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# **Appendix D**

## Biological Resources

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# **Appendix D-1**

## Segment 1 Biological Resources Technical Report



Environmental  
Intelligence, LLC

## **BIOLOGICAL RESOURCES TECHNICAL REPORT**

### **GALE TO PISGAH PROJECT**

### **SAN BERNARDINO COUNTY, CALIFORNIA**

Southern California Edison  
IO # 3363333

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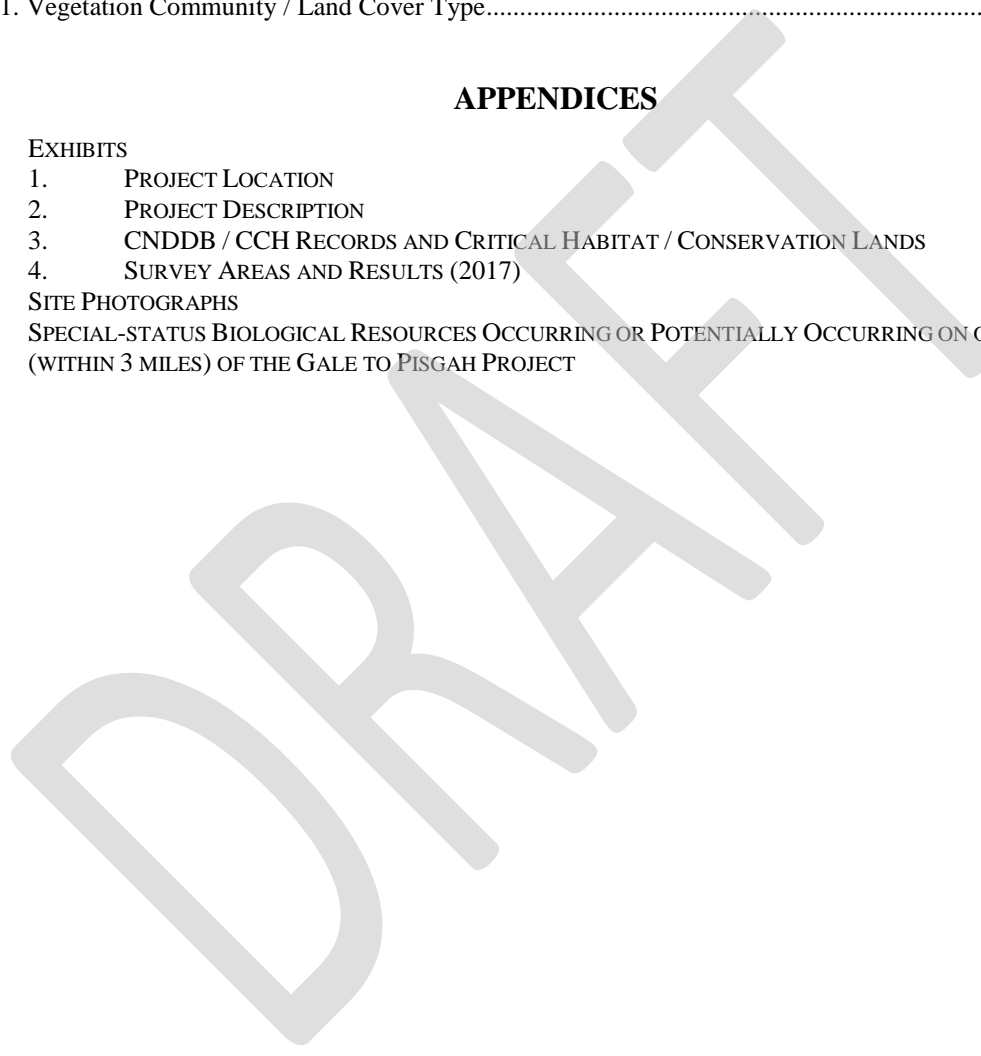
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## EXECUTIVE SUMMARY

The Gale to Pisgah Project (Project) is located in San Bernardino County, California, extending east-southeast from Gale Substation for approximately 29 miles to Pisgah Substation. Environmental Intelligence, LLC (EI) was retained by Southern California Edison (SCE) to update focused surveys for special-status plant species, desert tortoise (*Gopherus agassizii*), burrowing owl (*Athene cunicularia*), and Mojave fringe-toed lizard (*Uma scoparia*). In 2016, BRC Equals 3, Inc. (BRC) conducted initial biological studies for the proposed Project. This Biological Resources Technical Report (BRTR) presents the results of 2017 surveys, summarizes past studies, and will support the preparation of an Environmental Assessment (EA) for the Bureau of Land Management (BLM).

BRC prepared the following reports:

- Habitat Assessment (BRC 2016a),
- Botanical Report (BRC 2016b),
- Desert Tortoise Protocol Survey (BRC 2016c),
- Burrowing Owl Focused Study (BRC 2016d), and
- Mohave Ground Squirrel Habitat Assessment (BRC 2016e).

The Project alignment crosses lands owned by BLM and private landowners. The Project would involve installation of telecommunication all-dielectric self-supporting (ADSS) cable line from Gale Substation to Pisgah Substation along an existing SCE distribution line right-of-way. No poles will need replacement. One additional pole will be installed near Pisgah Substation. No new roads, grading, or lay down areas will be required for this activity.

Numerous erosional features and road-side ditches were identified. These features were not identified as jurisdictional since a formal jurisdictional survey was not conducted. These features are potentially jurisdictional. If Project activities could impact these features, SCE should consult with the appropriate responsible resource agency to verify the limits of jurisdiction results and complete any necessary discretionary permits/authorizations as total avoidance is not likely possible.

Three sensitive vegetation alliances and one sensitive land cover type were identified as occurring in the survey area (BRC 2016a): *Atriplex polycarpa* (Allscale scrub) Alliance, *Prosopis glandulosa* (Mesquite thicket) Alliance, *Suaeda moquinii* (Bush seepweed scrub) Alliance, and Alkali Playa Community.

No federal or state listed plant species were identified during 2017 (EI 2017a), 2016 (BRC 2016b), and 2011 (Tetra Tech 2011) surveys. No federal or state listed plant species are likely to occur in the Project vicinity. Emory's crucifixion-thorn (*Castela emoryi*; California Rare Plant Rank [CRPR] of 2B.2) was identified (one individual) approximately 100 feet outside the Project survey area. Utah vine milkweed (*Funastrum utahense*; CRPR of 4.2) was identified (25 individuals) approximately 50 feet outside the survey area. Small-flowered androstephium (*Androstephium breviflorum*; CRPR of 2B.2) is likely to occur in the eastern portion of the Project based on recent CNDDDB and CCH records, with the closest record (CCH 2009) approximately 200 feet north of Pisgah Substation.

No federal or state listed wildlife species were identified during 2017, 2016 (BRC 2016a, 2016c, 2016d), 2012 (PCR 2012), and 2011 (Tetra Tech 2011) surveys. Desert tortoise (federally and state threatened) is likely to occur in the Project vicinity based on numerous CNDDDB records (2007-2010) of live desert tortoises and sign north of the eastern portion of the alignment, with the nearest live tortoise approximately 1 mile north of Pisgah Substation and the nearest sign (inactive burrows) approximately 0.5 mile north of Pisgah Substation. Golden eagle (*Aquila chrysaetos*; CDFW fully protected) is likely to occur in the Project vicinity based on the presence of suitable nesting and foraging habitats and historic nest sites. Mojave fringe-toed lizard (CDFW Species of Special Concern [SSC]) is likely to occur based on small patches of suitable habitat and historic populations in the Project vicinity. Tricolored blackbird (*Agelaius tricolor*; CDFW SSC) is likely to occur in the Project vicinity based on potentially extant nesting colony records within 1 mile of the alignment. Le Conte's thrasher (*Toxostoma lecontei*; CDFW SSC) are likely to occur in the Project vicinity based on the presence of suitable nesting and foraging habitats. Burrowing owl



(CDFW SSC) is unlikely to occur based on the lack of suitable burrows and sign observed during focused surveys.

DRAFT



## 1.0 INTRODUCTION

The Gale to Pisgah Project (Project) is located in San Bernardino County, California, extending east-southeast from Gale Substation for approximately 29 miles to Pisgah Substation. Environmental Intelligence, LLC (EI) was retained by Southern California Edison (SCE) to update focused surveys for special-status plant species, desert tortoise (*Gopherus agassizii*), burrowing owl (*Athene cunicularia*), and Mojave fringe-toed lizard (*Uma scoparia*). In 2016, BRC Equals 3, Inc. (BRC) conducted initial biological studies for the proposed Project. This Biological Resources Technical Report (BRTR) presents the results of 2017 surveys, summarizes past studies, and will support the preparation of an Environmental Assessment (EA) for the Bureau of Land Management (BLM).

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- Desert Tortoise Protocol Survey (BRC 2016c),
- Burrowing Owl Focused Study (BRC 2016d), and
- Mohave Ground Squirrel Habitat Assessment (BRC 2016e).

## 2.0 PROJECT LOCATION AND DESCRIPTION

The Project is located in San Bernardino County, California, extending east-southeast (ESE) from Gale Substation (approximately 1 mile ESE of Daggett and 9 miles ESE of Barstow) for approximately 29 miles to Pisgah Substation (Appendix A: Exhibit 1). The Project alignment passes through the following United States Geological Survey (USGS) 7.5-minute quadrangles: Minneola, Newberry Springs, Troy Lake, and Hector. Land surrounding the Project includes agricultural areas, off-highway vehicle recreation areas, and undisturbed desert scrub habitats. The Project alignment crosses lands owned by BLM and private landowners.

The Project would involve installation of telecommunication all-dielectric self-supporting (ADSS) cable line from Gale Substation to Pisgah Substation along an existing SCE distribution line right-of-way (Appendix A: Exhibit 2). Approximately 30,300 linear feet (5.7 miles) of ADSS is located on BLM lands, with the remaining work located on private lands. Approximately 7,200 linear feet (1.3 miles) will be underground, of which 2,400 linear feet is located on BLM land. The Gale to Pisgah fiber optic interconnections will support the SCE communication system for the addition of renewable energy generation. This communication system is part of the larger SCE system that provides safe and reliable electrical service consistent with the North American Electric Reliability Corporation, Federal Energy Regulatory Commission, the California Independent System Operators, and SCE's planning design guidelines and criteria. The ADSS is necessary to ensure adequate communication facilities are in place for the Calcite Substation Project, Eldorado-Lugo-Mojave Project, and Lugo-Victorville 500-kV Transmission Line Special Protection Scheme Project.

Overhead ADSS stringing includes all activities associated with the installation of cables onto cross arms on existing wood pole structures. Installation of the ADSS on existing distribution poles will require modifications to meet pole loading requirements. Pole modifications along the alignment include raising pole heights, installing anchor/ down guys, adding guy wires to existing anchors, and installing risers, as identified in SCE's Right-of-Way Application Plan of Development (SCE 2017). No poles will need replacement. One additional pole will be installed to provide intermediate support near Pisgah Substation, on BLM land.

Fiber optic cable stringing includes all activities associated with the installation of cables onto the overhead wood pole structures. This activity includes the installation of vibration dampeners and suspension and dead-end hardware assemblies. Stringing sheaves (rollers or travelers) are attached during the framing process. Although stringing fiber is typically accomplished from trucks and equipment parked on existing access roads and work areas, some pulling site locations may be required in previously undisturbed areas, and fiber may affect existing vegetation during installation. Typically, fiber optic cable pulls occur every 6,000 feet to 10,000 feet and at each line direction change on both flat and mountainous terrain. The





dimensions of the area needed for stringing set ups varies depending upon the terrain, however a typical stringing site is 40 feet by 60 feet. SCE anticipates being able to complete most pulling and splicing from existing roads.

No new roads, grading, or lay down areas will be required for this activity. Most of the poles on Public Lands that will be utilized are immediately adjacent to Highway 66, the National Trails Highway. Where the existing distribution line is offset from the highway, existing service access will be utilized to each pole to allow installation equipment to approach the pole and place the hardware and the cable. Access to facilities would involve use of surface streets and existing dirt and two-track roads to the greatest extent possible. In locations where access roads are not available, trucks will complete overland travel to the poles. No new permanent access roads will be established.

### **3.0 REGULATORY FRAMEWORK**

The Project will comply with applicable federal, state, and local laws, ordinances, regulations, and standards (LORS) throughout Project construction. Potentially applicable LORS are discussed below.

#### **3.1 Federal**

##### **3.1.1 FEDERAL ENDANGERED SPECIES ACT (FESA)**

This 1973 law, administered by the United States Fish and Wildlife Service (USFWS), is designed to minimize impacts to imperiled plants and animals, as well as facilitate recovery of such species. Declining plant and animal species are listed as “endangered” or “threatened” based on a variety of factors. Applicants for projects requiring federal agency action that could adversely affect listed species are required to consult with and mitigate impacts in consultation with the USFWS. Adverse impacts are defined as “take” (defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct”), which is prohibited except as authorized through consultation under Section 7 or through issuance of an Incidental Take Permit under Section 10. The Palm Springs Fish and Wildlife Office oversees permitting actions relative to the FESA for this Project.

##### **3.1.2 MIGRATORY BIRDS**

The protection of birds is regulated by the Migratory Bird Treaty Act (MBTA) and the Bald and Golden Eagle Protection Act (BGEPA). Any activity, intentional or unintentional, resulting in take of migratory birds, including eagles, is prohibited unless otherwise permitted by the USFWS (50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)). The Palm Springs Fish and Wildlife Office oversees actions relative to migratory birds and eagles for this Project.

The MBTA makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to federal regulations. The migratory bird species protected by the MBTA are listed in 50 CFR 10.13.

The BGEPA (16 U.S.C. 668-668c), enacted in 1940, and amended several times since then, prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" bald and golden eagles, including their parts, nests, or eggs. The BGEPA provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle...or any golden eagle, alive or dead, or any part, nest, or egg thereof." The BGEPA defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb." Disturb is defined under the BGEPA as to agitate or bother an eagle to a degree that causes, or is likely to cause, based on the best scientific information available, (1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior (Pagel et al. 2010).

