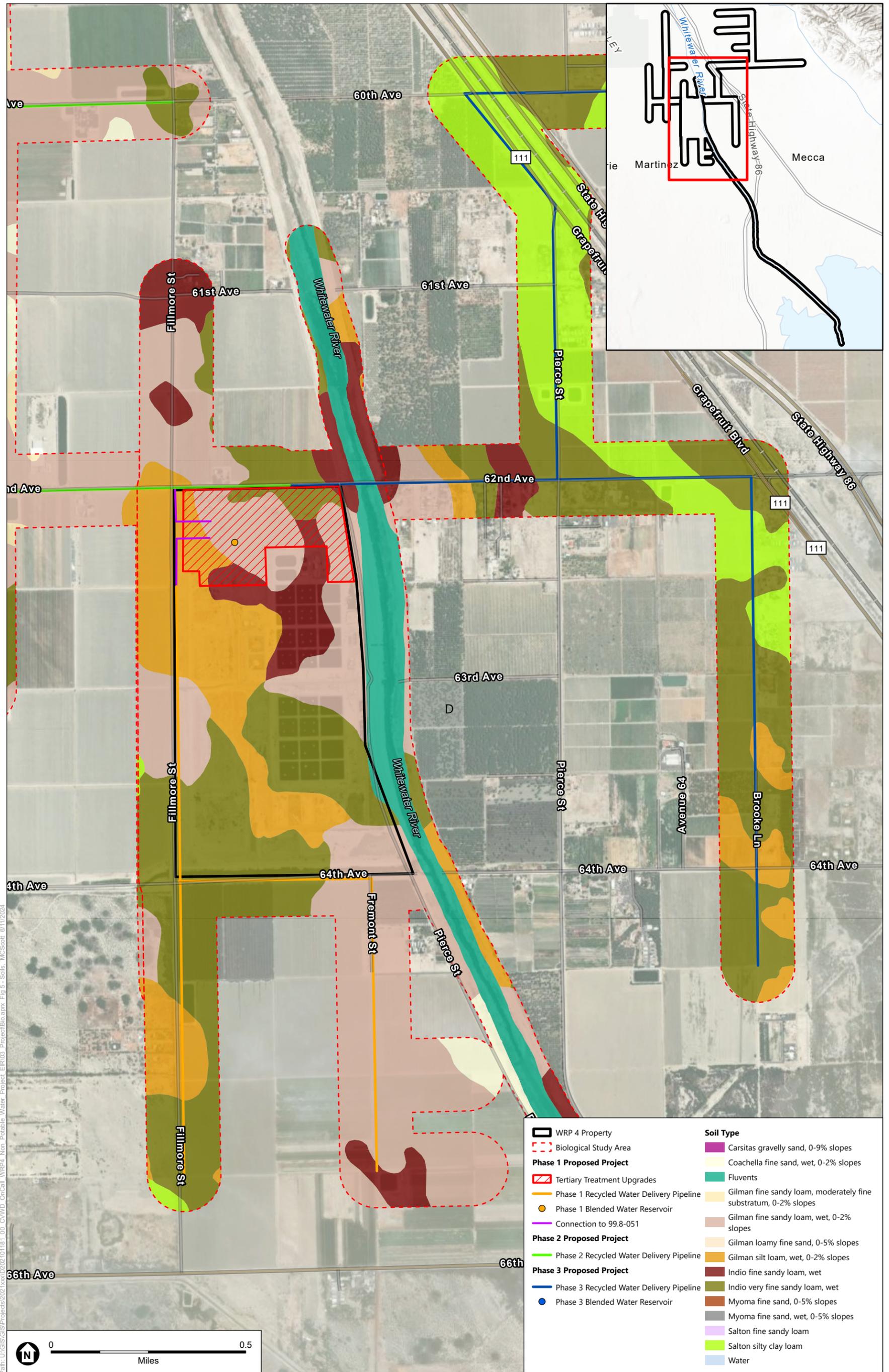
**Figure 6B**  
Soils



SOURCE: ESA, 2023; USGS Web Soil Survey, 2023

WRP4-CVWD

**Figure 6C**  
Soils

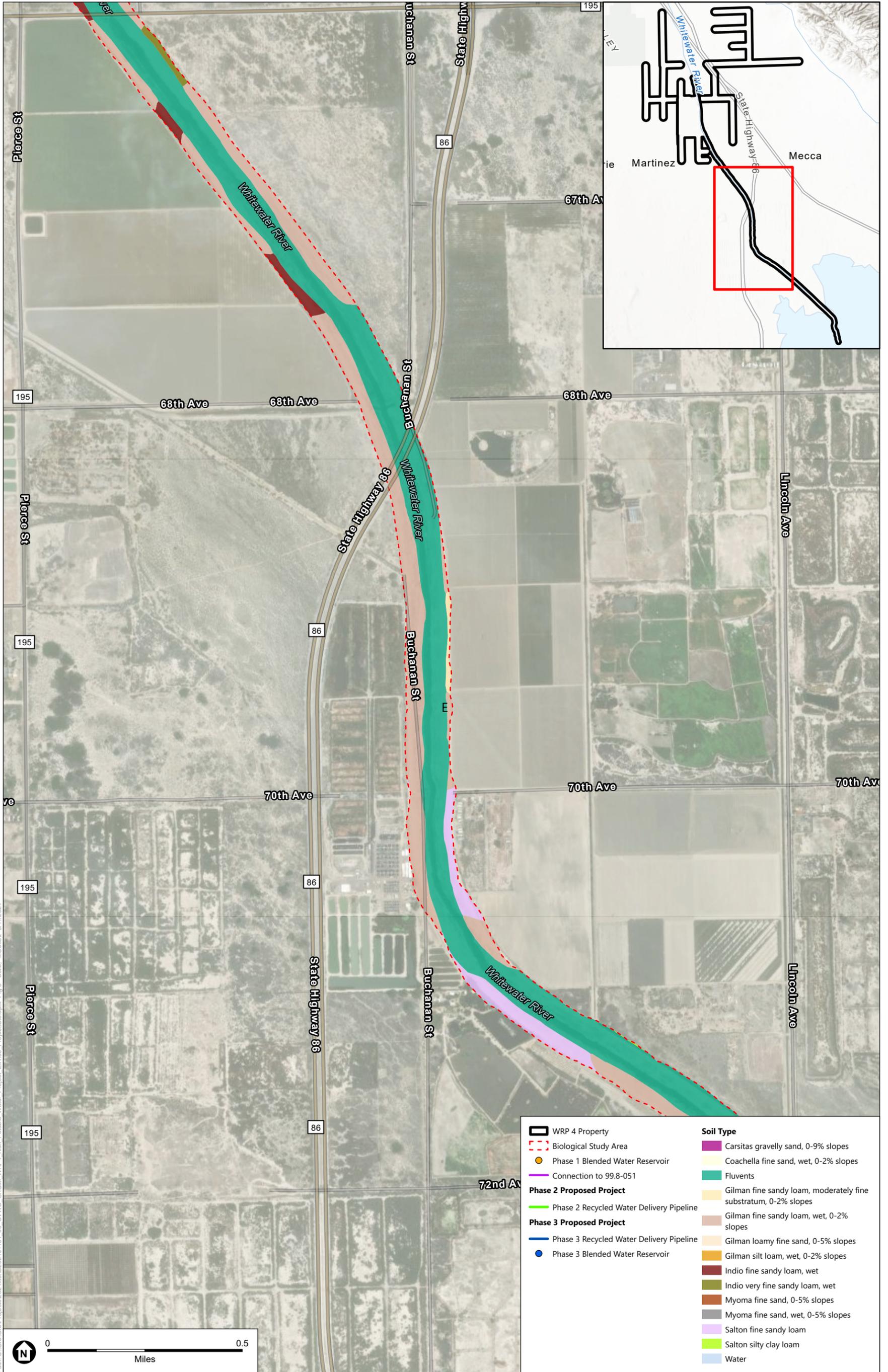


Path: U:\GIS\Projects\2021\WRP4\_CVWD\02101181\_00\_CVWD\_OnCall\_WRP4\_Non\_Potable\_Water\_Project\_EIR\03\_Project\Bio\aprx\_Fig 5 - Soils\_MCS\01\_6/11/2024

