

# **HAYSTACK CHANNEL IMPROVEMENT PROJECT**

## **Biological Resources Assessment & Coachella Valley Multiple Species Habitat Conservation Plan Compliance Report**

### **CITY OF PALM DESERT, CALIFORNIA**



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## 1.0 INTRODUCTION

At the request of Terra Nova Planning & Research (Terra Nova), this biological resource assessment report (BRAR) was prepared by WSP USA Environment & Infrastructure Inc. (WSP) for the proposed Haystack Channel Improvement Project (project site/project), located in the city of Palm Desert, Riverside County, California. Information contained herein is intended to be used for compliance with the Coachella Valley Multiple Species Habitat Conservation Plan (CVMSHCP), California Environmental Quality Act (CEQA), as well as federal and California Endangered Species Acts.

## 2.0 PROJECT LOCATION / DESCRIPTION

Terra Nova is preparing California Environmental Quality Act (CEQA) documentation for the proposed improvements to the Haystack Channel Aligned north of Haystack Road, the Haystack Channel provides an outlet for a drainage area defined by Highway 74, as far south as Indian Hills Way, Andreas Canyon Drive, Carriage Trail, and Irontree Drive and as far east as Portola Road. Haystack Channel is a combination of improved and unimproved channel reaches that begins at Highway 74 and flows east to Portola Avenue and beyond. (Appendix A – Figure 1). Specifically, the project site is located within Section 29; Township 5 South; Range 5 East as shown on the United States Geological Survey (USGS) *Rancho Mirage*, California, 7.5-minute topographic quadrangle (Appendix A – Figure 2). The geographic coordinates near the approximate center of the project area are 33°49'05.00" north latitude and 116°26'03.28" west longitude. The elevation of the project site ranges from approximately 317 to 334 feet above mean sea level.

1. Highway 74 to Alamo Drive: This reach of channel is characterized by a shallow swale located within a green belt. Two small diameter culverts cross under Alamo Drive at the low end of the reach.
2. Alamo Drive to Heliotrope Drive: The middle reach of the project area, this length of channel is improved, and grass lined. Storm drain outlets are located on both sides of this channel reach that vary in size and geometry. A minimally functional subsurface nuisance water drain composed of 24-inch grated inlets, sporadic clean outs, and an 8-inch diameter subsurface pipeline runs the length of this channel reach. Four 48-inch diameter culverts cross under Heliotrope Drive at the downstream end of the reach.
3. Heliotrope Drive to Portola Avenue: The final reach of the Haystack Channel is generally unimproved. There is historic evidence of a prismatic channel that has succumbed to bank erosion. There is also evidence of decreased capacity related to long-term maintenance activities. Two existing (visible) storm drain inlets are located along the south side of this reach. Each inlet includes minimal improvements. The downstream end of this reach of the channel is Portola Avenue. Surface and subsurface improvements at Portola Avenue indicate the roadway floods during larger return frequency storms.

The low-level crossing at Portola Avenue is a multiple cell reinforced concrete box culvert that is currently operating at greatly diminished capacity due to sedimentation.

The Project portion of the subject Haystack Channel extends from a short distance west of Alamo Road to and inclusive of the aforementioned Portola Avenue culverts. On the west end of the Project, planned improvements will begin immediately east of Alamo Road with the removal of the existing nuisance water drain system located under the channel invert (channel centerline). This system will be replaced by four (4) underground, 48-inch diameter infiltration pipe and gravel bed with manhole access into each. The Project will also install underground chambers at each

of the four storm drain outlet within this reach of the channel. Damaged irrigation will be removed and replaced. Existing trees and shrubs will be avoided to the greatest extent practicable, however, some loss or relocation of in-channel vegetation is expected. Disturbed portions of the grass-lined channel will be restored.

East of Heliotrope Drive the culverts passing upstream flows under Heliotrope Drive will discharge into a planned riprap energy dissipater and thence onto the native, soft bottom bed of the channel. The channel side slopes in this reach and extending to Portola Avenue will be regraded and shaped and will be lined with rip-rap to a height of approximately 8 feet above the channel bed. A sub-grade side slope rip-rap cut-off wall will extend slope protection approximately 8 feet below the channel bed elevation. Approximately 39 to 68 feet of soft channel bottom will remain, similar to existing conditions. Existing trees and shrubs will be avoided to the greatest extent practicable, however, some loss or relocation of in-channel vegetation is expected.

### **3.0 REGULATORY FRAMEWORK**

#### **3.1 Federal**

*Endangered Species Act (ESA)* – The United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service are the designated federal agencies accountable for administering the ESA. The ESA defines species as “endangered” or “threatened” and provides regulatory protection at the federal level.

- Section 9 of the ESA prohibits the “take” of listed (i.e., endangered or threatened) species. The ESA’s definition of take is “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct.” Recognizing that take cannot always be avoided, Section 10(a) includes provisions for take that is incidental to, but not the purpose of, otherwise lawful activities. Specifically, Section 10(a) (1) (A) permits (authorized take permits) are issued for scientific purposes. Section 10(a) (1) (B) permits (incidental take permits) are issued for the incidental take of listed species that does not jeopardize the species.
- Section 7 (a) (2) requires federal agencies to evaluate the proposed project with respect to listed or proposed listed, species and their respective critical habitat (if applicable). Federal agencies must employ programs for the conservation of listed species and are prohibited from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its “critical habitat.”

As defined by the ESA, “individuals, organizations, states, local governments, and other non-federal entities are affected by the designation of critical habitat only if their actions occur on federal lands, require a federal permit, license, or other authorization, or involve federal funding.

Section 10(a) of the ESA authorizes the issuance of incidental take permits and establishes standards for the content of habitat conservation plans (see Section 3.3 below).

*Migratory Bird Treaty Act (MBTA)* – Treaties signed by the U.S., Great Britain, Mexico, Japan, and the countries of the former Soviet Union make it unlawful to pursue, capture, kill, and/or possess, or attempt to engage in any such conduct to any migratory bird, nest, egg or parts thereof listed in the document. As with the ESA, the MBTA also allows the Secretary of the Interior to grant permits for the incidental take of these protected migratory bird species.

*National Environmental Policy Act (NEPA)* – If portions of a proposed project could fall under the jurisdiction of a federal agency (i.e., U.S. Bureau of Reclamation, U.S. Army Corps of Engineers) they are subject to environmental review pursuant to NEPA. NEPA establishes certain criteria that must be adhered to for any project that is “financed, assisted, conducted or approved” by a

federal agency. The federal lead agency is required to “determine whether the proposed action will significantly affect the quality of the human environment.”

*Section 404 of the Clean Water Act* – This section of the Clean Water Act, administered by the U.S. Army Corps of Engineers (USACE), regulates the discharge of dredged and fill material into “waters of the United States.” The USACE has created a series of nationwide permits that authorize certain activities within waters of the U.S. provided that the proposed activity does not exceed the impact threshold of 0.5 acre for nationwide permits, takes steps to avoid impacts to wetlands and other designated U.S. waters where practicable, minimizes potential impacts to wetlands, and provides compensation for any remaining, unavoidable impacts through activities to restore or create wetlands. For projects that exceed the threshold for nationwide permits, individual permits under Section 404 can be issued. An inspection of the project site to determine presence or absence of potential jurisdictional wetlands and waters was conducted during the assessment for this project.

### **3.2 State**

*California Endangered Species Act (CESA)* – This legislation is similar to the federal ESA, but it is administered by the California Department of Fish and Wildlife (CDFW – formerly Department of Fish and Game). The CDFW is authorized to enter into “memoranda of understanding” with individuals, public agencies, and other institutions to import, export, take, or possess state-listed species for scientific, educational, or management purposes. CESA prohibits the take of state-listed species except as otherwise provided in state law. Unlike the federal ESA, the CESA applies the take prohibitions to species currently petitioned for state-listing status (candidate species). State lead agencies are required to consult with CDFW to ensure that actions are not likely to jeopardize the continued existence of any state-listed species or result in the destruction or degradation of occupied habitat.

*California Environmental Quality Act (CEQA)* – The basic goal of CEQA is to maintain a high-quality environment now and in the future. The specific goals are for California's public agencies to:

- 1) identify the significant environmental effects of their actions; and, either
- 2) avoid those significant environmental effects, where feasible; or
- 3) mitigate those significant environmental effects, where feasible.

CEQA applies to "projects" proposed to be undertaken or requiring approval by state and local government agencies. Projects are activities that have the potential to have a physical impact on the environment and may include the enactment of zoning ordinances, the issuance of conditional use permits and the approval of tentative subdivision maps. Where a project requires approvals from more than one public agency, CEQA requires one of these public agencies to serve as the "lead agency."

A "lead agency" must complete the environmental review process required by CEQA. The most basic steps of the environmental review process are to:

- 4) Determine if the activity is a "project" subject to CEQA.
- 5) Determine if the "project" is exempt from CEQA.
- 6) Perform an Initial Study to identify the environmental impacts of the project and determine whether the identified impacts are "significant". Based on its findings of "significance", the lead agency prepares one of the following environmental review documents:
  - a) Negative Declaration if it finds no "significant" impacts.
  - b) Mitigated Negative Declaration if it finds "significant" impacts but revises the project to avoid or mitigate those significant impacts.

c) Environmental Impact Report (EIR) if it finds "significant" impacts.

While there is no ironclad definition of "significance", Article 5 of the State CEQA Guidelines (California Natural Resources Agency 2014) provides criteria to lead agencies in determining whether a project may have significant effects.

*The Native Plant Protection Act (NPPA)* – The NPPA includes measures to preserve, protect, and enhance rare and endangered native plant species. Definitions for “rare and endangered” are different from those contained in CESA. However, the list of species afforded protection in accordance with the NPPA includes those listed as rare and endangered under CESA. NPPA provides limitations on take as follows: “no person will import into this state, or take, possess, or sell within this state” any rare or endangered native plants, except in accordance with the provisions outlined in the act. If a landowner is notified by CDFW, pursuant to section 1903.5 that a rare or endangered plant is growing on their property, the landowner shall notify CDFW at least 10 days prior to the changing of land uses to allow CDFW to salvage the plants.

*Natural Community Conservation Planning (NCCP) Program* – A NCCP, which is managed by the CDFW, is intended to conserve multiple species and their associated habitats, while also providing for compatible use of private lands. Through local planning, the NCCP planning process is designed to provide protection for wildlife and natural habitats before the environment becomes so fragmented or degraded by development that species listing are required under CESA. Instead of conserving small, often isolated “islands” of habitat for just one listed species, agencies, local jurisdictions, and/or other interested parties have an opportunity through the NCCP to work cooperatively to develop plans that consider broad areas of land for conservation that would provide habitat for many species. Partners enroll in the programs, and by mutual consent, areas considered to have high conservation priorities or values are set aside and protected from development. Partners may also agree to study, monitor, and develop management plans for these high value “reserve” areas. The NCCP provides an avenue for fostering economic growth by allowing approved development in areas with lower conservation value. The project site is in a combined Habitat Conservation Plan (HCP) / NCCP, see Section 3.3.

*Sections 1600-1603 of the State Fish and Game Code* – The California Fish and Game (Wildlife) Code, pursuant to Sections 1600 through 1603, regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake that supports fish or wildlife resources. Under state code, CDFW jurisdiction is assessed in the field based on one, or a combination, of the following criteria:

- 7) At minimum, intermittent, and seasonal flow through a bed or channel with banks and that also supports fish or other aquatic life.
- 8) A watercourse having a surface or subsurface flow regime that supports or that has supported riparian vegetation.
- 9) Hydrogeomorphically distinct top-of-embankment to top-of-embankment limits.
- 10) Outer ground cover and canopy extents of, typically, riparian associated vegetation species that would be sustained by surface and/or subsurface waters of the watercourse.

The CDFW requires that public and private interests apply for a “Streambed Alteration Agreement” for any project that may impact a streambed or wetland. The CDFW has maintained a “no net loss” policy regarding impacts to streams and waterways and requires replacement of lost habitats on at least a 1:1 ratio.

*Section 2081 of the State Fish and Game Code* – Under Section 2081 of the California Fish and Game Code, the CDFW authorizes individuals or public agencies to import, export, take, or possess state endangered, threatened, or candidate species in California through permits or

memoranda of understanding. These acts, which are otherwise prohibited, may be authorized through permits or “memoranda of understanding” if (1) the take is incidental to otherwise lawful activities, (2) impacts of the take are minimized and fully mitigated, (3) the permit is consistent with regulations adopted in accordance with any recovery plan for the species in question, and (4) the applicant ensures suitable funding to implement the measures required by the CDFW. The CDFW shall make this determination based on the best scientific information reasonably available and shall include consideration of the species’ capability to survive and reproduce.

*Section 3505.5 of the State Fish and Game Code* – This section makes it unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds-of-prey, e.g.: owls, hawks, eagles, etc.) or to take, possess, or destroy the nest or eggs of any bird-of-prey.

*Clean Water Act* – The Regional Water Quality Control Board (RWQCB) regulates activities pursuant to Section 401(a)(1) of the Clean Water Act (CWA). 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 navigable waters. Through the Porter Cologne Water Quality Control Act, the RWQCB asserts jurisdiction over Waters of the State of California (WSC) which is generally the same as WUS but may also include isolated waterbodies. The Porter Cologne Act defines WSC as “surface water or ground water, including saline waters, within the boundaries of the state”.