##### **3.1.3 USFWS HABITAT CONSERVATION PLANS**

Habitat Conservation Plans (HCPs) under section 10(a)(1)(B) of the FESA provide for partnerships with non-federal parties to conserve the ecosystems upon which listed species depend, ultimately contributing



to their recovery. A review of the current USFWS-ECOS Conservation Online System revealed the following HCPs are located in the Project area: Desert Renewable Energy Conservation Plan (DRECP) (CEC et al. 2014) and West Mojave Plan (BLM 2006). These plans are described in more detail in Section 5.2 (Designated Critical Habitat and Conservation Lands).

### 3.2 State of California

#### 3.2.1 CALIFORNIA ENDANGERED SPECIES ACT (CESA)

The California Endangered Species Act (CESA) states that all native species of fishes, amphibians, reptiles, birds, mammals, invertebrates, and plants, and their habitats, threatened with extinction and those experiencing a significant decline which, if not halted, would lead to a threatened or endangered designation, will be protected or preserved. This state law prohibits the “take” (defined as to hunt, pursue, catch, capture, or kill) of state listed species except as otherwise provided in state law. CESA, administered by the California Department of Fish and Wildlife (CDFW), is similar to the FESA, although unlike the federal law, CESA applies incidental take prohibitions to species currently petitioned for state-listing status (i.e., candidate species). State lead agencies are required to consult with the CDFW to ensure that their authorized actions are not likely to jeopardize the continued existence of any state listed species or result in the degradation of occupied habitat. Under Section 2081, CDFW authorizes “take” of state listed endangered, threatened, or candidate species through incidental take 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. Should a species be both federally and state listed, and if the FESA authorization fulfills CESA requirements, CDFW may streamline the CESA permitting process by adopting a Consistency Determination (Section 2081.1), that concurs with the federal authorization. The CDFW Inland Deserts Region oversees actions relative to CESA for this Project.

#### 3.2.2 CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA)

CEQA applies to “projects” proposed to be undertaken or requiring approval by state and/or local governmental agencies. “Projects” are activities that have the potential to have a physical impact on the environment. The purpose of CEQA is to: (1) disclose to the public the significant environmental effects of a proposed discretionary project, through the preparation of an Initial Study (IS), Negative Declaration (ND), or Environmental Impact Report (EIR); (2) prevent or minimize damage to the environment through development of project alternatives, mitigation measures, and mitigation monitoring; (3) disclose to the public the agency decision-making process utilized to approve discretionary projects through findings and statements of overriding consideration; (4) enhance public participation in the environmental review process through scoping meetings, public notice, public review, hearings, and the judicial process; and (5) improve interagency coordination through early consultations, scoping meetings, notices of preparation, and State Clearinghouse review. The CDFW Inland Deserts Region oversees actions relative to CEQA for this Project.

#### 3.2.3 FISH AND GAME CODE AND TITLE 14 LAWS AND REGULATIONS

Fish and Game Code (FGC) Section 3503 states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the Code or any associated regulation. Section 3503.5 makes it unlawful to take, possess, or destroy birds of prey. It also prohibits the take, possession, or destruction of nests or eggs of any bird of prey. Section 3511 describes bird species, primarily raptors that are “fully protected.” Fully protected species may not be taken or possessed, except under specific permit requirements. No incidental take permit may be issued for a fully protected species.

Sections 4700, 5050, and 5515 list mammal, reptile and amphibian, and fish species, respectively, that are classified as fully protected in California.



Section 1900 *et seq.* describes the Native Plant Protection Act (NPPA). The NPPA was enacted in 1977 and allows the Fish and Game Commission to designate plants as rare or endangered. There are 64 species, subspecies, and varieties of plants that are protected as rare under the NPPA. The NPPA prohibits take of endangered or rare native plants, but includes some exceptions for agricultural and nursery operations, emergencies, and after properly notifying CDFW, for vegetation removal from canals, roads, and other sites, changes in land use, and in certain other situations.

Title 14, California Code of Regulations (CCR) lists plant and animal species designated as threatened and endangered in California. California Species of Special Concern (SSC) is a category applied by CDFW to those species that are indicators of regional habitat changes or are considered potential future protected species. SSCs do not have any special legal status, but are intended by CDFW for use as a management tool to take these species into special consideration when decisions are made concerning the future of any land parcel.

#### 3.2.4 CALIFORNIA FOOD AND AGRICULTURE CODE

The California Desert Native Plants Act, California Food and Agriculture Code Sections 80001-80201, protects California desert native plants from unlawful harvesting on both public and privately owned lands. Section 80073 stipulates that specific native plants or any part thereof, may not be harvested except under a permit issued by the commissioner or the sheriff of the county in which the native plants are growing. Section 80117 states, “This division does not apply to a public agency or to a publicly or privately owned public utility when acting in the performance of its obligation to provide service to the public. This section does not prevent the landowner or his or her agent from complying with any other federal, state, or local laws or regulations.”

#### 3.2.5 NATURAL COMMUNITY CONSERVATION PLANS

CDFW’s Natural Community Conservation Planning Act (NCCPA) allows for the development of broad-based ecosystem-level plans for the protection and perpetuation of biological diversity. The primary objective of Natural Community Conservation Plans (NCCP) prepared under the NCCPA is to conserve natural communities at the ecosystem level while accommodating compatible land use. No NCCPs are located in the Project area.

### 3.3 Local

#### 3.3.1 COUNTY PLANS

The Project is subject to the requirements and authority of the San Bernardino County General Plan (URS 2007). The Project is located within the Plan’s Desert Planning Region, which aims to preserve the unique environmental features and natural resources of the Desert Region, including native wildlife, vegetation, water, and scenic vistas. Specific goals and policies include:

- Encourage the greater retention of existing native vegetation for new development projects to help conserve water, retain soil in place and reduce air pollutants.
- Require future land development practices to be compatible with the existing topography and scenic vistas, and protect the natural vegetation.
- Require retention of existing native vegetation for new development projects, particularly Joshua trees (*Yucca brevifolia*), Mojave yuccas (*Yucca schidigera*), creosote rings, and other species protected by the Development Code and other regulations.
- Reduce disturbances to fragile desert soils as much as practicable to reduce fugitive dust.
- Mechanical removal of vegetation shall be minimized and limited to the areas prepared for permitted accessory uses.
- Encourage the retention of specimen sized Joshua trees.



### 3.4 Designated Critical Habitat and Conservation Lands

#### 3.4.1 DESERT TORTOISE CONSERVATION AREAS

Desert tortoise conservation areas include desert tortoise habitat within critical habitat, Desert Wildlife Management Areas (DWMAs), Areas of Critical Environmental Concern (ACEC), Grand Canyon-Parashant National Monument, Desert National Wildlife Refuge, National Park Service lands (e.g., Mojave National Preserve), Red Cliffs Desert Reserve, and other conservation areas or easements managed for desert tortoises (USFWS 2011). The Project is located within the Western Mojave Recovery Unit as described in the Revised Desert Tortoise Recovery Plan (USFWS 2011). The Superior-Cronese Desert Tortoise Critical Habitat Unit (DTCHU) is located approximately 4 miles north of the western portion of the alignment, and the Ord-Rodman DTCHU is located just south of the alignment, with an approximately 2-mile segment (eastern portion) of alignment within the Ord-Rodman DTCHU (Appendix A: Exhibit 3).

#### 3.4.2 CALIFORNIA DESERT CONSERVATION AREA

Section 601, the California Desert Conservation Area (CDCA), of the Federal Land Policy and Management Act (FLPMA) of 1976 provides for the immediate and future protection and administration of the public lands in the California desert within the framework of a program of multiple use and sustained yield, and the maintenance of environmental quality (United States Department of the Interior 2001). The National Forest Service, National Park Service, and Bureau of Land Management are commissioned in FLPMA to allow a variety of uses on their land while simultaneously trying to preserve the natural resources in them. The CDCA includes the West Mojave planning area, which covers the Project. The goal of this plan is to conserve and protect the desert tortoise and nearly 100 other sensitive plants and animals, as well as the ecosystems on which they depend. It provides developers of public and private projects with a streamlined program for compliance with the California and federal endangered species acts, reduce delays and expenses, eliminate uncertainty, and apply the costs of compensation and mitigation equitably to all agencies and parties.

#### 3.4.3 DESERT RENEWABLE ENERGY CONSERVATION PLAN

The Project is located within the Desert Renewable Energy Conservation Plan (DRECP) and in areas governed by the BLM. The DRECP (CEC et al. 2014) is intended to provide a streamlined process for the development of utility-scale renewable energy generation and transmission in the deserts of Southern California (Imperial, Inyo, Kern, Los Angeles, Riverside, San Bernardino, and San Diego Counties) consistent with federal and state renewable energy targets and policies while providing long-term conservation and management of special-status species and desert vegetation communities. The DRECP covers 22.5 million acres and is a collaborative effort between BLM, USFWS, CEC, and CDFW. The DRECP is currently in a draft status, with only BLM lands subject to its policies.

#### 3.4.4 BLM AREAS OF CRITICAL ENVIRONMENTAL CONCERN

Areas of Critical of Environmental Concern (ACEC) are special management areas designated by BLM to protect significant historic, cultural, or scenic values; fish and wildlife resources; natural process or systems; and/or natural hazards. The Project passes through the Ord-Rodman Desert Wildlife Management Area (analogous to the Ord-Rodman DTCHU). Other ACECs in the Project vicinity (within 3 miles) include the Mojave Monkeyflower ACEC, Mojave Fringe-toed Lizard ACEC, and Pisgah ACEC (Appendix A: Exhibit 3).

## 4.0 METHODS

### 4.1 Database Search and Literature Review

Prior to the initiation of field work, a review of pertinent literature was performed to determine which species/habitats identified as special-status by state, federal, and local resources agencies have the potential to occur along the Project alignment or immediate vicinity (within 3 miles). This included a review of the following pertinent databases and documents:

- USFWS Species Occurrence Data,



- Federal Register listing package and critical habitat determination for each federally listed Endangered or Threatened species potentially occurring within the Project vicinity,
- The 1994 and 2011 Desert Tortoise Recovery Plans (USFWS 1994a, 2011),
- California Natural Diversity Database (CNDDDB) RareFind application (CNDDDB 2017),
- Electronic Inventory of the California Native Plant Society (CNPS 2017) and Consortium of California Herbaria (CCH 2017),
- San Bernardino County General Plan (URS 2007),
- Desert Renewable Energy Conservation Plan (CEC et al. 2014),
- Previous studies conducted specifically for the Gale to Pisgah Project:
  - Habitat Assessment (BRC 2016a),
  - Botanical Report (BRC 2016b),
  - Desert Tortoise Protocol Survey (BRC 2016c),
  - Burrowing Owl Focused Study (BRC 2016d),
  - Mohave Ground Squirrel Habitat Assessment (BRC 2016e),
  - Mojave Fringe-toed Lizard Habitat Assessment and Focused Survey Results (PCR 2012),
  - Biological Resources Surveys for the Granite Mountain Wind Energy Project (Tetra Tech 2011)
- Previous studies conducted in the immediate vicinity of the Gale to Pisgah Project:
  - Focused Survey for Desert Tortoise for the Interstate 40 Median Regrade and Recontour Project (AMEC 2013),

Special-status species with the potential to occur within the 2017 survey area were evaluated based on SCE's Species Presence/Absence Determination flow-chart:

- **Occurs:** the species and/or positive sign was observed on-site during site visit or field survey.
- **Absent:** the species and/or positive sign was not observed on-site during focused survey(s) during the appropriate blooming/activity period (and, for plants, observed at a reference population).
- **Likely:** all site features indicate this species is very likely present and should be expected. Criteria include:
  - Project site within geographic range;
  - Suitable habitat present (e.g., soils, vegetation communities, elevation, roost sites, leaf litter/debris, water, host plants, etc.); and
  - Distance to historical record(s) less than 25 years old are less than 500 feet (plants/fish), 1,000 feet (riparian wildlife), 1 mile (birds/bats), 2 miles (large mammals), or 3 miles (small mammals/herps).
- **Unlikely:** species could occur, but records of the species are not locally known. Criteria include:
  - Project site within geographic range;
  - Suitable habitat present (e.g., soils, vegetation communities, elevation, roost sites, leaf litter/debris, water, host plants, etc.); and
  - Distance to historical record(s) less than 25 years old are more than 500 feet (plants/fish), 1,000 feet (riparian wildlife), 1 mile (birds/bats), 2 miles (large mammals), or 3 miles (small mammals/herps); or historical record 26-75 years old indicates it is extant and accurately mapped.



- **Does Not Occur:** species would not occur because the Project site is outside known or current geographic/elevation range, lacks habitat or suitable conditions, and/or there is reasonable certainty to assume absent based on historical records.

## 4.2 Field Surveys

For referenced reports (i.e., previous studies), please see the respective report for more detailed methodologies.

### 4.2.1 WATERS

A jurisdictional delineation has not been conducted for this Project. However, EI Waters Specialist Travis Kegel conducted a desktop review using Google Earth, and Scott Lillie and Rachel MacNutt conducted a field verification survey on August 28-31, 2017. The survey area consisted of a 100-foot buffer around the Project alignment and included all proposed substations, disturbance areas, and tie-in locations along the existing SCE transmission line.

### 4.2.2 HABITAT ASSESSMENT

#### 4.2.2.1 EI 2017

EI conducted Habitat Assessments in advance of focused surveys to identify areas of suitable habitat. These assessments are described in more detail in the following species-specific sections.

#### 4.2.2.2 Previous Studies

BRC (2016a) conducted a Habitat Assessment for the Project in March 2016. The assessment included a literature and database review; reconnaissance-level surveys to identify suitable habitat for special-status species; vegetation mapping; probability occurrence mapping for desert tortoise, burrowing owl, and Mohave ground squirrel (*Xerospermophilus mohavensis*); and focused surveys for plants, desert tortoise, and burrowing owl (discussed below in respective sections).