SOURCE: ESA, 2023; USGS Web Soil Survey, 2023

WRP4-CVWD

**Figure 6D**  
Soils

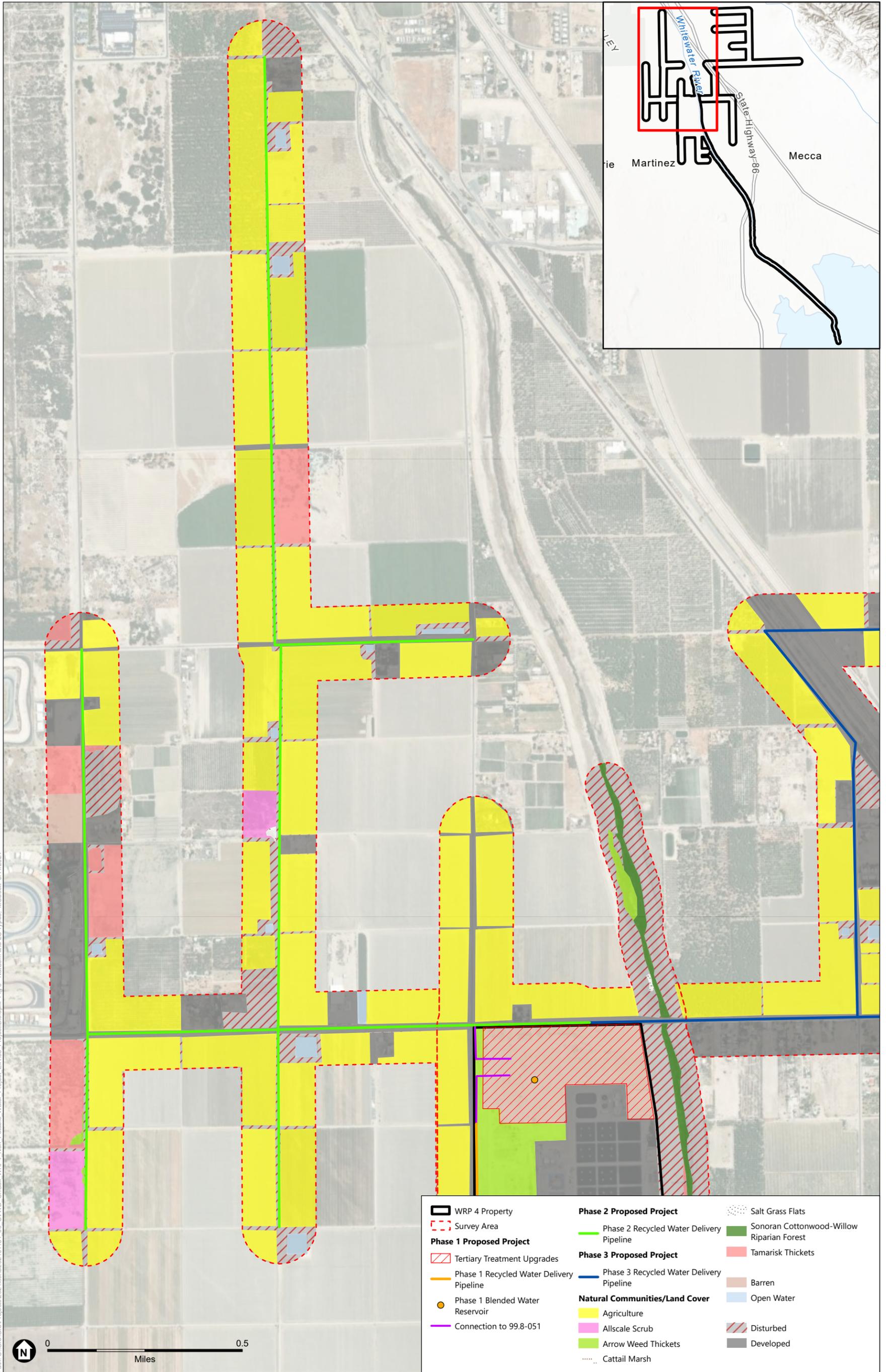


SOURCE: ESA, 2023; USGS Web Soil Survey, 2023

WRP4-CVWD

**Figure 6E**  
Soils



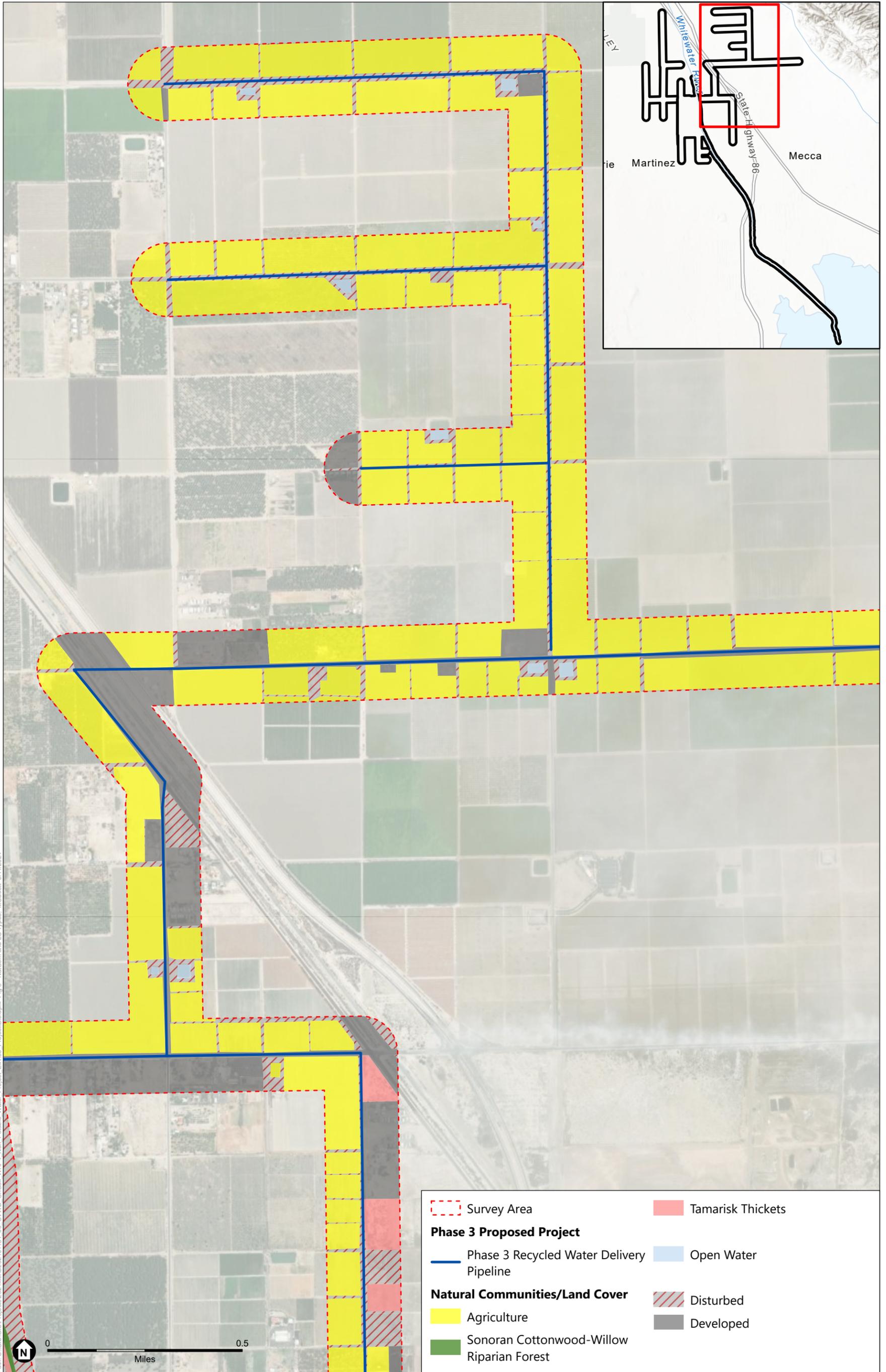


SOURCE: ESA, 2023

WRP4-CVWD

**Figure 7A**  
Natural Communities and Land Cover Types

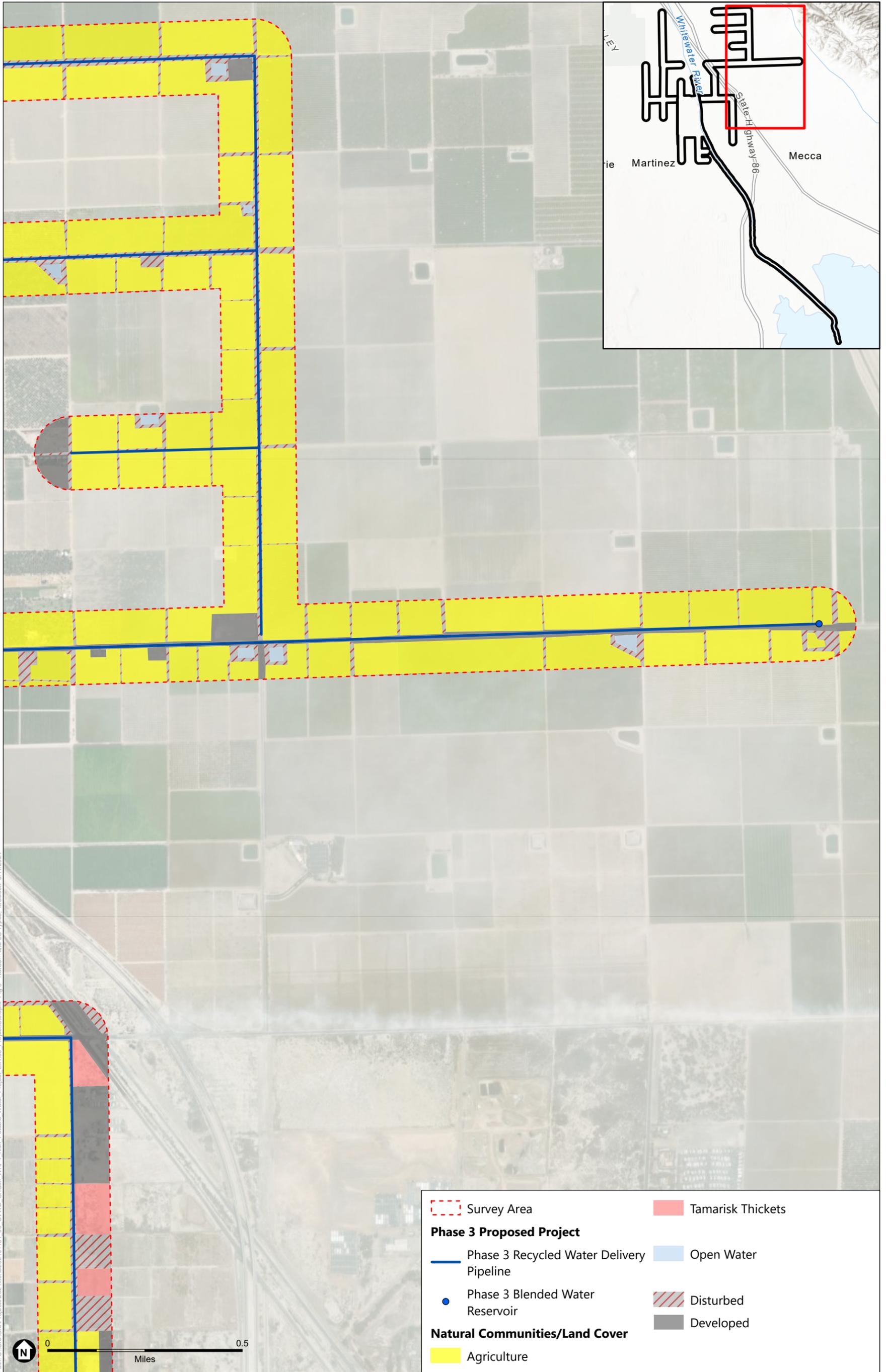




SOURCE: ESA, 2023

WRP4-CVWD

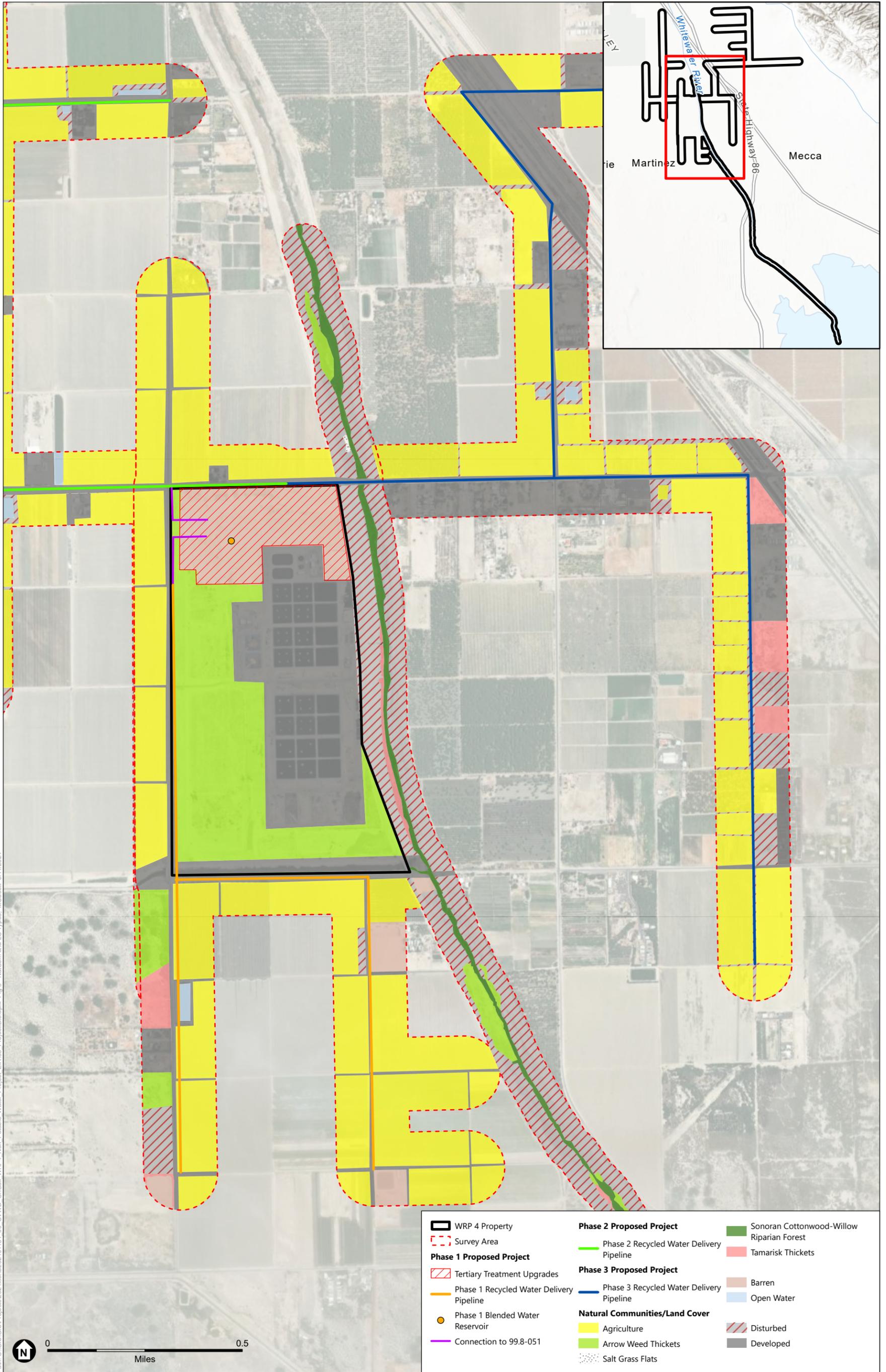
**Figure 7B**  
Natural Communities and Land Cover Types



SOURCE: ESA, 2023

WRP4-CVWD

**Figure 7C**  
Natural Communities and Land Cover Types

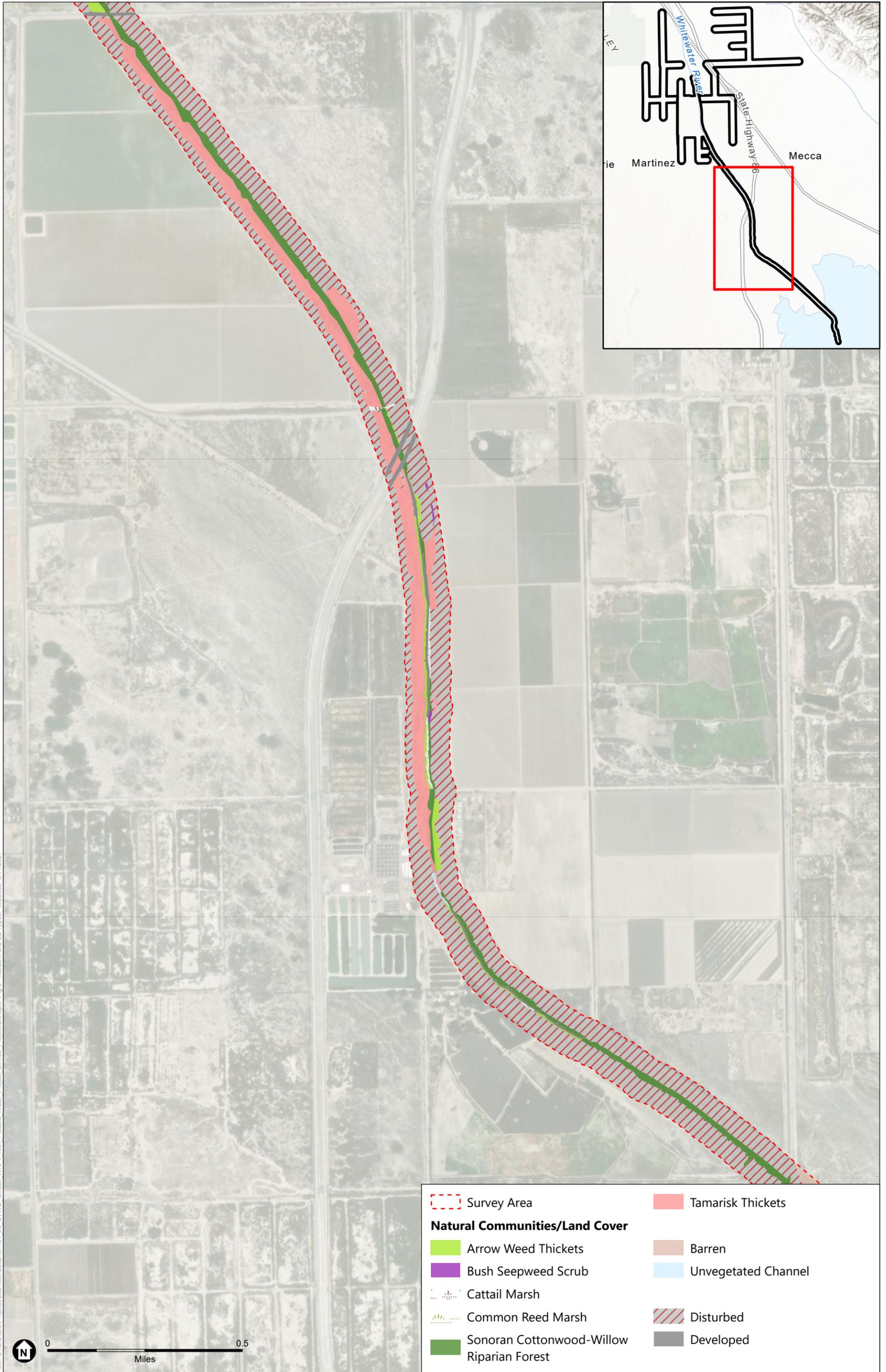


SOURCE: ESA, 2023

WRP4-CVWD

**Figure 7D**  
Natural Communities and Land Cover Types

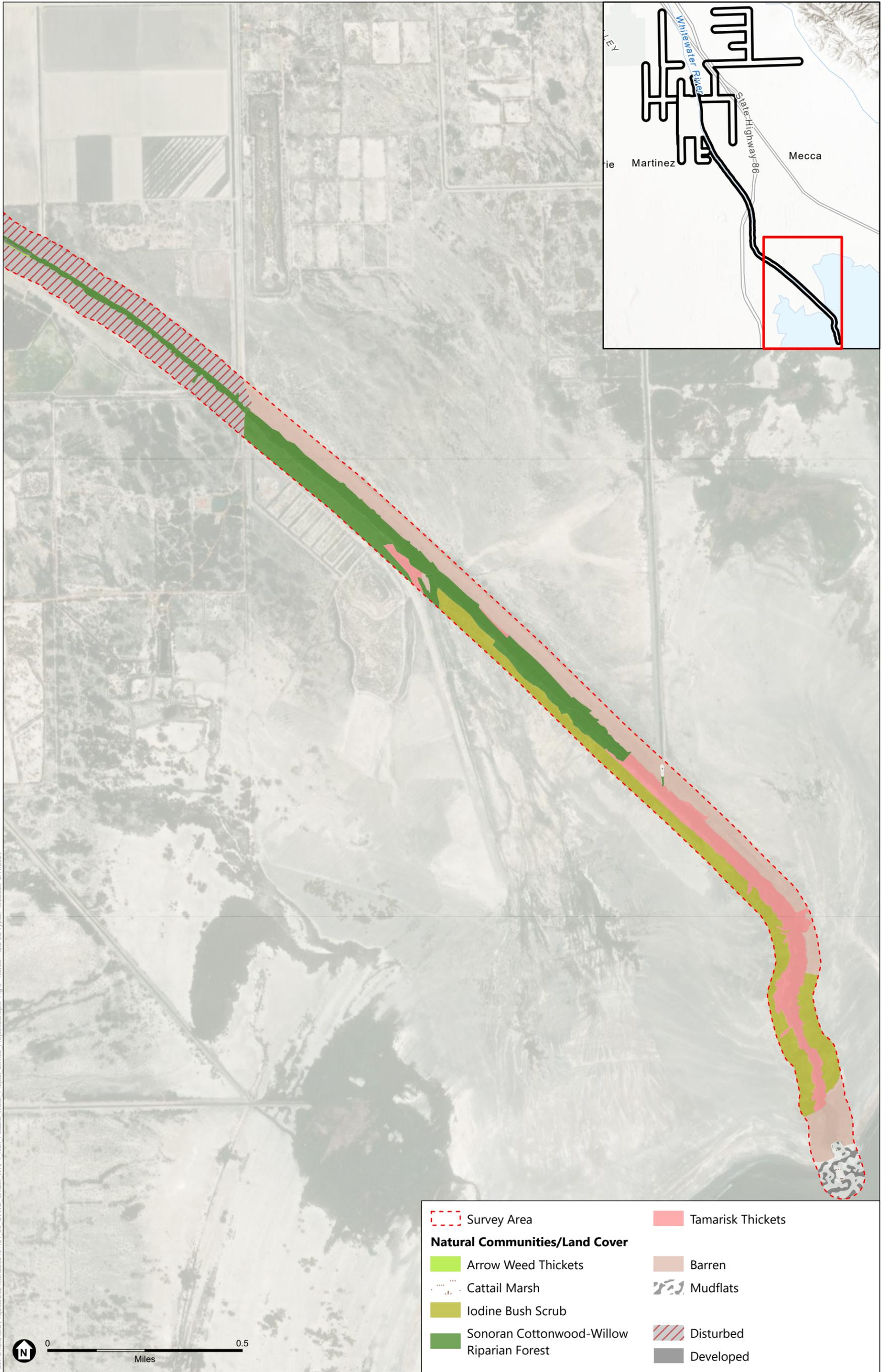




SOURCE: ESA, 2023

WRP4-CVWD

**Figure 7E**  
Natural Communities and Land Cover Types



SOURCE: ESA, 2023

WRP4-CVWD

**Figure 7F**  
Natural Communities and Land Cover Types

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## Barren

The barren land cover type is characterized by sparse vegetation or complete absence of vegetated cover. This community was mapped adjacent to various paved and unpaved roadways, within the northern portion of the WRP 4 property.

## Mudflats

Mud flats are characterized by fine-grained substrate and a lack of vegetation and were mapped along the existing Salton Sea shoreline.

## Open Water

Open water in the form of agricultural irrigation reservoirs were mapped throughout the BSA.

## Disturbed

Disturbed land cover includes areas characterized by ongoing disturbance that has results in little vegetative cover, generally consisting of non-native species, including Russian thistle (*Salsola* sp.) and tumbleweed (*Amaranthus albus*). Disturbed areas within the BSA include road shoulders, unpaved, maintained areas within the WRP 4 property and the manufactured banks of the CVSC.

## Developed

Developed land cover within the BSA includes paved roadways, agricultural infrastructure, and existing WRP 4 facilities.

## Unvegetated Channel

Unvegetated and maintained channel describes open portion of the CVSC that either support sparse vegetative cover or lack vegetation entirely.

### 4.2.2 Outside of the Biological Study Area – Salton Sea

As the Salton Sea water elevation recedes, the shores generally consist of exposed lakebed, which is often barren or sparsely vegetated with weedy, non-native species. In areas where freshwater flows to the Sea, patches of vegetation, generally dominated by iodine bush (*Allenrolfea occidentalis*) or tamarisk (*Tamarix* sp.), are present. Additionally, stands of tamarisk intermixed with various other tree species such as Fremont cottonwood and Goodding's willow occur in riparian areas at the edge of the Sea, fed by the Coachella Valley Stormwater Channel, New River, Alamo River and other smaller tributaries including agricultural drains (USACE 2022). Field surveys were not conducted of the Salton Sea, outside of the BSA.

## 4.3 Plants and Wildlife

### 4.3.1 Biological Study Area – Coachella Valley Stormwater Channel

Various plant and wildlife species were observed during the reconnaissance survey within the BSA. These species are included in **Appendix C, *Floral and Faunal Compendia***.

### 4.3.2 Outside of the Biological Study Area – Salton Sea

Wildlife known to utilize the Salton Sea to forage and breed, based on review of existing documentation, are described in detail below. Field surveys were not conducted of the Salton Sea, outside of the BSA. However, the following sections provide a summary of wildlife known to occur in and around the Salton Sea.

#### Birds

The Salton Sea supports a high diversity of bird species, with over 400 species documented within its vicinity. It provides year-round habitat for resident nesting colonies and also supports over-wintering and migration for numerous species within the Pacific Flyway.

Common shoreline, wading, and waterfowl bird species known to utilize the Salton Sea include western and Clark's grebes (*Aechmophorus occidentalis* and *A. clarkii*, respectively), northern pintail (*Anas acuta*), and green-winged teal (*Anas crecca*), least sandpiper (*Calidris minutilla*), snow geese (*Chen caerulescens*) and Ross's geese (*Chen rossii*), American coot (*Fulica americana*), black-necked stilt (*Himantopus mexicanus*), dowitchers (*Limnodromus* spp.), marbled godwit (*Limosa dedoa*), American wigeon (*Mareca americana*), ruddy duck (*Oxyura jamaicensis*), American white pelican (*Pelecanus erythrorhynchos*), California brown pelican (*Pelecanus occidentalis*), Wilson's phalarope (*Phalaropus tricolor*), black-bellied plover (*Pluvialis squatarola*), eared grebe (*Podiceps nigricollis*), American avocet (*Recurvirostra americana*), northern shoveler (*Spatula clypeata*) and willet (*Tringa semipalmata*) (Shuford et al. 2000; Jehl 1994).

Common riparian bird species that occur within or adjacent to the riparian habitat that occurs along the Salton Sea shoreline include red-winged blackbird (*Agelaius phoeniceus*), verdin (*Auriparus flaviceps*), marsh wren (*Cistothorus palustris*), common yellowthroat (*Geothlypis trichas*), house finch (*Haemorhous mexicanus*), Abert's towhee (*Melospiza aberti*), song sparrow (*Melospiza melodia*) and black phoebe (*Sayornis nigricans*) (Dudek 2010).

A number of raptor species have been recorded at the Salton Sea as well, including burrowing owl (*Athene cunicularia*), red-tailed hawk (*Buteo jamaicensis*), northern harrier (*Circus cyaneus*), American peregrine falcon (*Falco peregrinus anatum*), and osprey (*Pandion haliaetus*), most of which are common winter or nonbreeding summer visitors, only present to utilize the foraging habitat within marshes, open scrub habitats, and nearby agricultural fields (USACE 2022).

## Terrestrial Wildlife

Common terrestrial reptiles known to occur in upland habitats surrounding the Salton Sea include western diamondback rattlesnake (*Crotalus atrox*), gopher snake (*Pituophis catenifer*), desert spiny lizard (*Sceloporus magister*) and side-blotched lizard (*Uta stansburiana*).

Common mammals that occur in riparian, upland, and agricultural habitats around the Sea include coyote (*Canis latrans*), Virginia opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), muskrat (*Ondatra zibethicus*), raccoon (*Procyon lotor*), round-tailed ground squirrel (*Spermophilus tereticaudus*), desert cottontail (*Sylvilagus audobonii*) and western pocket gopher (*Thomomys bottae*) (USACE 2022).

## 4.4 Special-Status Plants and Wildlife

### 4.4.1 Biological Study Area – Coachella Valley Stormwater Channel

Special-status plants and wildlife are defined as those that, because of their recognized rarity or vulnerability to various forms of habitat loss or population decline, are considered by federal, state, or other agencies to be under threat from human-associated developments. Some of these species receive specific protection that is defined by federal, or state endangered species legislation and others have been designated as special-status on the basis of adopted local policies (e.g., city and county) or the educated opinion of various resource interest groups (e.g., California Native Plant Society [CNPS]). Special-status species are defined as any of the following:

- Plant and wildlife species that are listed or proposed for listing as threatened or endangered or are candidates for possible future listing as threatened or endangered, under FESA or CESA.
- Plant and wildlife species that meet the definitions of rare or endangered under CEQA Guidelines Section 15380.
- Wildlife designated by CDFW as species of special concern (SSC), included on the Watch List, or considered “Special Animals.”
- Wildlife fully protected in California (CFGF Sections 3511, 4700, and 5050).
- Plants considered by the CNPS to be rare, threatened, or endangered (California Rare Plant Rank [CRPR] 1A, 1B, 2A, and 2B plants) in California.
- Plants listed by the CNPS as plants in which more information is needed to determine their status and plants of limited distribution (List 3 and 4 plants).
- Plants listed as rare under the California Native Plant Protection Act (CFGF 1900 et seq.).
- Bird species protected by the MBTA.

Based on the literature and database review and field reconnaissance, special-status species were evaluated for their potential to occur within the BSA, using the following definitions:

- **Present:** Species was observed or detected within the BSA during the biological resources assessment.
- **High Potential:** Species identified in the literature search and/or known to occur in the region and suitable habitat is present within the BSA.

- **Moderate Potential:** Species identified in the literature search and/or known to occur in the region and marginal habitat is present within the BSA.
- **Low Potential:** Species identified in the literature search or known to occur in the region, but the habitat within the BSA is of low quality and/or the BSA is located outside the species known geographic or elevational range. Distance to nearest known occurrence and the age of last reported local occurrence are also considered.