### **3.3 Coachella Valley Multiple Species Habitat Conservation Plan**

Finalized in October 2008, and amended in 2016, the CVMSHCP is a comprehensive regional plan that addresses the conservation needs of 27 species of native flora and fauna and 24 natural vegetation communities occurring throughout the Coachella Valley region of western Riverside County, California. Permits for the CVMSHCP were issued by the CDFW on September 9, 2008 and the United States Fish and Wildlife Service (USFWS) on October 1, 2008 (TE104604-0). Managed by the Coachella Valley Conservation Commission (CVCC), CVMSHCP 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 the Coachella Valley Association of Governments (CVAG), Coachella Valley Water District, Imperial Irrigation District, Mission Springs Water District and the California Department of Transportation (CVAG 2008, 2016).

The CVMSHCP serves two primary purposes: Balancing environmental protection and economic development objectives in the CVMSHCP planning area and simplifying compliance with endangered species related laws. The CVMSHCP accomplishes this by conserving unfragmented habitat to permanently protect and secure viable populations of the covered 27 species within the planning area. The covered species include those plants and animals that are either currently listed as threatened or endangered, are proposed for listing, or are believed by an appointed Scientific Advisory Committee, USFWS and CDFW, to have a high probability of being proposed for listing in the future if not conserved by the CVMSHCP. The goal of the CVMSHCP is to meet the requirements of the ESA and CESA, while at the same time allowing for the economic growth (land development) within the plan area without significant delay or hidden costs. Under the CVMSHCP, land development/mitigation fees are collected from all new development projects occurring in the plan area. The purpose of this fee is to support the assembly of a preserve system for the covered species and natural vegetation communities within areas identified as having high conservation value (CVAG 2008).



## 4.0 METHODS

### 4.1 Literature Review

In preparation for the field surveys, a literature search was conducted to identify special status biological resources known from the vicinity of the project site. In the context of this report, and for the purpose of this assessment, vicinity is defined as areas within a 3-mile radius of the project site.

The literature search included a review of the following documents:

- California Natural Diversity Data Base (CNDDB) RareFind 5 (CDFW 2023a)
- Special Animals List (CDFW 2022)
- California Native Plant Society's (CNPS) Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2023a)
- CVMSHCP (CVAG 2008)
- United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS). 2019. Web Soil Survey
- USGS 7.5' *Rancho Mirage, Cathedral City, Palm Springs, Myoma, La Quinta, Toro Peak, and Palm View Peak*. quadrangles (USGS 1972 and 1988)

Scientific nomenclature for this document follows standard reference sources: For plant communities, CVMSHCP (CVAG 2008), Sawyer et. al (2009), and/or Holland (1986); for flora, Jepson eFlora (2022) and the USDA NRCS PLANTS Database (2022); for amphibians, reptiles, and mammals, CDFW (2016); and for birds, California Bird Records Committee (2022).

### 4.2 Field Assessment

The field assessment was conducted on 8 March 2023 by WSP Senior Wildlife Biologist Dale Hameister. On-site suitable habitat was assessed based on the presence of constituent habitat elements (e.g., soils, vegetation, and topography) characteristic of the potentially occurring special status biological resources determined by the literature review. The entire site and adjacent properties (where accessible) were assessed on foot to record pertinent field data and current site conditions. Adjacent undeveloped areas within an approximate 150-meter (~500-foot) buffer zone that were unfenced and unsigned (i.e., not posted with "No Trespassing" and/or "Private Property") were also assessed for burrowing owl (*Athene cunicularia*). This area was limited to the vacant land east of the site, as there is a chain link fence on the western border of this parcel that prevents access to the vacant land to the west (see Photo 4 in Appendix C). Inaccessible areas were scanned for burrowing owl habitat and sign (i.e., burrows & perches with whitewash) with binoculars. All on-site flora and fauna observed or otherwise detected (e.g., vocalizations, presence of scat, tracks, and/or bones) during the assessment were recorded in field notes and are included in Appendix B. General weather and site conditions were also recorded at the beginning and end of the survey. Temperatures and wind speeds were recorded with a handheld Kestrel 2000 anemometer. Percent cloud cover was visually estimated.

## 5.0 RESULTS

The proposed project site is surrounded by development, primarily residential development to the north and south. The eastern edge of the channel is adjacent The Living Desert Zoo and Gardens and the southern portion of the Vintage Club residential development across Portola Avenue. The western section of the project area contains an engineered swale which is covered in maintained turf grass and lined buy landscaping trees. The swale has some concrete structures which collect nuisance waters from irrigation runoff and stormwater. The section of the channel east of

Heliotrope Drive, and Portola Drive is an engineered sandy, natural bottom channel that contains native vegetation. Representative site photos are included in Appendix C.

### **5.1 Coachella Valley Multiple Species Habitat Conservation Plan**

The entire project is located within the CVMSHCP fee area but is not within a conservation area. The project site is located approximately 0.5 miles northwest of the Santa Rosa and San Jacinto Mountains Conservation Area (Figure 6, Appendix A). The development of the project site will have no effect on any CVMSHCP Conservation Areas.

### **5.2 Weather Conditions**

Weather conditions during the field assessment were clear and cool. There was 0% cloud cover with temperatures that ranged from 63 to 73 degrees Fahrenheit. Winds were calm with wind speeds measured between 0 to 2 miles per hour.

### **5.3 Topography and Soils**

The project site is relatively flat. Three soil types occur on the project site. These include: 1) Carsitas gravelly sand, 0 to 9 percent (CdC); 2) Carsitas cobbly sand, 2 to 9 percent slopes (ChC); 3) Myoma fine sand, 0 to 5 percent slopes (MaD); (USDA, NRCS. 2019) (Appendix A - Figure 4).

The Carsitas series consists of very deep, somewhat excessively drained soils that formed in alluvium from granitoid and/or gneissic rocks. The Carsitas soils are on alluvial fans, fan aprons, valley fills, dissected remnants of alluvial fans and in drainageways. Slopes range from 0 to 30 percent.

Myoma series soils consists of somewhat excessively drained soils formed in recent alluvium. Slopes are 0 to 15 percent, elevations range from 1,800 feet above to 200 feet below sea level. Myoma soils were historically, and still are used for irrigated cropland including citrus, grapes, alfalfa hay, dates, and homesites (USDA, NRCS. 2019).

The site does not contain active sand dunes, rock outcrops, significant rocky areas, clay lenses, springs, or seeps.

### **5.4 Vegetation**

The western section of the project area consists of a vegetated swale with grass turf and landscaping including Kurrajong (*Brachyachiton populneus*), unknown pine (*Pinus* sp.), African sumac (*Searsia lancea*), olive (*Olea europaea*), Lantana (*Lantana camara*), Spanish bayonet (*Yucca baccata*), Bermuda grass (*Cynodon dactylon*), and annual bluegrass (*Poa annua*). Many of the landscaping plants observed adjacent to Haystack Road include native desert species which are not found in the immediate vicinity of the project site including chuparosa (*Justicia californica*), fairyduster (*Calliandra eriophylla*), California barrel cactus (*Ferocactus cylindraceus*), Mexican palo verde (*Parkinsonia aculeata*), jojoba (*Simmondsia chinensis*), California fan palm (*Washingtonia filifera*), and Indian rice grass (*Stipa hymenoides*). The eastern portion of the project, east of Heliotrope Drive, contains an engineered sand channel with mostly native vegetation. The classification of the wash vegetation is smoke tree wash. The dominant shrub within the wash is smoke tree (*Psoralea argyrea*). Other native scrubs included burrobrush (*Ambrosia salsola*), sweetbush (*Bebbia juncea*), brittlebush (*Encelia farinosa*), and creosote bush (*Larrea tridentata*). Non-native species observed within the wash area include sow thistle (*Sonchus asper*), Sahara mustard (*Brassica tournefortii*), London rocket (*Sisymbrium irio*), castor bean (*Ricinus communis*), common plantain (*Plantago major*), and old man schismus (*Schismus barbatus*). There is a small area of Fremont cottonwood (*Populus fremontii*) with an understory of umbrella plant (*Cyperus involucreatus*) east of Portola Avenue, however, this area is outside of the project area. A total of 31 plant species were identified

across the project site during the assessment (Appendix B). These included a mixture of native and non-native landscaping and weedy species, (54% were nonnative species).

## **5.5 Wildlife**

Vertebrate wildlife directly observed and/or detected otherwise (e.g., scat, bones, tracks, feathers, burrows, etc.) were typical to species common to the region (Appendix B). This included some species common to desert scrub and/or developed areas of Coachella Valley. Wildlife observed onsite includes side-blotched lizard (*Uta stansburiana*), mourning dove (*Zenaida macroura*), Anna's hummingbird (*Calypte anna*), Costa's hummingbird (*Calypte costae*), black phoebe (*Sayornis nigricans*), American crow (*Corvus brachyrhynchos*), verdin (*Auriparus flaviceps*), northern mockingbird (*Mimus polyglottos*), house sparrow (*Passer domesticus*), California ground squirrel (*Otospermophilus beecheyi*), and raccoon (*Procyon lotor*).

The number of species detected does not represent the total number of species that may occur on the project site. Brief, one visit assessments are limited by the seasonal timing and short duration of the survey period as well as the nocturnal, fossorial and/or migratory habits of many animals. The developed condition of a portion of the project site reduces and/or eliminates the potential for use by many special status species, as many of these require higher quality and/or more extensive areas of natural habitats. Some are habitat specialists requiring specific soils, landscape features, or riparian vegetation, which may not be present on a given project site. No actively nesting birds were detected on or adjacent to the site during the assessment.

## **5.6 Special Status Biological Resources**

Some plant and/or animal taxa are designated as having special status due to declining populations, limited geographic distributions and/or vulnerability to climate change, habitat loss and/or fragmentation. Some have been listed as threatened or endangered by the USFWS or by the CDFW and are protected by the federal and state ESAs. Others have been identified, and are managed as sensitive by the USFWS, CDFW, or by private conservation organizations, including the CNPS, but have not been formally listed as threatened or endangered. Impacts to such species can still be considered significant under the CEQA, if not avoided, minimized and/or mitigated by specific project design and implementation.

The literature review and field visit resulted in a list of 63 special status biological resources which occur or potentially occur on the project site and/or vicinity (3-mile radius) of the project site. Tables 1-3 provide a summary of these resources, their current conservation status, habitat associations and potential to occur on the project site. No species listed as threatened or endangered were observed on the site.

**Table 1. Special Status Plants**

Species	Protective Status	Habitat	Flowering Period	Occurrence Probability
<i>Acmispon haydonii</i> pygmy lotus	F: ND C: ND CNPS List: 1B.3 State Rank: S3 CVMSHCP: No	Rocky areas in Sonoran desert scrub and pinyon-juniper woodland between 1,700 and 4,000 feet elevation.	Jan - June	<b>Absent</b> Habitat not present, site is below elevation range of species.
<i>Ambrosia monogyra</i> singlewhorl burrobrush	F: ND C: ND CNPS List: 2B.2 State Rank: S2 CVMSHCP: No	Sandy areas in chaparral and Sonoran desert scrub habitats, between 35 and 1,640 feet elevation.	August - November	<b>Absent</b> The only <i>Ambrosia</i> present on site is the common <i>Ambrosia salsola</i> .
<i>Ditaxis claryana</i> Glandular ditaxis	F: ND C: ND CNPS List: 2B.2 State Rank: S2 CVMSHCP: No	Sandy soil in creosote brush scrub below 300 feet in elevation.	May - October	<b>Absent</b> No <i>Ditaxis</i> observed onsite.
<i>Ditaxis serrata</i> var. <i>californica</i> California ditaxis	F: END C: ND CNPS List: 3.2 State Rank: S2? CVMSHCP: No	Annual/Perennial herb found in sandy flats, washes, alluvial fans, sand field, dunes and dune edges, at 130 to 2,150 feet, a CA endemic.	February - May	<b>Absent</b> No <i>Ditaxis</i> observed onsite.
<i>Astragalus lentiginosus</i> var. <i>cochellae</i> Coachella Valley milk-vetch	F: END C: ND CNPS List: 1B.2 State Rank: S1 CVMSHCP: Yes	Annual/Perennial herb found in sandy flats, washes, alluvial fans, sand field, dunes and dune edges, at 130 to 2,150 feet, a CA endemic.	February - May	<b>Low</b> Habitat marginal. No <i>Astragalus</i> or their dead remains found on site. CNDDDB record from 5 mi. N of site.
<i>Astragalus tricarinatus</i> Triple-ribbed milk-vetch	F: END C: ND CNPS List: 1B.2 State Rank: S2 CVMSHCP: Yes	Gravelly to sandy habitats in Joshua tree woodland and Sonoran desert scrub between 1,475 – 3,905 feet. Mainly found along the ecotone between the Mojave and Colorado deserts in the San Bndo. and little San Bndo. Mtns. area.	February - May	<b>Absent</b> Habitat not present, site is below known elevational range of species. Also, outside known range of species.
<i>Atriplex parishii</i> Parish's brittle-scale	F: ND C: ND CNPS List: 1B.1 State Rank: S1 CVMSHCP: No	Alkaline soils associated with vernal pools, playas, and chenopod scrub, between 80 and 6,235 feet.	June - October	<b>Absent</b> No habitat on-site.
<i>Ayenia compacta</i> California ayenia	F: ND C: ND CNPS List: 2B.3 State Rank: S3 CVMSHCP: No	Found on rocky slopes, in canyons, and gravelly/sandy washes between 490 and 3,595 feet elevation.	March - April	<b>Absent</b> No habitat on-site. Site is below elevation range of species.