Tetra Tech (2011) conducted a Biological Resources Assessment for the Project in 2011. The assessment included a desktop assessment and literature review, vegetation mapping, and focused surveys for plants and desert tortoise (discussed below in respective sections).

### 4.2.3 BOTANICAL SURVEYS

#### 4.2.3.1 EI 2017

EI (2017a) conducted botanical surveys for the Project in April/May and May/June 2017. The survey area included a 20-foot buffer around the substations (did not survey inside substations), material laydown yards, pole sites, and on either side of the centerline for underground work. Reference population site visits were conducted in the Project region: Mojave menodora (*Menodora spinescens* var. *mohavensis*) and Clokey's cryptantha (*Cryptantha clokeyi*) were present and identifiable; Mojave monkeyflower (*Mimulus mojavensis*) and white-margined beardtongue (*Penstemon albomarginatus*) were not observed to be present or were not identifiable.

#### 4.2.3.2 Previous Studies

BRC (2016b) conducted botanical surveys for the Project in April/May and June 2016. The survey area included 75 feet on either side of the alignment centerline and the entire proposed substation and work area sites. Reference population site visits were conducted in the Project region: Mojave menodora and Parish's phacelia (*Phacelia parishii*) were present and identifiable; creamy blazing star (*Mentzelia tridentata*), Mojave monkeyflower, and white-margined beardtongue were not observed to be present or were not identifiable.

Tetra Tech (2011) contracted Alphabiota Environmental Consulting, LLC (Alphabiota) to conduct botanical surveys for the Project in April/May 2011. The survey area included 50 feet on either side of the alignment centerline.



#### 4.2.4 DESERT TORTOISE SURVEYS

##### 4.2.4.1 EI 2017

Qualified biologists Minh Dao, Ryan Hilgrs, Terry Hurt, Rachel MacNutt, Randy Sisk, Tracy Treybig, and Mike Zerwekh conducted desert tortoise protocol-level surveys on May 18-19 and May 22-24, 2017. Surveys were conducted in accordance with the *2010 Field Season Survey Protocol* (USFWS 2010) during weather conditions conducive to observing live tortoises and sign. Ten-meter transects were surveyed over 100 percent of the survey area, which was approved by USFWS and consisted of a 100-foot buffer around the substations (did not survey inside substations), material laydown yards, and on either side of the alignment. The Action Area, defined as the areas to be affected directly or indirectly and not merely the immediate area involved in the Project's disturbance area, was equivalent to the survey area.

Global Positioning System (GPS) handheld units (Trimble and Garmin recreational models), binoculars, digital cameras, and field forms/notes were used to aid in recording tortoise sign and other biological resources. A handheld weather meter was used to record temperatures at the start and end of each transect. Daily focused surveys were ceased if temperatures in the shade at 5 cm above the ground reached 40° Celsius (C; 104° Fahrenheit [F]). All desert tortoise sign, as well as required survey and weather data was recorded on USFWS 2010 Desert Tortoise Pre-Project Survey Datasheets. If applicable, the general health of live desert tortoises encountered was assessed when the head and carapace were visible to surveyors without stressing the animal. Binoculars were used to inspect the eyes, nares, and shell conditions of the tortoises for clinical signs of disease without handling or approaching the animals too closely. Desert tortoises encountered were not touched or handled at any time during the survey, and biological samples were not taken to assist in the assessments of health of the encountered tortoises. All flora and fauna observed were recorded on the field forms or in personal field notes.

##### 4.2.4.2 Previous Studies

BRC (2016c) conducted a focused Habitat Assessment and protocol-level desert tortoise surveys for the Project in May 2016. To estimate the numerical presence of desert tortoises within the survey area, the data from the protocol-level survey were used to calculate abundance with 95 percent confidence intervals. The USFWS uses these numbers to determine the extent of impacts to desert tortoises within the Project area.

AMEC (2013) conducted protocol-level desert tortoise surveys within the median of Interstate 40 (I-40) in September 2013. The survey area included suitable habitat within the I-40 median from Post Mile (PM) 0.0 (I-15/I-40 junction) to PM 25.0 (approximately 1 mile east of Fort Cady Road). The distance between the I-40 median survey area and the Gale to Pisgah 2017 survey area ranges from 0 to approximately 3,000 feet for the 16 miles of parallel survey areas (PM 8.6 to PM 25.0).

Tetra Tech (2011) contracted Sunrise Consulting and Alphabiota to conduct desert tortoise surveys for the Project in May 2011. The survey area included 100 feet on either side of the alignment centerline.

#### 4.2.5 MOJAVE FRINGE-TOED LIZARD SURVEYS

##### 4.2.5.1 EI 2017

Qualified biologists Scott Lillie and Rachel MacNutt conducted a Habitat Assessment to identify Mojave fringe-toed lizard suitable habitat on August 29-31, 2017. In areas of suitable habitat, transects were walked within a 100-foot Project buffer to identify live individuals, suitable burrows, and/or sign.

##### 4.2.5.2 Previous Studies

PCR (2012) conducted a Habitat Assessment for Mojave fringe-toed lizard (*Uma scoparia*) to determine whether suitable habitat occurs in the Project area. Within potentially suitable habitat patches along a 2-mile-long segment located west of Pisgah Crater, PCR conducted a focused survey for Mojave fringe-toed lizard in October 2012. The survey area included 50 feet on either side of the alignment centerline.

## 4.2.6 BURROWING OWL SURVEYS

### 4.2.6.1 EI 2017

EI (2017b) conducted a burrowing owl Habitat Assessment and protocol-level focused surveys. All burrowing owl surveys were based on the protocol outlined in the most recent CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012). The survey area consisted of a 100-foot buffer around the Project alignment and included all proposed substations, disturbance areas, and tie-in locations along the existing SCE transmission line.

### 4.2.6.2 Previous Studies

BRC (2016d) conducted a focused Habitat Assessment and focused surveys for burrowing owl in May 2016. Burrowing owl surveys were conducted concurrently with Project-related desert tortoise surveys.

## 5.0 RESULTS

### 5.1 Physical Environment

Topography within the Project boundaries is relatively flat with elevations ranging from approximately 1,775 to 2,100 feet (540 to 640 meters) above mean sea level (amsl). The Mojave River Valley is located to the north of the Project. The Newberry Mountains are located directly south of the Project, with the Ord, Fry, and Rodman Mountains located further to the south. The City of Daggett is located near the west terminus of the Project, and Pisgah Crater is located near the east terminus. The Project passes through Troy Dry Lake and the Pisgah Crater lava flows.

### 5.2 Waters

Numerous erosional features and road-side ditches were identified during the field verification survey. These features were not identified as jurisdictional since a formal jurisdictional survey was not conducted. Troy Dry Lake was confirmed as an alkali playa community (see Section 5.4.2). These features are potentially jurisdictional. If Project activities could impact these features, SCE would consult with the appropriate responsible resource agency to verify the limits of jurisdiction results and complete any necessary discretionary permits/authorizations.

### 5.3 Vegetation Communities/Land Cover Types

Eleven vegetation communities/land cover types, including three sensitive vegetation communities, one sensitive land cover type, and seven non-sensitive vegetation communities/land cover types were previously documented and mapped during Habitat Assessment studies (BRC 2016a; see report for maps). Desert saltbush scrub is present along the middle portion of the alignment, mesquite thicket woodland is scattered across desert riparian areas within the alignment, and bush seepweed scrub is present near the alkali playa in the central portion of the alignment. Alkali playa is a sensitive land cover type that occurs in dry lake beds along the eastern portion of the alignment. Descriptions of the communities, based on the Manual of California Vegetation, 2nd Edition (Sawyer et al. 2009), and land cover types are provided below.

TABLE 1. VEGETATION COMMUNITY / LAND COVER TYPE

Vegetation Community / Land Cover Type	Rarity Ranking <sup>1</sup>
<b>Sensitive Vegetation Communities</b>	
<i>Atriplex polycarpa</i> (Allscale scrub) Alliance – Desert Saltbush Scrub (36.340.00)	G4 S3
<i>Prosopis glandulosa</i> (Mesquite thicket) Alliance (61.512.00)	G5 S3
<i>Suaeda moquinii</i> (Bush seepweed scrub) Alliance (36.200.00)	G5 S3
<b>Non-sensitive Vegetation Communities</b>	
<i>Atriplex canescens</i> (Fourwing saltbush scrub) Alliance (36.310.00)	G5 S4
<i>Atriplex confertifolia</i> (Shadscale scrub) Alliance (36.320.00)	G5 S4
<i>Larrea tridentata</i> (Creosote bush scrub) Alliance (33.010.00)	G5 S5
<i>Larrea tridentata</i> – <i>Ambrosia dumosa</i> (Creosote bush – white bursage scrub) Alliance (33.140.00)	G5 S5



TABLE 1. VEGETATION COMMUNITY / LAND COVER TYPE

Vegetation Community / Land Cover Type	Rarity Ranking <sup>1</sup>
<i>Tamarix</i> ssp. (Tamarisk thickets) Semi-Natural Stands (63.810.00)	G5 S4
<b>Land Cover Types</b>	
Active Agriculture	N/A
Alkali Playa Community	G4 S3
Developed	N/A
<sup>1</sup> Rarity and Global/State Ranks: One purpose of the vegetation classification is to assist in determining the level of rarity and imperilment of vegetation types. Ranking of alliances according to their degree of imperilment (as measured by rarity, trends, and threats) follows NatureServe's Heritage Methodology, in which all alliances are listed with a G (global) and S (state) rank. Alliances with State ranks of S1-S3 are considered to be highly imperiled.	

### 5.3.1 SENSITIVE VEGETATION COMMUNITIES

#### *Atriplex polycarpa* (Allscale scrub) Alliance – Desert Saltbush Scrub

Allscale (*Atriplex polycarpa*) is dominant in the shrub canopy with white bursage (*Ambrosia dumosa*), burrobrush (*Ambrosia salsola*), fourwing saltbush (*Atriplex canescens*), foxtail brome (*Bromus rubens*), smallseed sandmat (*Chamaesyce polycarpa*), bladderpod (*Cleome isomeris*), alkali goldenbush (*Isocoma acradenia*), and creosote bush (*Larrea tridentata*). Emergent trees may be present at low cover, including honey mesquite (*Prosopis glandulosa*). Habitats include washes, playa lake beds and shores, dissected alluvial fans, rolling hills, terraces, and edges of large, low gradient washes. Soils may be carbonate rich, alkaline, sandy, or sandy clay loams. Elevation ranges from -75 to 1,500m.

#### *Prosopis glandulosa* (Mesquite thicket) Alliance

Honey mesquite is dominant or co-dominant in the small tree canopy with narrowleaf willow (*Salix exigua*), arroyo willow (*Salix lasiolepis*), and black elderberry (*Sambucus nigra*). Shrubs may include iodine bush (*Allenrolfea occidentalis*), white bursage, fourwing saltbush, allscale, sweetbush (*Bebbia juncea*), sandpaper plant (*Petalonyx thurberi*), arrow weed (*Pluchea sericea*), sugar sumac (*Rhus ovata*), or bush seepweed (*Suaeda moquinii*). Habitats include fringes of playa lakes, river terraces, stream banks, floodplains, rarely flooded margins of arroyos and washes, and sand dunes. Elevation ranges from 75 to 1,100 m.

#### *Suaeda moquinii* (Bush seepweed scrub) Alliance

Bush seepweed is dominant or co-dominant in the shrub and herbaceous layers with iodine bush, fourwing saltbush, allscale, alkali heath (*Frankenia salina*), Mojave red sage (*Kochia californica*), black greasewood (*Sarcobatus vermiculatus*), and alkali sacaton (*Sporobolus airoides*). Habitats include flat to gently sloping valley bottoms, playas, toe slopes adjacent to alluvial fans, and bajadas. Soils are deep; saline or alkaline. Elevation ranges from 0 to 1,300m.

### 5.3.2 SENSITIVE LAND COVER TYPES

#### Alkali Playa Community

Alkali playa is a rare community of habitats that are intermittently flooded or saturated. Examples include dry lake beds and margins (Troy Dry Lake), hummocks, lagoon bars, old lake beds perched above current drainages, and seeps (Holland 1986).

### 5.3.3 NON-SENSITIVE VEGETATION COMMUNITIES

#### *Atriplex canescens* (Fourwing saltbush scrub) Alliance

Fourwing saltbush is dominant or co-dominant in the shrub canopy with white bursage, burrobrush, shadscale (*Atriplex confertifolia*), allscale, green rabbitbrush (*Chrysothamnus viscidiflorus*), bladderpod, Mormon tea (*Ephedra viridis*), hop sage (*Grayia spinosa*), creosote bush, and bush seepweed. Emergent trees may be present at low cover, including honey mesquite. Habitats include playas, old beach and shores,

lake deposits, dissected alluvial fans, and rolling hills. Soils are carbonate rich, alkaline, sandy, or sandy clay loams. Elevation ranges from -75 to 1,500m.

#### *Atriplex confertifolia* (Shadscale scrub) Alliance

Shadscale is dominant or co-dominant in the shrub canopy with white bursage, allscale, Mojave saltbush (*Atriplex spinifera*), green rabbitbrush, blackbrush (*Coleogyne ramosissima*), acton encelia (*Encelia actoni*), Virgin river brittlebush (*Encelia virginensis*), Nevada ephedra (*Ephedra nevadensis*), Heermann's buckwheat (*Eriogonum heermannii*), hop sage, matchweed (*Gutierrezia microcephala*), winterfat (*Krascheninnikovia lanata*), creosote bush, Anderson's thornbush (*Lycium andersonii*), bud sagebrush (*Picrothamnus desertorum*), black greasewood, and catclaw horsebrush (*Tetradymia axillaris*). Emergent, taller shrubs may be present at low cover. Habitats include bajadas, flats, lower slopes, rocky hills, valleys, minor rills, washes, and edges of playas. Soils are variable; may be carbonate rich, clay rich, or have a high sand content, and may be covered with desert pavement. Elevation ranges from 450 to 2,500m.