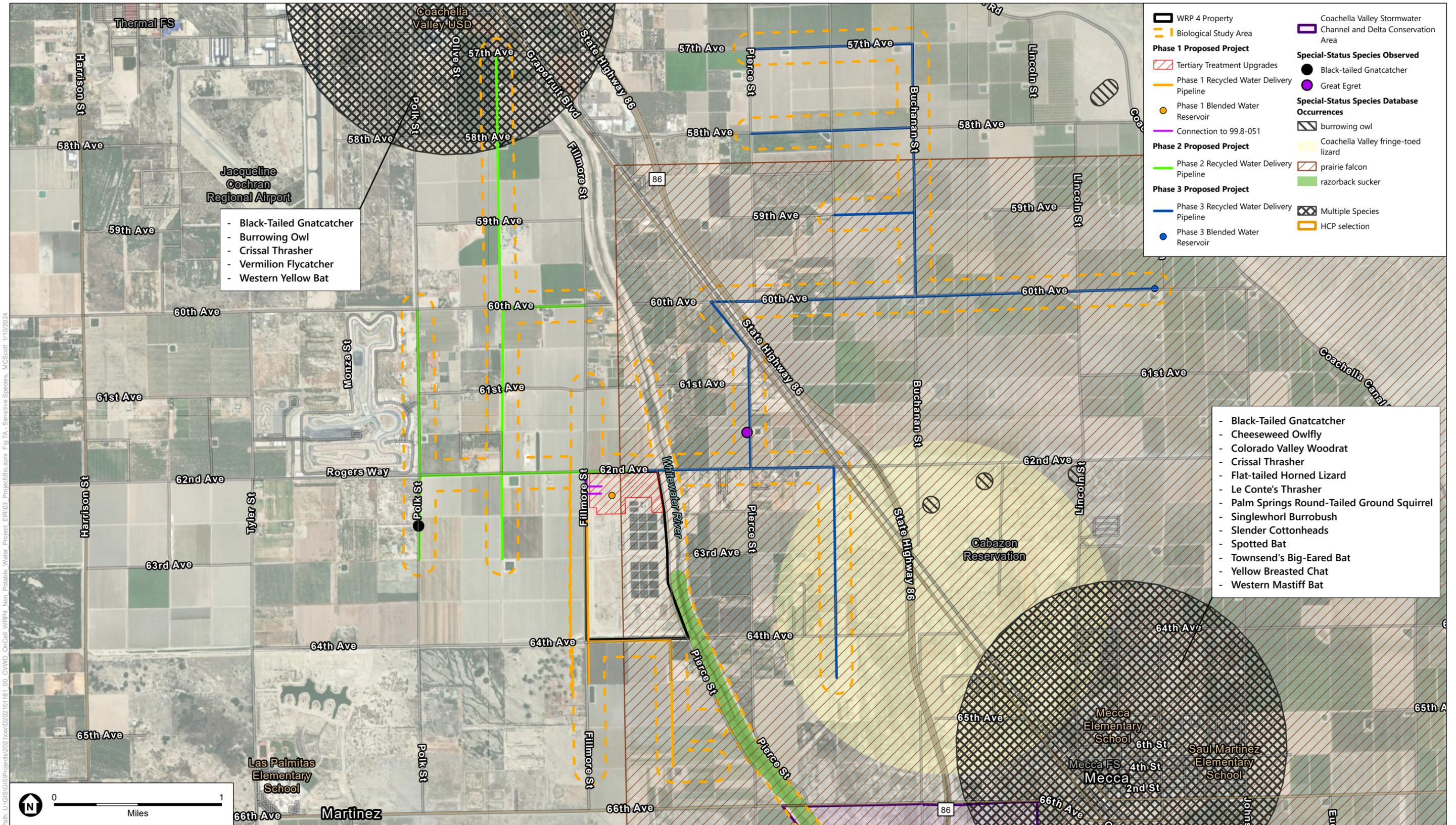
## Special-Status Plants

Numerous special-status plant species were identified in the database review; however, many were omitted based on a lack of habitat, or because the BSA is situated outside the range of the species (see Appendix A). A total of five species, the Coachella valley milk-vetch (*Astragalus lentiginosus* var. *coachellae*), California ditaxis (*Ditaxis serrata* var. *californica*), chaparral sand verbena (*Abronia villosa* var. *aurita*), slender woolly-heads (*Nemacaulis denudata*) and purple stemodia (*Stemodia durantifolia*) were determined to have a moderate potential to occur due to the presence of marginal habitat within the BSA. Special status plant species determined to have a low to moderate potential to occur within the BSA are summarized in **Appendix D1**, *Special-Status Plant Species*.

## Special-Status Wildlife

Numerous special-status wildlife species were identified in the database review; however, many were omitted based on a lack of suitable habitat, or because the BSA is situated outside the range of the species (see Appendix A). A total of 24 species have a moderate to high potential to occur based on the presence of suitable habitat within the BSA, twelve of which are covered species (covered) under the CVMSHCP. burrowing owl (*Athene cunicularia*) (covered), ferruginous hawk (*Buteo regalis*), Townsend's big-eared bat (*Corynorhinus townsendii*), desert pupfish (*Cyprinodon macularius*) (covered), snowy egret (*Egretta thula*), prairie falcon (*Falco mexicanus*), gull-billed tern (*Gelochelidon nilotica*), yellow-breasted chat (*Icteria virens*) (covered), loggerhead shrike (*Lanius ludovicianus*), western yellow bat (*Lasiurus xanthinus*) (covered), Colorado Valley woodrat (*Neotoma albigula* ssp. *venusta*) black-crowned night heron (*Nycticorax ludovicianus*), Palm Springs pocket mouse (*Perognathus longimembris* ssp. *bangsi*) (covered), American badger (*Taxidea taxus*), summer tanager (*Piranga rubra*) (covered), white-faced ibis (*Plegadis chihi*), vermilion flycatcher (*Pyrocephalus rubinus* ssp. *flammeus*) (covered), Yuma Ridgway's rail (*Rallus obsoletus* ssp. *yumanensis*) (covered), black skimmer (*Rynchops niger*), yellow warbler (*Setophaga petechia*) (covered), crissal thrasher (*Toxostoma crissalis*) (covered), Le Conte's thrasher (*T. lecontei*) (covered), least Bell's vireo (*Vireo belli* ssp. *pusillus*) (covered) and razorback sucker (*Xyrauchen texanus*).

Five additional species were observed within the BSA during the site visit, including great egret (*Ardea alba*), great blue heron (*A. herodias*), American white pelican (*Pelecanus erythrorhynchos*), brown pelican (*P. occidentalis* ssp. *californicus*) and black-tailed gnatcatcher (*Poliophtila melanura*) (**Figure 8**). Special status wildlife species determined to have a low to high potential to occur within the BSA are summarized in **Appendix D2**, *Special-Status Wildlife Species*.



Path: U:\GIS\Projects\2023\11102024\00\_CVWD\_OrCall\_WRP4\_Non\_Potable\_Water\_Project\_ER03\_ProjectBioappr\_Fig 7A - Sensitive Species\_MCS001 11/10/2024

SOURCE: ESA, 2023; CDFW, 2023; USFWS, 2023

WRP4-CVWD

**Figure 8A**  
Sensitive Biological Resources





## 4.4.2 Outside of the Biological Study Area – Salton Sea

Many of the special-status plant and wildlife species discussed above regarding the BSA and analyzed in the BRTR, may also occur within similar habitat types present along the shoreline of the Salton Sea. Additional information on a subset of these species expected to occupy wetland and aquatic habitats within the BSA and the shoreline of the Salton Sea is provided below. Field surveys were not conducted of the Salton Sea, outside of the BSA.

### California Black Rail

The California black rail is state threatened. This species is a resident in saline, brackish and fresh emergent wetlands including near the Salton Sea. Suitable habitat along the Salton Sea consists of freshwater emergent marsh with either moist substrate or shallow water (i.e., up to 1.2 inches deep). They typically do not occur in low wetland areas with considerable annual and/or daily fluctuations in water levels and instead are found in the high wetland zones near the upper limit of tidal flooding. They are carnivorous, gleaning isopods, insects and other arthropods within suitable habitat. This species is known to breed between March and June (CDFW 1999). It typically nests at the base of tall vegetation, in moist substrate, but may place material in up to 1-inch deep of water (Cornell Lab of Ornithology 2024).

### Desert Pupfish

Desert pupfish occupy habitats ranging from wetlands and springs to small streams and margins of larger bodies of water and can thrive in irrigation drains and ditches (USFWS 1993). They prefer clear, shallow waters with soft sand-silt substrate, either rooted or unattached aquatic plants and very restricted surface flow (Black 1980, USFWS 1993). Within irrigation drains desert pupfish seemed to prefer areas having a sand-silt substrate with either rooted or unattached aquatic plants, and a very restricted surface flow. Trapping conducted in various habitat types documented pupfish at depths of between 10 and 61 cm (typically 30 cm) in agricultural drains, between 25 and 152 cm in natural creeks, and between 10 and 61 cm deep in shoreline pools (Black 1980). High salinity in the Salton Sea will eventually prevent pupfish from using the Sea to move between freshwater habitats, effectively isolating populations (USFWS 2010).

### Least Bell's Vireo

Least Bell's Vireo is state and federally endangered. This insectivorous subspecies breeds within dense riparian and shrub vegetation associated with aquatic habitats in Southern California (including the Lower Colorado River) and Baja California. It is commonly associated with habitats that include willow and mulefat (*Baccharis salicifolia*) and are known to breed between March and August. Least Bell's Vireo have been documented in the IID Water contract service Area within the Imperial Irrigation District Managed Marsh Complex (CDFW 2023a).

### Southwestern Willow Flycatcher

The Southwestern willow flycatcher is state and federally endangered. This insectivorous species breeds within dense riparian and shrub vegetation associated with aquatic habitats in southwestern North America, near or adjacent to surface water. This species is commonly associated with habitats that include willow and mulefat (*Baccharis salicifolia*). Southwestern willow flycatcher has been documented along

the Lower Colorado River near the Palo Verde Diversion Dam, Imperial National Wildlife Refuge and south towards the Laguna Mountains (CDFW 2023a).

## **Yuma Ridgway's Rail**

The Yuma Ridgway's rail is state threatened and fully protected and federally endangered. Yuma Ridgway's rails construct nests on stable substrates (e.g., at bases of emergent vegetation or in mats of dead vegetation) in shallow water along the shoreline of marsh habitat or over deeper water. Water depths within proximity of active nests have been documented ranging between 5 centimeters and 1 meter (USFWS 2023c). The Yuma Ridgway's rail has been documented in the Salton Sea playa emergent wetland habitat, the Sonny Bono National Wildlife Refuge, within drains and canals, along the Alamo River and within the Imperial Wildlife Area (CDFW 2023a).

### **4.4.3 CDFW Sensitive Natural Communities and CVMSHCP Covered Natural Communities**

Sensitive natural communities and habitats are defined by the CDFW as natural communities that have a reduced range and/or are imperiled as a result of residential and commercial development, agriculture, energy production and mining, or an influx of invasive and other problematic species. Vegetation communities are evaluated using NatureServe's Heritage Methodology (NatureServe 2023), which is based on the knowledge of range and distribution of a specific vegetation type and the proportion of occurrences that are of good ecological integrity.

The communities and habitats are evaluated at both global (natural range within and outside of California [G]) and subnational (state level for California [S]) status ranks, each ranked from 1 ("critically imperiled" or very rare and threatened) to 5 (demonstrably secure). Natural communities and habitats with state ranks of S1–S3 are considered sensitive and may require review when environmental impacts are evaluated. When a community is given a rank of NR, this indicates that it has not yet been ranked under NatureServe (CDFW 2023a). (CDFW 2023b).

## **Biological Study Area – Coachella Valley Stormwater Channel**

A total of four natural communities, including arrow weed thickets, bush seepweed scrub, iodine bush scrub and Sonoran cottonwood-willow riparian forest would constitute a CDFW sensitive natural community. These four communities are also categorized as covered natural communities under the CVMSHCP, organized as follows: desert sink scrub (iodine bush scrub, bush seepweed scrub), arrowweed scrub (arrowweed thickets), and Sonoran cottonwood-willow riparian forest.

## **Outside of the Biological Study Area – Salton Sea**

A field effort to map natural communities and land cover types along the Salton Sea shoreline (elsewhere in the project area) was not conducted; however, various scrub and riparian communities that meet criteria for CDFW sensitive natural communities (state rank of S1-S3) are expected to occur in these areas.

## 4.5 Critical Habitat

Under FESA, to the extent feasible, the USFWS and National Marine Fisheries Service are required to designate critical habitat for endangered and threatened species. Critical habitat is defined as areas of land, water, and air space containing the physical and biological features essential for the survival and recovery of endangered and threatened species. Designated critical habitat includes sites for breeding and rearing, movement or migration, feeding, roosting, cover, and shelter. Designated critical habitats require special management and protection of existing resources, including water quality and quantity, host animals and plants, food availability, pollinators, sunlight, and specific soil types. Critical habitat delineates all suitable habitat, occupied or not, essential to the survival and recovery of the species.

The project site does not occur within or immediately adjacent to USFWS designated critical habitat. The closest known critical habitat to the BSA is for the Peninsular bighorn sheep (*Ovis canadensis* ssp. *nelsoni*), approximately 4.6 miles to the southwest and just under 10 miles to the northeast. Critical habitat is not discussed further in this report.

## 4.6 Aquatic Resources

Aquatic resources observed within the BSA include the CVSC, associated agricultural drains and the Salton Sea. A formal aquatic resource delineation was not conducted; however, based on observations made during the site visit suggest that they may be under the jurisdiction of the USACE, RWQCB and/or CDFW.

## 4.7 Wildlife Movement

Migration corridors are navigable pockets or strips of land that connect larger tracts of open space together, allowing them to function as a greater habitat complex. These “passages” can exist on a small scale, allowing wildlife to pass through or under an otherwise uninhabitable area including a roadway, housing development, or city through drainage culverts, green belts and waterways; or on a larger scale, providing an opportunity for wildlife to skirt large topographical features (e.g., mountains, lakes, streams) by utilizing adjacent canyons, valleys and upland habitat swaths when migrating.

The BSA and vicinity generally consists of disturbed/developed land use interspersed with fragmented native habitats (see Figure 7) and is not located within a Linkage Design per the South Coast Missing Linkages map (South Coast Wildlands 2008) or within an area of the California Essential Habitat Connectivity Project (CDFW 2023c). However, the CVSC, associated agricultural drains and the Salton Sea are likely used by wildlife to forage, breed and migrate through the BSA. Common wildlife species expected to depend on the CVSC for movement include the coyote (*Canis latrans*), Virginia opossum (*Didelphis virginiana*), raccoon (*Procyon lotor*), and grey fox (*Urocyon cinereoargenteus*).

## 4.8 Coachella Valley Multi-Species Habitat Conservation Plan

The BSA lies within the boundary of the CVMSHCP, which provides the framework and guidelines to protect and maintain biological resources both within and outside of Conservation Areas designated

within the plan area. The southern portion of the BSA, south of Avenue 66 (including a portion of the CVSC and shoreline of the Salton Sea) falls within the Coachella Valley Stormwater Channel and Delta Conservation Area (CVAG 2007). CVWD is a permittee to and is provided Take coverage under the CVMSHCP (see Figure 8).

### 4.8.1 Obligations of the Participants

As a permittee, CVWD is required to participate in the establishment of the MSHCP Reserve system conducted by the CVCC through the Rough Step and Rough Proportionality Analyses process and fulfill other specific obligations within and outside of Conservation Areas, as outlined in Section 6.6, Obligations of the Participants. Obligations within Conservation Areas include but are not limited to, participation in the Joint Project Review (JPR) and Property Owner Initiated Habitat Evaluation and Acquisition Negotiation Strategy (HANS) processes and the implementation of Land Use Adjacency Guidelines as set forth in Section 4.5. Obligations within and outside of Conservation Areas include but are not limited to, ensuring that habitat preservation occurs in rough proportionality with Development and that the Reserve Assembly occurs as dictated in the CVMSHCP.

CVWD owns approximately 7,000 acres in Conservation Areas within the CVMSHCP and is required to cooperate with the CVCC as follows:

- Approximately 1,200 acres within the Whitewater Floodplain Conservation Area will be committed to conservation under the MSHCP.
- Lands for with Take Authorization for Covered O&M of facilities will conserve only to the extent compatible with the O&M of the facilities.
- Proposed (covered) facilities proposed at inception of CVMSHCP (Dike 4 and Martinez recharge basins and future water-related facilities) that require a Minor Plan Amendment with criteria will be mitigated by commitment of CVWD lands within Essential Peninsular bighorn sheep Habitat conservation at a 1:1 ration of Conservation to Development.
- For future projects outside of Conservation Areas, CVWD may commit an equivalent dollar value of its lands in the Conservation Areas to permanent conservation in lieu of paying the Local Development Mitigation Fee.
- If before Year 50 of Plan implementation, CVWD still owns land in the Conservation Areas that has not been conserved by any of the foregoing methods, CVWD shall cooperate with CVCC in the conservation of these lands.
- Conservation will be accomplished through conveyance of fee title to CVCC, recordation of a conservation easement, or entering into an MOU with the CVCC.

At the inception of the CVMSHCP, the CVWD was required to either contribute \$3,583,400 as a lump sum or paid in installments over a maximum of 5 years, toward the Endowment Fund for the Monitoring Program, the Management Program, and Adaptive Management developed to manage conserved land within the Conservation Areas. Additional contributions outlined in Section 6.6 include:

- Establish 66 acres of permanent habitat for California black rail and Yuma clapper rail in the Coachella Valley Stormwater Channel and Delta Conservation Area.

- CVWD will establish permanent riparian habitat including at least 44 acres of Sonoran cottonwood-willow riparian forest in the Coachella Valley Stormwater Channel and Delta Conservation Area to replace habitat that is periodically altered by flood control maintenance activities.
- CVWD will establish at least 25 acres of managed replacement habitat on a 1:1 ratio for desert pupfish, using low selenium water, at a site or sites to be determined with concurrence from the Wildlife Agencies. It is estimated that approximately 325 acre-ft/yr of water would be required to maintain 25 acres of replacement habitat, replacing evaporation and maintaining appropriate flow-through rate. Ongoing maintenance and adjustments will be required, including vegetation control and dike and bank maintenance, to achieve desired habitat characteristics. This habitat will replace the 25 acres of habitat that is periodically altered by maintenance activities in drains and flood control channels that contain pupfish habitat.
- As described in Section 4.3.15, CVWD will enhance and manage Coachella Valley roundtailed ground squirrel habitat on land it owns in the East Indio Hills Conservation Area to offset impacts to this species from CVWD's O&M activities in the Coachella Valley Stormwater Channel and Delta Conservation Area.

CVWD has prepared a draft of the Garfield Street and Johnson Street Constructed Habitat Projects Work Plan that is currently under review, that will address the 66 acres of California black rail and Yuma clapper rail habitat, 44 acres of Sonoran cottonwood-willow riparian forest, and 25 acres of desert pupfish habitat outlined above.

## 4.8.2 Covered Activities

Section 7.0, Take Authorization for Covered Activities and Term of Permit, organizes covered activities based on whether they are expected to fall within or outside of established conservation areas. Covered activities outside of conservation areas include the following:

- Development permitted or approved by Local Permittees.
- Public facility construction, operations (not including groundwater withdrawal), and maintenance and safety activities by the permittees for existing and future facilities, including both on and off-site activities.
- Emergency response activities by Permittees required to protect the public health, safety, and welfare (CVAG 2007).

The proposed project meets criteria for the construction, operation and maintenance of a water development, production, storage, treatment and transmission facility.

Covered activities within conservation areas include the following:

- Construction and maintenance of trails, public access facilities, and campground facilities, except on federal land, as provided for this Plan consistent with the Species Conservation Goals and the Conservation Objectives for the Conservation Areas, and consistent with the guidelines for trails and public access in Section 7.3.4.2.
- Specific projects and operation and maintenance activities listed in Tables 7-4 through 7-13.
- Development permitted or approved by Local Permittees.
- Expansion of mining operations on non-federal land (CVAG 2007).

### 4.8.3 Land Use Adjacency Guidelines

Section 4.5, Land Use Adjacency Guidelines, were developed to avoid or minimize indirect effects from Development adjacent to or within the Conservation Areas. Adjacent means sharing a common boundary with any parcel in a Conservation Area. Such indirect effects are commonly referred to as edge effects, and may include noise, lighting, drainage, intrusion of people, and the introduction of non-native plants and non-native predators such as dogs and cats. Edge effects will also be addressed through reserve management activities such as fencing. The following Land Use Adjacency Guidelines shall be considered by the Permittees in their review of individual public and private Development projects adjacent to or within the Conservation Areas to minimize edge effects and shall be implemented where applicable. Topics outlined in the guidelines include Drainage, Toxics, Lighting, Noise, Invasives, Barriers and Grading/Land Development.