Species	Protective Status	Habitat	Flowering Period	Occurrence Probability
<i>Chorizanthe parryi</i> var. <i>parryi</i> Parry's spineflower	F: ND C: ND CNPS List: 1B.1 State Rank: S2 CVMSHCP: No	Sandy or rocky openings in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland between 900 – 4,005 feet	April - June	<b>Absent</b> No habitat on-site, site is both below elevation range and likely not in geographic range of species.
<i>Chorizanthe xanti</i> var. <i>leucotheca</i> white-bracted spineflower	F: ND, BLM: sensitive C: ND CNPS List: 1B.2 State Rank: S3 CVMSHCP: No	Sandy to gravelly places in saltbush scrub, pinyon-juniper, and pine-oak woodlands between 985 and 3935 feet in elevation	April - June	<b>Absent</b> No habitat on-site, site is both below elevation range and likely not in geographic range of species.
<i>Eremothera boothii</i> ssp. <i>boothii</i> Booth's evening-primrose	F: ND C: ND CNPS List: 2B.3 State Rank: S3 CVMSHCP: No	Open areas (including rocky alluvial slopes) in creosote scrub, Joshua tree woodland and pinyon-juniper woodland between 2,675 and 7,875 feet in elevation.	April -June (August - September)	<b>Absent</b> Site is well below elevation range of species, no habitat present on or adjacent to site. Most accepted records are from the Mojave Desert.
<i>Lilium parryi</i> lemon lily	F: ND C: ND CNPS List: 1B.2 State Rank: S3 CVMSHCP: No	Mesic (wet) areas in meadows and seeps, lower and upper montane coniferous forest, and riparian forest between 4,005 and 9,005 feet elevation.	July - August	<b>Absent</b> No habitat on-site or in greater area, site also far below elevational range of species.
<i>Linanthus jaegeri</i> San Jacinto linanthus	F: ND C: ND CNPS List: 1B.2 State Rank: S2 CVMSHCP: No	Dry rocky granitic outcrops, sheer (almost vertical) slopes in subalpine/ upper montane coniferous forest between 7,200 and 10,005 feet elevation.	July - September	<b>Absent</b> No habitat on-site, site also far below elevational range of species. Also not in geographic range of species.
<i>Linanthus maculatus</i> ssp. <i>maculatus</i> Little San Bernardino Mtns. linanthus	F: ND C: ND CNPS List: 1B.2 State Rank: S2 CVMSHCP: Yes	A California endemic that is known mainly from sandy areas near the Little San Bernardino Mtns., Joshua Tree N.P., and the northern end of the Coachella Valley between 460 and 4,005 feet in elevation. Often quartz sands in washes or bajadas.	March - May	<b>Absent</b> No habitat on-site. Site is below typical elevation range of species. Closest CNDDDB record (1952) is ~5 NW of the site.
<i>Nemaacaulis denudata</i> var. <i>gracilis</i> slender cottonheads	F: ND C: ND CNPS List: 2B.2 State Rank: S2 CVMSHCP: No	Sandy areas in coastal and desert areas, saltbush scrub, creosote bush scrub, and coastal grasslands between 165 and 1,310 feet elevation	(March) - May	<b>Low</b> Habitat marginal, sandy topsoil has been disturbed on this site. Not observed onsite.

Species	Protective Status	Habitat	Flowering Period	Occurrence Probability
<i>Petalonyx linearis</i> narrow-leaf sandpaper-plaint	F: ND C: ND CNPS List: 2B.3 State Rank: S3? CVMSHCP: No	Mojavean/Sonoran desert scrub in sandy or rocky canyons between -80 – 3,660 feet.	Mainly March – May, but can bloom year-round	<b>Absent</b> No <i>Petalonyx</i> sp. on site.
<i>Selaginella eremophila</i> desert spike-moss	F: ND C: ND CNPS List: 2B.2 State Rank: S2S3 CVMSHCP: No	Often found growing in rock crevices or on rocks (also the ground) on rocky slopes between 655 and 4,250 feet in elevation in desert and desert edge areas.	(May) June – (July) doesn't truly "bloom", but produces antheridia	<b>Absent</b> No habitat on-site, site also below elevational range of species.
<i>Stemodia durantifolia</i> purple stemodia	F: ND C: ND CNPS List: 2B.1 State Rank: S2 CVMSHCP: No	Wet or moist sandy areas in riparian habitats (within surrounding Sonoran desert scrub) between 590 and 1,000 feet elevation.	(Jan)April - December	<b>Absent</b> No habitat on-site. Site is below known elevation range of species.
<i>Streptanthus campestris</i> southern jewelflower	F: ND C: ND CNPS List: 1B.3 State Rank: S3 CVMSHCP: No	Rocky areas in chaparral, lower montane coniferous forest, pinyon and juniper forest between 2,900 and 7,550 feet elevation.	April - July	<b>Absent</b> No habitat on-site. Site is well below known elevation range of species.
<i>Thelypteris (Pelazoneuron) puberula</i> var. <i>sonorensis</i>	F: ND C: ND CNPS List: 2B.2 State Rank: S2 CVMSHCP: No	Moist areas (shaded preferable) along streams and seepage areas in desert canyons between 165 and 2,000 feet in elevation.	Jan. – Sept.	<b>Absent</b> No habitat present. Species not found in sandy habitat.
<i>Xylorhiza cognata</i> Mecca-aster	F: ND, BLM sensitive C: ND CNPS List: 1B.2 State Rank: S2 CVMSHCP: Yes	Grows on sandstone and clay substrates on steep canyon slopes between 65 and 1,000 feet elevation.	Jan - June	<b>Absent</b> No habitat on-site. Outside species' range.

**Table 2. Special Status Vegetation Communities**

Community	Protective Status (F=Federal, C=California)	Occurrence Probability
Desert Fan Palm Oasis Woodland	F: ND C: ND State rank: S3.2 CVMSHCP: No	<b>Absent</b> All palms onsite have were planted as park of the landscaping
Southern Riparian Forest	F: ND C: ND State rank: S4 CVMSHCP: No	<b>Absent</b> This habitat is not present on project site. A small patch of cottonwoods was observed just downstream from the Portola Avenue bridge.

**Table 3. Special Status Wildlife**

Species	Protective Status (F=Federal, C=California)	Habitat	Occurrence Probability
<b>Invertebrates</b>			
<i>Bombus crotchii</i> Crotch's bumble bee	F: C C: C - END State Rank: S2 CVMSHCP: No	Mainly coastal California east to the Sierra-Cascade Crest and south into Baja.	<b>Absent</b> Most records are from cismontane (coastal and inland valley) California. Not expected on this site unless there were sufficient flowering plants favored by this species.
<i>Danaus plexippus</i> Monarch Butterfly	F: C C: CSC State Rank: S2S3 CVMSHCP: No	Can be found in a variety of areas where milkweed and flowering plants are present; milkweeds are necessary for breeding	<b>Absent</b> No milkweed present on-site. Very little remaining vegetation for nectar sources.
<i>Dinacoma caseyi</i> Casey's June beetle	F: END C: ND State rank: S1 CVMSHCP: No	Associated with Palm Canyon Wash and its floodplain. Flightless females live below ground and come to surface only for mating. Known only from two populations in a small area of southern Palm Springs.	<b>Absent</b> Site outside currently known geographic distribution.
<i>Macrobaenetes valgum</i> Coachella giant sand treader cricket	F: ND C: ND State Rank: S2 CVMSHCP: Yes	Found in the sandy areas of the specialized sand dune ecosystem of Coachella Valley (aka "blow sand" habitat)	<b>Absent – Very Low</b> Habitat onsite is marginal and disturbed, partially isolated from sand sources by development on three sides. 1960 CNDDDB record from ~0.7 miles west of site has been developed.
<i>Oliarces clara</i> cheeseweed owlfly	F: ND C: ND State Rank: S2 CVMSHCP: No	Occur on or near bajadas, attracted to elevated topographic features when mating	<b>Absent</b> Habitat lacking, also no elevated features for males to congregate at during mating. No stream bed or wash areas on site. Nearest CNDDDB record (1952) is from >5 miles N of site.

Species	Protective Status (F=Federal, C=California)	Habitat	Occurrence Probability
<i>Stenopelmatus cahuillaensis</i> Coachella Valley Jerusalem cricket	F: ND C: ND State Rank: S2 CVMSHCP: Yes	Found in a small segment of sand dunes in the Coachella Valley, from the pass down to Palm Springs.	<b>Absent – Very Low</b> The project site is southeast of the currently understood range of the species. Most records are from the western edge of the valley, which is cooler and more moist than the eastern part.
<b>Fish</b>			
<i>Cyprinodon macularius</i> Desert pupfish	F: END C: END State rank: S1 CVMSHCP: Yes	Desert ponds, springs, marshes, and streams. Able to adapt to a variety of aquatic habitats, including those having high temperatures and salinities	<b>Absent</b> No habitat on or adjacent to site. CNDDDB record for captive pupfish at the Living Desert Zoo.
<b>Amphibians &amp; Reptiles</b>			
<i>Rana draytonii</i> California red-legged frog	F: THR C: SSC State Rank: S2S3 CVMSHCP: No	Generally permanent water bodies with shrubby or emergent riparian vegetation in lowlands and foothill areas (requires 11-20 weeks of permanent water for larval development).	<b>Absent</b> No suitable aquatic habitat on or adjacent to site. Species not present on floor of Coachella Valley (historically or currently).
<i>Rana muscosa</i> southern mountain yellow-legged frog	F: END C: END State Rank: S1 CVMSHCP: No	In the project area the nearest known locations are in the San Jacinto Mtns. Populations in southern California historically were in streams between 1,000 and 12,000 ft. in elevation, usually with semi-permanent to permanent pools.	<b>Absent</b> No aquatic habitat on or adjacent to site. Site is below 350 ft. above mean sea level (AMSL). Species not present on floor of Coachella Valley (historically or currently).
<i>Gopherus agassizii</i> Desert tortoise	F: THR C: THR State Rank: S2S3 CVMSHCP: Yes	Found in desert environments with high plant diversity, digging burrows in soils friable enough for digging.	<b>Absent</b> Habitat lacking, sandy substrates not optimal desert tortoise habitat (especially for maintaining burrow integrity long term).



Species	Protective Status (F=Federal, C=California)	Habitat	Occurrence Probability
<i>Phrynosoma mcallii</i> Flat-tailed horned lizard	F: ND C: SSC State rank: S2 CVMSHCP: Yes	Fine sand in desert washes and flats with vegetative cover and ants, generally below 600 feet elevation in Riverside, San Diego, and Imperial Counties.	<b>Absent</b> Habitat marginal and poor quality, sandy areas are surrounded by development and have been highly disturbed. CNDDDB records in vicinity are historic and have been mostly developed.
<i>Uma inornata</i> Coachella Valley fringe-toed lizard	F: THR C: END State rank: S1 CVMSHCP: Yes	Sandy areas of the Coachella Valley (dunes and sand field habitats)	<b>Absent</b> Habitat poor quality, site partially isolated from sand sources and many areas have been disturbed on this site.
<i>Crotalus ruber</i> red-diamond rattlesnake	F: ND C: CSC State rank: S3 CVMSHCP: No	Inhabits a variety of habitats including chaparral, woodland, grassland, and desert edge areas from Coastal San Diego County to eastern slopes of mountains bordering the Colorado Desert.	<b>Absent</b> More common in desert edge areas [rocky], no habitat onsite, not expected on the valley floor.
<b>Birds</b> *birds covered by the CVMSHCP still cannot be directly impacted while nesting or in burrows			
<i>Aquila chrysaetos</i> golden eagle	F: MBTA, BLM Sensitive C: WL, Fully Protected State: S3 CVMSHCP: No	Golden eagles occupy the mountains and coastal areas of southern California and often nest in chaparral and oak woodland/savanna habitats and grassland amongst low rolling hill typified by diverse vegetation. Not common in true desert areas.	<b>Nesting: Absent</b> Nesting habitat not present (cliffs, canyons, mountain slopes) <b>Foraging: Low - Absent</b> Not common in developed areas, usually requires large, open areas (not usually in proximity to residential/commercial development).
<i>Athene cunicularia</i> Burrowing Owl	F: MBTA, BCC C: SSC State: S3 CVMSHCP: Yes	Occupies open, dry grasslands, scrub habitats, agricultural, railroad rights-of-way, and margins of highways, golf courses, and airports. Utilizes ground squirrel burrows and man-made structures, such as earthen berms, cement culverts, cement, asphalt, and debris piles for nesting and shelter.	<b>Nesting: Absent</b> No owls or suitable burrows/surrogates present <b>Foraging: Low</b> The only foraging areas of potential are the turf swale and open sandy areas of the wash. The area is too close to development to be considered quality habitat.