#### *Larrea tridentata* (Creosote bush scrub) Alliance

Creosote bush is dominant or co-dominant in the shrub canopy with Shockley's goldenhead (*Acamptopappus shockleyi*), rayless goldenhead (*Acamptopappus sphaerocephalus*), white bursage, burrobrush, shadscale, desert holly (*Atriplex hymenelytra*), allscale, woolly brickellbush (*Brickellia incana*), brittlebush (*Encelia farinosa*), California ephedra (*Ephedra californica*), Nevada ephedra, and Anderson's thorn bush. Emergent trees may be present at low cover, including honey mesquite or Joshua tree. Habitats include alluvial fans, bajadas, upland slopes, and minor intermittent washes. Soils are well drained, sometimes with desert pavement. Elevation ranges from -75 to 1,000m.

#### *Larrea tridentata* - *Ambrosia dumosa* (Creosote bush - white bursage scrub) Alliance

White bursage and creosote bush are co-dominant in the shrub canopy with burrobrush, chaffbush (*Amphipappus fremontii*), shadscale, desert holly, allscale, sweetbush, California croton (*Croton californicus*), buck horn cholla (*Cylindropuntia acanthocarpa*), branched pencil cholla (*Cylindropuntia ramosissima*), downy dalea (*Dalea mollissima*), cottontop cactus (*Echinocactus polycephalus*), brittlebush (*Encelia farinosa*), Virgin river brittlebush, *Ephedra* spp., California buckwheat (*Eriogonum fasciculatum*), *Krameria* spp., desert allysum (*Lepidium fremontii*), Anderson's thornbush, *Psoralea* spp., Mexican bladdersage (*Salazaria mexicana*), desert senna (*Senna armata*), parish viguiera (*Viguiera parishii*), and Mojave yucca. Emergent trees or tall shrubs may be present at low cover, including ocotillo (*Fouquieria splendens*) or Joshua tree. Habitats include minor washes and rills, alluvial fans, bajadas, and upland slopes. Soils are well-drained, alluvial, colluvial, sandy, sometimes underlain by a hardpan that may be calcareous and/or covered with desert pavement. Elevation ranges from -75 to 1,200 m.

#### *Tamarix* ssp. (Tamarisk thickets) Semi-Natural Stands

Saltcedar (*Tamarix ramosissima*) or another *Tamarix* species is dominant in the shrub canopy. Emergent trees may be present at low cover, including Fremont cottonwood (*Populus fremontii*) or *Salix* spp. Habitats include arroyo margins, lake margins, ditches, washes, rivers, and other watercourses. Elevation ranges from -75 to 800m.

### 5.3.4 NON-SENSITIVE LAND COVER TYPES

#### Active Agriculture

Agricultural lands are used primarily for production of food and fiber. Such areas include croplands, pastures, orchards, groves, vineyards, nurseries, ornamental horticultural areas, confined feeding operations, and other agricultural land. Fallow agricultural fields are also classified as Active Agriculture.

#### Developed

Developed lands include urban or built-up areas with much of the land covered by structures. Such areas include cities, transportation, power and communications facilities, mills, shopping centers, and other buildings that may, in some cases, be separate from urban areas. Urban or built-up land may contain a wide variety of native and non-native, ruderal and ornamental plant species.



## 5.4 General Plants and Wildlife

Plant species identified during botanical surveys are included in their respective reports (EI 2017a; BRC 2016b; Tetra Tech 2011). Wildlife species identified during 2017 surveys (desert tortoise, Mojave fringe-toed lizard, burrowing owl) included western zebra-tailed lizard (*Callisaurus draconoides rhodostictus*), western side-blotched lizard (*Uta stansburiana elegans*), Great Basin whiptail (*Aspidoscelis tigris tigris*), common raven (*Corvus corax*), horned lark (*Eremophila alpestris*), house finch (*Haemorhous mexicanus*), and California towhee (*Melospiza crissalis*); for previous studies, a wildlife species compendium was only included in BRC's Habitat Assessment (BRC 2016a).

It should be noted that short-term inventories of this nature are limited in their scope by the seasonality, timing and duration of surveys, plant blooming periods, and the nocturnal and fossorial habits of many animals. Therefore, the lists of species do not necessarily reflect the total number of plants and animals that potentially occupy the survey areas.

## 5.5 Wildlife Movement

Landscape habitat linkages, wildlife corridors, and wildlife crossings allow for long- or short-distance movements, dispersal, and migration. Landscape habitat linkages are large open space areas that contain natural habitat and provide a connection between at least two larger adjacent open spaces or habitat areas. Wildlife corridors are linear landscape elements that provide for species movement and dispersal between two or more habitats. Wildlife crossings are locations where wildlife must pass through physically constrained environments (e.g., roads, development) during movement within home ranges or during dispersal or migration between core areas of suitable habitat. Maintaining sufficient connectivity between peripheral and core populations and among core habitat areas is essential for conservation of desert wildlife (CEC et al. 2014).

The Project is located within the Mojave and Silurian Valley and Providence and Bullion Mountains ecoregion subareas of the DRECP; within these subareas are existing and planned linkages and corridors between landscape blocks (large undeveloped habitat areas). The Project lies along the northern edge of the Twenty-nine Palms and Newberry-Rodman landscape block. The western portion of the Project (i.e., west of Newberry Springs) is the location of a potential linkage corridor extending from the Twenty-nine Palms and Newberry-Rodman landscape block to the China Lake South Range landscape block located approximately 30 miles north of Barstow. Species that may use this corridor include desert tortoise and American badger (*Taxidea taxus*). In this portion of the Project, Interstate 40 lies approximately one-half mile south of National Trails Highway, and Interstate 15 lies 3 to 7 miles to the north.

National Trails Highway was constructed in 1926, and the SCE Gale to Pisgah alignment was constructed soon after. There are numerous small diameter (less than 3 feet) corrugated metal culverts as well as larger box culverts, paired culverts, and bridges over and through washes that provide wildlife crossings for terrestrial wildlife to cross the roads and highways in the area. As noted in Section 2.0, the Project will not create new roads, no poles will be replaced, and only one pole will be added. Therefore, no new habitat fragmentation or obstructions to existing or planned linkages, corridors, or crossings will occur. Additionally, the Project will not alter, modify, or obstruct Aeolian sand transport, which is the process by which wind moves fine sand particles to form dune habitat suitable for certain species such as Mojave fringe-toed lizard.

## 5.6 Special-Status Biological Resources

Plant or animal taxa may be considered "sensitive" or "special-status" due to declining populations, vulnerability to habitat change or loss, or because of restricted distributions. Some of these species have been listed as threatened or endangered by the USFWS and/or CDFW, and are thus protected by the federal and state ESAs, respectively. Other species have been identified as sensitive or special-status by the USFWS and CDFW. Still others have been designated as special-status species by private conservation organizations, including the NCCP/HCP and CNPS. The regulatory protection provided by these various agencies is discussed in Section 3.0 of this document.

The database search and literature review described in Section 4.1 identified special-status biological resources occurring or having the potential to occur in the vicinity (within 3 miles) of the Project. Appendix C provides a complete list of these special-status biological resources, their respective conservation status, and occurrence potential along the alignment. Exhibit 3 (Appendix A) provides critical habitat areas and CNDDDB special-status species records. Exhibit 4 (Appendix A) provides the locations of special-status biological resources, including special-status species, sign, and bird nests, recorded within the survey area during 2017 surveys; for previous study results, see the respective reports.

The following sections describe the special-status vegetation communities and special-status plant and wildlife species occurring or potentially occurring on or in the immediate vicinity of the Project.

#### 5.6.1 SENSITIVE VEGETATION COMMUNITIES/LAND COVER TYPES

Sensitive vegetation communities/land cover types are associations sometimes afforded special legislative protection. Such communities are normally considered a management priority because of their rarity or imperilment, the sensitivity of the species that they support, or because these areas serve multiple functions, as is often the case with wetlands. Three sensitive vegetation alliances and one sensitive land cover type were identified as occurring in the survey area (BRC 2016a; see Appendix C for description):

- *Atriplex polycarpa* (Allscale scrub) Alliance – Desert Saltbush Scrub
- *Prosopis glandulosa* (Mesquite thicket) Alliance
- *Suaeda moquinii* (Bush seepweed scrub) Alliance
- Alkali Playa Community

#### 5.6.2 SPECIAL-STATUS PLANT SPECIES

Based upon the literature search and Habitat Assessments, 13 special-status plant species occur in the vicinity of the Project (Appendix C). Of these, 10 do not occur or are unlikely to occur based on the absence of suitable habitat and/or the Project being outside the species' geographic or elevation range. Two special-status plant species, Emory's crucifixion-thorn (*Castela emoryi*) and Utah vine milkweed (*Funastrum utahense*), were identified (outside the survey area) during botanical surveys (see Appendix B for photographs). One special-status plant species is likely to occur based on the presence of suitable soils, vegetation alliances, and/or documented collections. See Appendix C for distribution, habitat preference, and habitat suitability for these species.

##### 5.6.2.1 Federal/State Listed Plant Species Observed

No federal or state listed plant species were identified during 2017 (EI 2017a), 2016 (BRC 2016b), and 2011 (Tetra Tech 2011) surveys.

##### 5.6.2.2 Federal/State Listed Plant Species Likely to Occur

No federal or state listed plant species are likely to occur in the Project vicinity.

##### 5.6.2.3 CNPS Listed Plant Species Observed

###### Emory's Crucifixion-Thorn (*Castela emoryi*)

Emory's crucifixion-thorn is a CNPS species with a California Rare Plant Rank (CRPR) of 2B.2. During 2017 botanical surveys, one individual approximately 100 feet outside the Project survey area was identified in Halloran sandy loam soil and associated with creosote bush habitat (Appendix A: Exhibit 4, page 3). None were identified during 2016 (BRC 2016b) or 2011 botanical surveys (Tetra Tech 2011).

###### Utah vine milkweed (*Funastrum utahense*)

Utah vine milkweed is a CNPS species with a CRPR of 4.2. During 2017 botanical surveys, 25 individuals approximately 50 feet outside the survey area were identified on desert sand dune soil and associated with creosote bush, white bursage, and non-native Saharan mustard (Appendix A: Exhibit 4, page 7). During

2016 botanical surveys, 14 individuals were identified in the same vicinity (BRC 2016b). None were identified during 2011 botanical surveys (Tetra Tech 2011).

#### 5.6.2.4 *CNPS-Listed Plant Species Likely to Occur*

##### Small-flowered Androstephium (*Androstephium breviflorum*)

Small-flowered androstephium is a CNPS species with a CRPR of 2B.2. No plants were identified during Project-related botanical surveys; however, numerous recent CNDDDB and CCH records are present in the eastern portion of the Project, with the closest record (CCH 2009) approximately 200 feet north of Pisgah Substation (Appendix A: Exhibit 3).

#### 5.6.3 SPECIAL-STATUS WILDLIFE SPECIES

Based upon the literature search and Habitat Assessments, 11 special-status wildlife species occur or have the potential to occur in the vicinity of the Project (Appendix C). Of these, six do not occur or are unlikely to occur based on the absence of suitable habitat and/or the alignment being outside the species' geographic or elevation range. Five special-status wildlife species are likely to occur based on the presence of suitable habitat and/or documented observations. No special-status wildlife species, or definitive sign of special-status species, were observed during Project-related surveys. See Appendix C for distribution and habitat preference for these species.

##### 5.6.3.1 *Federal/State Listed or Fully Protected Wildlife Species Observed*

No federal or state listed wildlife species were identified during 2017, 2016 (BRC 2016a, 2016c, 2016d), 2012 (PCR 2012), and 2011 (Tetra Tech 2011) surveys.

##### 5.6.3.2 *Federal/State Listed or Fully Protected Wildlife Species Likely to Occur*

##### Desert Tortoise (*Gopherus agassizii*)

The desert tortoise is a federally and state threatened species. During 2017 focused surveys, no desert tortoise live individuals or sign were identified. During 2016 focused surveys (BRC 2016c), two burrows (one Class 3: deteriorated condition, definitely tortoise; one Class 4: deteriorated condition, possibly tortoise) were identified at the eastern end of the alignment. During 2013 focused surveys within the nearby I-40 median (AMEC 2013), 12 Class 5 carcasses (disarticulated and scattered) were identified between PM 4.6 (Nebo Street, approximately 4 miles west of Gale Substation) and PM 14.8 (approximately Minneola Road). During 2011 focused surveys (Tetra Tech 2011), four Class 5 (disarticulated and scattered) carcasses were identified.

Numerous CNDDDB records (2007-2010) of live desert tortoises and sign occur north of the eastern portion of the alignment, with the nearest live tortoise approximately 1 mile north of Pisgah Substation and the nearest sign (inactive burrows) approximately 0.5 mile north of Pisgah Substation (Appendix A: Exhibit 3).

##### Golden Eagle (*Aquila chrysaetos*)

The golden eagle is a CDFW Fully Protected species. No golden eagles were identified during Project-related surveys. Suitable nesting habitat occurs in the mountain ranges located to the south of the Project alignment; the BLM identified the nearby Newberry and Granite Mountains as a "Key Raptor Area" for golden eagles (Raptor Research Foundation, Inc. 1989). A known nesting site (1979) is located approximately two-thirds of a mile south of the alignment in the Newberry Mountains (Appendix A: Exhibit 3). Suitable foraging habitat is present throughout the alignment.

##### 5.6.3.3 *Special-Status (Non-Listed) Wildlife Species Observed*

No special-status (non-listed) wildlife species were identified during 2017, 2016 (BRC 2016a, 2016c, 2016d), 2012 (PCR 2012), and 2011 (Tetra Tech 2011) surveys.

##### 5.6.3.4 *Special-Status (Non-Listed) Wildlife Species Likely to Occur*

##### Mojave Fringe-toed Lizard (*Uma scoparia*)

The Mojave fringe-toed lizard is a California SSC. Most of the sand dune habitat present along the Project alignment was either compacted/stabilized or the sand was too coarse (i.e., unsuitable for Mojave fringe-toed lizard). Patches of suitable habitat were identified in the following locations (Appendix A: Exhibit 4; see Appendix B for photographs):

- Along National Trails Highway southeast of Condor Road, approximately 2.4 miles west of Newberry Springs – system of sandy hammocks.
- Along National Trails Highway between Fremont Road and Ord Street – marginally suitable sand hammocks.
- Along an approximately 2-mile stretch of National Trails Highway through the northwestern extent of the Pisgah Crater lava flow – 11 patches of suitable and marginally suitable sand deposits.