### 4.8.4 Joint Project Review

A JPR is instituted by the CVCC and is required to ensure compliance with requirements included in the CVMSHCP, when a project is situated within a Conservation Area. O&M of Covered Activities is not subject to a JPR; however, all other Covered Activities with potential to affect Covered Species or Habitat are.

CVCC staff shall participate in the JPR to ensure consistent CVMSHCP implementation and oversight. CVCC shall have neither jurisdiction over land use decisions by Permittees nor the authority to prevent a Permittee from approving a project. The application will not be deemed complete by the Permittee prior to completion of the Joint Project Review Process. The review process is described in detail in Section 6.6.1.1, Joint Project Review Process within the Conservation Areas, of the CVMSHCP. The proposed project does not meet the definition of a development Project taking place within the Delta Conservation Area. CVWD has no quantifiable obligation to flows in the CVSC under the CVMSHCP, as CVSC flows are dependent on ancillary wastewater and agricultural return flows, and CVWD's commitments under the CVMSCHP authorize regular maintenance disturbance to these habitats, any indirect impacts from flow reduction to the CVSC within a conservation area are not expected to result in a significant effect on Covered Species or Habitat; therefore, the project is not subject to a JPR.

## 4.9 Salton Sea Management Plan Mitigation Projects - Background

The Coachella Valley receives Colorado River water via the Coachella Valley Canal. In 2003, CVWD signed the Quantification Settlement Agreement (QSA) that assigned Colorado River water diversion rights to the San Diego County Water Authority, CVWD, Imperial Irrigation District (IID), and the Metropolitan Water District of Southern California (Metropolitan). The QSA assigned an initial maximum of 330,000 AFY (Priority 3A) to CVWD. In 2003, the QSA EIR/EIS evaluated impacts of the flow allocations that recognized reduced inflow to the Salton Sea would result in lowering elevations of the Sea, increased salinity in the Sea, and the increased acreage of exposed lakebed. These impacts are currently being observed along the receding Salton Sea shoreline. To mitigate impacts to biological resources, air quality, and public health, the QSA EIR/EIS established a mitigation program that was incorporated by the California Department of Water Resources into the Salton Sea Management Program

(SSMP) in 2017. The Salton Sea Long-Range Plan was completed in 2022 to reduce impacts from the projected, long-term recession of the Salton Sea shoreline through 2050. The Salton Sea Long-Range Plan is separated into two Phases; Phase 1 will include various restoration and/or habitat preservation projects restore/preserve migratory bird or other wildlife habitat. Phase 2 of the Salton Sea Long-Range Plan includes a total of 13 concepts that provide options including preventing/controlling the recession of the sea through the importation and/or pumping of water or the modification of its current condition by creating shallow, wetland cells and dust suppression projects, dividing the waterbody into a lake and marine sea, among others. These Long-Range Plan projects have been identified to mitigate for projected flow reductions into the Salton Sea. The status of their implementation can be found online at: [https://saltonsea.ca.gov/wp-content/uploads/2024/03/2024-Annual-Report\\_Mar-25.pdf](https://saltonsea.ca.gov/wp-content/uploads/2024/03/2024-Annual-Report_Mar-25.pdf).

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# CHAPTER 5

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## Project Impacts and Avoidance, Minimization, and Mitigation

### 5.1 Approach to the Analysis

This section describes the potential effects of the proposed project on biological resources that may occur because of project implementation. Direct, indirect, temporary, and/or permanent effects to biological resources may occur as a result of project implementation, as defined below:

- **Direct Effects:** Any alteration, disturbance, or destruction of biological resources that would result from project-related activities is considered a direct effect. Examples include loss of individual species and/or their associated plant communities, diversion of surface water flows, and encroachment into wetlands. Direct effects are defined as the immediate effects of a project on a species or its habitat, including construction noise disturbance, sedimentation, or habitat loss.
- **Indirect Effects:** Biological resources may also be affected in an indirect manner as a result of project-related activities. An example of indirect effects may include irrigation runoff from a developed area into surrounding natural vegetation. Indirect effects could also include increased wildfire frequency as a result of power line failures.
- **Temporary Effects:** Any effects on biological resources that are considered reversible can be viewed as temporary. Examples include the generation of fugitive dust during construction activities.
- **Permanent Effects:** All effects that result in the irreversible removal of biological resources are considered permanent. Examples include constructing a building or permanent road on an area with native vegetation, such that the native vegetation is permanently removed and replaced with a developed structure.

A project is generally considered to have a significant effect if it proposes or results in any of the effects or conditions described in the significance thresholds discussed below, absent specific evidence to the contrary. Conversely, if a project does not propose or result in any of these effects or conditions, it would generally not be considered to have a significant effect on biological resources, absent specific evidence of such an effect. These significance thresholds are taken from Appendix G of the State CEQA Guidelines.

## 5.2 Thresholds of Significance

Based on the 2023 CEQA Guidelines Appendix G, the project would result in a significant impact on biological resources if it would:

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
3. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal) through direct removal, filling, hydrological interruption, or other means.
4. 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.
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

## 5.3 Impacts Analysis

**Issue 1: Would the proposed project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

### Plants

A total of five species, the Coachella valley milk-vetch (*Astragalus lentiginosus* var. *coachellae*), California ditaxis (*Ditaxis serrata* var. *californica*), chaparral sand verbena (*Abronia villosa* var. *aurita*), slender woolly-heads (*Nemacaulis denudata*) and purple stemodia (*Stemodia durantifolia*) were determined to have a moderate potential to occur due to the presence of marginal habitat within the BSA and project area, including the Salton Sea.

### Construction

The construction of the WRP 4 facilities will take place entirely within barren land cover (see Figure 7), which does not constitute habitat for special-status plant species. Similarly, construction of the recycled water delivery pipelines will occur entirely within developed land use, either within paved and un-paved roadways or shoulders, or along existing bridges; therefore, will not directly or indirectly affect special-status plants. **(No Impact)**

## Operation

### CVSC

The proposed reclamation and reuse of all flow at WRP 4 is not expected to substantially reduce the flow within the CVSC, downstream of the facility as demonstrated in *Modeling the effects of flow reduction from WRP 4 on downstream channel hydrology and riparian vegetation* (ESA 2024a; Draft EIR Appendix HYDRO-1). Effects of the flow reduction on downstream channel hydrology and riparian vegetation were analyzed to determine the project's potential effect on riparian vegetation and/or wetland habitat. The analysis revealed that evapotranspiration requirements of the vegetation along the CVSC (within the BSA) under existing conditions is 1.9 cubic feet/second (cfs), whereas the proposed flow under Phase 3 (final stage) of the project is expected to remain at or above 25.1 cfs (assuming zero discharge from WRP 4). This suggests that the proposed project operation will not result in the decline or loss of riparian/wetland vegetation, or habitat for special-status plant species (i.e., purple stemodia) and therefore will not directly or indirectly impact special-status plants (ESA 2024a). **(No Impact)**

### Salton Sea

As discussed in Section 3.9, *Hydrology and Water Quality*, of the draft environmental impact report (ESA 2024b), the proposed project would divert approximately 6,385 AFY of water that is currently conveyed to the Salton Sea via the CVSC. Compared to the total average annual inflows to the Salton Sea of 1,090,000 acre-feet per year (Draft EIR Table 3.9-1), the volume of effluent from WRP 4 consists of about 0.58 percent of the total inflows. The reduction of up to 0.58 percent of the inflow into the Salton Sea during Phase 3 compared with existing conditions would contribute to the predicted cumulative inflow reduction to the Sea that could lower water elevation. However, as described in the ISGSA Alternative Plan, the most likely, reasonably foreseeable future baseline condition is expected to increase cumulative inflows from the Coachella Valley as a result of Near Term Projects being implemented to comply with SGMA. These cumulative flows will offset the proposed project's inflow reductions, avoiding impacts from WRP 4 discharge reductions. As described in Draft EIR Appendix HYDRO-2, the reduction of 6,385 AFY into the Sea would be offset by future increases in drain flow. No impacts to special status plant species would occur. In addition, the edge of the Salton Sea does not provide habitat for special status plant species. Impacts to special-status plant species (e.g., purple stemodia) are expected to be less than significant. **(Less than Significant)**

Furthermore, as described in Draft EIR Appendix HYDRO-2, the proposed project would not increase the flow reductions beyond those assumed in the SSMP and Long-Range Plan. The estimated future flow conditions in the Long Range Plan include flow reductions assumed in the proposed project. The planned restoration efforts outlined in the SSMP would not be adversely affected. Impacts to sensitive habitats are expected to be less than significant.

## Special-Status Wildlife

### Birds

A total of 18 special-status bird species either have a moderate/high potential to occur within the BSA or were observed during the site assessment. These include the black-crowned night heron, black skimmer, burrowing owl, crissal thrasher, ferruginous hawk, gull-billed tern, Le Conte's thrasher, least Bell's vireo, loggerhead shrike, prairie falcon, snowy egret, summer tanager, yellow-breasted chat, yellow warbler, vermilion flycatcher, white-faced ibis, yellow warbler and Yuma Ridgway's rail.

## Construction

Construction of the WRP 4 facilities and recycled water delivery pipelines will take place entirely within barren land cover and developed land use, respectively, and therefore will not result in the removal of suitable habitat for special-status birds. However, construction-generated noises and lighting may result in a temporary, direct impact to special-status birds that may occupy desert scrub habitat adjacent to the paved and un-paved roadways and/or the riparian vegetation within the CVSC, adjacent to the existing WRP 4 facility. Implementation of **Mitigation Measure BIO-1: Nesting Birds, BIO-2: Burrowing Owl, BIO-3: Nighttime Lighting and BIO-4: General Avoidance and Minimization Measures** will reduce potential impacts to a less than significant level. **(Less than Significant with Mitigation)**

## Operation

### CVSC

The proposed Project would reduce discharges into the CVSC, which supports riparian vegetation that may support special status wildlife. An assessment included in *Modeling the effects of flow reduction from WRP 4 on downstream channel hydrology and riparian vegetation* (ESA 2024a; Appendix HYDRO-1 to the Draft EIR) was conducted to evaluate potential impacts of flow reduction to the riparian vegetation. The assessment concludes that the water demand of the existing vegetation downstream of the WRP 4 to the Salton Sea would be met under Phase 3 of the proposed Project. To estimate the potential loss of habitat supporting special status birds, the analysis calculates the maximum change in depth and wetted area for Phase 3 of the proposed project in several locations along the CVSC including at the delta with the Salton Sea. As noted on page 22 of Draft EIR Appendix HYDRO-1, water depth in the channel may decline an average of 0.10 feet during Phase 3; the width of the channel may be reduced an average of 2.4 feet, representing a channel narrowing maximum of approximately 4 percent. The analysis concludes that in the main channel, vegetation would not diminish but would maintain a similar canopy cover at the water's edge. The estimated minor width reduction would not diminish the vegetation canopy at the edge of the low flow channel. Furthermore, upland vegetation within the channel is routinely cleared to the edge of the riparian corridor, as authorized under the CVMSHCP to maintain the channel's flood control functions.

At the end of the CVSC, the levees widen, but a low flow channel conveys surface water to the Salton Sea across the newly exposed lakebed. Any reduction in width of this low flow channel would similarly not affect the vegetation acreage supported by the slightly reduced surface water flows. During storm flows, breakout channels form on the exposed playa supporting emerging vegetation along the exposed shoreline. The reduction in base flows would not affect the vegetation supported by these break-out channels reliant on storm flows only.

Furthermore, the analysis concludes that the flows in the CVSC during Phase 3 of the proposed project would remain substantially greater than the water demand of the existing vegetation. Reduction of flows would not result in loss of vegetation or habitat values. This suggests that the proposed project operation would not cause the decline of riparian/wetland vegetation or habitat for special-status riparian birds (e.g., least Bell's vireo, vermilion flycatcher, etc.) (ESA 2024a). Impacts would be less than significant. **(Less than Significant)**

## Salton Sea

The reduction of up to 0.58 percent of the inflow into the Salton Sea during Phase 3 compared with existing conditions would contribute to the predicted cumulative inflow reduction to the Sea that could lower water elevation. However, as described in the ISGSA Alternative Plan, the most likely, reasonably foreseeable future baseline condition is expected to increase cumulative inflows from the Coachella Valley as a result of Near Term Projects being implemented to comply with SGMA. These cumulative flows will offset the proposed project's inflow reductions, avoiding impacts from WRP 4 discharge reductions. As described in Draft EIR Appendix HYDRO-2, the reduction of 6,385 AFY into the Sea would be offset by future increases in drain flow. No freshwater habitat would be reduced along the shores of the Sea. Special status and common bird species will continue to use the Sea and adjacent wetland areas as part of the Pacific Flyway. Furthermore, it is assumed that wetland vegetation will expand in areas of the exposed lakebed where freshwater flows traverse the exposed playa to reach the highly saline Sea. As a result, the proposed project would not contribute to the reduction of bird habitat at the Sea compared to existing conditions or reasonably foreseeable future conditions, including but not limited to Yuma Ridgway's rail habitat (e.g. cattail marsh). Impacts to special-status birds are expected to be less than significant. **(Less than Significant)**

## Mammals

Five special-status mammal species have a moderate potential to occur within the BSA. These include the American badger, Colorado Valley woodrat (), Palm Springs pocket mouse (covered), Townsend's big-eared bat and western yellow bat (covered).

## Construction

Construction of the WRP 4 facilities and recycled water delivery pipelines will take place entirely within barren land cover and developed land use, respectively, and therefore will not result in the removal of suitable habitat for special-status mammals. However, construction-generated noises and lighting may result in a temporary, direct impact to special-status mammal species that may occupy desert scrub habitat adjacent to the paved and un-paved roadways and/or the riparian vegetation within the CVSC, adjacent to the existing WRP 4 facility. The proposed construction will not occur within the Coachella Valley Stormwater Channel and Delta Conservation Area; therefore, effects to covered species, including the Colorado Valley woodrat, Palm Springs pocket mouse and western yellow bat, are covered under the CVMSHCP and would be considered less than significant.

However, effects to the American badger and Townsend's big-eared bat would be potentially significant without mitigation. Implementation of BIO-1, BIO-2, BIO-3 and **BIO-4: Bats** will ensure that impacts to species not covered under the CVMSHCP are reduced to a less than significant level. **(Less than Significant with Mitigation)**

## Operation

### CVSC

The proposed reclamation and reuse of all flow at WRP 4 is not expected to substantially reduce the flow within the CVSC, downstream of the facility and the analysis of the potential effects of the reduction revealed that evapotranspiration requirements of the vegetation along the CVSC (within the BSA) under existing conditions is far less than what will remain within the channel under Phase 3 (final stage) of the project. This suggests that the proposed project operation will not cause the decline or result in the loss of

riparian/wetland vegetation, or habitat for special-status mammals (i.e., Townsend's big-eared bat) (ESA 2024a). **(No Impact)**

### Salton Sea

The flow reduction to the Sea expected during Phase 3 of the proposed project would not have a measurable effect to habitat used by terrestrial mammal species. Therefore, impacts to special-status mammals are expected to be less than significant.

### **Fish**

One species of fish, the desert pupfish, has a high potential to occur along the CVSC, within the BSA. Desert pupfish occupy habitats ranging from cienagas and springs to small streams and margins of larger bodies of water and can thrive in irrigation drains and ditches (USFWS 1993). They prefer clear, shallow waters with soft sand-silt substrate, either rooted or unattached aquatic plants and very restricted surface flow (Black 1980, USFWS 1993). Within irrigation drains desert pupfish seemed to prefer areas having a sand-silt substrate with either rooted or unattached aquatic plants, and a very restricted surface flow. Trapping conducted in various habitat types documented pupfish at depths of between 10 and 61 cm (typically 30 cm) in agricultural drains, between 25 and 152 cm in natural creeks, and between 10 and 61 cm deep in shoreline pools (Black 1980).

### **Construction**

Construction of the WRP 4 facilities and recycled water delivery pipelines will take place entirely within barren and developed land use, respectively, and therefore will not result in the removal of suitable habitat for special-status fish species. However, construction may result in runoff that may affect water quality. The proposed construction will not occur within the CVSC and Delta Conservation Area; therefore, effects to the desert pupfish (covered) are covered under the CVMSHCP and would be considered less than significant without implementation of mitigation. **(Less than Significant)**

### **Operation**

#### CVSC

The proposed reclamation and reuse of all flow at WRP 4 is not expected to substantially reduce the flow within the CVSC to the Salton Sea. Hydraulic modeling included in *Modeling the effects of flow reduction from WRP 4 on downstream channel hydrology and riparian vegetation* (ESA 2024a) estimated the flow depth reductions would be undetectable in Phase 1 and 2 (a few hundredths of a foot on average, representing 1-2 percent of existing depth for Phase 1 and 3-5 percent for Phase 2) of the project and less than 1/10 foot for Phase 3. This translates to approximately a 10 percent reduction near WRP 4 and an approximately 5 percent reduction at Lincoln Street (ESA 2024a).

As presented in Table 4 of *Modeling the effects of flow reduction from WRP 4 on downstream channel hydrology and riparian vegetation* (ESA 2024a; Draft EIR Appendix HYDRO-1), water depth within the CVSC under Phase 3 conditions will remain above 10 centimeters, except for two cross sections located downstream of WRP 4 and upstream of the USGS Lincoln Street gauge (cross section XS-417688 is expected to reach a low of 9.45 cm and XS-13355 is expected to reach a low of 9.75 cm). All other cross sections within this reach of the CVSC are expected to remain well above this low and average flow depth is expected to remain at or above 36.89 cm. Phase 3 conditions downstream of the USGS Lincoln Street Gauge are expected to remain at or above 51.21 (Draft EIR Appendix HYDRO-1; ESA 2024a). This

minor effect to depth in the channel compared to existing conditions would not result in a loss of habitat availability or connectivity between adjacent agricultural drains and the CVSC. Further, as noted in the above under Special-Status Plants and Wildlife, pupfish have been captured in water depths ranging between 10 and 152 cm. On average, Phase 3 conditions are expected to maintain water depths well within this range and only deviate slightly below 10 cm at two locations. The reduction in flows resulting from the project are not expected to result in the degradation of existing habitat used by the desert pupfish within CVSC or Salton Sea, downstream. **(Less than Significant)**

### Salton Sea

The reduction of up to 0.58 percent of the inflow into the Salton Sea during Phase 3 compared with existing conditions would contribute to the predicted cumulative inflow reduction to the Sea that could lower water elevation. However, as described in the ISGSA Alternative Plan, the most likely, reasonably foreseeable future baseline condition is expected to increase cumulative inflows from the Coachella Valley as a result of Near Term Projects being implemented to comply with SGMA. These cumulative flows will offset the proposed project's inflow reductions, avoiding impacts from WRP 4 discharge reductions. As described in Draft EIR Appendix HYDRO-2, the reduction of 6,385 AFY into the Sea would be offset by future increases in drain flow. No impacts to fish species would occur.

The Salton Sea is becoming too saline for fish to inhabit. The USFWS predicts that high salinity in the Salton Sea will eventually prevent pupfish from using the Sea to move between freshwater habitats, effectively isolating populations (USFWS 2010). This will continue into the future with or without the proposed project. As a result, the proposed project would not reduce the habitability of the Salton Sea to support fish including the desert pupfish. Special status fish species will continue to use the agricultural drains and shoreline pools along the shoreline of the Salton Sea as under existing conditions. The proposed project would not significantly reduce open water and aquatic habitat. **(Less than Significant)**

**Issue 2: Would the proposed project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?**

### Critical Habitat

No critical habitat occurs within the BSA; therefore, no impacts would occur.

### CDFW Sensitive Natural Communities and CVMSHCP Covered Natural Communities

A total of four natural communities, including arrow weed thickets, bush seepweed scrub, iodine bush scrub and Sonoran cottonwood-willow riparian forest would constitute CDFW sensitive natural communities. These communities are also categorized as covered natural communities under the CVMSHCP, organized as follows: desert sink scrub (iodine bush scrub, bush seepweed scrub), arrowweed scrub (arrowweed thickets), and Sonoran cottonwood-willow riparian forest.