Species	Protective Status (F=Federal, C=California)	Habitat	Occurrence Probability
<i>Cypseloides niger</i> black swift	F: ND, BCC C: SSC State Rank: S2 CVMSHCP: No	In our area San Bernardino and San Jacinto Mountains. Breeds in small colonies usually roosting behind or near waterfalls in deep canyons. Can forage long distances.	<b>Nesting: Absent</b> No suitable nesting habitat <b>Foraging: Absent</b> Not expected on desert valley floor, and even then, would be an extremely rare flyover.
<i>Falco mexicanus</i> Prairie falcon	F: ND C: WL State: S4 CVMSHCP: No	Another raptor that favors dry, open terrain for foraging, although smaller open areas adjacent to human development are not as commonly used. Usually nests on cliff ledges.	<b>Nesting: Absent</b> No suitable nesting habitat <b>Foraging: Low</b> Low quality foraging habitat on-site, not likely to occur except if moving through the area (rare).
<i>Empidonax traillii extimus</i> Southwestern willow flycatcher	F: END C: END State: S1 CVMSHCP: Yes	Nests in large areas of riparian forests and woodlands	<b>Nesting: Absent</b> No suitable nesting habitat <b>Foraging: Absent</b> No suitable foraging habitat on or adjacent to site.
<i>Lanius ludovicianus</i> loggerhead shrike	F: MBTA C: SSC State Rank: S4 CVMSHCP: No	A variety of open habitats with perches for scanning, and dense shrubs/brush for nesting. Woodlands, pinyon-juniper, Joshua trees, desert oases, scrub and washes.	<b>Nesting: Moderate</b> Nesting habitat is present within the palo verde trees onsite. <b>Foraging: Present</b> Suitable habitat is present but adjacent to development.
<i>Polioptila melanura</i> Black-tailed gnatcatcher	F: ND C: WL State rank: S3S4 CVMSHCP: No	Nests in wooded desert wash habitat containing mesquite, palo verde, ironwood, and acacia. May also occur in areas with salt cedar, especially when adjacent to native wooded desert wash habitat. Also occurs in desert scrub habitat in winter.	<b>Nesting: Low</b> Suitable habitat is present but adjacent to development. <b>Foraging: Low</b> Suitable habitat is present but adjacent to development.
<i>Toxostoma crissale</i> Crissal thrasher	F: ND C: SSC State rank: S3 CVMSHCP: Yes*	Dense thickets of shrubs or low trees in desert riparian and desert wash habitats. Southeastern California to Texas and northern Mexico.	<b>Nesting: Low</b> Suitable habitat is present but adjacent to development. CNDDDB record 5 miles to the north east. <b>Foraging: Low</b> Suitable habitat is present but adjacent to development.

Species	Protective Status (F=Federal, C=California)	Habitat	Occurrence Probability
<i>Toxostoma lecontei</i> LeConte's thrasher	F: BCC C: ND) State rank: S3 CVMSHCP: Yes	Resident of open desert wash, scrub, alkali scrub, succulent scrub habitats, nests in dense spiny shrubs and cacti in washes, usually within 2-8 feet of the ground.	<b>Nesting: Low</b> Suitable habitat is present but adjacent to development. <b>Foraging: Low</b> Suitable habitat is present but adjacent to development 1932 CNDDB record 4.6 miles north east of site.
<i>Vireo bellii pusillus</i> Least Bell's vireo	F: END C: END State rank: S2 CVMSHCP: Yes*	Riparian woodland habitats along the riverine systems of Southern California	<b>Nesting: Low</b> No suitable nesting habitat on or adjacent to site. <b>Foraging: Low</b> No suitable foraging habitat on or adjacent to site.
<b>Mammals</b>			
<i>Chaetodipus fallax pallidus</i> Pallid San Diego pocket mouse	F: ND C: SSC State rank: S3S4 CVMSHCP: No	Desert border areas in desert wash, desert scrub, desert succulent scrub, pinon-juniper, etc. Associated with sandy herbaceous areas usually in association with rocks or coarse gravel from sea level to 1350 m (4500 ft).	<b>Low:</b> Site largely outside preferred range of subspecies and lacking preferred habitat in the disturbed and landscaped areas. Contains some suitable habitat within the sandy wash area.
<i>Lasiurus xanthinus</i> Western yellow bat	F: ND C: SSC State rank: S3 CVMSHCP: Yes WBWG: H	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis. Roosts in trees, particularly palms. Forages over water and among trees.	<b>Moderate</b> Palms are present on the edges of the site as landscaping.
<i>Neotoma lepida intermedia</i> San Diego desert woodrat	F: ND C: SSC State rank: S3S4 CVMSHCP: No	Most often in Coastal scrub in southern California (San Diego to San Luis Obispo Counties) but does range into desert areas. Most common in areas with rock outcrops, cliffs, and slopes.	<b>Absent</b> Site lacks rocky habitat, no "stick nests" characteristic of this species observed on site during survey.

Species	Protective Status (F=Federal, C=California)	Habitat	Occurrence Probability
<i>Nyctinomops femorosaccus</i> pocketed free-tailed bat	F: ND C: SSC State rank: S3 CVMSHCP: No WBWG: M	Colonial and roosts primarily in crevices of rugged cliffs, high rocky outcrops and slopes. It has been found in a variety of plant associations, including desert shrub and pine-oak forests. The species may also roost in buildings, caves, and (rarely) under roof tiles.	<b>Absent</b> No suitable habitat on project site.
<i>Nyctinomops macrotis</i> big free-tailed bat	F: ND C: SSC State rank: S3 CVMSHCP: No WBWG: M	Low-lying arid habitats with high cliffs or rocky outcrops for roosting sites.	<b>Absent</b> No suitable habitat on project site.
<i>Ovis canadensis nelsoni</i> pop 2  Peninsular bighorn sheep DPS	F: END C: THR, FP State rank: S2 CVMSHCP: Yes	Eastern slopes of the Peninsular Ranges generally below 4,600 ft. elev., range of this DPS is from the San Jacinto Mtns. South to the international border. Optimal habitat includes steep-walled canyons and ridges bisected by rocky/sandy washes w available water.	<b>Absent</b> No suitable habitat on site, site is not within the known range of this subspecies (not connected to existing habitat).
<i>Perognathus longimembris bangsi</i> Palm Springs pocket mouse	F: BLM Sensitive C: SSC State Rank: S2 CVMSHCP: Yes	Sonoran Desert habitats with level to gently sloping topography, sparse to moderate vegetative cover, and loosely packed or sandy soils.	<b>Absent - Low</b> Habitat disturbed and marginal, proximity to development.
<i>Xerospermophilus tereticaudus chlorus</i> Coachella Valley (Palm Springs) round-tailed ground squirrel	F: ND C: SSC State Rank: S2 CVMSHCP: Yes	Prefers open, flat, grassy areas in fine-textured, sandy soil in desert succulent scrub, desert wash, desert scrub, alkali scrub, & levees.	<b>Low</b> Suitable habitat present but of low quality, native soils remaining on site are disturbed.

**Definitions of occurrence probability:**

*Occurs:* Observed on the site by WSP personnel or recorded on-site by other qualified biologists.

*High:* Observed in similar habitat in region by qualified biologists, or habitat on the site is a type often utilized by the species and the site is within the known range of the species.

*Moderate:* Reported sightings in surrounding region, or site is within the known range of the species and habitat on the site is a type occasionally used by the species.

*Low:* Site is within the known range of the species but habitat on the site is rarely used by the species.

*Very Low:* Species not expected on site, but can not be completely ruled out.

*Absent:* A focused study failed to detect the species, or no suitable habitat is present.

**Definitions of status designations and occurrence probabilities.**

**Federal designations:** (federal Endangered Species Act, US Fish and Wildlife Service):

END: Federally listed, Endangered.  
THR: Federally listed, Threatened.  
BCC: Bird of Conservation Concern  
C: Candidate for Federal listing  
ND: Not designated.

**State designations:** (California Endangered Species Act, California Dept. of Fish and Game)

END: State listed, Endangered.  
THR: State listed, Threatened.  
C: Candidate for State listing  
RARE: State listed as Rare (Listed "Rare" animals have been re-designated as Threatened, but Rare plants have retained the Rare designation.)  
SSC: Species of Special Concern.  
WL: Watch List Species.  
ND: Not designated.

**CDFW CNDDB rankings: Animals**

**S1** = Extremely endangered: <6 viable occurrences or <1,000 individuals, or < 2,000 acres of occupied habitat  
**S2** = Endangered: about 6-20 viable occurrences or 1,000 - 3,000 individuals, or 2,000 to 10,000 acres of occupied habitat  
**S3** = Restricted range, rare: about 21-100 viable occurrences, or 3,000 – 10,000 individuals, or 10,000 – 50,000 acres of occupied habitat  
**S4** = Apparently secure; some factors exist to cause some concern such as narrow habitat or continuing threats  
**S5** = Demonstrably secure; commonly found throughout its historic range  
**SH** = all sites are historical, this species may be extinct, further field work is needed

**CDFW CNDDB rankings: Plants and Vegetation Communities**

**S1** = Less than 6 viable occurrences OR less than 1,000 individuals OR less than 2,000 acres  
S1.1 = very threatened  
S1.2 = threatened  
S1.3 = no current threats known  
**S2** = 6-20 viable occurrences OR 1,000-3,000 individuals OR 2,000-10,000 acres  
S2.1 = very threatened  
S2.2 = threatened  
S2.3 = no current threats known  
**S3** = 21-80 viable occurrences or 3,000-10,000 individuals OR 10,000-50,000 acres  
S3.1 = very threatened  
S3.2 = threatened  
S3.3 = no current threats known  
**S4** = Apparently secure within California; this rank is clearly lower than S3, but factors exist to cause some concern. i.e., there is some threat, or somewhat narrow habitat.  
**S5** = Demonstrably secure to ineradicable in California.

**California Native Plant Society (CNPS) designations:**

**California Rare Plant Ranks (CRPR)** Note: According to the CNPS

([http://www.cnps.org/programs/Rare\\_Plant/inventory/names.htm](http://www.cnps.org/programs/Rare_Plant/inventory/names.htm)), ALL plants on Lists 1A, 1B, 2A, and 2B meet definitions for state listing as threatened or endangered under Secs. 2062 and 2067 (California Endangered Species Act) of the California Department of Fish and Game Code. Certain plants on Lists 3 and 4 do as well.

The CDFW ([http://www.dfg.ca.gov/hcpb/species/t\\_e\\_spp/nat\\_plnt\\_consv.shtml](http://www.dfg.ca.gov/hcpb/species/t_e_spp/nat_plnt_consv.shtml)) states that plants on Lists 1A, 1B, 2A, and 2B of the CNPS Inventory consist of plants that may qualify for listing, and recommends they be addressed in CEQA projects (CEQA Guidelines Section 15380). However, a plant need not be in the Inventory to be considered a rare, threatened, or endangered species under CEQA. In addition, CDFW recommends, and local governments may require, protection of plants which are regionally significant, such as locally rare species, disjunct populations of more common plants, or plants on the CNPS Lists 3 and 4.

**List 1A:** Plants presumed extinct in California.

**List 1B:** Plants rare and endangered in California and throughout their range.

**List 2A:** Plants presumed extirpated in California, but more common elsewhere.

**List 2B:** Plants rare, threatened, or endangered in California, but more common elsewhere.

**List 3:** Plants for which more information is needed.

**List 4:** Plants of limited distribution; a "watch list."

**CA Endemic:** Taxa that occur only in California

CNPS Threat Code:

.1 - Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)

.2 – Fairly endangered in California (20-80% occurrences threatened)

.3 – Not very endangered in California (<20% of occurrences threatened, or no current threats known)

**Note:** All List 1A (presumed extinct in California) and some List 3 (need more information- a review list) plants lacking any threat information receive no threat code extension. Also, these Threat Code guidelines represent a starting point in the assessment of threat level. Other factors, such as habitat vulnerability and specificity, distribution, and condition of occurrences, are also considered in setting the Threat Code.

**Western Bat Working Group (WBWG) designations:**

The Western Bat Working Group is comprised of agencies, organizations and individuals interested in bat research, management and conservation from the 13 western states and provinces. Its goals are (1) to facilitate communication among interested parties and reduce risks of species decline or extinction; (2) to provide a mechanism by which current information on bat ecology, distribution and research techniques can be readily accessed; and (3) to develop a forum to discuss conservation strategies, provide technical assistance and encourage education programs.

**H:** High: Species which are imperiled or are at high risk of imperilment based on available information on distribution, status, ecology and known threats.

**M:** Medium: Species which warrant a medium level of concern and need closer evaluation, more research, and conservation actions of both the species and possible threats. A lack of meaningful information is a major obstacle in adequately assessing these species' status and should be considered a threat.

**L:** Low: Species for which most of the existing data support stable populations, and for which the potential for major changes in status in the near future is considered unlikely. There may be localized concerns, but the overall status of the species is believed to be secure. Conservation actions would still apply for these bats, but limited resources are best used on High and Medium status species.

**P:** Periphery: This designation indicates a species on the edge of its range, for which no other designation has been determined.

**CVMSHCP designations**

**Yes: Conserved by the CVMSHCP**

No: Not Specifically Conserved by the CVMSHCP

C: Considered, but not included in the CVMSHCP

## **5.7 Discussion of the Special-status Species Tables**

Based on examination of historic aerial photography of the site (on Google Earth Pro), the Haystack channel has been an isolated area of sand and scrubs in a similar condition to the present for over 30 years. Due to the isolated location which is surrounded by residential and golf development there is a low potential for most sensitive species found in the vicinity of the site. There is a potential for species including loggerhead shrike, Crissal thrasher, and western yellow bat to utilize the site for foraging, roosting, or nesting.