However, no Mojave fringe-toed lizards were observed during 2017 surveys. During 2016 (BRC 2016a), 2012 (PCR 2012), and 2011 (Tetra Tech 2011) focused surveys, no Mojave fringe-toed lizards were identified.

Current populations identified in the DRECP area include dune complexes near Daggett, Yermo, Newberry Springs, and Pisgah (CEC et al. 2014). CNDDDB records (2008, 1982) occur at the eastern end of the Project vicinity, with the nearest record (2008) approximately 0.75 mile north of the alignment.

#### Tricolored Blackbird (*Agelaius tricolor*)

The tricolored blackbird is a California SSC and a candidate to be listed as an endangered species. No tricolored blackbirds were identified during Project-related surveys. However, two potentially extant nesting colony records (2014) are located within 1 mile of the alignment (Appendix A: Exhibit 3):

- NW corner of Elkhorn Street and Spyrock Avenue in cattail marsh in pond, less than 500 feet north of the alignment; and
- NE corner of Minneola Road and Swansea Street in cattail marsh in pond, two-thirds of a mile north of the alignment.

#### Le Conte's Thrasher (*Toxostoma lecontei*)

The Le Conte's thrasher is a California SSC. No Le Conte's thrashers were identified during Project-related surveys. However, suitable nesting and foraging habitats are present along the alignment.

#### 5.6.3.5 Burrowing Owl (*Athene Cunicularia*)

The burrowing owl is a California SSC and is unlikely to occur on the Project. During 2017 focused surveys, four potential burrows were identified along the alignment (Appendix A: Exhibit 4); no live burrowing owls or definitive sign were identified. During 2016 focused surveys (BRC 2016d), four potential burrows were identified along the alignment; no live burrowing owls or definitive sign were identified. During 2011 desert tortoise surveys (Tetra Tech 2011), no live burrowing owls or definitive sign were identified. CNDDDB records (2008-2009) of live burrowing owls/active burrows occur greater than two miles from the alignment.

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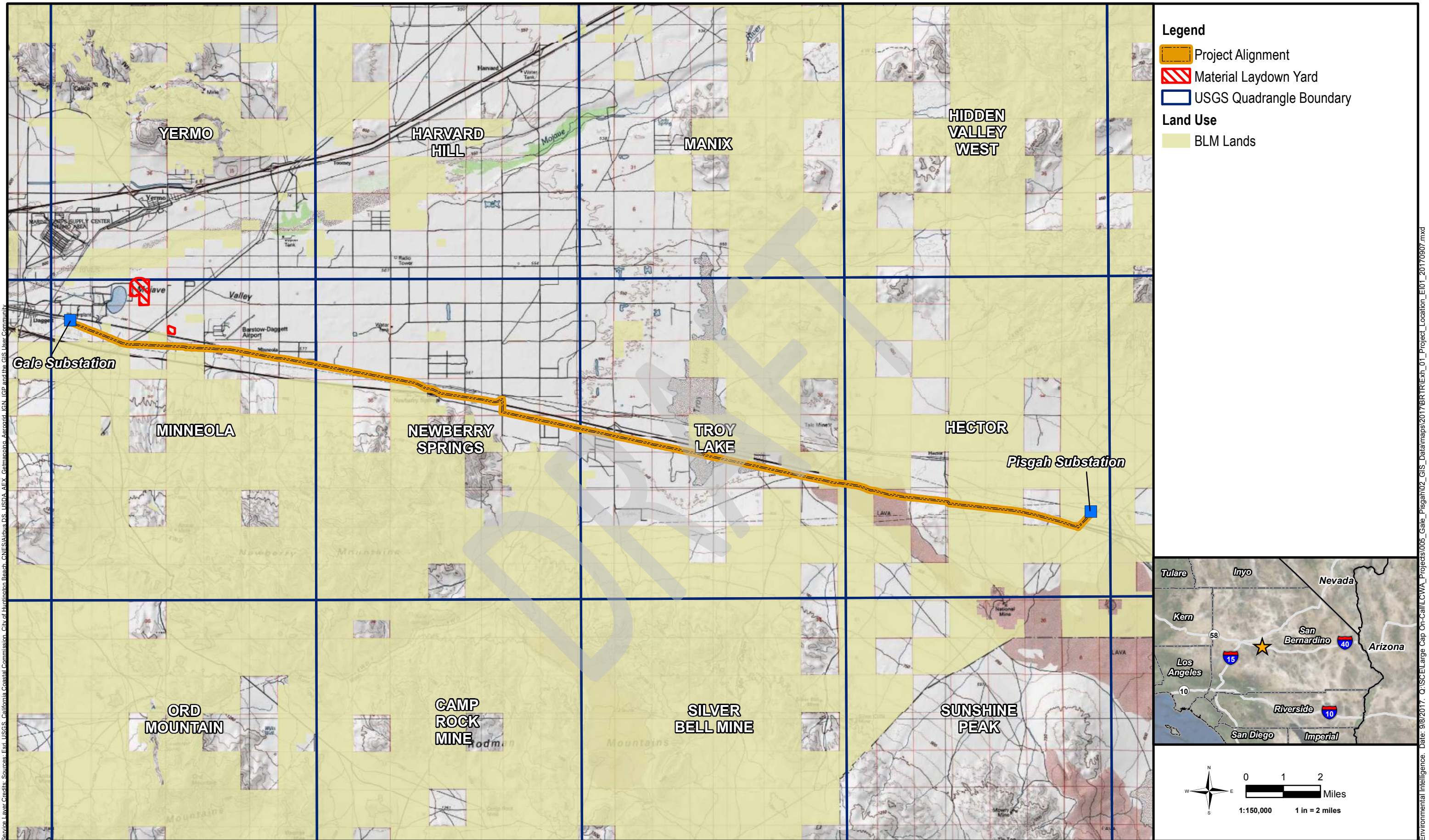




*Appendix A:*  
EXHIBITS

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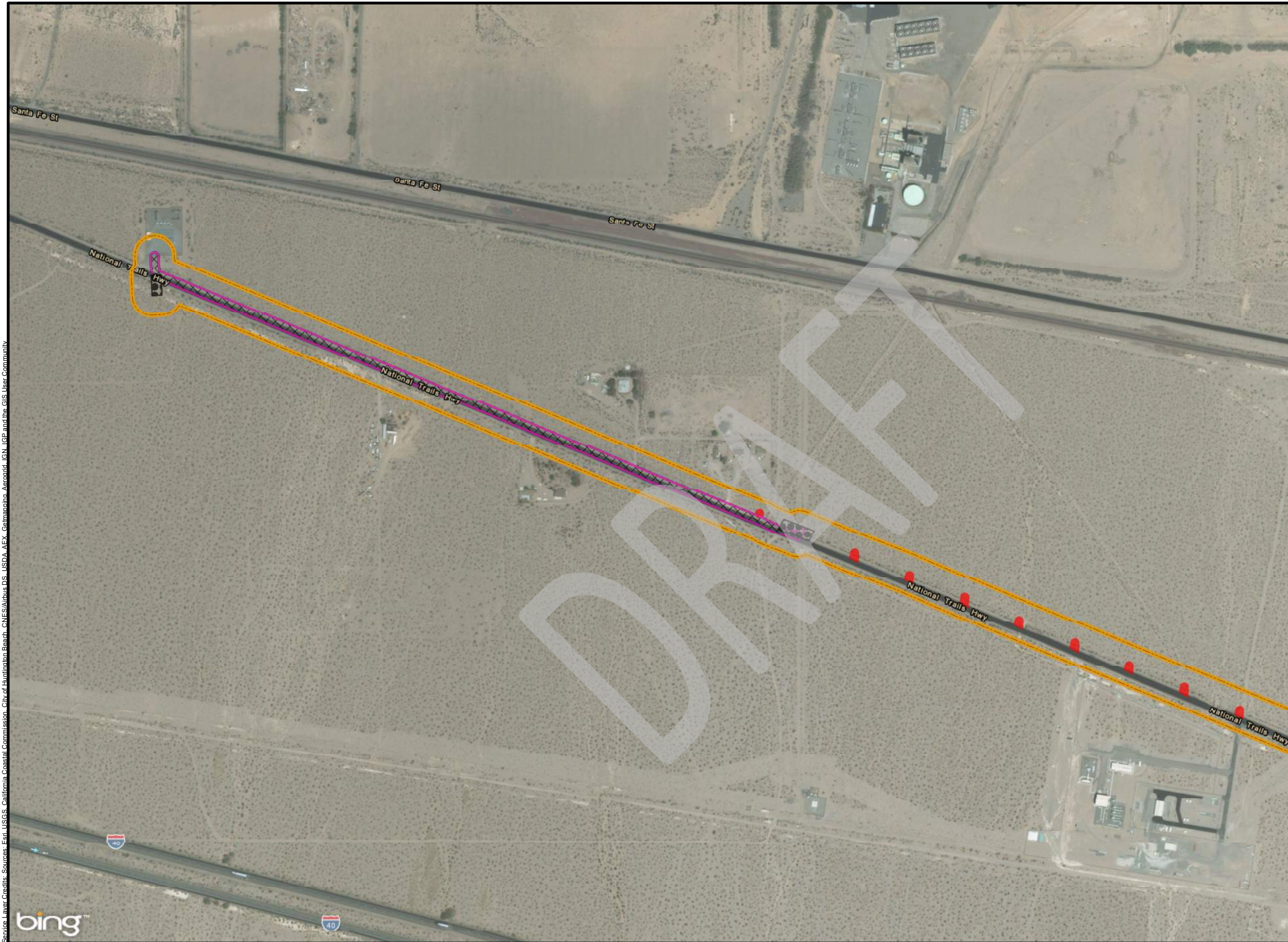


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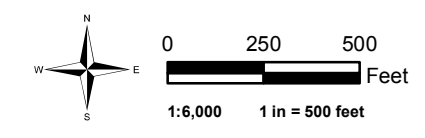
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**EXHIBIT 1. PROJECT LOCATION**  
**GALE TO PISGAH PROJECT | SAN BERNARDINO COUNTY, CA**



- Legend**
- Survey Area (100-foot buffer)
  - Pole Work Areas
  - Pull Sites
  - Underground Work Area



Service Layer Credits: Sources: Esri, USGS, California Coastal Commission, City of Huntington Beach, CNES/Airbus DS, USDA, AFX, Galapagos, Aerialoid, IGN, IGP and the GIS User Community

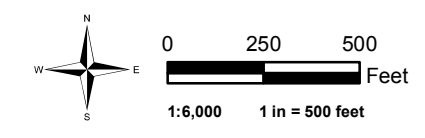
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**Legend**

- Survey Area (100-foot buffer)
- Pole Work Areas
- Pull Sites
- Underground Work Area





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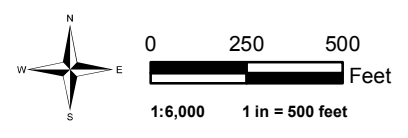


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- Legend**
-  Survey Area (100-foot buffer)
  -  Material Laydown Yard

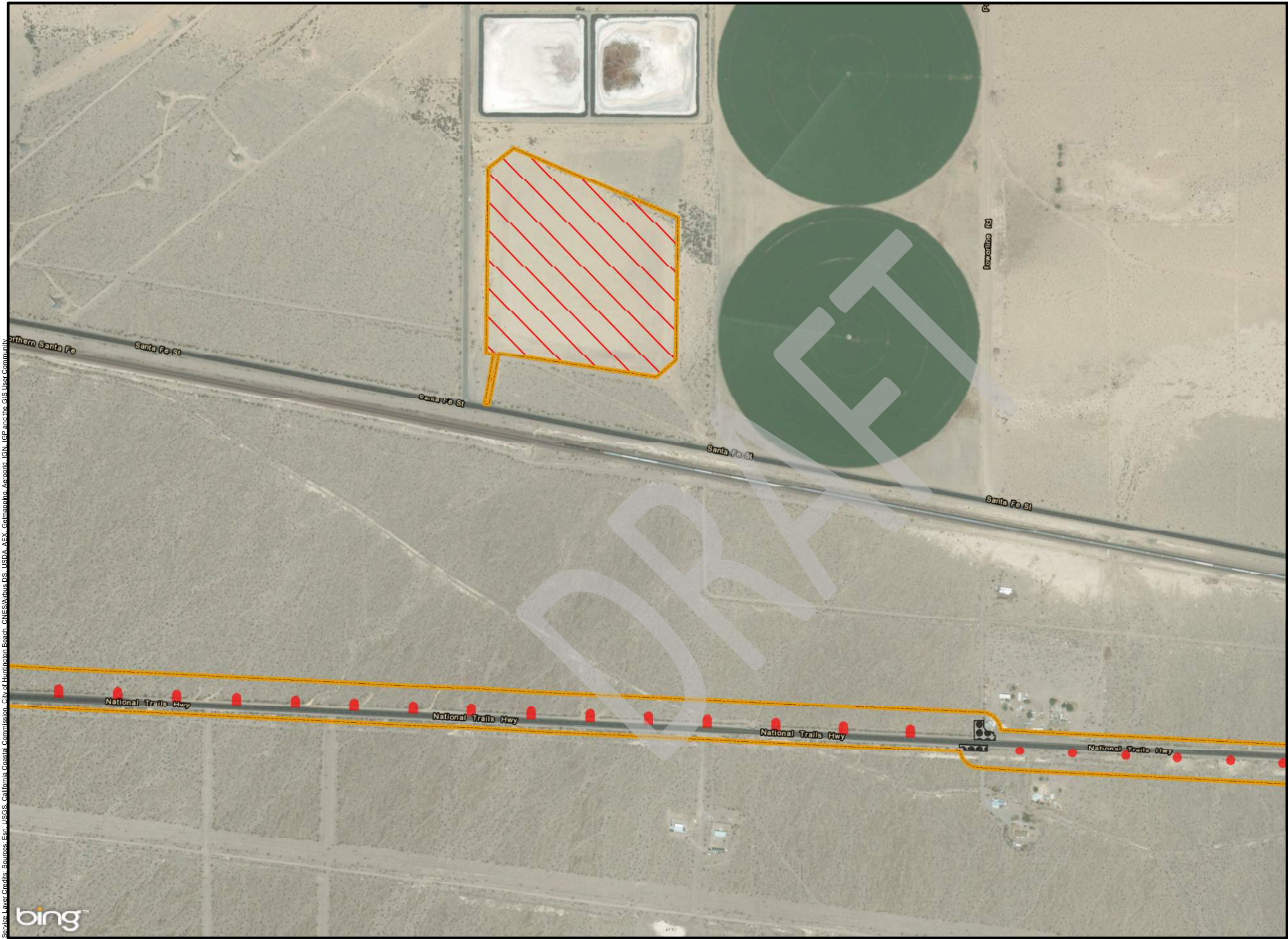


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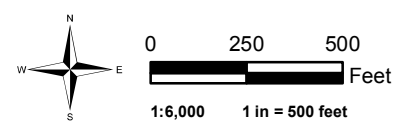
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**Legend**