### Construction

The construction of the WRP 4 facilities and recycled water delivery pipelines will take place entirely within barren land cover and developed land use, respectively, and will not directly or indirectly affect CDFW sensitive communities or CVMSHCP covered natural communities.

Impacts to riparian vegetation along the 62<sup>nd</sup> Avenue bridge will be addressed through a formal aquatic resources delineation and permits agreements, if needed, as discussed below under Issue 3. **(No Impact)**

### **Operation**

#### **CVSC**

The proposed reclamation and reuse of all flow at WRP 4 is not expected to substantially reduce the flow within the CVSC, downstream of the facility and the analysis of the potential effects of the reduction revealed that evapotranspiration requirements of the vegetation along the CVSC (within the BSA) under existing conditions is far less than what will remain within the channel under Phase 3 (final stage) of the project. This suggests that the proposed project operation will not result in the decline or loss of CDFW sensitive/CVMSHCP covered riparian/wetland vegetation mapped along the CVSC, including arrow weed thickets, bush seepweed scrub, iodine bush scrub and Sonoran cottonwood-willow riparian forest. Therefore, project operation will not directly or indirectly affect CDFW sensitive communities or CVMSHCP covered natural communities (ESA 2024a). **(Less than Significant)**

#### **Salton Sea**

The reduction of up to 0.58 percent of the inflow into the Salton Sea during Phase 3 compared with existing conditions would contribute to the predicted cumulative inflow reduction to the Sea that could lower water elevation. However, as described in the ISGSA Alternative Plan, the most likely, reasonably foreseeable future baseline condition is expected to increase cumulative inflows from the Coachella Valley as a result of Near Term Projects being implemented to comply with SGMA. These cumulative flows will offset the proposed project's inflow reductions, avoiding impacts from WRP 4 discharge reductions. As described in Draft EIR Appendix HYDRO-2, the reduction of 6,385 AFY into the Sea would be offset by future increases in drain flow. No impacts to riparian habitat would occur.

Riparian vegetation that meets the criteria for CDFW sensitive natural communities will continue to adapt to changing conditions along the receding shoreline of the Salton Sea. In fact, wetland vegetation has expanded in areas of the exposed lakebed near freshwater flows that traverse the exposed playa to the Sea.

In 2022 DWR prepared the SSMP and Long-Range Plan that estimates future declines in Salton Sea elevation and identifies several shoreline restoration projects around the perimeter of the Sea to mitigate impacts, including impacts to freshwater ecosystems. These estimates of future inflow conditions include the proposed WRP No. 4 recycled water diversions. Therefore, the proposed project would not increase the flow reductions beyond those estimated in the SSMP and Long-Range Plan, and the proposed project would not impact the planned restoration efforts. Impacts to sensitive habitats are expected to be less than significant. **(Less than Significant)**

**Issue 3: Would the proposed project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal) through direct removal, filling, hydrological interruption, or other means?**

### **Construction**

The proposed Phase 3 recycled water pipeline will be installed along the 62<sup>nd</sup> Avenue bridge, across the CVSC. The pipeline would be installed either on the bridge or directionally drilled under the channel to avoid impacts to the channel itself, avoiding the need for permits from regulatory agencies. However, if open cut trenching is chosen to install the pipeline, the construction may result in a temporary direct

effect on state or federally protected wetlands during equipment staging and/or from runoff generated by construction.

In this case, CVWD would obtain permits from USACE (CWA Section 404 permit), CDFW (Section 1602, Streambed Alteration Agreement) and/or RWQCB (CWA Section 401 permit), as needed, to ensure that the temporary impacts to aquatic resources are avoided and/or mitigated as deemed appropriate. By complying with the terms of those permits, project impacts would be less than significant. **(Less than Significant)**

### **Operation**

#### **CVSC**

Once constructed, the Phase 3 recycled water pipeline will be attached to the 62<sup>nd</sup> Avenue bridge and project operation will not influence state or federally protected wetlands. The proposed reclamation and reuse of all flow at WRP 4 is not expected to substantially reduce the flow within the CVSC downstream of the facility and the analysis of the potential effects of the reduction revealed that evapotranspiration requirements of the vegetation along the CVSC (within the BSA) under existing conditions is far less than the water available even after Phase 3. This suggests that the proposed project operation will not result in the decline or loss of protected wetlands (ESA 2024a). **(Less than Significant)**

#### **Salton Sea**

The reduction of up to 0.58 percent of the inflow into the Salton Sea during Phase 3 compared with existing conditions would contribute to the predicted cumulative inflow reduction to the Sea that could lower water elevation. However, as described in the ISGSA Alternative Plan, the most likely, reasonably foreseeable future baseline condition is expected to increase cumulative inflows from the Coachella Valley as a result of Near Term Projects being implemented to comply with SGMA. These cumulative flows will offset the proposed project's inflow reductions, avoiding impacts from WRP 4 discharge reductions. As described in Draft EIR Appendix HYDRO-2, the reduction of 6,385 AFY into the Sea would be offset by future increases in drain flow. No impacts to riparian habitat would occur.

Furthermore, in 2022 DWR prepared the SSMP and Long-Range Plan that estimates future declines in Salton Sea elevation and identifies several shoreline restoration projects around the perimeter of the Sea to mitigate impacts, including impacts to freshwater ecosystems. These estimates of future inflow conditions include the proposed WRP No. 4 recycled water diversions. Therefore, the proposed project would not increase the flow reductions beyond those estimated in the SSMP and Long-Range Plan and would not adversely impact the proposed restoration projects. The proposed project would not contribute to the reduction of wetland habitats at the Sea. Impacts to wetland habitats are less than significant.

**Issue 4: Would the proposed project 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?**

### **Construction**

The construction of the WRP 4 facilities and recycled water delivery pipelines may result in a minor impact to fish and wildlife movement along the CVSC, from construction-generated noises and temporary lighting; however, with the implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, and BIO-4 it is

expected that impacts to wildlife movement would be considered less than significant. (**Less than Significant with Mitigation**)

### **Operation**

#### **CVSC**

Operation of the recycled water treatment and distribution system would not impact wildlife corridors. The reduction in flow would not reduce the use of the CVSC as a wildlife movement corridor compared with existing conditions. Therefore, impacts to wildlife corridors are expected to be less than significant. (**Less Than Significant**)

#### **Salton Sea**

The reduction of up to 0.58 percent of the inflow into the Salton Sea during Phase 3 compared with existing conditions would contribute to the predicted cumulative inflow reduction to the Sea that could lower water elevation. However, as described in the ISGSA Alternative Plan, the most likely, reasonably foreseeable future baseline condition is expected to increase cumulative inflows from the Coachella Valley as a result of Near Term Projects being implemented to comply with SGMA. These cumulative flows will offset the proposed project's inflow reductions, avoiding impacts from WRP 4 discharge reductions. As described in Draft EIR Appendix HYDRO-2, the reduction of 6,385 AFY into the Sea would be offset by future increases in drain flow. The proposed project would not impact wildlife corridors at the Sea. Therefore, impacts are less than significant. (**Less than Significant**)

### **Issue 5: Would the proposed project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

The proposed project does not conflict with local ordinances or policies. Therefore, no impacts would occur. (**No Impact**)

### **Issue 6: Would the proposed project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?**

The BSA lies entirely within the boundary of the CVMSHCP and a portion of the CVSC, within the BSA, but is not situated within the Coachella Valley Stormwater Channel and Delta Conservation Area. The WRP 4 facility improvements are a covered activity in a Conservation Area (see activity (b) in Table 7-6 of the CVMSHCP).

### **Construction**

The construction of the WRP 4 facilities and the recycled water delivery pipelines will not occur within a conservation area; therefore, impacts to covered species and habitats would be considered less than significant. (**Less than Significant**)

### **Operation**

#### **CVSC**

The proposed reclamation and reuse of all flow at WRP 4 is not expected to substantially reduce the flow within the portion of the CVSC downstream of the facility that occurs within the Coachella Valley Stormwater Channel and Delta Conservation Area. The analysis of the potential effects of the reduction in

flow revealed that evapotranspiration requirements of the vegetation along the CVSC (within the BSA) under existing conditions is far less than what will remain within the channel under Phase 3 (final stage) of the project. This suggests that the proposed project operation will not cause the decline or result in the loss of covered riparian/wetland habitat or covered species (ESA 2024a). **(Less than Significant)**

### Salton Sea

The reduction of up to 0.58 percent of the inflow into the Salton Sea during Phase 3 compared with existing conditions would contribute to the predicted cumulative inflow reduction to the Sea that could lower water elevation. However, as described in the ISGSA Alternative Plan, the most likely, reasonably foreseeable future baseline condition is expected to increase cumulative inflows from the Coachella Valley as a result of Near Term Projects being implemented to comply with SGMA. These cumulative flows will offset the proposed project's inflow reductions, avoiding impacts from WRP 4 discharge reductions. As described in Draft EIR Appendix HYDRO-2, the reduction of 6,385 AFY into the Sea would be offset by future increases in drain flow. Furthermore, the project is a covered activity within the CVMSHCP. In addition, the flow reduction expected during Phase 3 of the proposed project was accounted for in the SSMP, and therefore would not increase the flow reductions beyond those estimated in the SSMP and Long-Range Plan. Therefore, the proposed project would be consistent with the HCP and impacts are expected to be less than significant. **(Less than Significant)**

## 5.4 Mitigation Measures

To minimize and avoid significant impacts to sensitive biological resources as a result of proposed project implementation, the following avoidance and minimization measures are recommended.

### BIO-1: Nesting Birds

If construction work activities occur within the avian nesting season (generally defined as January 1 through September 15), a qualified biologist shall conduct a nesting bird and raptor survey no less than 3 days prior to ground disturbance to identify any active nests within 500 feet of suitable nesting habitat. If an active nest is found, the nest shall be avoided, and a suitable buffer zone delineated in the field where no impacts would occur until the chicks have fledged the nest as determined by a qualified biologist. Construction avoidance buffers are generally 300 feet for non-listed passerines and 500 feet for listed avian species (i.e., least Bell's vireo) and raptors; however, avoidance buffers may be reduced for non-listed species at the discretion of the biologist, depending on the location of the nest and species tolerance to human presence and construction-related noises and vibrations.

### BIO-2: Burrowing Owl

A qualified biologist will conduct a survey of suitable burrowing owl habitat within 500 feet of proposed construction activities. If a burrow is located, the biologist will determine if an owl is present in the burrow. If the burrow is determined to be occupied, the burrow will be flagged and a 160-foot buffer during the non-breeding season and a 250-foot buffer during the breeding season, or a buffer to the edge of the project site if less than 500 feet, will be established around the burrow. The buffer will be staked and flagged. No Development or O&M activities will be permitted within the buffer until the young are no longer dependent on the burrow.

If the burrow is unoccupied, the burrow will be made inaccessible to owls, and the construction may proceed. If either a nesting or escape burrow is occupied, owls shall be relocated through coordination with the CDFW and USFWS. Determination of the appropriate method of relocation, such as eviction/passive relocation or active relocation, shall be based on the specific site conditions (e.g., distance to nearest suitable habitat and presence of burrows within that habitat) in coordination with the CDFW and USFWS. Active relocation and eviction/passive relocation require the preservation and maintenance of suitable burrowing owl habitat determined through coordination with the CDFW and USFWS.

### **BIO-3: Nighttime Lighting**

Construction activities shall be restricted to between the hours of 7 a.m. and 7 p.m., when wildlife activity is minimal, to reduce impacts to adjacent habitats. If nighttime construction is necessary, all light sources shall be directed away from sensitive receptors (i.e., adjacent habitats) to reduce impacts to sensitive biological resources utilizing the habitat, to the degree feasible.

Permanent lighting installed as part of the WRP 4 facilities construction shall be directed away from all sensitive receptors, as well, to reduce impacts to sensitive biological resources during Project operation.

### **BIO-4: General Avoidance and Minimization Measures**

- Prior to the commencement of construction activities, construction personnel shall check under stationary equipment to ensure no wildlife species are present.
- All trash shall be collected daily and taken off-site for proper disposal.
- Prior to Project implementation, a Workers Environmental Awareness Program (WEAP) shall be prepared and presented to construction crews regarding the potential for nesting birds and other special-status wildlife species to occur on-site during construction activities. The WEAP training shall concentrate on the proper identification of sensitive resources while in the field, suggested strategies in avoiding impact to sensitive resources, and proper reporting methods for field crews if sensitive resources are observed during construction activities.
- Erosion control measures (e.g., silt fencing, straw wattles) shall be implemented within the Project site to prevent sediment/contaminants from continuing off-site.
- Drip pans shall be placed underneath all mechanical machinery that will be staged within or adjacent to aquatic resources.

Refueling of equipment shall be conducted at least 50 feet from aquatic resources.

### **BIO-5: Bats**

If feasible, project-related activities shall occur outside the general bat maternity roosting season of March through August to avoid impact to bat species. Prior to commencement of construction activities, within or outside of the maternity roosting season, a qualified biologist shall conduct a pre-construction clearance survey throughout the development footprint and fuel-modification zones that are determined to provide suitable bat roosting habitat to determine if bats are roosting within 500 feet of proposed project activities. If bats are determined to be using trees specifically for roosting, the biologist will determine whether a day roost (non-breeding) or maternity roost (lactating females and dependent young) is present.

If a day roost is determined to be present, the biologist shall ensure that direct mortality to roosting individuals will not occur. In general, disturbances to day roosts as a result of noise or other indirect impact is not generally considered significant, as it would not cause direct mortality of individuals and would not be expected to reduce populations to below self-sustaining levels. If removal of any trees supporting a day roost would occur, the biologist will ensure that all roosting individuals disperse from the location prior to removal of the vegetation to prevent direct mortality.

If a maternity roost is observed, the biologist will determine whether construction activities are likely to disturb breeding activities. If it is determined that the vegetation supporting the roost must be removed or activities are expected to disturb the breeding activities, a Bat Exclusion Plan shall be prepared. At a minimum, the plan shall include avoidance and minimization measures to evict bats safely and humanely and prescribe methods to minimize any potential impacts.

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# CHAPTER 6

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# Appendix A

## **Literature Review**



**Query Summary:**

Quad IS (Mecca (3311651) OR Valerie (3311652) OR Indio (3311662) OR Thermal Canyon (3311661) OR Cottonwood Basin (3311568) OR Mortmar (3311558) OR Salton (3311548) OR Oasis (3311641) OR Rabbit Peak (3311642))

Print

Close

**CNDDDB Element Query Results**

Scientific Name	Common Name	Taxonomic Group	Element Code	Total Occs	Returned Occs	Federal Status	State Status	Global Rank	State Rank	CA Rare Plant Rank	Other Status	Habitats
Abronia villosa var. aurita	chaparral sand-verbena	Dicots	PDNYC010P1	98	11	None	None	G5T2?	S2	1B.1	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Chaparral, Coastal scrub, Desert dunes
Ambrosia monogyra	singlewhorl burrobrush	Dicots	PDAST50010	30	1	None	None	G5	S2	2B.2	SB_CRES-San Diego Zoo CRES Native Gene Seed Bank	Chaparral, Sonoran desert scrub
Antrozous pallidus	pallid bat	Mammals	AMACC10010	420	1	None	None	G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive	Chaparral, Coastal scrub, Desert wash, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Riparian woodland, Sonoran desert scrub, Upper montane coniferous forest, Valley & foothill grassland
Ardea alba	great egret	Birds	ABNGA04040	43	2	None	None	G5	S4	null	CDF_S-Sensitive, IUCN_LC-Least Concern	Brackish marsh, Estuary, Freshwater marsh, Marsh & swamp, Riparian forest, Wetland
Ardea herodias	great blue heron	Birds	ABNGA04010	156	3	None	None	G5	S4	null	CDF_S-Sensitive, IUCN_LC-Least Concern	Brackish marsh, Estuary, Freshwater marsh, Marsh & swamp, Riparian forest, Wetland
Astragalus bernardinus	San Bernardino milk-vetch	Dicots	PDFAB0F190	42	1	None	None	G3	S3	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, USFS_S-Sensitive	Joshua tree woodland, Limestone, Pinon & juniper woodlands
Astragalus lentiginosus var. coachellae	Coachella Valley milk-vetch	Dicots	PDFAB0FB97	69	2	Endangered	None	G5T1	S1	1B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden, SB_USDA-US Dept of Agriculture	Desert dunes, Sonoran desert scrub
Astragalus preussii var.	Lancaster milk-vetch	Dicots	PDFAB0F721	5	1	None	None	G4T2	S1	1B.1	null	Chenopod scrub,

laxiflorus													Desert wash
Astragalus sabulonum	gravel milk-vetch	Dicots	PDFAB0F7R0	19	3	None	None	G4G5	S2	2B.2	null		Desert dunes, Mojavean desert scrub, Sonoran desert scrub
Athene cunicularia	burrowing owl	Birds	ABNSB10010	2011	21	None	None	G4	S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern		Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & foothill grassland
Ayenia compacta	California ayenia	Dicots	PDSTE01020	74	1	None	None	G4	S3	2B.3	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden		Desert wash, Mojavean desert scrub, Sonoran desert scrub
Bursera microphylla	little-leaf elephant tree	Dicots	PDBUR01020	18	2	None	None	G4	S2	2B.3	IUCN_LC-Least Concern, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden		Desert wash, Sonoran desert scrub
Buteo regalis	ferruginous hawk	Birds	ABNKC19120	107	1	None	None	G4	S3S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern		Great Basin grassland, Great Basin scrub, Pinon & juniper woodlands, Valley & foothill grassland
Chaetodipus fallax pallidus	pallid San Diego pocket mouse	Mammals	AMAFD05032	79	2	None	None	G5T3T4	S3S4	null	CDFW_SSC-Species of Special Concern		Desert wash, Pinon & juniper woodlands, Sonoran desert scrub
Charadrius nivosus nivosus	western snowy plover	Birds	ABNNB03031	138	1	Threatened	None	G3T3	S3	null	CDFW_SSC-Species of Special Concern		Great Basin standing waters, Sand shore, Wetland
Chylismia arenaria	sand evening-primrose	Dicots	PDONA03020	16	1	None	None	G4?	S2S3	2B.2	null		Sonoran desert scrub
Corynorhinus townsendii	Townsend's big-eared bat	Mammals	AMACC08010	635	1	None	None	G4	S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFS_S-Sensitive		Broadleaved upland forest, Chaparral, Chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, Lower montane coniferous forest, Meadow & seep, Mojavean desert scrub, Riparian forest, Riparian woodland, Sonoran

												desert scrub, Sonoran thorn woodland, Upper montane coniferous forest, Valley & foothill grassland
Coryphantha alversonii	Alverson's foxtail cactus	Dicots	PDCAC0X060	55	1	None	None	G3	S3	4.3	null	Mojavean desert scrub, Sonoran desert scrub
Cyprinodon macularius	desert pupfish	Fish	AFCNB02060	74	24	Endangered	Endangered	G1	S1	null	AFS_EN-Endangered, IUCN_VU-Vulnerable	Aquatic, Artificial flowing waters, Artificial standing waters, Colorado River basin flowing waters, Colorado River basin standing waters
Desert Fan Palm Oasis Woodland	Desert Fan Palm Oasis Woodland	Riparian	CTT62300CA	80	3	None	None	G3	S3.2	null	null	Riparian woodland
Ditaxis claryana	glandular ditaxis	Dicots	PDEUP080L0	26	1	None	None	G3G4	S2	2B.2	null	Desert wash, Mojavean desert scrub, Sonoran desert scrub
Ditaxis serrata var. californica	California ditaxis	Dicots	PDEUP08050	24	4	None	None	G5T3T4	S2?	3.2	null	Desert wash, Sonoran desert scrub
Egretta thula	snowy egret	Birds	ABNGA06030	20	2	None	None	G5	S4	null	IUCN_LC-Least Concern	Marsh & swamp, Meadow & seep, Riparian forest, Riparian woodland, Wetland
Euderma maculatum	spotted bat	Mammals	AMACC07010	68	1	None	None	G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	null
Eumops perotis californicus	western mastiff bat	Mammals	AMACD02011	296	5	None	None	G4G5T4	S3S4	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern	Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland
Euparagia unidentata	Algodones euparagia	Insects	IIHYMBC010	3	1	None	None	G1G2	S1S2	null	null	Desert dunes
Falco mexicanus	prairie falcon	Birds	ABNKD06090	451	1	None	None	G5	S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & foothill grassland
Gelochelidon nilotica	gull-billed tern	Birds	ABNNM08010	6	1	None	None	G5	S1	null	CDFW_SSC-Species of Special Concern, IUCN_LC-	null