### **5.7.1 CVMSHCP Covered Species**

Nineteen of the species listed in Tables 1 – 3 are conserved under the CVMSHCP: Coachella Valley milk-vetch, triple-ribbed milk-vetch, Mecca aster, Little San Bernardino Mountains linanthus, Coachella giant sand treader cricket, Coachella Valley Jerusalem cricket, desert pupfish, desert tortoise, flat-tailed horned lizard, Coachella Valley fringe-toed lizard, burrowing owl, Southwestern willow flycatcher, crissal thrasher Le Contes' thrasher, Least Bell's vireo, western yellow bat, Palm Springs pocket mouse, Coachella Valley (Palm Springs) round-tailed ground squirrel, and Peninsular bighorn sheep. Six of these species are expected to have at least a low to very low probability of occurring on the project site. These include: Coachella Valley milk-vetch, Coachella giant sand treader cricket, Coachella Valley Jerusalem cricket, burrowing owl, Palm Springs pocket mouse, and Coachella Valley (Palm Springs) round-tailed ground squirrel. Participation in the CVMSHCP, and participation in the plan, if required will fully mitigate project related impacts (although none are anticipated) to all of these CVMSHCP covered species with the exception of burrowing owl.

No burrows suitable for burrowing owl use were observed on or adjacent to the project site. Where accessible, adjacent vacant lands were surveyed within 500 feet of the site. No burrowing owls, their sign, or burrows capable of supporting owls were observed in this buffer area. The burrowing owl is not listed as threatened or endangered by the USFWS or CDFW. It is, however, managed as a Bird of Conservation Concern (BCC) by the USFWS and designated as a SSC by the CDFW. It is also protected from take by the MBTA and California Fish and Game Code. The burrowing owl is a covered species under the CVMSHCP, however the federal permit for the CVMSHCP does not allow take of this species under the MBTA. For these reasons, all burrowing owls must be avoided or relocated prior to any ground disturbing activities. No burrowing owls, owl sign, or suitable burrows were observed during the survey.

### **5.7.2 Potentially Occurring Species Not Covered Under the CVMSHCP and USFWS IPAC Species**

Seven special status species that are not covered by the CVMSHCP are considered to have at least some potential (low to very low) to occur on or forage over the project site. Prairie falcon are expected to have a low probability to forage over the site (although this would be rare given the developed nature of the site and surrounding area). Prairie falcon is not listed as threatened or endangered by either State or Federal agencies but is considered a "Species of Special Concern" by the California Department of Fish and Wildlife. Slender cottonheads are expected to have a low probability of growing on this site. Slender cottonheads were not observed during the survey. This plant species is not listed as threatened or endangered and are generally not expected to occur on the site. Still, they could not be absolutely ruled out due to presence of marginally suitable habitat and the seasonal timing of the site visit.

No species listed as threatened or endangered were observed on the site. One special status species: loggerhead shrike (*Lanius ludovicianus*) designated as a California Species of Special

Concern (SSC) by the CDFW, has a moderate potential to utilize the site. This species is not expected to nest on the site due level of adjacent development.

The USFWS IPAC report generated for this project lists six sensitive wildlife species and one plant as having potential to be affected by development of this project. As discussed in Tables 1 – 3 in Section 5.6, none of the listed species are expected to occur onsite. Coachella Valley milk-vetch is not expected to occur as it is outside the current range of the species. Monarch butterflies require milkweeds for larval development and other flowering plants for adult nectar sources. No milkweed plants were observed on the site. There is no habitat present for desert tortoise, Coachella Valley fringe-toed lizard, least Bell's vireo, southwestern willow flycatcher, or Peninsular bighorn sheep on the project site.

Should project-related disturbance be conducted during the nesting season (1 February through 31 August), a nesting bird clearance survey is recommended to ensure that implementation of the proposed project does not impact nesting birds.

## **6.0 DISCUSSION**

The proposed project includes the improvement of existing drainage facilities. The project area contains a developed turf swale as well as a sand bottom wash area with native and non-native shrubs. It provides no connectivity to any CVMSCHP conservation areas. The project area contains United States Army Corps of Engineers, Regional Water Quality Control Board, or CDFW jurisdictional waters and will require permits. Implementation of the proposed project is expected to temporarily disturb all areas within the project site, which in turn may potentially result in direct or indirect disturbance to biological resources, sensitive and otherwise, occurring (not anticipated), or potentially occurring on- and/or adjacent to the site. Additionally, to prevent impacts to all native birds protected by the MBTA and state fish and game code, the following measures should be taken:

### **6.1 Protection of Nesting Birds**

All native bird species that are excluded from coverage under the CVMSHCP are still protected by the MBTA and the state Fish and Game Code. This includes virtually all native migratory and resident bird species. Avoidance of impacts to these birds is a requirement of the federal permit issued for the CVMSHCP. To avoid impacting nesting birds either avoidance of project-related disturbance during the nesting season (1 February through 31 August) or nesting bird surveys conducted by a qualified ornithologist or biologist immediately prior to on-site disturbance during the nesting season would be required. If nesting birds are found, no work would be permitted near the nest until young have fledged. There is no established protocol for nest avoidance, however, when consulted the CDFW generally recommends avoidance buffers of about 500 feet for birds-of-prey and species listed as threatened or endangered, and 100–300 feet for unlisted songbirds.

### **6.2 Burrowing Owl**

As noted above, no burrowing owls or their sign were present on site. Also, no burrows or burrow surrogates that could be used by burrowing owls were present on the site at the time of this survey. This species nests and roosts underground so is uniquely vulnerable to ground disturbing activities. Since no burrowing owl sign or suitable burrows were observed, a search for burrowing owls during the required MBTA survey prior to construction should be sufficient to ensure there are no impacts to burrowing owls. The MBTA survey should be conducted prior to initiating construction to ensure that no nesting birds have moved onto the site in the interim between this survey and project startup. Unless avoidable, all burrowing owls present must be relocated prior to any ground disturbing activities. If burrowing are found on-site, a Burrowing Owl Relocation and Management Plan will be prepared to describe and outline how the burrowing owl will be actively or passively relocated per CDFW guidelines. Prior to construction, any owls occurring on-



site will be relocated prior to vegetation removal or grading activities. Relocation will require prior permission from the CDFW, at a minimum. Since the burrowing owl is a covered species under the CVMSHCP, additional mitigation/conservation measures will not be required.

## **7.0 CONCLUSION**

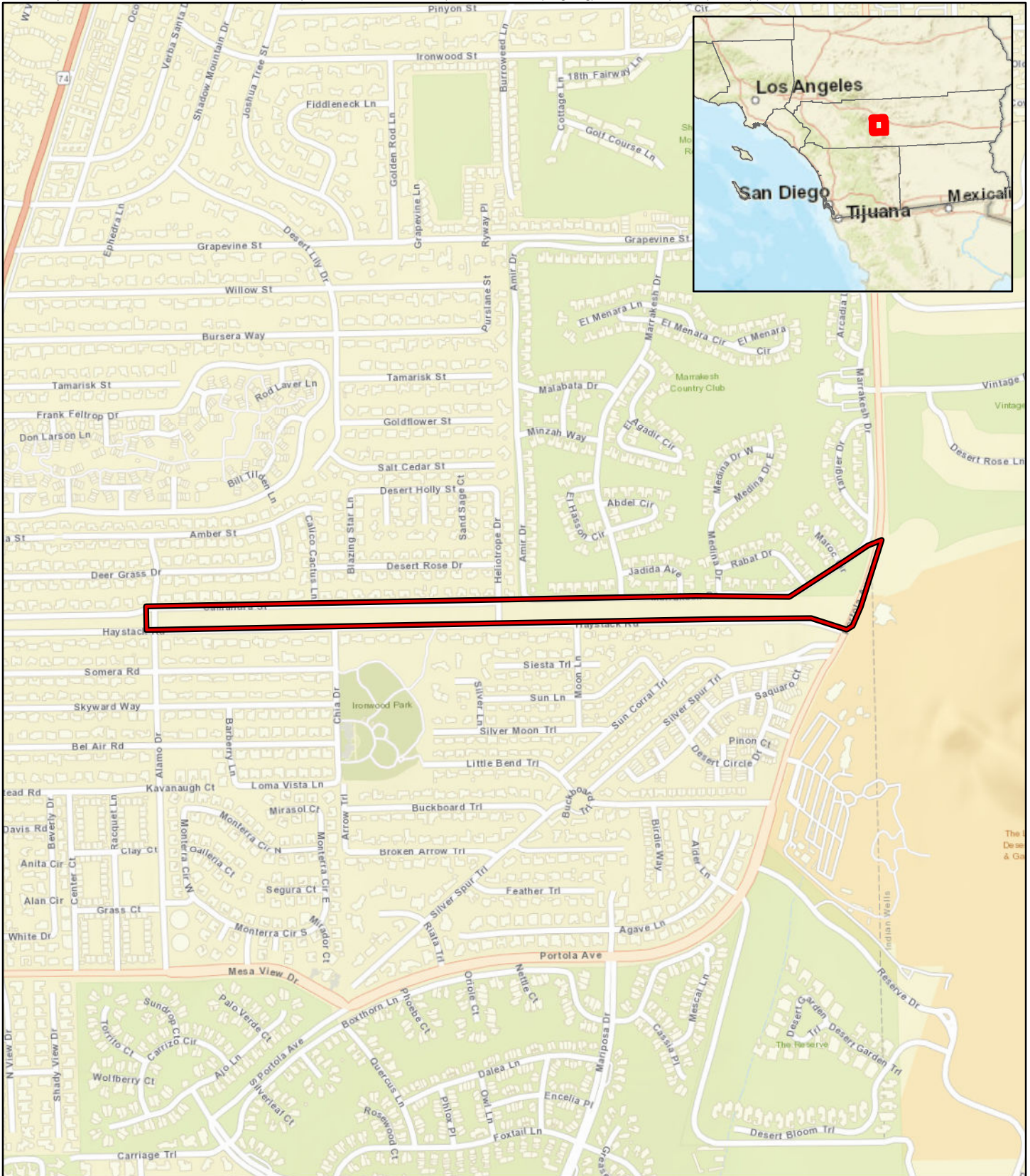
With the implementation of the recommendations above, impacts to special status biological resources are anticipated to be avoided, minimized, and/or mitigated in accordance with the CVMSHCP and other resource agency requirements.

## 8.0 LITERATURE CITED AND REFERENCES

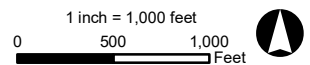
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**APPENDIX A**  
**FIGURES**



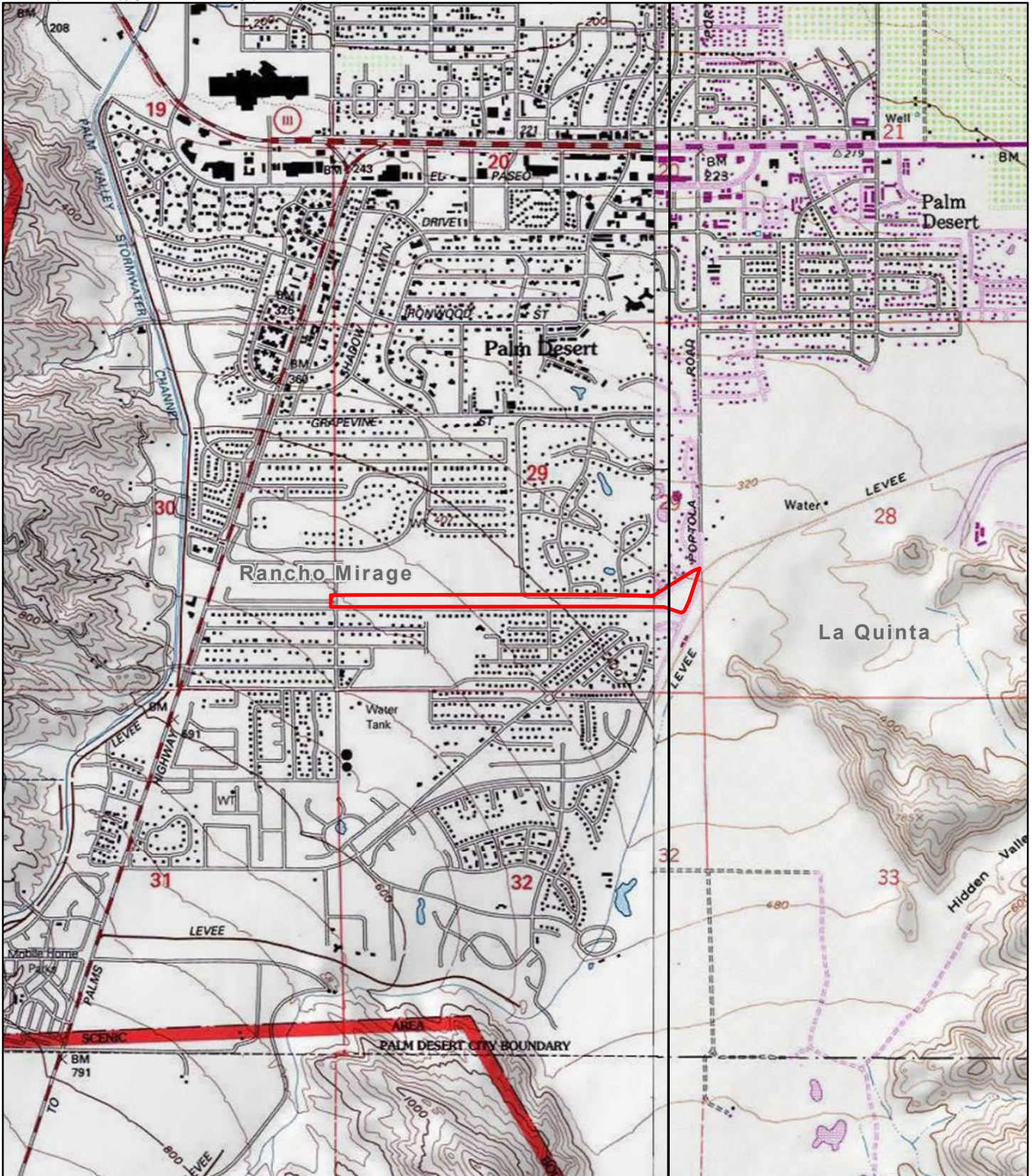
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 Project Boundary