-  Survey Area (100-foot buffer)
-  Material Laydown Yard
- Project Components**
-  Pole Work Areas
-  Pull Sites



Service Layer Credits: Sources: Esri, USGS, California Coastal Commission, City of Huntington Beach, CNES/Airbus DS, USDA, AFX, Geomatico, Aeromob, IGN, IGP and the GIS User Community



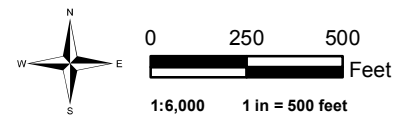
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**Legend**

- Survey Area (100-foot buffer)
- Project Components**
- Pole Work Areas



Service Layer Credits: Sources: Esri, USGS, California Coastal Commission, City of Huntington Beach, CNES/Airbus DS, USDA, AFX, Galapagos, Aeronid, IGN, IGP and the GIS User Community

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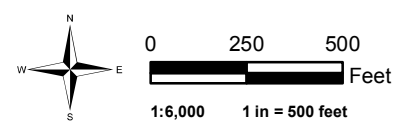


**Legend**

- Survey Area (100-foot buffer)

**Project Components**

- Pole Work Areas



Service Layer Credits: Sources: Esri, USGS, California Coastal Commission, City of Huntington Beach, CNES/Airbus DS, USDA, AFX, Galois/Info, Aerialoid, IGN, IGP and the GIS User Community

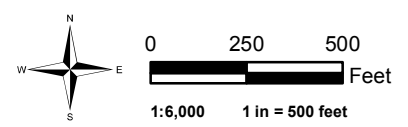
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- Legend**
- Survey Area (100-foot buffer)
  - Project Components**
  - Pole Work Areas



Service Layer Credits: Sources: Esri, USGS, California Coastal Commission, City of Huntington Beach, CNES/Airbus DS, USDA, AFX, Galileo/Ino, Aerial, IGN, IGP and the GIS User Community



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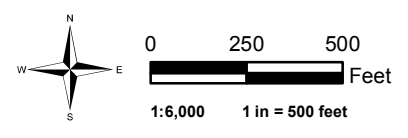


**Legend**

- Survey Area (100-foot buffer)

**Project Components**

- Pole Work Areas



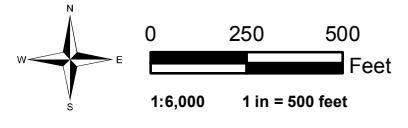
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- Legend**
- Survey Area (100-foot buffer)
- Project Components**
- Pole Work Areas



Service Layer Credits: Sources: Esri, USGS, California Coastal Commission, City of Huntington Beach, CNES/Airbus DS, USDA, AFX, Galapagos, Aerialoid, IGN, IGP and the GIS User Community



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**Legend**

- Survey Area (100-foot buffer)

**Project Components**

- Pole Work Areas
- Pull Sites

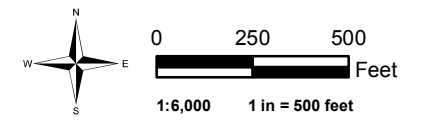
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- Legend**
- Survey Area (100-foot buffer)
- Project Components**
- Pole Work Areas



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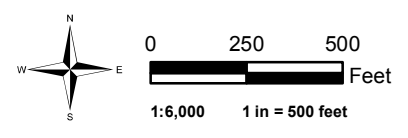
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**Legend**

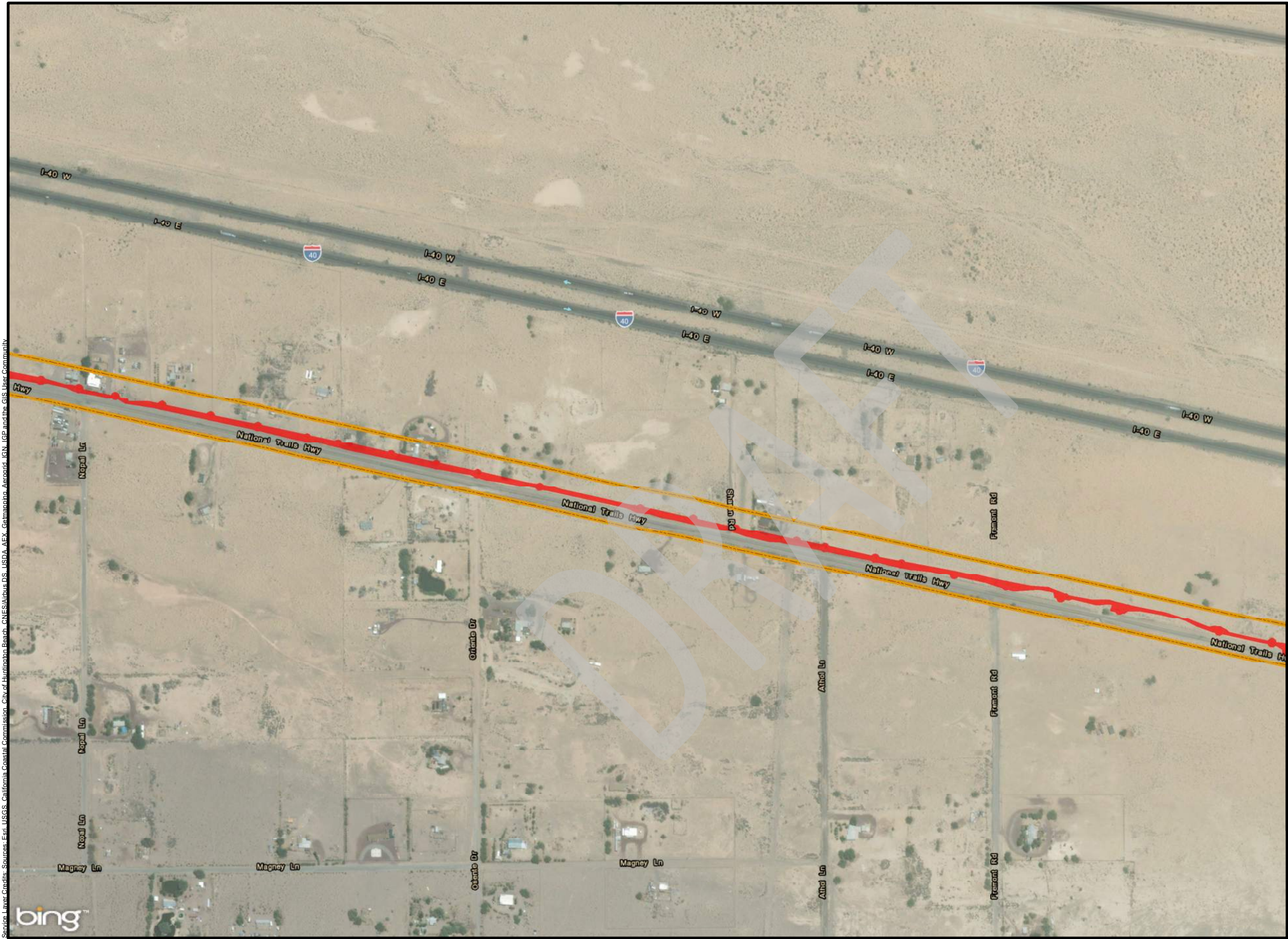
- Survey Area (100-foot buffer)
- Pole Work Areas
- Pull Sites




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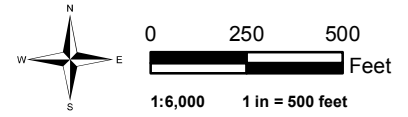


**Legend**

 Survey Area (100-foot buffer)

**Project Components**

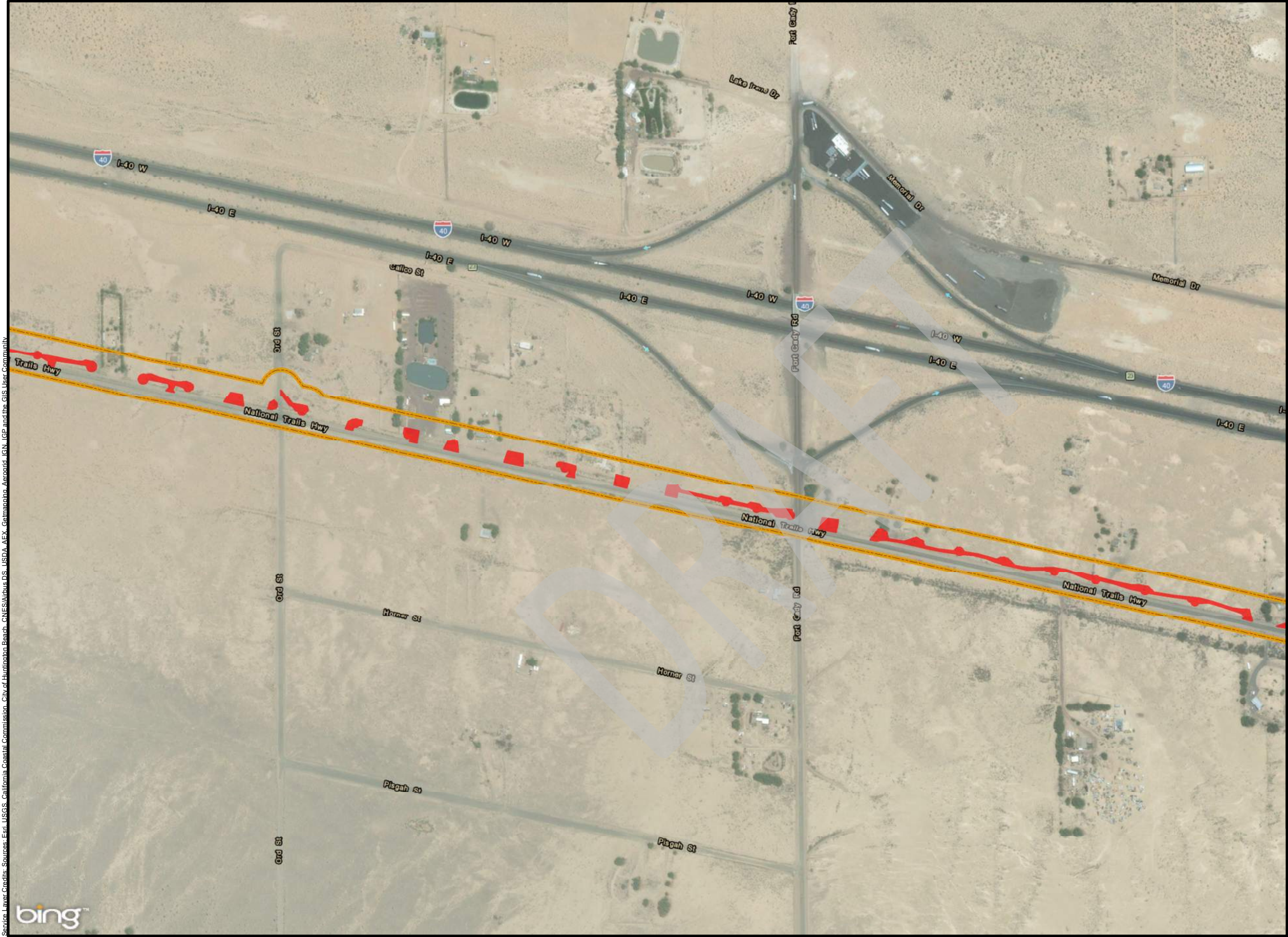
 Pole Work Areas



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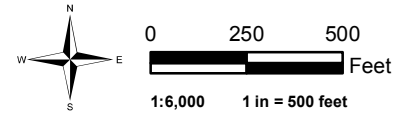
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**Legend**

- Survey Area (100-foot buffer)
- Project Components**
- Pole Work Areas



Service Layer Credits: Sources: Esri, USGS, California Coastal Commission, City of Huntington Beach, CNES/Airbus DS, USDA, AFX, Galileo/Airbus, Aerialoid, IGN, IGP and the GIS User Community



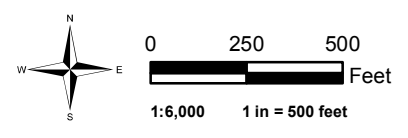
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- Legend**
- Survey Area (100-foot buffer)
  - Pole Work Areas
  - Pull Sites
  - Underground Work Area



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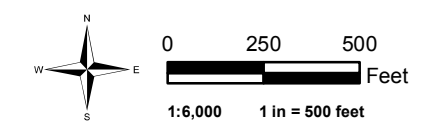
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**Legend**

- Survey Area (100-foot buffer)
- Project Components**
- Pole Work Areas



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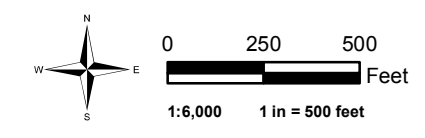
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**Legend**