												Least Concern, USFWS_BCC-Birds of Conservation Concern	
Gopherus agassizii	desert tortoise	Reptiles	ARAAF01012	985	7	Threatened	Threatened	G3	S2S3	null	IUCN_CR-Critically Endangered	Joshua tree woodland, Mojavean desert scrub, Sonoran desert scrub	
Icteria virens	yellow-breasted chat	Birds	ABPBX24010	101	1	None	None	G5	S4	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Riparian forest, Riparian scrub, Riparian woodland	
Jaffueliobryum wrightii	Wright's jaffueliobryum moss	Bryophytes	NBMUS97020	21	1	None	None	G5	S2S3	2B.3	null	Alpine dwarf scrub, Limestone, Mojavean desert scrub, Pinon & juniper woodlands	
Lasiurus xanthinus	western yellow bat	Mammals	AMACC05070	58	4	None	None	G4G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Desert wash	
Laterallus jamaicensis coturniculus	California black rail	Birds	ABNME03041	303	1	None	Threatened	G3T1	S2	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, IUCN_EN-Endangered	Brackish marsh, Freshwater marsh, Marsh & swamp, Salt marsh, Wetland	
Leptosiphon floribundus ssp. hallii	Santa Rosa Mountains leptosiphon	Dicots	PDPLM090J3	6	1	None	None	G4T1T2	S1S2	1B.3	BLM_S-Sensitive, USFS_S-Sensitive	Pinon & juniper woodlands, Sonoran desert scrub	
Macrobaenetes valgum	Coachella giant sand treader cricket	Insects	IORT22020	5	1	None	None	G1G2	S2	null	IUCN_VU-Vulnerable	Desert dunes	
Nemacaulis denudata var. gracilis	slender cottonheads	Dicots	PDPGN0G012	24	1	None	None	G3G4T3?	S2	2B.2	null	Coastal dunes, Desert dunes, Sonoran desert scrub	
Neotoma albigula venusta	Colorado Valley woodrat	Mammals	AMAFF08031	22	1	None	None	G5T3T4	S1S2	null	null	Sonoran desert scrub	
Nycticorax nycticorax	black-crowned night heron	Birds	ABNGA11010	37	2	None	None	G5	S4	null	IUCN_LC-Least Concern	Marsh & swamp, Riparian forest, Riparian woodland, Wetland	
Nyctinomops femorosaccus	pocketed free-tailed bat	Mammals	AMACD04010	90	1	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Joshua tree woodland, Pinon & juniper woodlands, Riparian scrub, Sonoran desert scrub	
Oliarces clara	cheeseweed owlfly (cheeseweed moth lacewing)	Insects	IINEU04010	11	2	None	None	G1G3	S2	null	null	Sonoran desert scrub	
Ovis canadensis nelsoni	desert bighorn sheep	Mammals	AMALE04013	46	2	None	None	G4T4	S3	null	BLM_S-Sensitive, CDFW_FP-Fully Protected, USFS_S-Sensitive	Alpine, Alpine dwarf scrub, Chaparral, Chenopod scrub, Great Basin scrub, Mojavean	

													desert scrub, Montane dwarf scrub, Pinon & juniper woodlands, Riparian woodland, Sonoran desert scrub
Ovis canadensis nelsoni pop. 2	Peninsular bighorn sheep DPS	Mammals	AMALE04012	7	1	Endangered	Threatened	G4T3Q	S2	null	CDFW_FP-Fully Protected	Alpine, Alpine dwarf scrub, Chaparral, Chenopod scrub, Great Basin scrub, Mojavean desert scrub, Montane dwarf scrub, Pinon & juniper woodlands, Riparian woodland, Sonoran desert scrub	
Pelecanus occidentalis californicus	California brown pelican	Birds	ABNFC01021	27	1	Delisted	Delisted	G4T3T4	S3	null	BLM_S-Sensitive, USFS_S-Sensitive	null	
Perognathus longimembris bangsi	Palm Springs pocket mouse	Mammals	AMAFD01043	30	3	None	None	G5T2	S1	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern	Desert wash, Sonoran desert scrub	
Petalonyx linearis	narrow-leaf sandpaper-plant	Dicots	PDLOA04010	26	2	None	None	G4	S3?	2B.3	null	Mojavean desert scrub, Sonoran desert scrub	
Phaseolus filiformis	slender-stem bean	Dicots	PDFAB330P0	1	1	None	None	G5	S1	2B.1	IUCN_LC-Least Concern	Desert wash, Sonoran desert scrub	
Phrynosoma mcallii	flat-tailed horned lizard	Reptiles	ARACF12040	340	4	None	None	G3	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_NT-Near Threatened	Desert dunes, Mojavean desert scrub, Sonoran desert scrub	
Plegadis chihi	white-faced ibis	Birds	ABNGE02020	20	1	None	None	G5	S3S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Marsh & swamp, Wetland	
Polioptila melanura	black-tailed gnatcatcher	Birds	ABPBJ08030	34	3	None	None	G5	S3S4	null	CDFW_WL-Watch List, IUCN_LC-Least Concern	Mojavean desert scrub, Sonoran desert scrub	
Pyrocephalus rubinus	vermillion flycatcher	Birds	ABPAE36010	25	1	None	None	G5	S2S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Marsh & swamp, Riparian forest, Riparian scrub, Riparian woodland, Wetland	
Rallus obsoletus yumanensis	Yuma Ridgway's rail	Birds	ABNME0501A	58	1	Endangered	Threatened	G3T3	S1	null	CDFW_FP-Fully Protected	Freshwater marsh, Marsh & swamp, Wetland	
Rynchops niger	black skimmer	Birds	ABNNM14010	7	1	None	None	G5	S2	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Alkali playa, Sand shore	
Saltugilia latimeri	Latimer's woodland-gilia	Dicots	PDPLM0H010	60	1	None	None	G3	S3	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho	Chaparral, Limestone, Mojavean	

											Santa Ana Botanic Garden, SB_USDA-US Dept of Agriculture, USFS_S-Sensitive	desert scrub, Pinon & juniper woodlands
Salvia greatae	Orocopia sage	Dicots	PDLAM1S0P0	25	2	None	None	G2G3	S2S3	1B.3	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Desert wash, Mojavean desert scrub, Sonoran desert scrub
Scaphiopus couchii	Couch's spadefoot	Amphibians	AAABF01020	6	2	None	None	G5	S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	null
Senna covesii	Cove's cassia	Dicots	PDFAB491X0	55	2	None	None	G5	S3	2B.2	SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Desert wash, Sonoran desert scrub
Taxidea taxus	American badger	Mammals	AMAJF04010	594	3	None	None	G5	S3	null	CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Alkali marsh, Alkali playa, Alpine, Alpine dwarf scrub, Bog & fen, Brackish marsh, Broadleaved upland forest, Chaparral, Chenopod scrub, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub, Desert dunes, Desert wash, Freshwater marsh, Great Basin grassland, Great Basin scrub, Interior dunes, lone formation, Joshua tree woodland, Limestone, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Mojavean desert scrub, Montane dwarf scrub, North coast coniferous forest, Oldgrowth, Pavement plain, Redwood, Riparian forest, Riparian scrub, Riparian

													woodland, Salt marsh, Sonoran desert scrub, Sonoran thorn woodland, Ultramafic, Upper montane coniferous forest, Upper Sonoran scrub, Valley & foothill grassland
Toxostoma crissale	Crissal thrasher	Birds	ABPBK06090	67	4	None	None	G5	S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern	Riparian woodland	
Toxostoma lecontei	Le Conte's thrasher	Birds	ABPBK06100	238	2	None	None	G4	S3	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern, IUCN_LC-Least Concern, USFWS_BCC-Birds of Conservation Concern	Desert wash, Mojavean desert scrub, Sonoran desert scrub	
Trichinorhipis knulli	Knull's metallic wood-boring beetle	Insects	IICOLX1100	4	1	None	None	G1	S1	null	null	null	
Uma inornata	Coachella Valley fringe-toed lizard	Reptiles	ARACF15010	162	35	Threatened	Endangered	G1Q	S1	null	IUCN_EN-Endangered	Desert dunes, Desert wash	
Wislizenia refracta ssp. refracta	jackass-clover	Dicots	PDCPP09013	6	1	None	None	G5T5?	S1	2B.2	null	Alkali playa, Desert dunes, Desert wash, Mojavean desert scrub, Sonoran desert scrub	
Xerospermophilus tereticaudus chlorus	Palm Springs round-tailed ground squirrel	Mammals	AMAFB05161	11	5	None	None	G5T2Q	S2	null	BLM_S-Sensitive, CDFW_SSC-Species of Special Concern	Chenopod scrub, Sonoran desert scrub	
Xylorhiza cognata	Mecca-aster	Dicots	PDASTA1010	36	29	None	None	G2	S2	1B.2	BLM_S-Sensitive, SB_CalBG/RSABG-California/Rancho Santa Ana Botanic Garden	Sonoran desert scrub	
Xyrauchen texanus	razorback sucker	Fish	AFCJC11010	28	2	Endangered	Endangered	G1	S2	null	AFS_EN-Endangered, CDFW_FP-Fully Protected, IUCN_CR-Critically Endangered	Aquatic, Colorado River basin flowing waters	

## Search Results

30 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [3311651:3311642:3311641:3311558:3311652:3311661:3311568:3311662:3311548]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE	CA ENDEMIC	DATE ADDED	PHOTO
									PLANT RANK			
<a href="#"><u><i>Abronia villosa</i></u></a> <a href="#"><u>var. <i>aurita</i></u></a>	chaparral sand-verbena	Nyctaginaceae	annual herb	(Jan)Mar-Sep	None	None	G5T2?	S2	1B.1		2001-01-01	 © 2011 Aaron E. Sims
<a href="#"><u><i>Ambrosia monogyra</i></u></a>	singlewhorl burrobrush	Asteraceae	perennial shrub	Aug-Nov	None	None	G5	S2	2B.2		2007-02-21	 © 2014 Keir Morse
<a href="#"><u><i>Astragalus bernardinus</i></u></a>	San Bernardino milk-vetch	Fabaceae	perennial herb	Apr-Jun	None	None	G3	S3	1B.2	Yes	2011-02-16	No Photo Available
<a href="#"><u><i>Astragalus lentiginosus</i></u></a> <a href="#"><u>var. <i>coachellae</i></u></a>	Coachella Valley milk-vetch	Fabaceae	annual/perennial herb	Feb-May	FE	None	G5T1	S1	1B.2	Yes	1984-01-01	No Photo Available
<a href="#"><u><i>Astragalus preussii</i></u></a> var. <a href="#"><u><i>laxiflorus</i></u></a>	Lancaster milk-vetch	Fabaceae	perennial herb	Mar-May	None	None	G4T2	S1	1B.1		1988-01-01	No Photo Available
<a href="#"><u><i>Astragalus sabulonum</i></u></a>	gravel milk-vetch	Fabaceae	annual/perennial herb	Feb-Jun	None	None	G4G5	S2	2B.2		2011-10-19	No Photo Available
<a href="#"><u><i>Ayenia compacta</i></u></a>	California ayenia	Malvaceae	perennial herb	Mar-Apr	None	None	G4	S3	2B.3		1974-01-01	No Photo Available
<a href="#"><u><i>Bursera microphylla</i></u></a>	little-leaf elephant tree	Burseraceae	perennial deciduous tree	Jun-Jul	None	None	G4	S2	2B.3		1980-01-01	No Photo Available
<a href="#"><u><i>Chylismia arenaria</i></u></a>	sand evening-primrose	Onagraceae	annual/perennial herb	Nov-May	None	None	G4?	S2S3	2B.2		2001-01-01	No Photo Available
<a href="#"><u><i>Coryphantha alversonii</i></u></a>	Alverson's foxtail cactus	Cactaceae	perennial stem	Apr-Jun(Sep-Oct)	None	None	G3	S3	4.3	Yes	1974-01-01	No Photo Available
<a href="#"><u><i>Ditaxis claryana</i></u></a>	glandular ditaxis	Euphorbiaceae	perennial herb	Oct-Mar	None	None	G3G4	S2	2B.2		1974-01-01	No Photo Available

<u><i>Ditaxis serrata</i></u> <u><i>var. californica</i></u>	California ditaxis	Euphorbiaceae	perennial herb	Mar-Dec	None	None	G5T3T4	S2?	3.2	Yes	1974- 01-01	No Photo Available
<u><i>Horsfordia</i></u> <u><i>alata</i></u>	pink velvet- mallow	Malvaceae	perennial shrub	Feb-Dec	None	None	G5	S4	4.3		2001- 01-01	No Photo Available
<u><i>Horsfordia</i></u> <u><i>newberryi</i></u>	Newberry's velvet-mallow	Malvaceae	perennial shrub	Feb-Dec	None	None	G5	S4	4.3		2001- 01-01	No Photo Available
<u><i>Jaffueliobryum</i></u> <u><i>wrightii</i></u>	Wright's jaffueliobryum moss	Grimmiaceae	moss		None	None	G5	S2S3	2B.3		2014- 05-15	No Photo Available
<u><i>Johnstonella</i></u> <u><i>costata</i></u>	ribbed cryptantha	Boraginaceae	annual herb	Feb-May	None	None	G4G5	S4	4.3		1974- 01-01	No Photo Available
<u><i>Johnstonella</i></u> <u><i>holoptera</i></u>	winged cryptantha	Boraginaceae	annual herb	Mar-Apr	None	None	G4G5	S4	4.3		1980- 01-01	No Photo Available
<u><i>Juncus acutus</i></u> <u><i>ssp. leopoldii</i></u>	southwestern spiny rush	Juncaceae	perennial rhizomatous herb	(Mar)May- Jun	None	None	G5T5	S4	4.2		1988- 01-01	 © 2019 Belinda Lo
<u><i>Juncus cooperi</i></u>	Cooper's rush	Juncaceae	perennial herb	Apr- May(Aug)	None	None	G4	S3	4.3		1974- 01-01	 © 2018 Neal Kramer
<u><i>Leptosiphon</i></u> <u><i>floribundus</i></u> <u><i>ssp. hallii</i></u>	Santa Rosa Mountains leptosiphon	Polemoniaceae	perennial herb	May- Jul(Nov)	None	None	G4T1T2	S1S2	1B.3	Yes	1988- 01-01	 © 2016 Keir Morse
<u><i>Lycium torreyi</i></u>	Torrey's box- thorn	Solanaceae	perennial shrub	(Jan- Feb)Mar- Jun(Sep- Nov)	None	None	G4G5	S3	4.2		2015- 05-05	No Photo Available
<u><i>Nemacaulis</i></u> <u><i>denudata</i></u> var. <u><i>gracilis</i></u>	slender cottonheads	Polygonaceae	annual herb	(Mar)Apr- May	None	None	G3G4T3?	S2	2B.2		1994- 01-01	No Photo Available
<u><i>Petalonyx</i></u> <u><i>linearis</i></u>	narrow-leaf sandpaper- plant	Loasaceae	perennial shrub	(Jan- Feb)Mar- May(Jun- Dec)	None	None	G4	S3?	2B.3		2016- 09-16	No Photo Available
<u><i>Phaseolus</i></u> <u><i>filiformis</i></u>	slender-stem bean	Fabaceae	annual herb	Apr	None	None	G5	S1	2B.1		1984- 01-01	No Photo Available
<u><i>Saltugilia</i></u> <u><i>latimeri</i></u>	Latimer's woodland-gilia	Polemoniaceae	annual herb	Mar-Jun	None	None	G3	S3	1B.2	Yes	2004- 01-01	No Photo Available

<u><i>Salvia greatae</i></u>	Orocopia sage	Lamiaceae	perennial evergreen shrub	Mar-Apr	None	None	G2G3	S2S3	1B.3	Yes	1974- 01-01	No Photo Available
<u><i>Senna covesii</i></u>	Cove's cassia	Fabaceae	perennial herb	Mar- Jun(Aug)	None	None	G5	S3	2B.2		1980- 01-01	No Photo Available
<u><i>Tetracoccus hallii</i></u>	Hall's tetracoccus	Picrodendraceae	perennial deciduous shrub	Jan-May	None	None	G4	S4	4.3		2001- 01-01	No Photo Available
<u><i>Wislizenia refracta</i></u> ssp. <u><i>refracta</i></u>	jackass-clover	Cleomaceae	annual herb	Apr-Nov	None	None	G5T5?	S1	2B.2		1994- 01-01	No Photo Available
<u><i>Xylorhiza cognata</i></u>	Mecca-aster	Asteraceae	perennial herb	Jan-Jun	None	None	G2	S2	1B.2	Yes	1980- 01-01	No Photo Available

Showing 1 to 30 of 30 entries

**Suggested Citation:**

California Native Plant Society, Rare Plant Program. 2023. Rare Plant Inventory (online edition, v9.5). Website <https://www.rareplants.cnps.org> [accessed 29 August 2023].

# IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

## Location

Riverside County, California



## Local office

Carlsbad Fish And Wildlife Office

☎ (760) 431-9440

📅 (760) 431-5901

2177 Salk Avenue - Suite 250

2177 BANK AVENUE SUITE 200  
Carlsbad, CA 92008-7385

NOT FOR CONSULTATION

# Endangered species

**This resource list is for informational purposes only and does not constitute an analysis of project level impacts.**

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species<sup>1</sup> and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries<sup>2</sup>).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

- 
1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).

2. [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.

The following species are potentially affected by activities in this location:

## Mammals

NAME	STATUS
Peninsular Bighorn Sheep <i>Ovis canadensis nelsoni</i> There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. <a href="https://ecos.fws.gov/ecp/species/4970">https://ecos.fws.gov/ecp/species/4970</a>	Endangered

## Birds

NAME	STATUS
Least Bell's Vireo <i>Vireo bellii pusillus</i> Wherever found There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. <a href="https://ecos.fws.gov/ecp/species/5945">https://ecos.fws.gov/ecp/species/5945</a>	Endangered
Southwestern Willow Flycatcher <i>Empidonax traillii extimus</i> Wherever found There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. <a href="https://ecos.fws.gov/ecp/species/6749">https://ecos.fws.gov/ecp/species/6749</a>	Endangered
Yuma Ridgway's Rail <i>Rallus obsoletus yumanensis</i> Wherever found No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/3505">https://ecos.fws.gov/ecp/species/3505</a>	Endangered

## Reptiles

NAME	STATUS
Coachella Valley Fringe-toed Lizard <i>Uma inornata</i> Wherever found There is <b>final</b> critical habitat for this species. Your location does not overlap the critical habitat. <a href="https://ecos.fws.gov/ecp/species/2069">https://ecos.fws.gov/ecp/species/2069</a>	Threatened

**Desert Tortoise** *Gopherus agassizii*

Threatened

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/4481>

## Fishes

NAME

STATUS

**Desert Pupfish** *Cyprinodon macularius*

Endangered

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/7003>

## Insects

NAME

STATUS

**Monarch Butterfly** *Danaus plexippus*

Candidate

Wherever found

No critical habitat has been designated for this species.

<https://ecos.fws.gov/ecp/species/9743>

## Flowering Plants

NAME

STATUS

**Coachella Valley Milk-vetch** *Astragalus lentiginosus* var.

Endangered

coachellae

Wherever found

There is **final** critical habitat for this species. Your location does not overlap the critical habitat.

<https://ecos.fws.gov/ecp/species/7426>

## Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

There are no critical habitats at this location.

You are still required to determine if your project(s) may have effects on all above listed species.

## Bald & Golden Eagles

Bald and golden eagles are protected under the [Bald and Golden Eagle Protection Act](#) and the [Migratory Bird Treaty Act](#).