# FIGURE 1

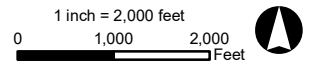
Project Vicinity & Location  
Hastack Channel Project  
Riverside County, California



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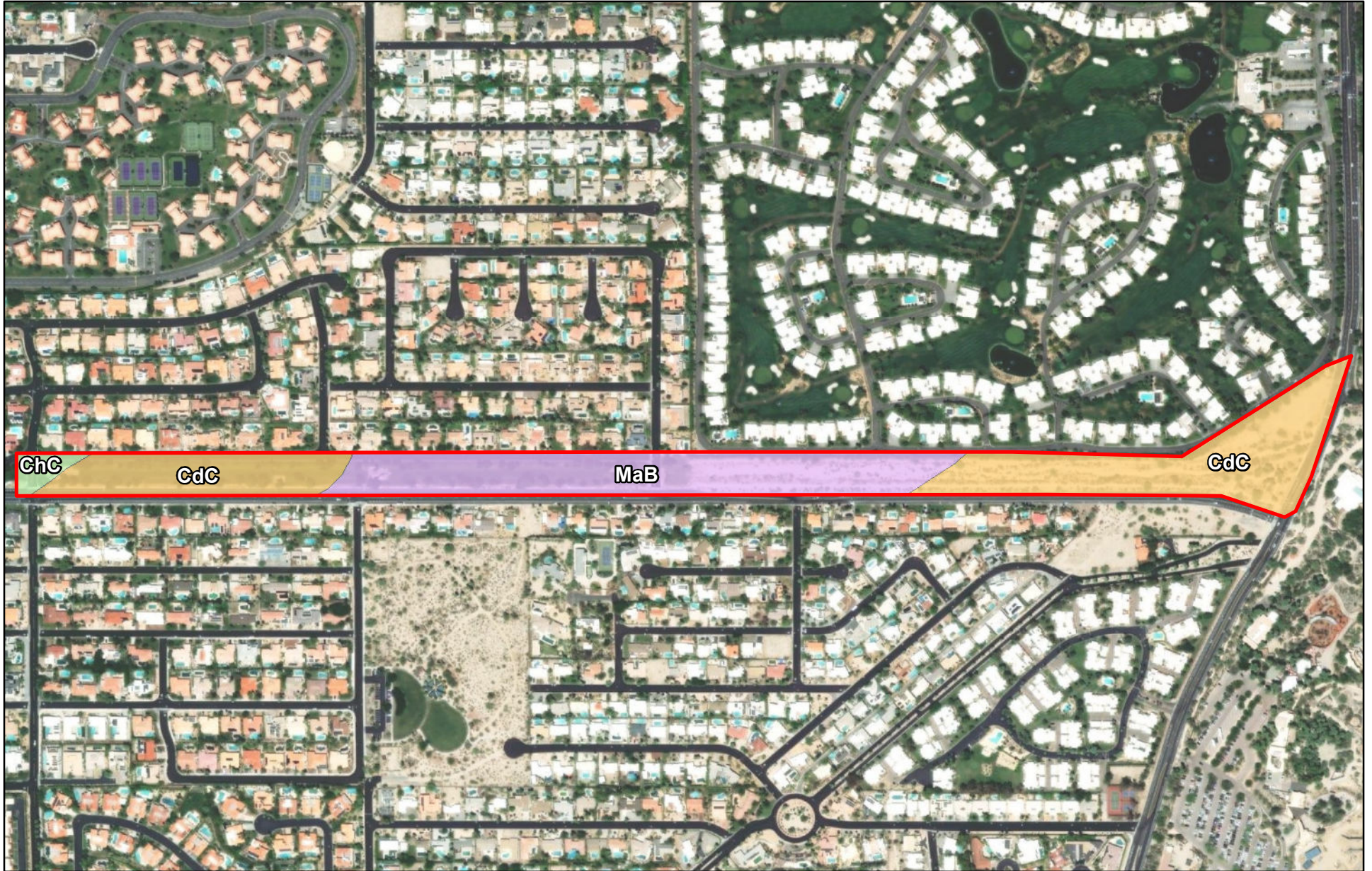


 Project Boundary  
USA Topo Maps




**FIGURE 2**

USGS 7.5' Topo Quad: Rancho Mirage & La Quinta  
Haystack Channel Project  
Riverside County, California






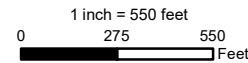
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 Project Boundary

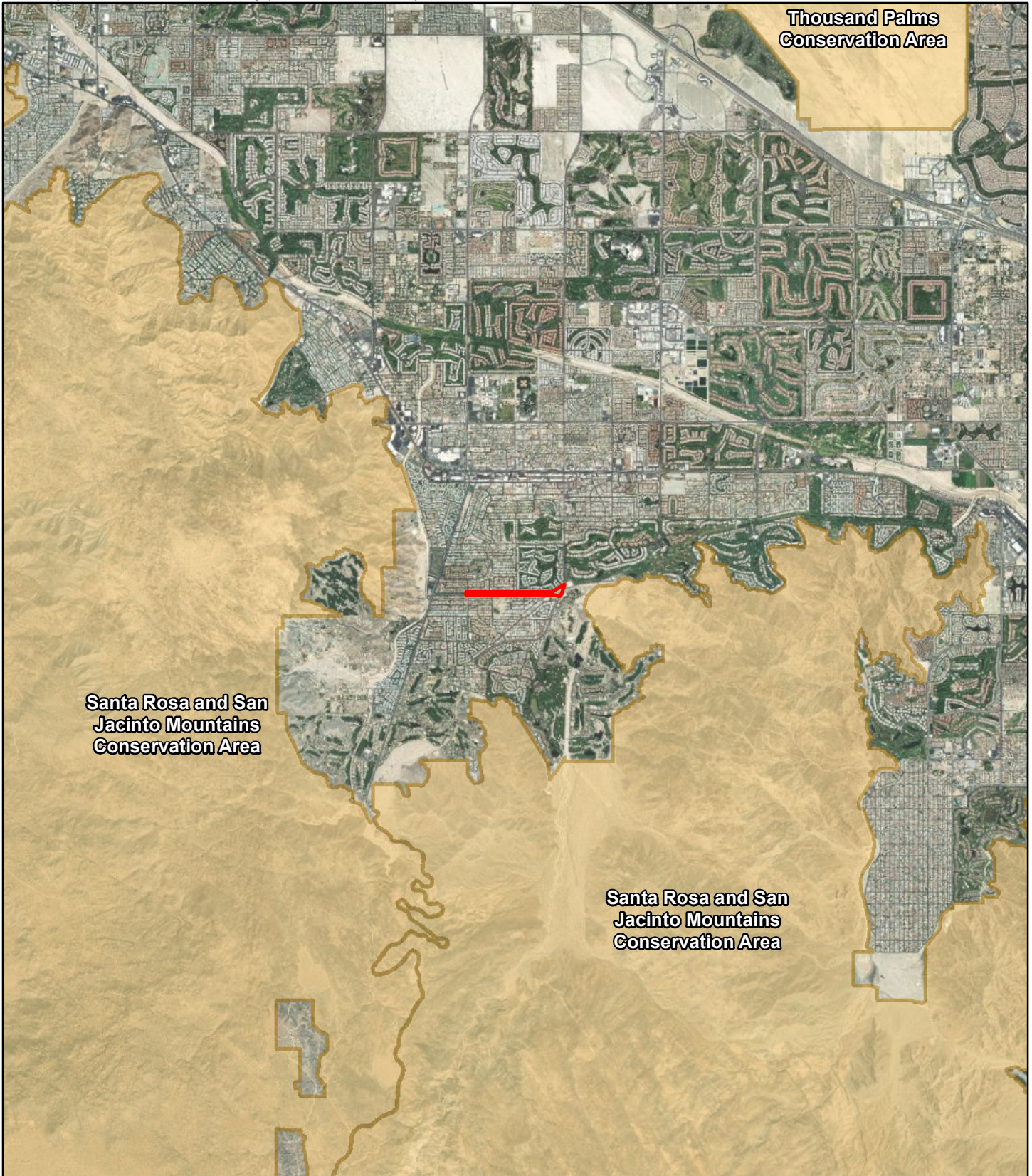
**Soils**

-  CdC - Carsitas gravelly sand, 0 to 9 percent slopes
-  ChC - Carsitas cobbly sand, 2 to 9 percent slopes
-  MaB - Myoma fine sand, 0 to 5 percent slopes

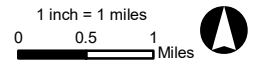




**FIGURE 3**

Soils  
Haystack Channel Project  
Riverside County, California



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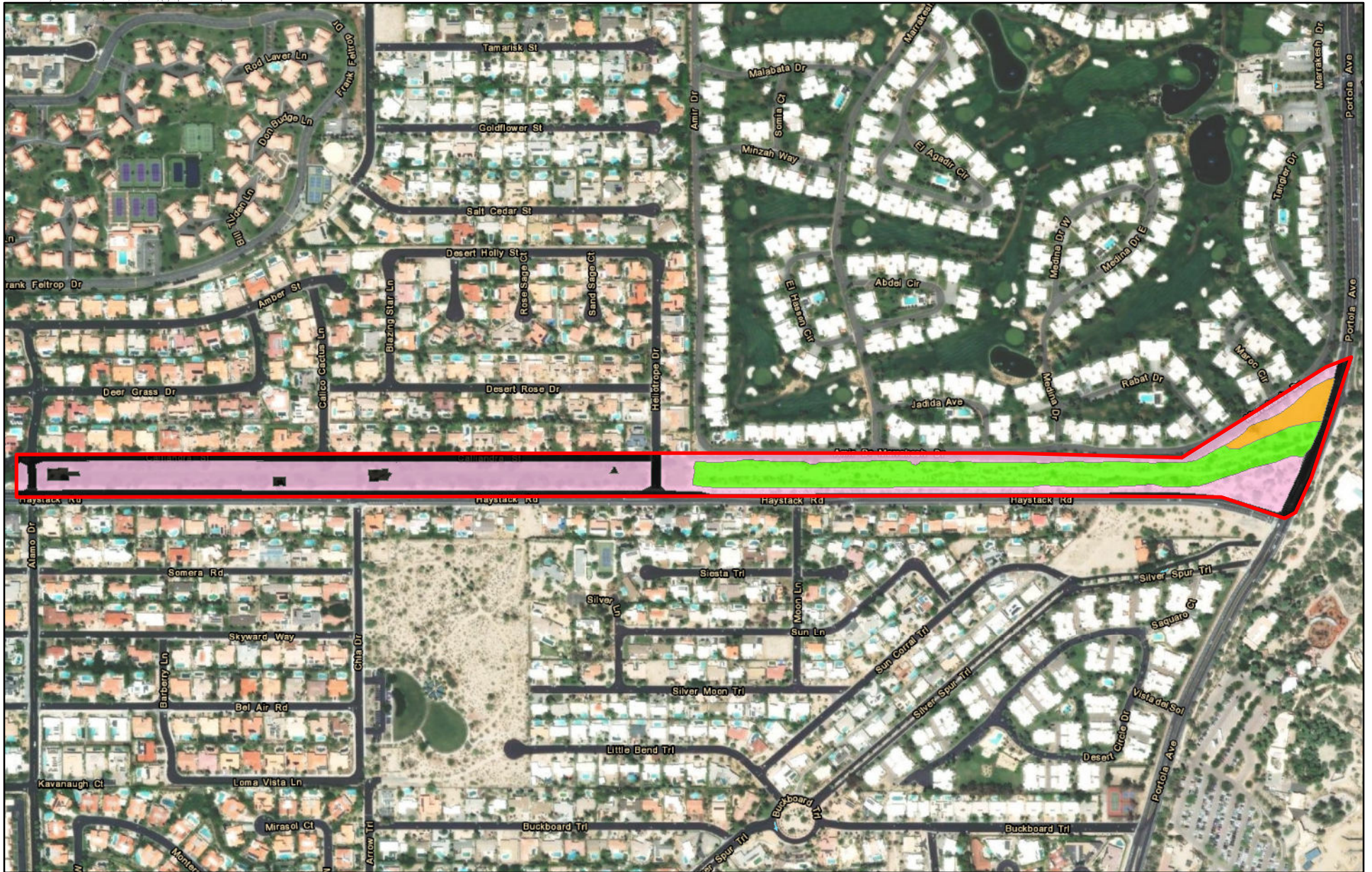


-  Project Boundary
-  CVMSHCP Conservation Area

## FIGURE 4

CVMSHCP Conservation Areas  
Haystack Channel Project  
Riverside County, California





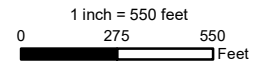
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**Vegetation Communities**