- Survey Area (100-foot buffer)
- Project Components**
- Pole Work Areas



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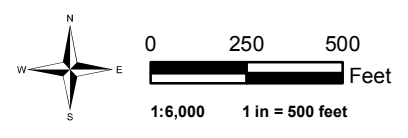


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- Legend**
- Survey Area (100-foot buffer)
- Project Components**
- Pole Work Areas



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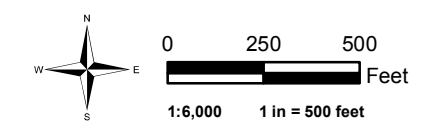


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- Legend**
- Survey Area (100-foot buffer)
  - Pole Work Areas
  - Pull Sites
  - Pedestrian Access Structure Work Area



Service Layer Credits: Sources: Esri, USGS, California Coastal Commission, City of Huntington Beach, CNES/Airbus DS, USDA, AFX, Galois/Info, Aerialoid, IGN, IGP and the GIS User Community

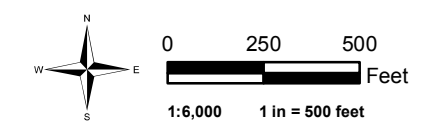


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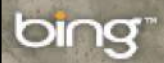




- Legend**
- Survey Area (100-foot buffer)
  - Project Components**
  - Pole Work Areas
  - Pull Sites
  - Pedestrian Access Structure Work Area



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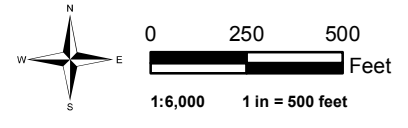
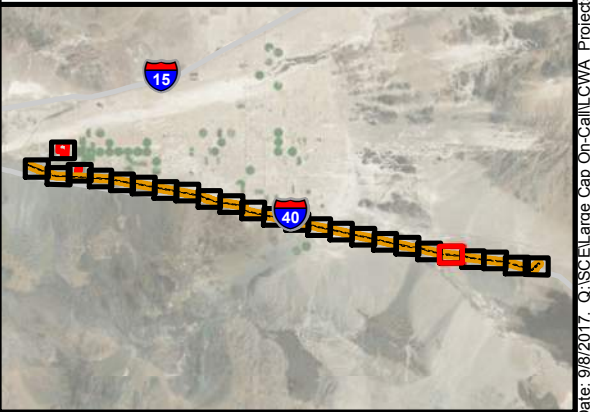


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- Legend**
- Survey Area (100-foot buffer)
  - Pole Work Areas
  - Pull Sites
  - Pedestrian Access Structure Work Area



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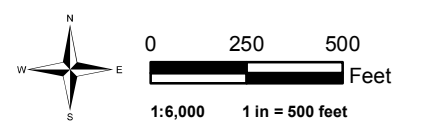


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- Legend**
- Survey Area (100-foot buffer)
  - Pole Work Areas
  - Pull Sites
  - Pedestrian Access Structure Work Area






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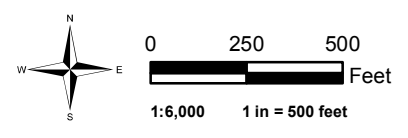
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- Legend**
-  Survey Area (100-foot buffer)
  - Project Components**
  -  Pole Work Areas
  -  Pedestrian Access Structure Work Area



Service Layer Credits: Sources: Esri, USGS, California Coastal Commission, City of Huntington Beach, CNES/Airbus DS, USDA, AFX, Garmin/Ino, Aerialoid, IGN, IGP and the GIS User Community



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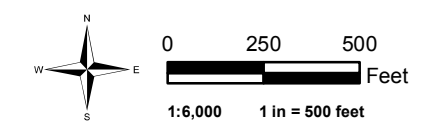


**Legend**

- Survey Area (100-foot buffer)

**Project Components**

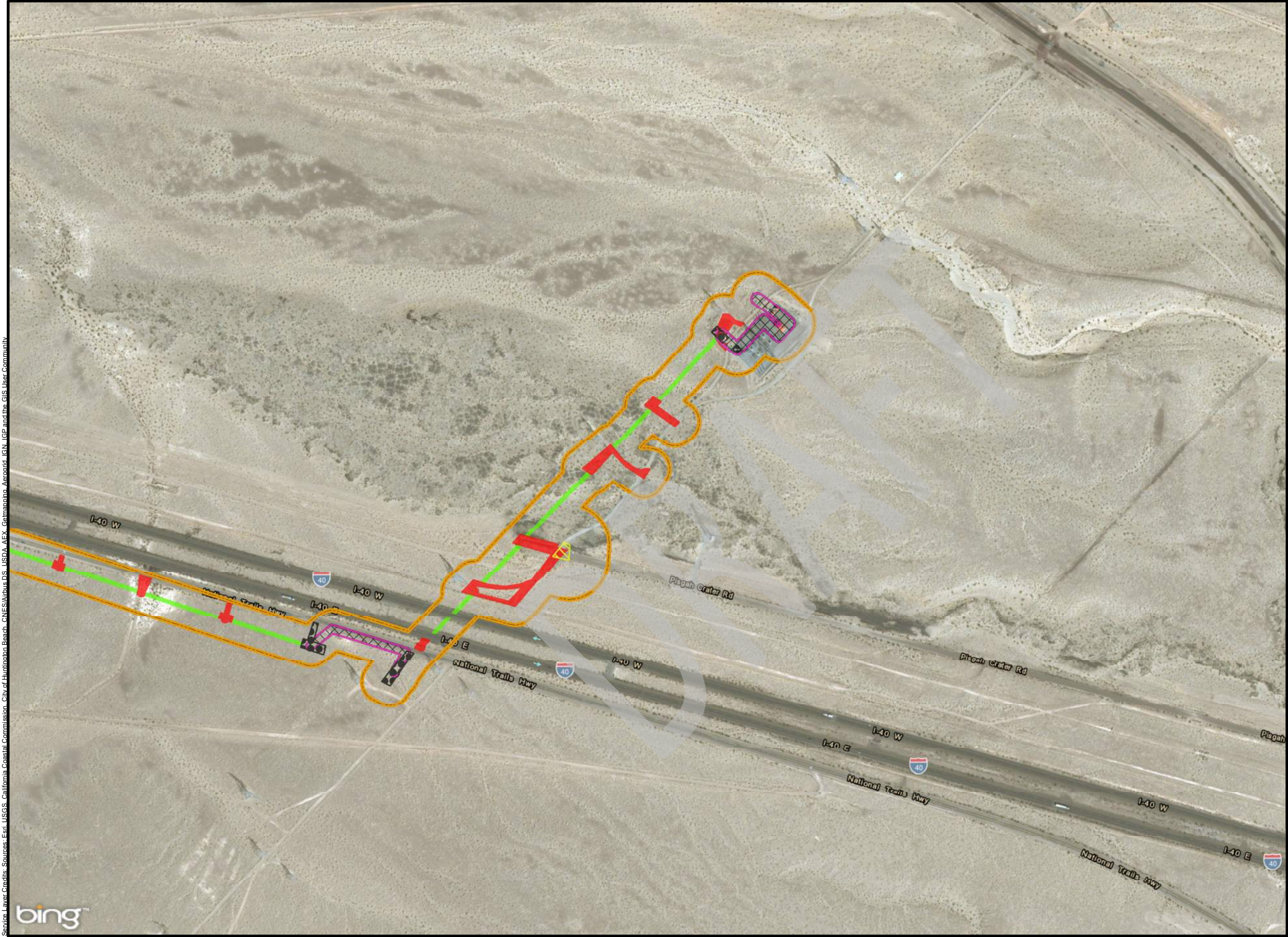
- Pole Work Areas
- Pedestrian Access Structure Work Area



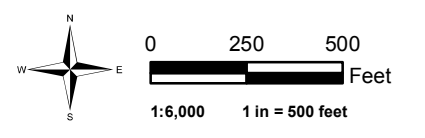
Service Layer Credits: Sources: Esri, USGS, California Coastal Commission, City of Huntington Beach, CNES/Airbus DS, USDA, AEX, Geomatico, Aeromob, IGN, IGP and the GIS User Community



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- Legend**
- Survey Area (100-foot buffer)
  - Project Components**
  - Helicopter Landing Zone
  - Pole Work Areas
  - Pull Sites
  - Underground Work Area
  - Pedestrian Access Structure Work Area