Any person or organization who plans or conducts activities that may result in impacts to bald or golden eagles, or their habitats, should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

Additional information can be found using the following links:

- Eagle Management <https://www.fws.gov/program/eagle-management>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

**There are bald and/or golden eagles in your project area.**

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON

Bald Eagle *Haliaeetus leucocephalus*

Breeds Oct 15 to Aug 31

This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.

## Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and

understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

### Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

### Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

### Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

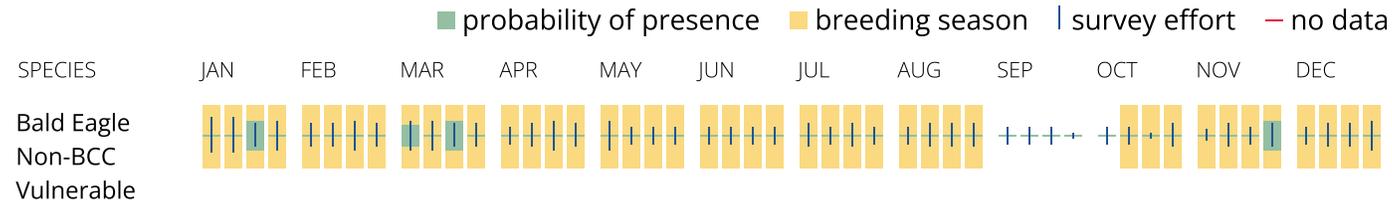
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

### No Data (—)

A week is marked as having no data if there were no survey events for that week.

### Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



### What does IPaC use to generate the potential presence of bald and golden eagles in my specified location?

The potential for eagle presence is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply). To see a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

### What does IPaC use to generate the probability of presence graphs of bald and golden eagles in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

### What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the [Eagle Act](#) should such impacts occur. Please contact your local Fish and Wildlife Service Field Office if you have questions.

## Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act<sup>1</sup> and the Bald and Golden Eagle Protection Act<sup>2</sup>.

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <https://www.fws.gov/program/migratory-birds/species>
- Measures for avoiding and minimizing impacts to birds <https://www.fws.gov/library/collections/avoiding-and-minimizing-incident-take-migratory-birds>
- Nationwide conservation measures for birds <https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf>

The birds listed below are birds of particular concern either because they occur on the [USFWS Birds of Conservation Concern](#) (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ [below](#). This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the [E-bird data mapping tool](#) (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found [below](#).

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON
<p><b>Bald Eagle</b> <i>Haliaeetus leucocephalus</i></p> <p>This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.</p>	Breeds Oct 15 to Aug 31

<b>Black Skimmer</b> <i>Rynchops niger</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/5234">https://ecos.fws.gov/ecp/species/5234</a>	Breeds May 20 to Sep 15
<b>Clark's Grebe</b> <i>Aechmophorus clarkii</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jun 1 to Aug 31
<b>Costa's Hummingbird</b> <i>Calypte costae</i> This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA <a href="https://ecos.fws.gov/ecp/species/9470">https://ecos.fws.gov/ecp/species/9470</a>	Breeds Jan 15 to Jun 10
<b>Gull-billed Tern</b> <i>Gelochelidon nilotica</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9501">https://ecos.fws.gov/ecp/species/9501</a>	Breeds May 1 to Jul 31
<b>Long-eared Owl</b> <i>asio otus</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/3631">https://ecos.fws.gov/ecp/species/3631</a>	Breeds Mar 1 to Jul 15
<b>Marbled Godwit</b> <i>Limosa fedoa</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/9481">https://ecos.fws.gov/ecp/species/9481</a>	Breeds elsewhere
<b>Tricolored Blackbird</b> <i>Agelaius tricolor</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/3910">https://ecos.fws.gov/ecp/species/3910</a>	Breeds Mar 15 to Aug 10
<b>Western Grebe</b> <i>aechmophorus occidentalis</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <a href="https://ecos.fws.gov/ecp/species/6743">https://ecos.fws.gov/ecp/species/6743</a>	Breeds Jun 1 to Aug 31
<b>Willet</b> <i>Tringa semipalmata</i> This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere

# Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

## Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is  $0.25/0.25 = 1$ ; at week 20 it is  $0.05/0.25 = 0.2$ .
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

## Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

## Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

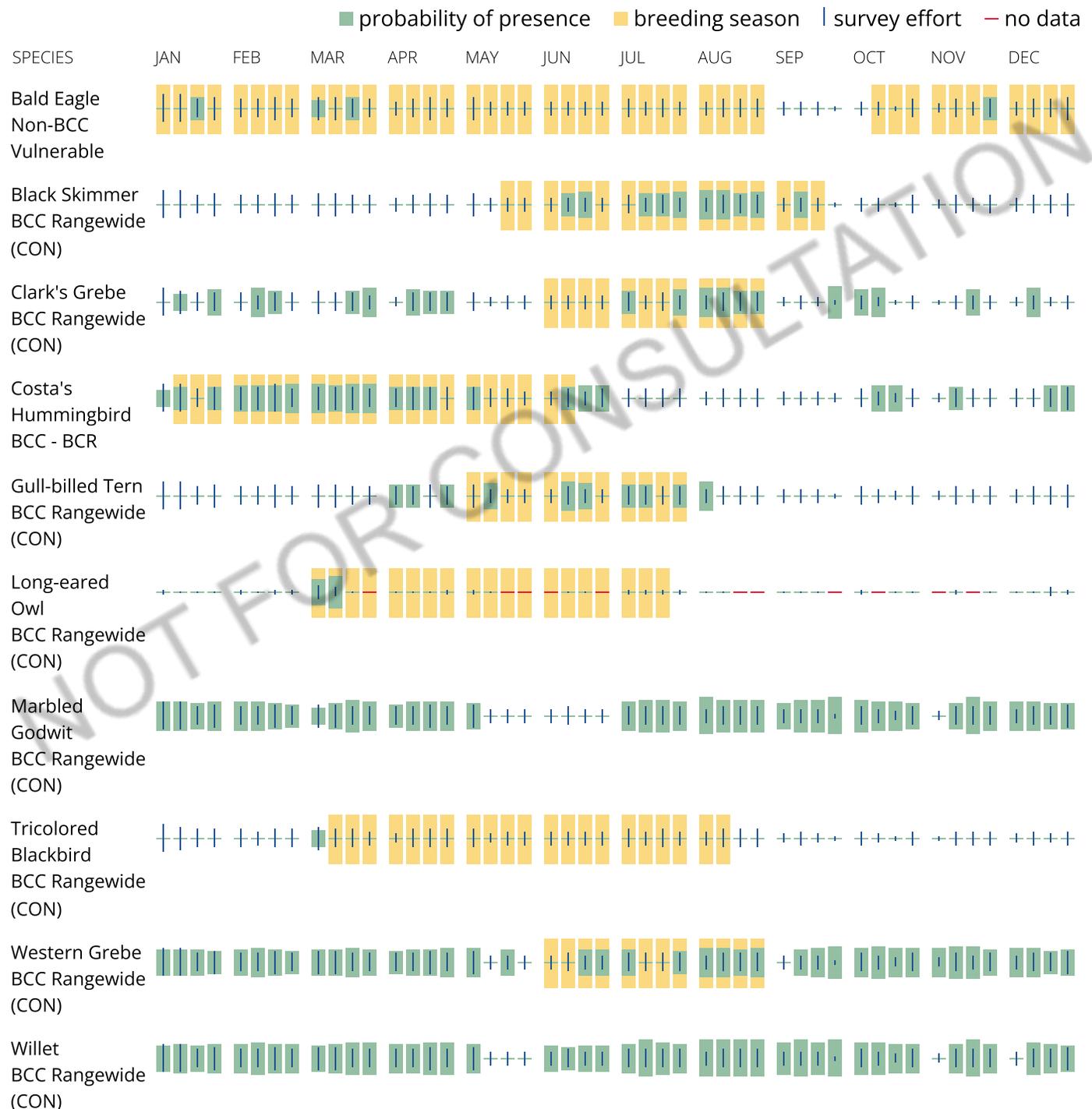
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

**No Data (-)**

A week is marked as having no data if there were no survey events for that week.

**Survey Timeframe**

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.



## **Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.**

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

## **What does IPaC use to generate the list of migratory birds that potentially occur in my specified location?**

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [Rapid Avian Information Locator \(RAIL\) Tool](#).

## **What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?**

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

## **How do I know if a bird is breeding, wintering or migrating in my area?**

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may query your location using the [RAIL Tool](#) and look at the range maps provided for birds in your area at the bottom of the profiles provided for each bird in your results. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

## **What are the levels of concern for migratory birds?**

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

### **Details about birds that are potentially affected by offshore projects**

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

### **What if I have eagles on my list?**

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

### **Proper Interpretation and Use of Your Migratory Bird Report**

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn

more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

## Facilities

### National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

This location overlaps the following National Wildlife Refuge lands:

LAND	ACRES
FARM SERVICE AGENCY INTEREST OF CA	199.99 acres

### Fish hatcheries

There are no fish hatcheries at this location.

### Wetlands in the National Wetlands Inventory (NWI)

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

## FRESHWATER EMERGENT WETLAND

[PEM1Fx](#)[PEM](#)[PEM1F](#)

## FRESHWATER FORESTED/SHRUB WETLAND

[PSS](#)[PSS7B3](#)[PSSA](#)[PSSCx](#)[PSSAx](#)

## FRESHWATER POND

[PUBHx](#)[PUSCx](#)[PABHx](#)

## LAKE

[L1UBH1](#)[L2US](#)[L2US2C](#)

## RIVERINE

[R2UBHx](#)[R5UBFx](#)[R5UBF](#)

A full description for each wetland code can be found at the [National Wetlands Inventory website](#)

**NOTE:** This initial screening does **not** replace an on-site delineation to determine whether wetlands occur. Additional information on the NWI data is provided below.

**Data limitations**

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

### **Data exclusions**

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

### **Data precautions**

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate Federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

NOT FOR CONSULTATION



# Appendix B

## **Representative Photographs**





**Photo 1 (E).** View of tamarisk thickets within the BSA.



**Photo 2 (SE).** View of CVSC, facing toward the Salton Sea.



**Photo 3 (N).** View of the CVSC, facing north. Recent signs of vegetation clearing are apparent along the outer banks of the channel, while mature riparian vegetation remains along the low-flow channel.



**Photo 4 (NW).** View of arrow weed thickets along the CVSC.



**Photo 5 (N):** View of the CVSC, facing upstream. Mature riparian vegetation is visible along the low-flow channel.



**Photo 6 (SE).** View at mouth of whitewater channel, at the shoreline of the Salton Sea.



**Photo 7 (NE).** View of the CVSC, with arrow weed scrub along the outer banks and mature riparian canopy along the low-flow channel.

Appendix C  
**Floral and Faunal Compendium**



# APPENDIX C. FLORAL AND FAUNAL COMPENDIA

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## Floral Compendium

### EUDICOTS

#### Scientific Name

#### Aizoaceae

*Sesuvium verrucosum*

#### Amaranthaceae

- \* *Amaranthus albus*
- Amaranthus powellii*

#### Areceaceae

- \* *Phoenix dactylifera*

#### Asteraceae

- Baccharis salicifolia*
- Baccharis salicina*
- Helianthus annuus*
- Isocoma acradenia* var. *acradenia*
- \* *Lactuca serriola*
- Pluchea odorata*
- Pluchea sericea*
- Xanthium strumarium*

#### Bataceae

*Batis maritima*

#### Boraginaceae

*Heliotropium curassavicum*

#### Chenopodiaceae

- Allenrolfea occidentalis*
- Atriplex argentea*
- Atriplex lentiformis*
- Atriplex polycarpa*
- \* *Bassia hyssopifolia*
- \* *Chenopodium murale*
- Suaeda nigra*
- Suaeda taxofolia*

#### Euphorbiaceae

- \* *Ricinus communis*

#### Common Name

#### Fig-Marigold Family

Western sea purslane

#### Amaranthe Family

tumbleweed  
Powell's amaranth

#### Aster Family

date palm

#### Aster Family

mule fat  
willow baccharis  
common sunflower  
alkali goldenbush  
prickly lettuce  
salt marsh fleabane  
arrowweed  
rough cocklebur

#### Saltwort Family

saltwort

#### Borage Family

salt heliotrope

#### Goosefoot Family

iodine bush  
silverscale saltbrush  
big saltbrush  
Allscale saltbrush  
five-hook bassia  
sowbane  
Bush seepweed  
woolly seablite

#### Spurge Family

castor bean

## EUDICOTS

Scientific Name	Common Name
<b>Fabaceae</b>	<b>Legume Family</b>
* <i>Caesalpinia mexicana</i>	Mexican holdback
<i>Parkinsonia florida</i>	blue paloverde
<i>Prosopis glandulosa</i> var. <i>torreyana</i>	mesquite
<b>Frankeniaceae</b>	<b>Frankenia Family</b>
<i>Frankenia salina</i>	alkali heath
<b>Lamiaceae</b>	<b>Mint Family</b>
* <i>Ocimum basilicum</i>	basil
<b>Malvaceae</b>	<b>Mallow Family</b>
<i>Malvella leprosa</i>	alkali mallow
<b>Portulacaceae</b>	<b>Purslane Family</b>
<i>Portulaca oleracea</i>	common purslane
<b>Polygonaceae</b>	<b>Buckwheat Family</b>
<i>Persicaria amphibia</i>	water smartweed
<i>Rumex acetosella</i>	common sheep sorrel
<b>Salicaceae</b>	<b>Willow Family</b>
<i>Populus fremontii</i> ssp. <i>fremontii</i>	Fremont cottonwood
<i>Salix gooddingii</i>	Goodding's willow
<i>Salix laevigata</i>	red willow
<b>Solanaceae</b>	<b>Nightshade Family</b>
<i>Lycium andersonii</i>	Anderson thornbush
<b>Tamaricaceae</b>	<b>Tamarisk Family</b>
<i>Tamarix aphylla</i>	Athel tamarisk
<i>Tamarix chinensis</i>	Chinese tamarisk

## MONOCOTYLEDONS

Scientific Name	Common Name
<b>Arecaceae</b>	<b>Palm Family</b>
<i>Washingtonia robusta</i>	Mexican fan palm
<b>Cyperaceae</b>	<b>Sedge Family</b>
<i>Bolboschoenus maritimus</i>	alkali bulrush
<i>Schoenoplectus pungens</i>	Common three-square bulrush
<b>Poaceae</b>	<b>Grass Family</b>
* <i>Arundo donax</i>	giant reed
* <i>Crypsis alopecuroides</i>	Foxtail prickleglass
* <i>Cynodon dactylon</i>	Bermuda grass
<i>Leptochloa fusca</i> ssp. <i>uninveria</i>	Mexican sprangletop
* <i>Phragmites australis</i>	common reed

## MONOCOTYLEDONS

**Scientific Name**

**Typhaeaceae**

*Typha domingensis*

**Common Name**

**Grass Family**

narrowleaf cattail

## FERNS

**Scientific Name**

**Equisetaceae**

*Equisetum arvense*

**Common Name**

**Horsetail Family**

common horsetail

# Faunal Compendium

## AMPHIBIANS

### Scientific Name

#### ANURA

##### Raniidae

*Lithobates catesbeianus*

### Common Name

#### Frogs and Toads

##### True Frogs

American bullfrog

## REPTILES

### LACERTILIA

#### Phrynosomatidae

*Sceloporus magister*

*Uta stansburiana* ssp. *elegans*

### LIZARDS

#### Zebratail, Earless, Horned, Spiny, Fringe-Toed Lizards

desert spiny lizard

California side-blotched lizard

## BIRDS

### Scientific Name

#### ANSERIFORMES

##### Anatidae

*Anas platyrhynchos*

*Spatula clypeata*

*Spatula cyanoptera*

#### GRUIFORMES

##### Rallidae

*Fulica americana*

#### PELECANIFORMES

##### Pelecanidae

*Pelecanus erythrorhynchos*

*Pelecanus occidentalis* ssp. *californicus*

##### Ardeidae

*Ardea alba*

*Ardea herodias*

*Bubulcus ibis*

*Butorides virescens*

#### ACCIPITRIFORMES

##### Cathartidae

*Cathartes aura*

##### Strigidae

*Asio flammeus*

### Common Name

#### Ducks

mallard

northern shoveler

cinnamon teal

#### Rails

American coot

#### Pelicans

American white pelican

brown pelican

#### Herons

great egret

great blue heron

cattle egret

green heron

#### New World Vultures

turkey vulture

#### True Owls

short-eared owl

# BIRDS

## Scientific Name

## Common Name

### FALCONIFORMES

#### Falconidae

#### Falcons

*Falco sparverius*

American kestrel

### GALLIFORMES

#### Odontophoridae

#### New World Quails

*Callipepla californica*

California quail

### CUCULIFORMES

#### Cuculidae

#### Cuckoos

*Geococcyx californianus*

greater roadrunner

### CHARADRIIFORMES

#### Charadriidae

#### Plovers

*Recurvirostra americana*

American avocet

#### Charadriidae

#### Plovers

*Charadrius vociferus*

killdeer

#### Laridae

#### Gulls and Terns

*Hydroprogne caspia*

Caspian tern

*Larus* sp.

gull

*Sterna forsteri*

Forster's tern

### COLUMBIFORMES

#### Columbidae

#### Pigeons and Doves

\* *Columba livia*

rock pigeon

\* *Columbia talpacoti*

ruddy ground dove

*Zenaida macroura*

mourning dove

### APODIFORMES

#### Trochilidae

#### Hummingbirds

*Archilochus alexandriq*

black-chinned hummingbird

### PASSERIFORMES

#### Laniidae

#### Shrikes

*Lanius borealis*

northern shrike

#### Cardinalidae

#### Cardinals

*Passerina caerulea*

blue grosbeak

#### Corvidae

#### Jays and Crows

*Corvus brachyrhynchos*

American crow

# BIRDS

**Scientific Name**

**Hirundinidae**

*Stelgidopteryx serripennis*

**Remizidae**

*Auriparus flaviceps*

**Icteridae**

*Quiscalus mexicanus*

**Tyrannidae**

*Sayornis nigricans*

*Tyrannus vociferans*

**Poliopitilidae**

*Poliopitila melanura*

**Passerellidae**

*Melospiza aberti*

*Melospiza crissalis*

*Pooecetes gramineus*

**Common Name**

**Swallows**

Northern rough-winged swallow

**Old World Flycatchers, Passerines and Songbirds**

verdin

**New World Blackbirds**

great-tailed grackle

**Tyrant Flycatchers**

black phoebe

Cassin's kingbird

**Gnatcatchers and Gnatwrens**

black-tailed gnatcatcher

**New World Sparrows**

Abert's towhee

California towhee

vesper sparrow

# MAMMALS

**Scientific Name**

**Canidae**

*Canis latrans*

**Common Name**

**Canines**

coyote

Appendix D  
**Special-Status Species**



## **D-1 Special-Status Plant Species**



# APPENDIX D-1. SPECIAL-STATUS PLANT SPECIES

Common Name <i>Scientific Name</i>	Sensitivity Status <sup>1</sup>	Flowering Period	Preferred Habitat/Known Elevation and Distribution <sup>2</sup>	Presence/Potential to Occur Within Biological Study Area
<b>BRYOPHYTES (Mosses)</b>				
<b>Asteraceae (Sunflower Family)</b>				
singlehorl burrobrush <i>Ambrosia monogyra</i>	Federal: None State: None Local: 2B.2	Aug.-Nov.	Chaparral, coastal scrub, desert dunes/sandy; Dry, sunny grasslands on disturbed sites. Elevation range extends from 10-500 meters.	<b>Low Potential:</b> This species was observed within 1 mile of the BSA in 1922; has a low potential to occur within the BSA due to a lack of suitable habitat.
<b>Euphorbiaceae (Spurge Family)</b>				
California ditaxis <i>Ditaxis serrata</i> var. <i>californica</i>	Federal: None State: None Local: 2B.2	Oct.-Mar.	Sonoran Desert scrub. Elevation range extends from 30-1000 meters.	<b>Moderate Potential:</b> This species has a moderate potential to occur within the BSA due to the presence of marginal desert scrub habitat.
<b>Fabaceae (Legume Family)</b>				
Coachella Valley milk-vetch <i>Astragalus lentiginosus</i> var. <i>coachellae</i>	Federal: None State: None Local: 1B.2 CVMSHCP	Feb.-May	Sandy flats, washes, outwash fans, sometimes on dunes. Elevation range extends from 40-655 m.	<b>Moderate Potential:</b> This species has a moderate potential to occur within the BSA due to the presence of sandy substrate along the CVSC.
<b>Loasaceae (Loasa Family)</b>				
Long leaved sandpaper plant <i>Petalonyx linearis</i>	Federal: None State: None Local: 2B.3	Mar.-May.	Mojavean desert scrub, Sonoran Desert scrub. Sandy or rocky canyons Elevation range extends from -30-1,090 meters.	<b>Low Potential:</b> This species has a low potential to occur within the BSA due to a lack of appropriate rocky substrate.
<b>Nyctaginaceae (Four O'clock Family)</b>				
chaparral sand-verbena <i>Abronia villosa</i> var. <i>aurita</i>	Federal: None State: None Local: 1B.1	Jan.-Sep.	Chaparral, coastal scrub, and desert dunes/sandy areas. Elevation range extends from 0-1,600 meters.	<b>Moderate Potential:</b> This species has a moderate potential to occur within the BSA due to the presence of sandy substrate along the CVSC.