- Bare Ground
- Developed
- Ornamental
- Smoketree wash woodland

Project Boundary



**FIGURE 5**

Vegetation Communities  
Haystack Channel Project  
Riverside County, California

**APPENDIX B**

**PLANTS AND VERTEBRATE WILDLIFE OBSERVED**

## Fauna Compendium

<b>Phrynosomatidae</b>		<b>Lizards</b>
<i>Uta</i>	<i>stansburiana</i>	side-blotched lizard
<b>Columbidae</b>		<b>Pigeons/Doves</b>
<i>Zenaida</i>	<i>macroura</i>	mourning dove
<b>Trochilidae</b>		<b>Hummingbirds</b>
<i>Calypte</i>	<i>anna</i>	Anna's hummingbird
<i>Calypte</i>	<i>costae</i>	Costa's hummingbird
<b>Tyrannidae</b>		<b>Flycatchers</b>
<i>Sayornis</i>	<i>nigricans</i>	black phoebe
<b>Corvidae</b>		<b>Jays/Crows</b>
<i>Corvus</i>	<i>brachyrhynchos</i>	American crow
<b>Remizidae</b>		<b>Verdins</b>
<i>Auriparus</i>	<i>flaviceps</i>	verdin
<b>Mimidae</b>		<b>Mockingbirds/Thrashers</b>
<i>Mimus</i>	<i>polyglottos</i>	northern mockingbird
<b>Passeridae</b>		<b>True sparrows</b>
<i>Passer</i>	<i>domesticus</i>	house sparrow
<b>Sciuridae</b>		<b>Squirrels</b>
<i>Otospermophilus</i>	<i>beecheyi</i>	California ground squirrel
<b>Procyonidae</b>		<b>Raccoons</b>
<i>Procyon</i>	<i>lotor</i>	raccoon

## Flora Compendia

<b>Sterculiaceae</b>		<b>Tropical Chestnut</b>
<i>Brachychiton</i>	<i>populneus</i>	Kurrajong
<b>Pinaceae</b>		<b>Pine Family</b>
<i>Pinus</i>	<i>sp.</i>	unknown pine sp.
<b>Acanthaceae</b>		<b>Acanthus Family</b>
<i>Justicia</i>	<i>californica</i>	chuparosa
<b>Anacardiaceae</b>		<b>Sumac or Cashew Family</b>
<i>Searsia</i>	<i>lancea</i>	African sumac
<b>Asteraceae</b>		<b>Sunflower Family</b>
<i>Ambrosia</i>	<i>salsola</i>	burrobrush
<i>Bebbia</i>	<i>juncea</i>	sweetbush
<i>Encelia</i>	<i>farinosa</i>	brittlebush
<i>Palafoxia</i>	<i>arida</i>	Spanish needles
<i>Sonchus</i>	<i>asper</i>	sow thistle
<b>Brassicaceae</b>		<b>Mustard Family</b>
<i>Brassica</i>	<i>tournefortii</i>	mustard
<i>Sisymbrium</i>	<i>irio</i>	London rocket
<b>Cactaceae</b>		<b>Cactus Family</b>
<i>Ferocactus</i>	<i>cylindraceus</i>	California barrel cactus
<b>Euphorbiaceae</b>		<b>Spurge Family</b>
<i>Euphorbia</i>	<i>albomarginata</i>	rattlesnake sandmat
<i>Ricinus</i>	<i>communis</i>	castor bean
<b>Fabaceae</b>		<b>Legume Family</b>
<i>Calliandra</i>	<i>eriphylla</i>	fairyduster
<i>Dalea</i>	<i>mollissima</i>	silky dalea
<i>Parkinsonia</i>	<i>aculeata</i>	Mexican palo verde
<i>Psoralea</i>	<i>spinosa</i>	smoke tree
<b>Oleaceae</b>		<b>Olive Family</b>
<i>Olea</i>	<i>europaea</i>	olive
<b>Onagraceae</b>		<b>Evening Primrose Family</b>
<i>Chylismia</i>	<i>claviformis</i>	clavate fruited primrose
<b>Plantaginaceae</b>		<b>Plantain Family</b>
<i>Plantago</i>	<i>major</i>	common plantain
<b>Salicaceae</b>		<b>Willow Family</b>
<i>Populus</i>	<i>fremontii</i>	Fremont cottonwood
<b>Simmondsiaceae</b>		<b>Jojoba Family</b>
<i>Simmondsia</i>	<i>chinensis</i>	Jojoba
<b>Verbenaceae</b>		<b>Vervain Family</b>
<i>Lantana</i>	<i>camara</i>	lantana

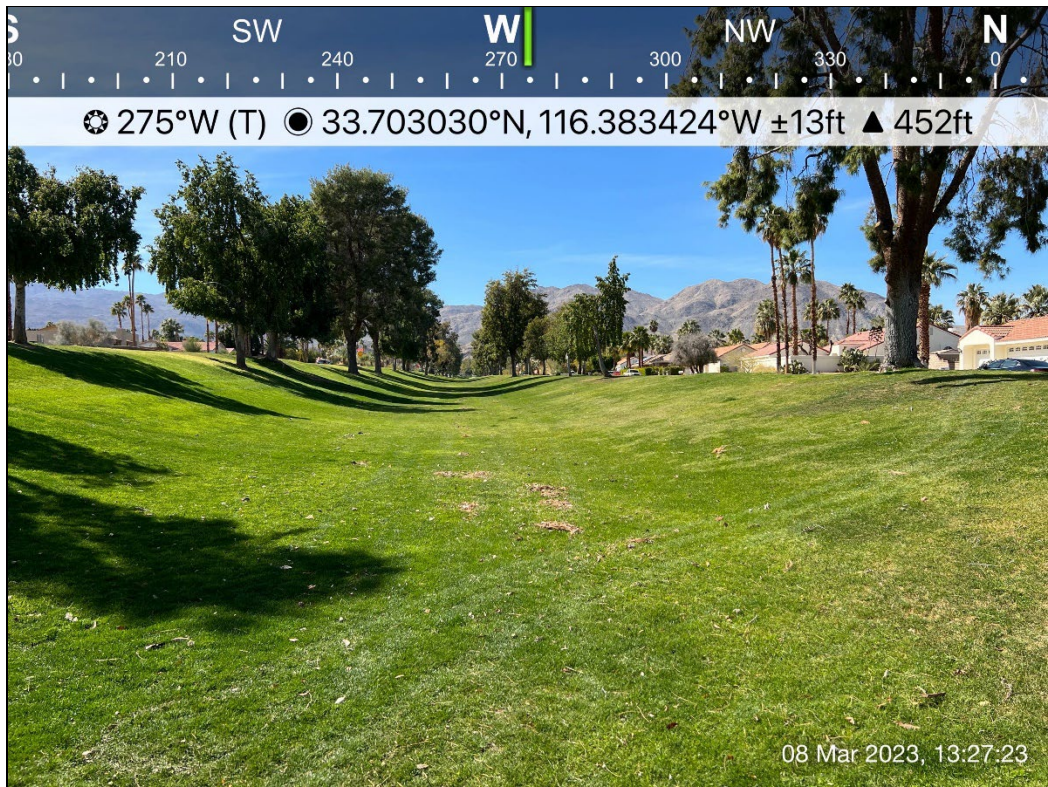
## Flora Compendia

<b>Zygophyllaceae</b>		<b>Caltrop Family</b>
<i>Larrea</i>	<i>tridentata</i>	creosote bush
<b>Agavaceae</b>		<b>Agave Family</b>
<i>Yucca</i>	<i>baccata</i>	Spanish bayonet
<b>Arecaceae</b>		<b>Palm Family</b>
<i>Washingtonia</i>	<i>filifera</i>	California fan palm
<b>Cyperaceae</b>		<b>Sedge Family</b>
<i>Cyperus</i>	<i>involucratus</i>	umbrella plant
<b>Poaceae</b>		<b>Grass Family</b>
<i>Cynodon</i>	<i>dactylon</i>	Bermuda grass
<i>Poa</i>	<i>annua</i>	annual bluegrass
<i>Schismus</i>	<i>barbatus</i>	old han schismus
<i>Stipa</i>	<i>hymenoides</i>	Indian rice grass

**APPENDIX C**  
**SITE PHOTOS**



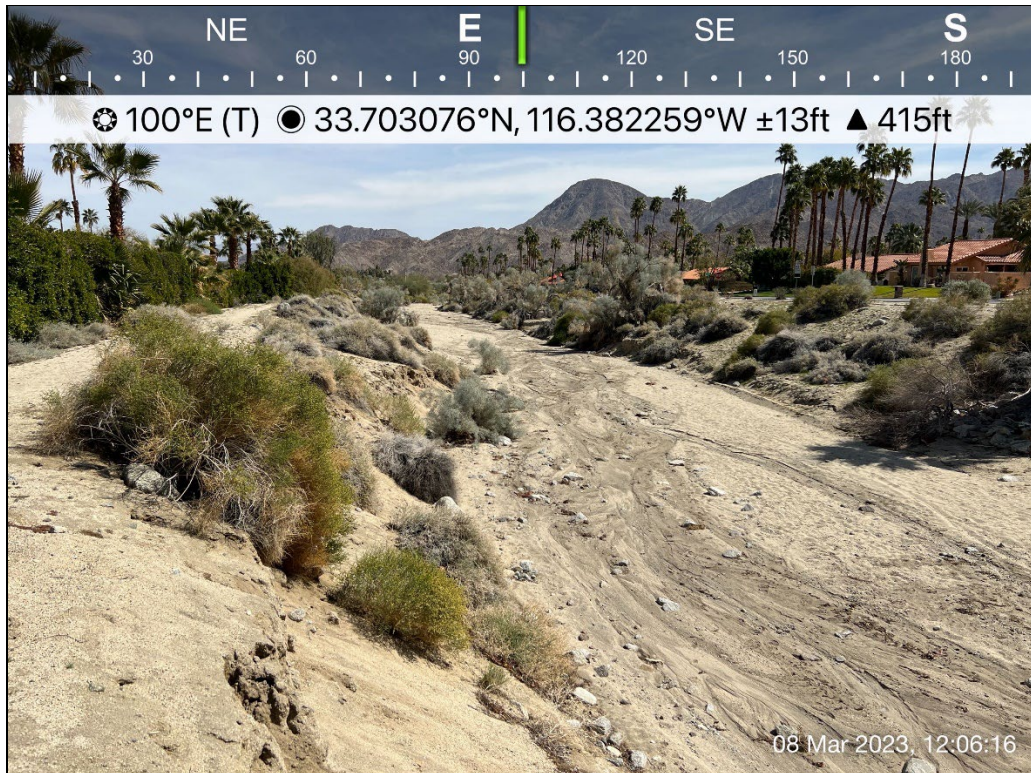
**Photo 1.** Looking east from Alamo Drive showing the grass swale and concrete facilities for nuisance waters.



**Photo 2.** Looking west showing the turf covered swale and landscaping trees.



**Photo 3.** Looking east, east of Heliotrope Drive showing the transition from turf swale to sandy wash.



**Photo 4.** Looking east show the bare bottom of the channel with smoke tree and cheese bush on the banks.





**Photo 5.** Looking west showing sand bottom channel and lack of vegetation.



**Photo 6.** Looking east showing prior disturbance to create the banks of the channel and native vegetation on the banks.



**Photo 7.** Looking north west showing smoke tree scrub.



**Photo 8.** Looking east showing the current crossing at Portola Avenue which will be improved.

**APPENDIX D**

**CVMSHCP Table 4-112:  
Coachella Valley Native Plants Recommended for Landscaping**

## Coachella Valley Native Plants Recommended for Landscaping

### **BOTANICAL NAME**

### **COMMON NAME**

#### **Trees**

<i>Washingtonia filifera</i>	California fan palm
<i>Cercidium floridum</i>	blue palo verde
<i>Chilopsis linearis</i>	desert willow
<i>Olneya tesota</i>	ironwood tree
<i>Prosopis glandulosa</i> var. <i>torreyana</i>	honey mesquite

#### **Shrubs**

<i>Acacia greggii</i>	cat's claw acacia
<i>Ambrosia dumosa</i>	burro bush
<i>Atriplex canescens</i>	four wing saltbush
<i>Atriplex lentiformis</i>	quailbush
<i>Atriplex polycarpa</i>	cattle spinach
<i>Baccharis sergiloides</i>	squaw water-weed
<i>Bebia juncea</i>	sweet bush
<i>Cassia (Senna) covesii</i>	desert senna
<i>Condalia parryi</i>	crucillo
<i>Crossosoma bigelovii</i>	crossosoma
<i>Dalea emoryi</i>	dye weed
<i>Dalea (Psorothamnus) schottii</i>	indigo bush
<i>Datura meteloides</i>	jimson weed
<i>Encelia farinosa</i>	brittle bush
<i>Ephedra aspera</i>	Mormon tea
<i>Eriogonum fasciculatum</i>	California buckwheat
<i>Eriogonum wrightii membranaceum</i>	Wright's buckwheat
<i>Fagonia laevis</i>	no common name
<i>Gutierrezia sarothrae</i>	matchweed
<i>Haplopappus acradenius</i>	goldenbush
<i>Hibiscus denudatus</i>	desert hibiscus
<i>Hoffmannseggia microphylla</i>	rush pea
<i>Hymenoclea salsola</i>	cheesebush
<i>Hyptis emoryi</i>	desert lavender
<i>Isomeris arborea</i>	bladder pod
<i>Juniperus californica</i>	California juniper
<i>Krameria grayi</i>	ratany
<i>Krameria parvifolia</i>	little-leaved ratany
<i>Larrea tridentata</i>	creosote bush
<i>Lotus rigidus</i>	desert rock pea
<i>Lycium andersonii</i>	box thorn
<i>Petalonyx linearis</i>	long-leaved sandpaper plant
<i>Petalonyx thurberi</i>	sandpaper plant
<i>Peucephyllum schottii</i>	pygmy cedar
<i>Prunus fremontii</i>	desert apricot
<i>Rhus ovata</i>	sugar-bush
<i>Salazaria mexicana</i>	paper-bag bush
<i>Salvia apiana</i>	white sage
<i>Salvia eremostachya</i>	Santa Rosa sage

<i>Salvia vaseyi</i>	wand sage
<i>Simmondsia chinensis</i>	jojoba
<i>Sphaeralcea ambigua</i>	globemallow (desert mallow)
<i>Sphaeralcea ambigua rosacea</i>	apricot mallow
<i>Trixis californica</i>	trixis
<i>Zauschneria californica</i>	California fuchsia

### **Groundcovers**

<i>Mirabilis bigelovii</i>	wishbone bush (four o'clock)
<i>Mirabilis tenuiloba</i>	white four o'clock (thin-lobed)

### **Vines**

<i>Vitis girdiana</i>	desert grape
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### **Accent**

<i>Muhlenbergia rigens</i>	deer grass
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### **Herbaceous Perennials**

<i>Adiantum capillus-veneris</i>	maiden-hair fern
<i>Carex alma</i>	sedge
<i>Dalea parryi</i>	Parry dalea
<i>Eleocharis montevidensis</i>	spike rush
<i>Equisetum laevigatum</i>	horsetail
<i>Juncus bufonis</i>	toad rush
<i>Juncus effuses</i>	juncus
<i>Juncus macrophyllus</i>	juncus
<i>Juncus mexicanus</i>	Mexican rush
<i>Juncus xiphioides</i>	juncus
<i>Notholaena parryi</i>	Parry cloak fern
<i>Pallaea mucronata</i>	bird-foot fern

### **Cacti and Succulents**

<i>Agave deserti</i>	desert agave
<i>Asclepias albicans</i>	desert milkweed (buggy-whip)
<i>Asclepias subulata</i>	ajamete
<i>Dudleya arizonica</i>	live-forever
<i>Dudleya saxosa</i>	rock dudleya
<i>Echinocereus engelmannii</i>	calico hedgehog cactus
<i>Ferocactus acanthodes</i>	barrel cactus
<i>Fouquieria splendens</i>	ocotillo
<i>Mamillaria dioica</i>	nipple cactus
<i>Mamillaria tetrancistra</i>	corkseed cactus
<i>Nolina parryi</i>	Parry nolina
<i>Opuntia acanthocarpa</i>	stag-horn or deer-horn cholla
<i>Opuntia bigelovii</i>	teddy bear or jumping cholla
<i>Opuntia basilaris</i>	beavertail cactus
<i>Opuntia echinocarpa</i>	silver or golden cholla
<i>Opuntia ramosissima</i>	pencil cholla, darning needle cholla
<i>Yucca schidigera</i>	Mojave yucca, Spanish dagger
<i>Yucca whipplei</i>	Our Lord's candle

## **APPENDIX E**

### **Prohibited Invasive Ornamental Plants**

## Prohibited Invasive Ornamental Plants

<u>BOTANICAL NAME</u>	<u>COMMON NAME</u>
<i>Acacia</i> spp. (all species except <i>A. greggii</i> )	(all species except native catclaw acacia)
<i>Arundo donax</i>	giant reed or arundo grass
<i>Atriplex semibaccata</i>	Australian saltbush
<i>Avena barbata</i>	slender wild oat
<i>Avena fatua</i>	wild oat
<i>Brassica tournefortii</i>	African or Saharan mustard
<i>Bromus madritensis</i> ssp. <i>rubens</i>	red brome
<i>Bromus tectorum</i>	cheat grass or downy brome
<i>Cortaderia jubata</i> [syn. <i>C. atacamensis</i> ]	jubata grass or Andean pampas grass
<i>Cortaderia dioica</i> [syn. <i>C. selloana</i> ]	pampas grass
<i>Descurainia sophia</i>	tansy mustard
<i>Eichhornia crassipes</i>	water hyacinth
<i>Elaeagnus angustifolia</i>	Russian olive
<i>Foeniculum vulgare</i>	sweet fennel
<i>Hirschfeldia incana</i>	Mediterranean or short-pod mustard
<i>Lepidium latifolium</i>	perennial pepperweed
<i>Lolium multiflorum</i>	Italian ryegrass
<i>Nerium oleander</i>	oleander
<i>Nicotiana glauca</i>	tree tobacco
<i>Oenothera berlandieri</i>	Mexican evening primrose
<i>Olea europea</i>	European olive tree
<i>Parkinsonia aculeata</i>	Mexican palo verde
<i>Pennisetum clandestinum</i>	Kikuyu grass
<i>Pennisetum setaceum</i>	fountain grass
<i>Phoenix canariensis</i>	Canary Island date palm
<i>Phoenix dactylifera</i>	date palm
<i>Ricinus communis</i>	castorbean
<i>Salsola tragus</i>	Russian thistle
<i>Schinus mole</i>	Peruvian pepper tree
<i>Schinus terebinthifolius</i>	Brazilian pepper tree
<i>Schismus arabicus</i>	Mediterranean grass
<i>Schismus barbatus</i>	Saharan grass, Abu Mashi
<i>Stipa capensis</i>	no common name
<i>Tamarix</i> spp. (all species)	tamarisk or salt cedar
<i>Taeniatherum caput-medusae</i>	Medusa-head
<i>Tribulus terrestris</i>	puncturevine
<i>Vinca major</i>	periwinkle
<i>Washingtonia robusta</i>	Mexican fan palm
<i>Yucca gloriosa</i>	Spanish dagger

Sources: California Exotic Pest Plant Council, United States Department of Agriculture-Division of Plant Health and Pest Prevention Services, California Native Plant Society, Fremontia Vol. 26 No. 4, October 1998, The Jepson Manual; Higher Plants of California, and County of San Diego Department of Agriculture.

**APPENDIX F**  
**USFWS IPaC Report**



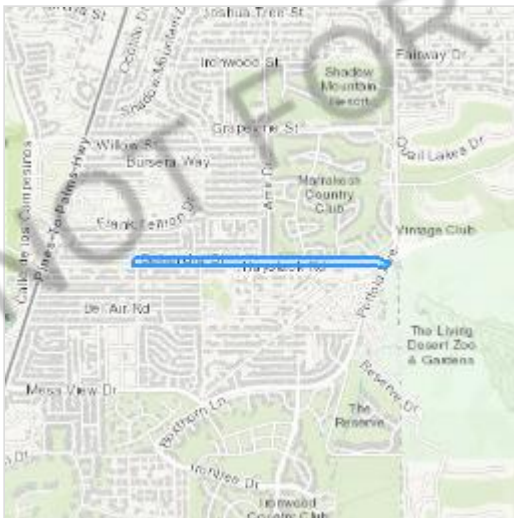
# IPaC resource list

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 Sunnyside Blvd 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

## 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 <i>Gopherus agassizii</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/4481">https://ecos.fws.gov/ecp/species/4481</a>	Threatened

## Fishes

NAME	STATUS
<b>Desert Pupfish</b> <i>Cyprinodon macularius</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/7003">https://ecos.fws.gov/ecp/species/7003</a>	<b>Endangered</b>

## Insects

NAME	STATUS
<b>Monarch Butterfly</b> <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. <a href="https://ecos.fws.gov/ecp/species/9743">https://ecos.fws.gov/ecp/species/9743</a>	<b>Candidate</b>

## Flowering Plants

NAME	STATUS
<b>Coachella Valley Milk-vetch</b> <i>Astragalus lentiginosus</i> var. <i>coachellae</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/7426">https://ecos.fws.gov/ecp/species/7426</a>	<b>Endangered</b>

## 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.

## 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
Black-chinned Sparrow <i>Spizella atrogularis</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/9447">https://ecos.fws.gov/ecp/species/9447</a>	Breeds Apr 15 to Jul 31

**California Thrasher** *Toxostoma redivivum* Breeds Jan 1 to Jul 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

**Costa's Hummingbird** *Calypte costae* Breeds Jan 15 to Jun 10

This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA  
<https://ecos.fws.gov/ecp/species/9470>

**Golden Eagle** *Aquila chrysaetos* Breeds Dec 1 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.  
<https://ecos.fws.gov/ecp/species/1680>

**Lawrence's Goldfinch** *Carduelis lawrencei* Breeds Mar 20 to Sep 20

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  
<https://ecos.fws.gov/ecp/species/9464>

**Long-eared Owl** *asio otus* Breeds Mar 1 to Jul 15

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.  
<https://ecos.fws.gov/ecp/species/3631>

## 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.

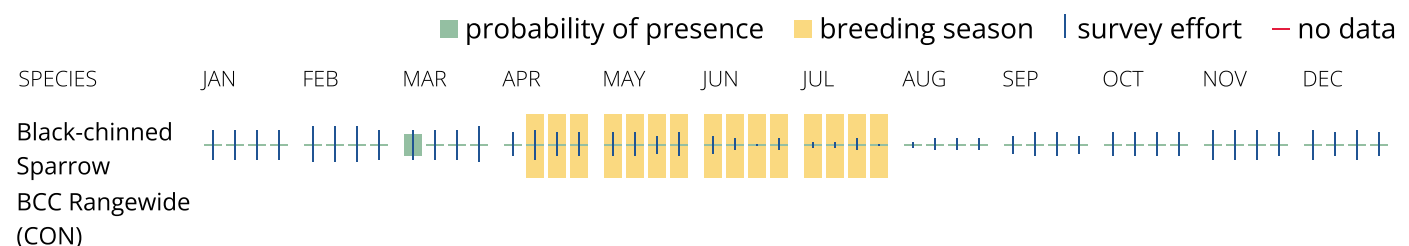
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

### No Data (-)

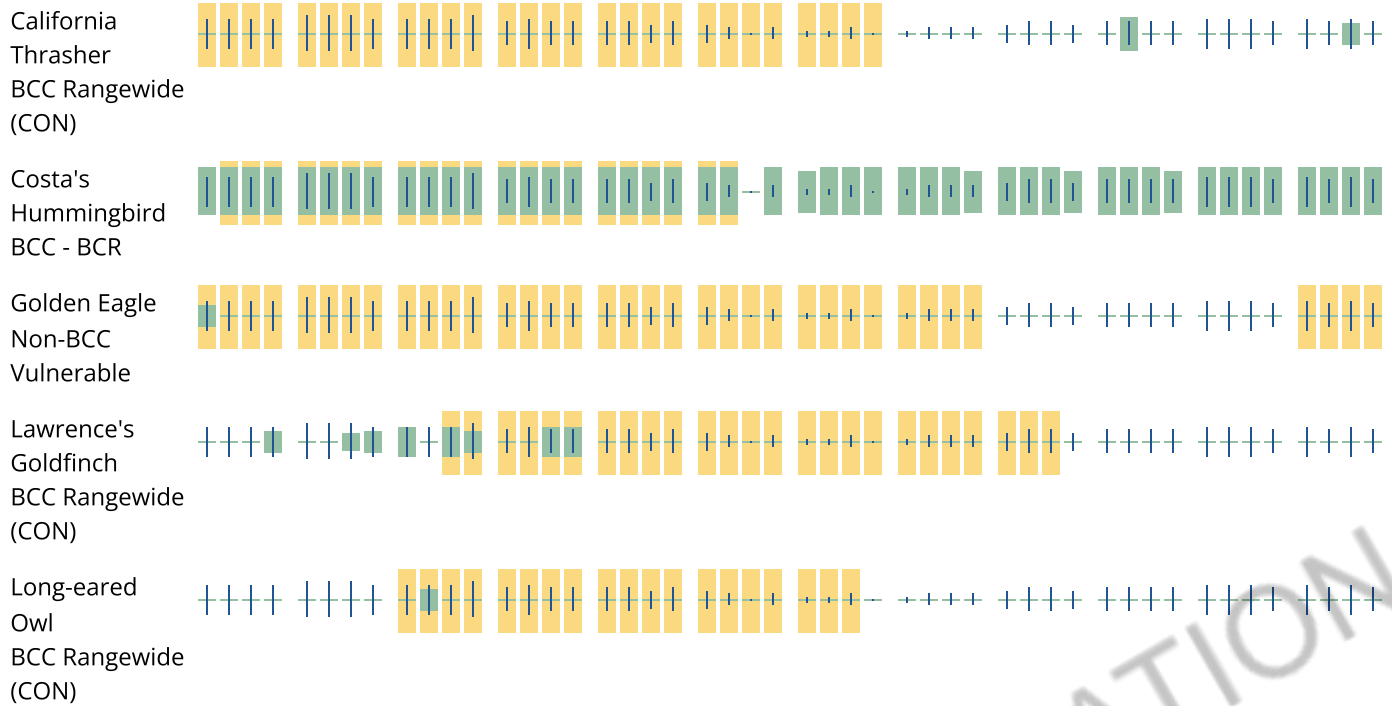
A week is marked as having no data if there were no survey events for that week.

### 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 to 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.

There are no refuge lands at this location.

### 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](#).

This location did not intersect any wetlands mapped by NWI.

**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