Common Name <i>Scientific Name</i>	Sensitivity Status <sup>1</sup>	Flowering Period	Preferred Habitat/Known Elevation and Distribution <sup>2</sup>	Presence/Potential to Occur Within Biological Study Area
<b>Plantaginaceae</b> <b>(Plantain Family)</b>				
purple stemodia <i>Stemodia durantifolia</i>	Federal: None State: None Local: 2B.1	Jan.-Jan.	Sandy, mesic sites in Sonoran Desert scrub. Elevation range extends from 35-385 meters.	<b>Moderate Potential:</b> This species has a moderate potential to occur within the BSA due to the presence of riparian habitat along the CVSC.
<b>Polygonaceae</b> <b>(Buckwheat Family)</b>				
Slender cottonheads <i>Nemacaulis denudata</i> var. <i>gracilis</i>	Federal: None State: None Local: 2B.2	Apr.-May	Coastal dunes, desert dunes, Sonoran Desert scrub. Elevation range extends from -45-745 meters.	<b>Moderate Potential:</b> This species has a moderate potential to occur within the BSA due to the presence of marginal sandy desert scrub habitat. Additionally, it was documented within 1-mile of the BSA in 1922.

<sup>1</sup> Sensitivity Status**Local**

## CRPR

*California Rare Plant Ranks:*

California Rare Plant Rank 1A	Plants presumed extirpated in California and either rare or extinct elsewhere
California Rare Plant Rank 1B	Plants rare, threatened, or endangered in California and elsewhere
California Rare Plant Rank 2A	Plants presumed extirpated in California but common elsewhere
California Rare Plant Rank 2B	Plants rare, threatened, or endangered in California, but common elsewhere

*Threat Code extensions and their meanings:*

- 0.1-Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- 0.2-Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
- 0.3-Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

CVMSHCP *Coachella Valley Multiple Species Habitat Conservation Plan covered species*<sup>2</sup> Sources for Preferred Habitat:Calflora. 2023. Information on Wild California Plants. Available online at: <https://www.calflora.org/>. Accessed on September 15, 2023.

CDFW. 2023. California Natural Diversity Database (CNDDDB). RareFind, Version 5.0 (Commercial Subscription). Sacramento, California: CDFW, Biogeographic Data Branch.

Available online at: <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>. Accessed on September 15, 2023.

Source: ESA, 2023.

## **D-2 Special-Status Wildlife Species**



# APPENDIX D-2. SPECIAL-STATUS WILDLIFE SPECIES

Common Name <i>Scientific Name</i>	Sensitivity Status <sup>1</sup>	Preferred Habitat/Known Distribution <sup>2</sup>	Presence/Potential to Occur Within Biological Study Area
<b>FISH</b>			
Desert pupfish <i>Cyprinodon macularius</i>	Federal: FE State: SE, SA, S1 Local: CVMSHCP	Occurs in the Salton Sea Basin and Colorado river delta, and the Laguna Salada basin in Baja Calif. It is also known to occur in agricultural drains around the Salton Sea.	<b>High Potential:</b> This species is known to occur in adjacent agricultural canals that drain into the CVSC.
Razorback sucker <i>Xyrauchen texanus</i>	Federal: FE State: SE, SA, FP Local: None	Flowing waters.	<b>Low Potential:</b> The species was documented in 1955 (CDFW 2023); however, the modern morphology of the CVSC (i.e., narrow and relatively shallow low-flow channel, and slow-moving waters) suggest that this species no longer utilizes the BSA.
<b>REPTILES</b>			
Flat-tailed horned lizard <i>Phrynosoma mcallii</i>	Federal: None State: SSC, SA Local: CVMSHCP	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>Low Potential:</b> This species was documented within 1 mile of the BSA in 1908 (CDFW 2023), and fragmented desert scrub vegetation is present in areas; however, they do not support enough sandy substrate to support burrowing activities.
Coachella Valley fringe-toed lizard <i>Uma inornata</i>	Federal: FT State: SE, SA, S1 Local: CVMSHCP	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>Low Potential:</b> This species was documented within the BSA in 1959; however, appropriate windblown sand is not present within the BSA.
Desert tortoise <i>Gopherus agassizii</i>	Federal: FT State: ST, SA, S2S3 Local: CVMSHCP	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.	<b>Low Potential:</b> Contiguous desert scrub habitat does not occur within the BSA.

Common Name Scientific Name	Sensitivity Status <sup>1</sup>	Preferred Habitat/Known Distribution <sup>2</sup>	Presence/Potential to Occur Within Biological Study Area
<b>BIRDS</b>			
Great egret <i>Ardea alba</i>	Federal: None State: SA, S4 Local: None	This species is found near marshes, tide-flats, irrigated pastures, and margins of rivers and lakes. Rookery sites are typically located in tall trees near foraging areas where large nests are built.	<b>Present:</b> Species was observed within the BSA, along the CVSC.
Great blue heron <i>Ardea herodias</i>	Federal: None State: S4 Local: None	This species is found along areas such as marshes, lake margins, tide-flats, rivers and streams, and wet meadows. Rookery sites are typically located in tall trees, cliffsides, and sequestered spots on marshes near foraging areas.	<b>Present:</b> Species was observed within the BSA, along the CVSC.
Burrowing owl <i>Athene cunicularia</i>	Federal: BCC State: SCE, SSC, S3 Local: CVMSHCP	Inhabits coastal prairie, coastal scrub, Great Basin scrub, Mojavean desert scrub, Sonoran Desert scrub, annual and perennial grasslands, bare ground, and disturbed habitats characterized by low-growing vegetation and suitable mammal burrows.(e.g., California ground squirrel).	<b>High Potential:</b> Suitable foraging and breeding habitat is present throughout much of the BSA. Additionally, this species has been documented along the CVSC and within 1-mile of the BSA (CDFW and USFWS 2023).
Ferruginous hawk <i>Buteo regalis</i>	Federal: BCC State: WL, S3S4 Local: None	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats.	<b>Moderate Potential:</b> Marginal, fragmented desert scrub habitat occurs within the BSA.
Yellow-billed cuckoo <i>Coccyzus americanus ssp. occidentalis</i>	Federal: FT State: SE Local: None	Riparian forest	<b>Low Potential:</b> Marginal riparian habitat occurs, and this species was historically documented along the CVSC (USFWS 2023). However, existing habitat is heavily degraded and is not expected to support the species, currently.
Snowy egret <i>Egretta thula</i>	Federal: None State: SA, S4 Local: None	Marsh and swamp, meadow and seep, riparian forest, riparian woodland and wetland.	<b>High Potential:</b> Suitable marsh/open water habitat occurs within the BSA, along the CVSC and shoreline of the Salton Sea.

Common Name <i>Scientific Name</i>	Sensitivity Status <sup>1</sup>	Preferred Habitat/Known Distribution <sup>2</sup>	Presence/Potential to Occur Within Biological Study Area
Southwestern willow flycatcher <i>Empidonax traillii extimus</i>	Federal: FE State: SE, S1 Local: CVMSHCP	For nesting, species requires dense riparian habitats (cottonwood/willow and tamarisk vegetation) with microclimatic conditions dictated by the local surroundings. Saturated soils, standing water, or nearby streams, pools, or cienegas are a component of nesting habitat that also influences the microclimate and density vegetation component. Habitat not suitable for nesting may be used for migration and foraging. Recurrent flooding and a natural hydrograph are important to withstand invading exotic species (tamarisk).	<b>Low Potential:</b> Marginal riparian habitat occurs along the CVSC. However, existing habitat is heavily degraded and is not expected to support the species, currently.
Prairie falcon <i>Falco mexicanus</i>	Federal: BCC State: WL, S4 Local: None	Inhabits dry, open terrain, either level or hilly such as grassland, rangeland, agriculture, desert scrub, and alpine meadows. Breeding sites are typically located on cliffs with a large foraging range, that includes marshlands and ocean shores.	<b>Moderate Potential:</b> Marginal, fragmented desert scrub habitat occurs within the BSA.
Gull-billed tern <i>Gelochelidon nilotica</i>	Federal: BCC State: SSC, S1 Local: None	Nests on low, sandy islets. Known to feed on fishes at mouth of Colorado River and on grasshoppers in alfalfa fields. Only known breeding colonies at San Diego Bay and the Salton Sea.	<b>High Potential:</b> Suitable marsh/open water habitat occurs within the BSA, along the CVSC and shoreline of the Salton Sea.
Yellow-breasted chat <i>Icteria virens</i>	Federal: None State: SSC, S3 Local: CVMSHCP	Known to occur with riparian forest, scrub, and woodland habitats. 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 feet of ground.	<b>Moderate Potential:</b> Marginal riparian habitat occurs within the BSA, along the CVSC. Additionally, it has been detected within 1 mile of the BSA.
Loggerhead shrike <i>Lanius ludovicianus</i>	Federal: BCC State: SSC, S4 Local: None	Found in broken woodlands, savannah, pinyon-juniper, Joshua tree, riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	<b>Moderate Potential:</b> Marginal, fragmented desert scrub habitat occurs within the BSA.
Black-crowned night heron <i>Nycticorax nycticorax</i>	Federal: BCC State: SA, S4 Local: None	Marsh and swamp, riparian woodland and wetland.	<b>High Potential:</b> Suitable marsh/open water habitat occurs within the BSA, along the CVSC and shoreline of the Salton Sea.

Common Name Scientific Name	Sensitivity Status <sup>1</sup>	Preferred Habitat/Known Distribution <sup>2</sup>	Presence/Potential to Occur Within Biological Study Area
American white pelican <i>Pelecanus erythrorhynchos</i>	Federal: None State: SA, S3 Local: None	Marsh and swamp	<b>Present:</b> Species was observed within the BSA, along the shoreline of the Salton Sea.
Brown pelican <i>Pelecanus occidentalis ssp. californicus</i>	Federal: None State: SA, S3 Local: None	Marsh and swamp	<b>Present:</b> Species was observed within the BSA, along the shoreline of the Salton Sea.
Summer tanager <i>Piranga rubra</i>	Federal: None State: SSC, S1 Local: CVMSHCP	Occurs in valley foothill hardwood, valley foothill hardwood-conifer, desert riparian, palm oasis, pinyon-juniper and lower montane habitats	<b>High Potential:</b> Suitable riparian habitat occurs within the BSA, along the CVSC.
White-faced ibis <i>Plegadis chihi</i>	Federal: None State: WL Local: None	Wading bird that seeks open, shallow, aquatic bodies such as lagoons, wetlands, ephemeral ponds, and stock ponds to forage. Nests in marsh growth (cattails) or low shrubs and trees above water.	<b>High Potential:</b> Suitable marsh/open water habitat occurs within the BSA, along the CVSC and shoreline of the Salton Sea.
Black-tailed gnatcatcher <i>Polioptila melanura</i>	Federal: None State: WL, S3S4 Local: None	Primarily inhabits wooded desert wash and desert scrub habitats; also occurs in Nests in desert washes containing mesquite, palo verde, ironwood, and acacia trees.	<b>Present:</b> Species was observed within the BSA, along Polk street.
Vermilion flycatcher <i>Pyrocephalus rubinus ssp. flammeus</i>	Federal: None State: SSC Local: None	Inhabits riparian areas and scrub in the southwestern USA.	<b>High Potential:</b> Suitable riparian habitat occurs within the BSA, along the CVSC.
Yuma Ridgway's rail <i>Rallus obsoletus ssp. yumanensis</i>	Federal: FE State: ST, FP, S1S2 Local: CVMSHCP	Freshwater marsh, swamps, wetlands. Nests in fresh-water marshes along the Colorado River and along the south and east ends of the Salton Sea.	<b>High Potential:</b> Suitable marsh habitat is present along the CVSC, within the BSA. Additionally, this species was observed along the CVSC, at the shoreline of the Salton Sea.
Black skimmer <i>Rynchops niger</i>	Federal: BCC State: SSC, S2 Local: None	Inhabits coastal beaches and islands near oceans or Gulf of Mexico; occasionally seen inland, especially in sites such as Salton Sea.	<b>High Potential:</b> Suitable marsh/open water habitat occurs within the BSA, along the CVSC and shoreline of the Salton Sea.
Yellow warbler <i>Setophaga petechia</i>	Federal: None State: SSC, S3S4 Local: CVMSHCP	Found in riparian forest, scrub, and woodland habitats. Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	<b>High Potential:</b> Suitable riparian habitat occurs within the BSA, along the CVSC.

<b>Common Name</b> <b>Scientific Name</b>	<b>Sensitivity Status<sup>1</sup></b>	<b>Preferred Habitat/Known Distribution<sup>2</sup></b>	<b>Presence/Potential to Occur Within Biological Study Area</b>
Crissal thrasher <i>Toxostoma crissali</i>	Federal: None State: SSC, S3 Local: CVMSHCP	Inhabits desert washes and riparian thickets in the southwest.	<b>High Potential:</b> Suitable riparian habitat occurs within the BSA, along the CVSC.
Le Conte's thrasher <i>Toxostoma lecontei</i>	Federal: BCC State: SSC, S3 Local: CVMSHCP	Found in desert wash, Mojavean desert scrub, Sonoran Desert scrub. 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>Moderate Potential:</b> Marginal, fragmented desert scrub habitat occurs within the BSA.
Least Bell's vireo <i>Vireo bellii pusillus</i>	Federal: FE State: SE, SSC, S2 Local: CVMSHCP	Known to occur in riparian forest, scrub, and woodland habitats. Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2,000 feet. Highly territorial and nests primarily in willow, mule fat, or mesquite habitats.	<b>High Potential:</b> Suitable riparian habitat occurs within the BSA, along the CVSC.
Gray vireo <i>Vireo vicinior</i>	Federal: None State: SSC Local: CVMSHCP	Pinyon-juniper and juniper woodland, and chamise-redshank chaparral.	<b>Low Potential:</b> Suitable scrub habitat does not occur within the BSA.
<b>MAMMALS</b>			
Townsend's big-eared bat <i>Corynorhinus townsendii</i>	Federal: None State: S3, SA Local: None	Broadleaved upland forest, chaparral, chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, lower montane coniferous forest, meadow and seep, Mojavean desert scrub, riparian forest, riparian woodland, Sonoran desert scrub, Sonoran thorn woodland, upper montane coniferous forest and valley and foothill grassland.	<b>Moderate Potential:</b> Marginal riparian habitat is present within the BSA, along the CVSC.
Western yellow bat <i>Lasiurus xanthinus</i>	Federal: None State: SSC, S3 Local: CVMSHCP	Known only in Los Angeles and San Bernardino Counties south to the Mexican border. This species has been recorded below 600 m (2000 ft) in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts primarily in trees, including under palm trees, and forages for insects over water and among trees.	<b>Moderate Potential:</b> Marginal riparian habitat is present within the BSA, along the CVSC.

<b>Common Name</b> <b>Scientific Name</b>	<b>Sensitivity Status<sup>1</sup></b>	<b>Preferred Habitat/Known Distribution<sup>2</sup></b>	<b>Presence/Potential to Occur Within Biological Study Area</b>
Colorado Valley woodrat <i>Neotoma albigula</i> ssp. <i>venusta</i>	Federal: None State: SSC, S3 Local: CVMSHCP	Sonoran desert scrub	<b>Moderate Potential:</b> Marginal desert scrub habitat for this species occurs within the BSA.
Peninsular bighorn sheep DPS <i>Ovis canadensis nelsoni</i> pop. 2	Federal: FE State: ST, FP, S2 Local: CVMSHCP	Eastern slopes of the Peninsular Ranges below 4,600 ft. elevation. This DPS of the subspecies inhabits the Peninsular Ranges in southern California from the San Jacinto Mountains south to the US-Mexico International Border. Optimal habitat includes steep walled canyons and ridges bisected by rocky or sandy washes, with available water.	<b>Low Potential:</b> suitable steep-walled canyons do not occur within the BSA.
Palm Springs pocket mouse <i>Perognathus longimembris</i> ssp. <i>bangsi</i>	Federal: None State: SSC, S1 Local: CVMSHCP	Desert riparian, desert scrub, desert wash and sagebrush habitats. Most common in creosote-dominated desert scrub. Rarely found on rocky sites. Occurs in all canopy coverage classes.	<b>Moderate Potential:</b> Marginal desert scrub habitat for this species occurs within the BSA.
Coachella Valley round-tailed ground squirrel <i>Spermophilus tereticaudus</i> ssp. <i>chlorus</i>	Federal: None State: SSC Local: CVMSHCP	Desert scrub associated with sand fields and dune formations.	<b>Low Potential:</b> Appropriate sand fields and dune formations are not present within the BSA.
American badger <i>Taxidea taxus</i>	Federal: None State: SSC, S3 Local: None	Found in a variety of habitats, including alkali marsh, desert wash, Great Basin scrub, marsh and swamp, meadow and seep, Mojavean desert scrub, riparian scrub, riparian woodland, valley and foothill grassland. 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 to dig burrows. Preys on burrowing rodents.	<b>Moderate Potential:</b> Marginal desert scrub habitat for this species occurs within the BSA.
Palm Springs round-tailed ground squirrel <i>Xerospermophilus tereticaudus</i> ssp. <i>chlorus</i>	Federal: None State: SSC, S2 Local: None	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 grassy areas necessary for foraging for this species are not present within the BSA.

## <sup>1</sup> Sensitivity Status

### Federal

FE	<i>Federally Endangered</i>
FT	<i>Federally Threatened</i>

### State

FP	<i>Fully Protected</i>
SCE	<i>State Candidate Endangered</i>
SE	<i>State Endangered</i>
SA	<i>Special Animal</i>
ST	<i>State Threatened</i>
SSC	<i>State Species of Special Concern</i>
WL	<i>Watch List</i>

The California Natural Diversity Database (CNDDDB) uses the same ranking methodology originally developed by The Nature Conservancy and now maintained and recently revised by NatureServe. The state rank (S-rank) refers to the imperilment status only within California's state boundaries. It is a reflection of the overall status of an element through its state range. The state rank represents a letter + number score that reflects a combination of Rarity, Threat, and Trend factors, with weighting being heavier on Rarity than the other two.

- S1 = Critically Imperiled - Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of some factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.
- S2 = Imperiled - Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.
- S3 = Vulnerable - Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state.
- S4 = At a fairly low risk of extirpation in the state due to an extensive range and/or many populations or occurrences, but with possible cause for some concern as a result of local recent declines, threats, or other factors
- SX SX = expresses the ranks as a range of values: e.g., S3S4 indicates the rank is somewhere between S3 and S4.

### Local

*Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP)*

## <sup>2</sup> Sources for Preferred Habitat:

CDFW. 2023a. California Natural Diversity Database (CNDDDB). RareFind, Version 5.0 (Commercial Subscription). Sacramento, California: CDFW, Biogeographic Data Branch. Available online at: <https://www.wildlife.ca.gov/Data/CNDDDB/Maps-and-Data>. Accessed on September 15, 2023.

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Source: ESA, 2023.