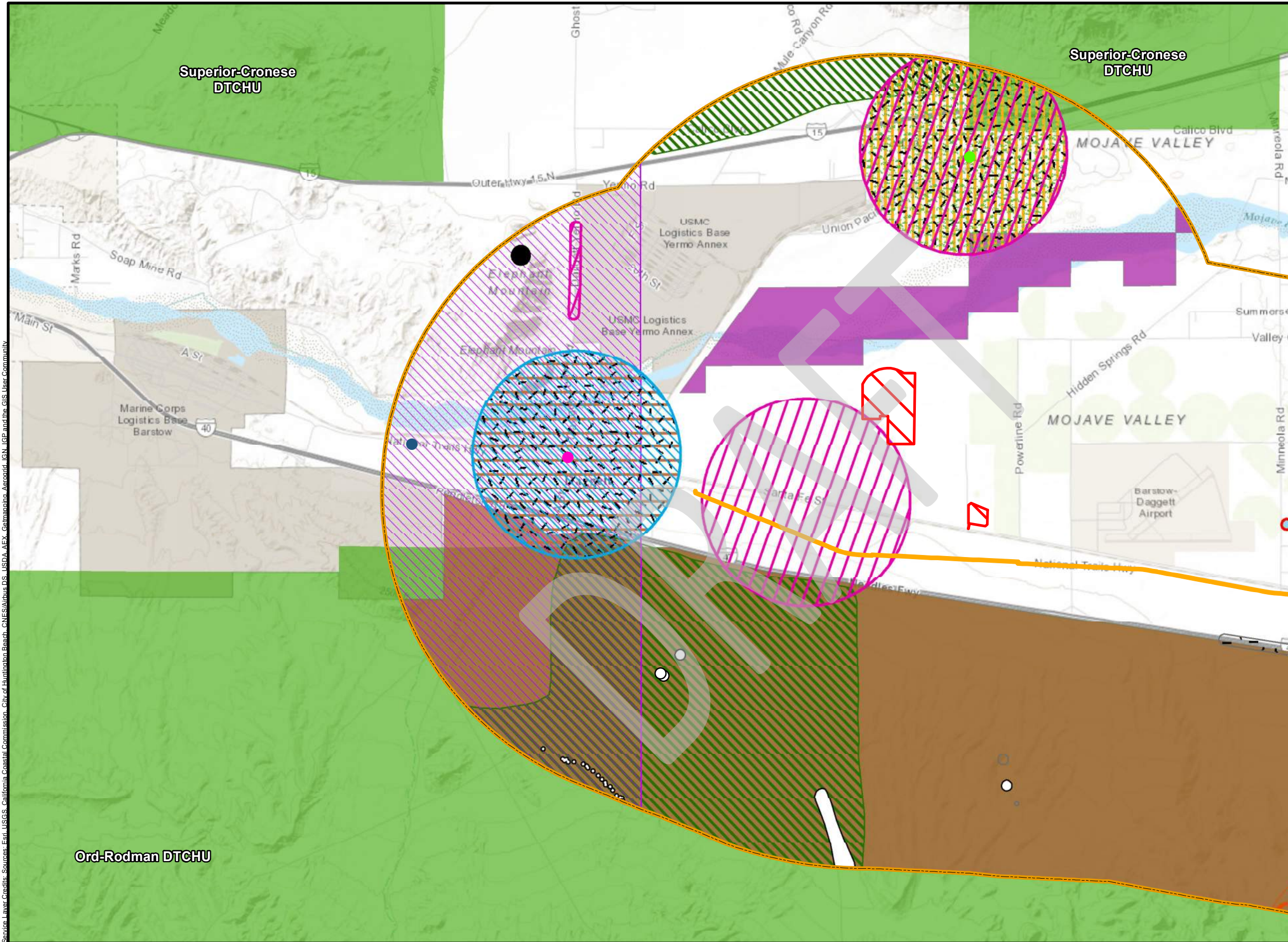


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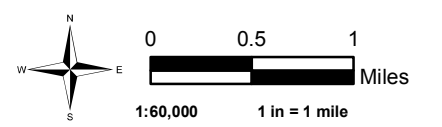
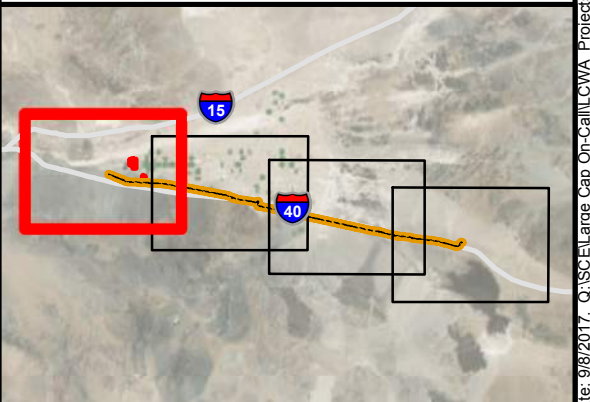
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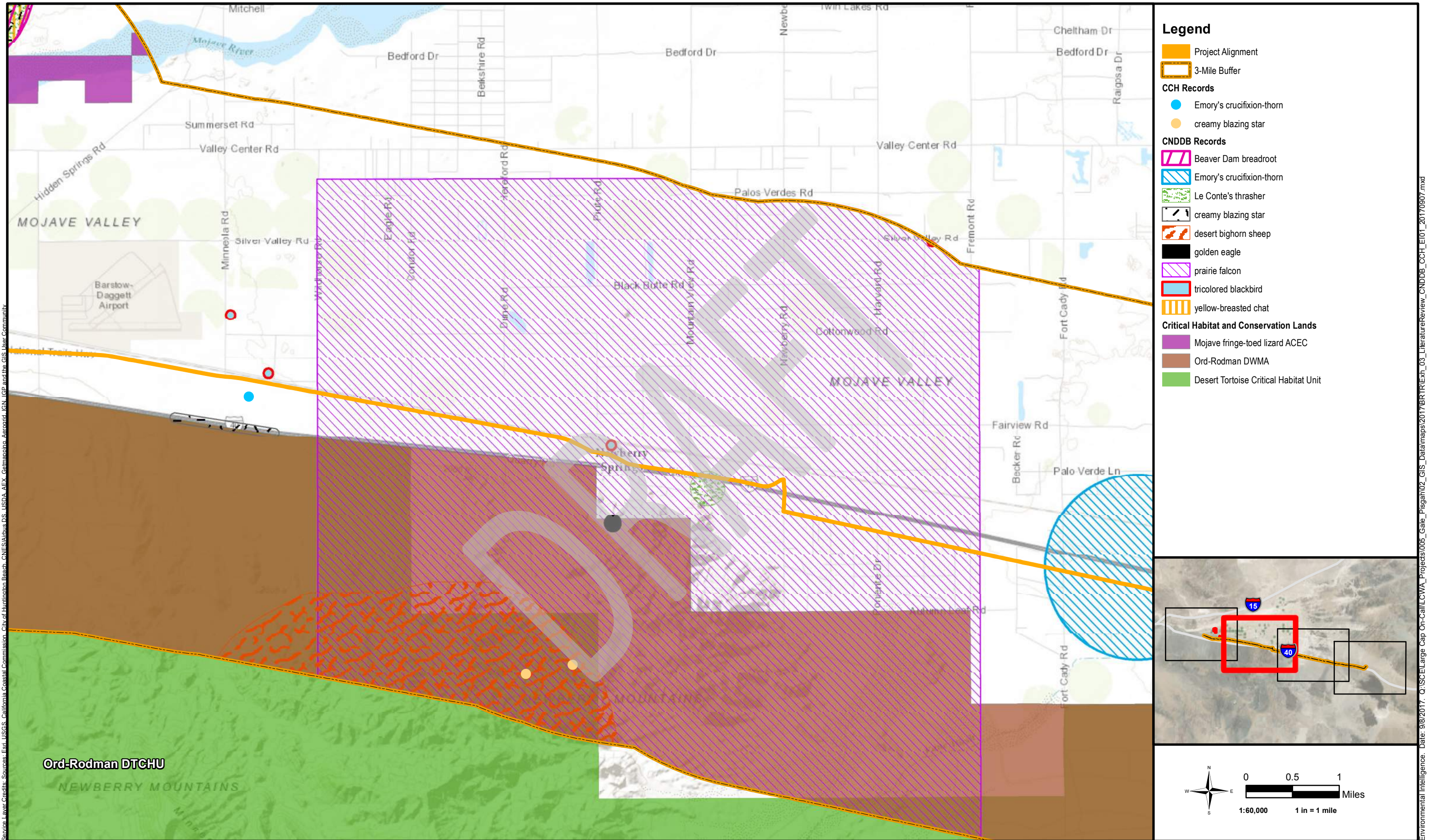
**Legend**

- Project Alignment
- Material Laydown Yard
- 3-Mile Buffer
- CCH Records**
- Beaver Dam breadroot
- Mojave monkeyflower
- Parish's phacelia
- Watson's amaranth
- CNDDDB Records**
- Beaver Dam breadroot
- Emory's crucifixion-thorn
- Le Conte's thrasher
- Mojave monkeyflower
- burrowing owl
- creamy blazing star
- desert bighorn sheep
- desert tortoise
- golden eagle
- prairie falcon
- tricolored blackbird
- yellow-breasted chat
- Critical Habitat and Conservation Lands**
- Mojave fringe-toed lizard ACEC
- Mojave monkeyflower ACEC
- Ord-Rodman DWMA
- Desert Tortoise Critical Habitat Unit



Service Layer Credits: Esri, USGS, California Coastal Commission, City of Huntington Beach, CNES/Airbus DS, USDA, AFX, Galois/Info, Arcorid, IGN, IGP and the GIS User Community

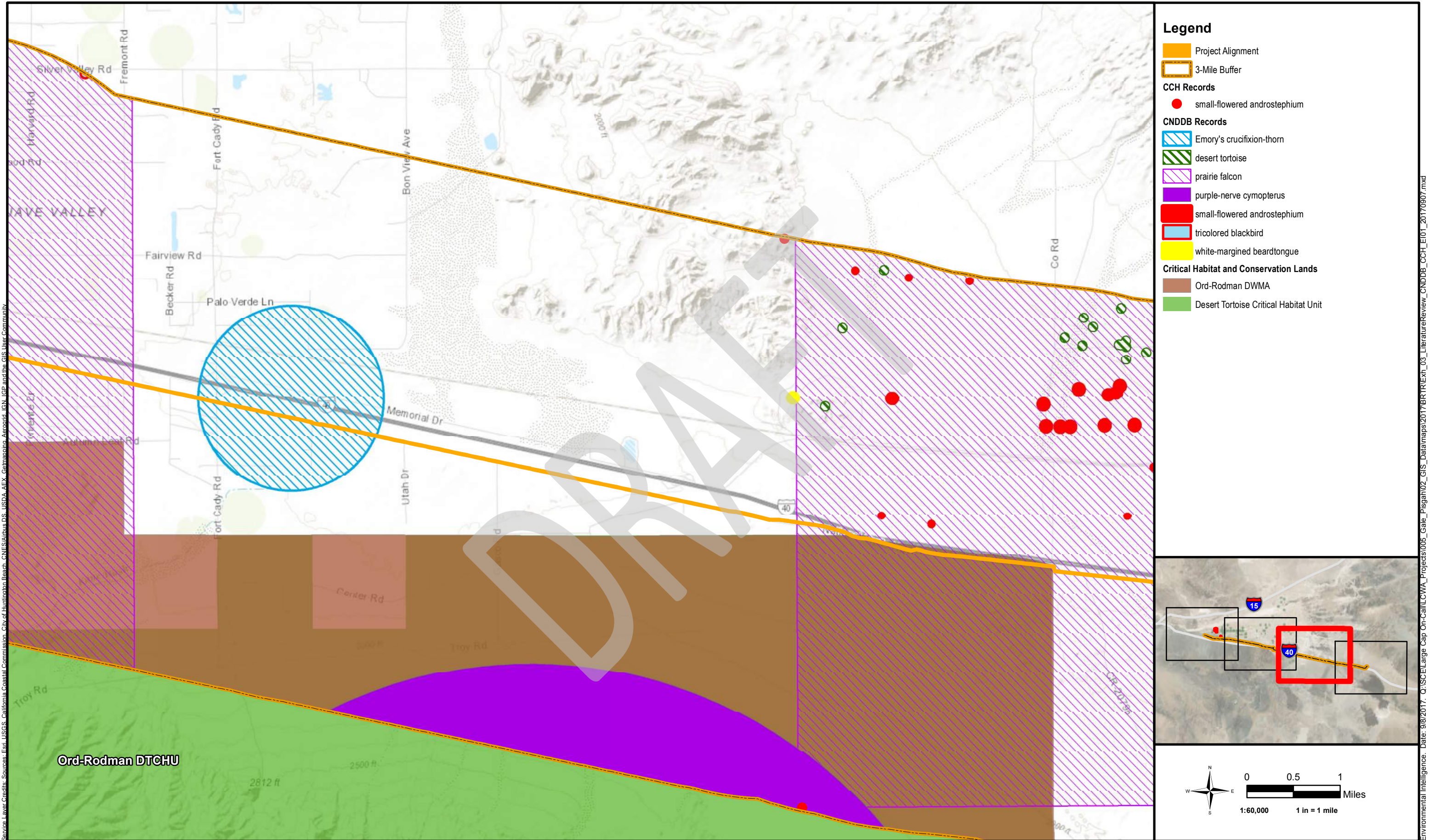
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Service Layer Credits: Esri, USGS, California Coastal Commission, City of Huntington Beach, CNES/Airbus DS, USDA, AFX, Galileo/Airbus, Aerialoid, IGN, IGP and the GIS User Community

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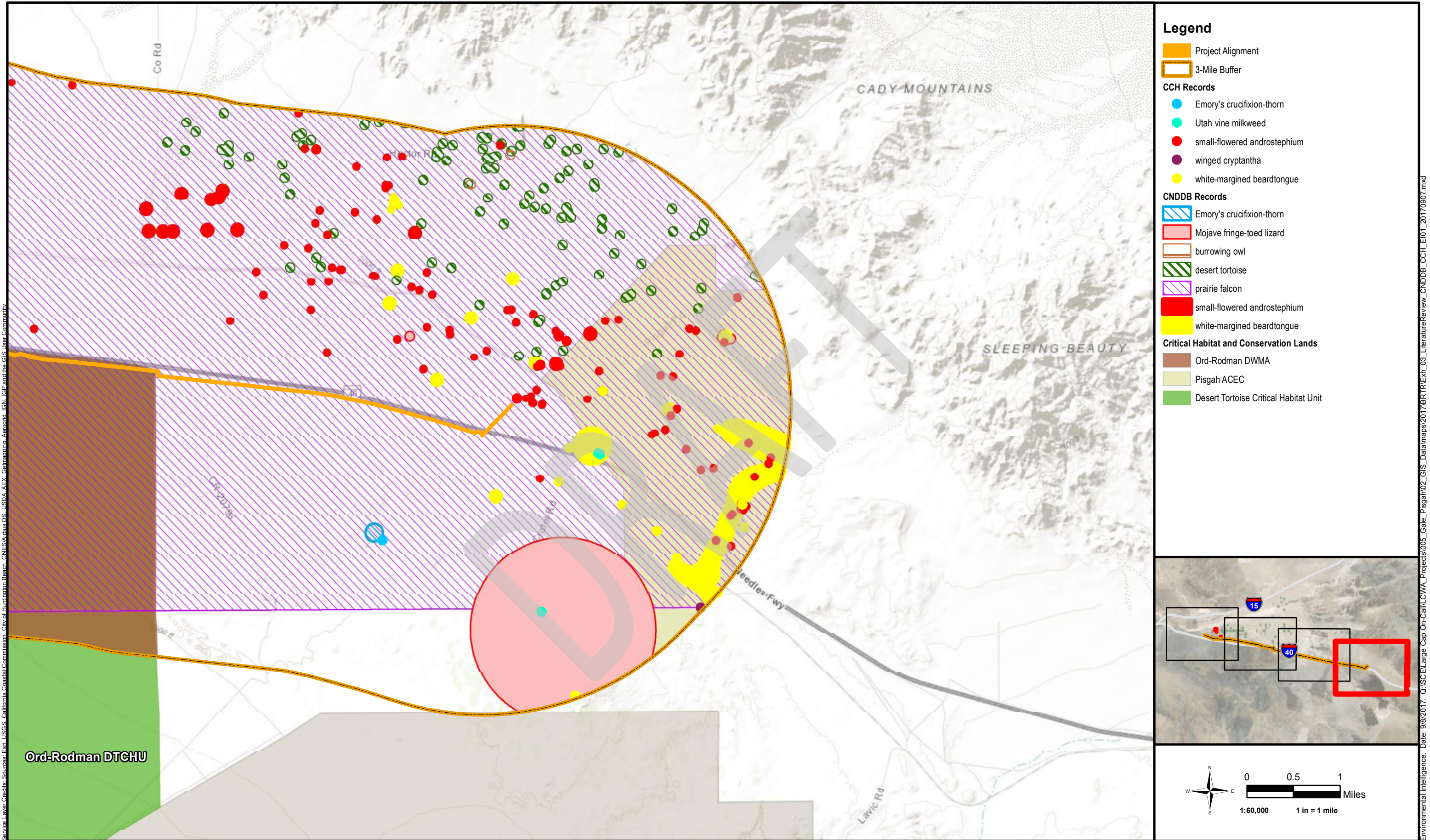




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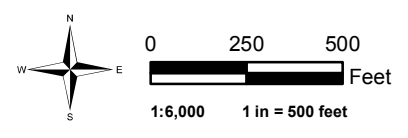
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- Legend**
- Survey Area
  - Material Laydown Yard
- Burrowing Owl Survey Results**
- Suitable burrow location
  - Active kit fox den



Service Layer Credits: Sources: Esri, USGS, California Coastal Commission, City of Huntington Beach, CNES/Airbus DS, USDA, AFX, Garmin/DeLorme, AeroGRID, IGN, IGP, and the GIS User Community



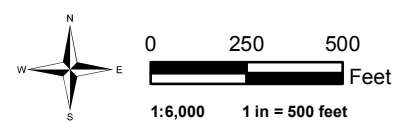
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- Legend**
- Survey Area
  - Project Components**
  - Pole Work Areas
  - Burrowing Owl Survey Results**
  - Active kit fox den
  - Suitable Habitat**
  - Mojave fringe-toed lizard



Service Layer Credits: Sources: Esri, USGS, California Coastal Commission, City of Huntington Beach, CNES/Airbus DS, USDA, AFX, Galileo/Inpho, Aerialoid, IGN, IGP and the GIS User Community



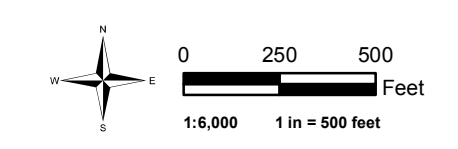
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**Legend**

- Survey Area
- Project Components**
- Pole Work Areas
- Rare Plant Survey Results**
- ◆ Crucifixion thorn
- Suitable Habitat**
- Mojave fringe-toed lizard



Service Layer Credits: Sources: Esri, USGS, California Coastal Commission, City of Huntington Beach, CNES/Airbus DS, USDA, AFX, Galileo/Ino, Aerialoid, IGN, IGP and the GIS User Community

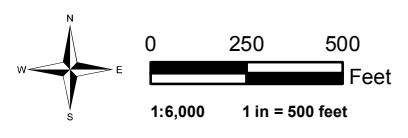


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- Legend**
- Survey Area
  - Project Components**
  - Pole Work Areas
  - Burrowing Owl Survey Results**
  - Suitable burrow location

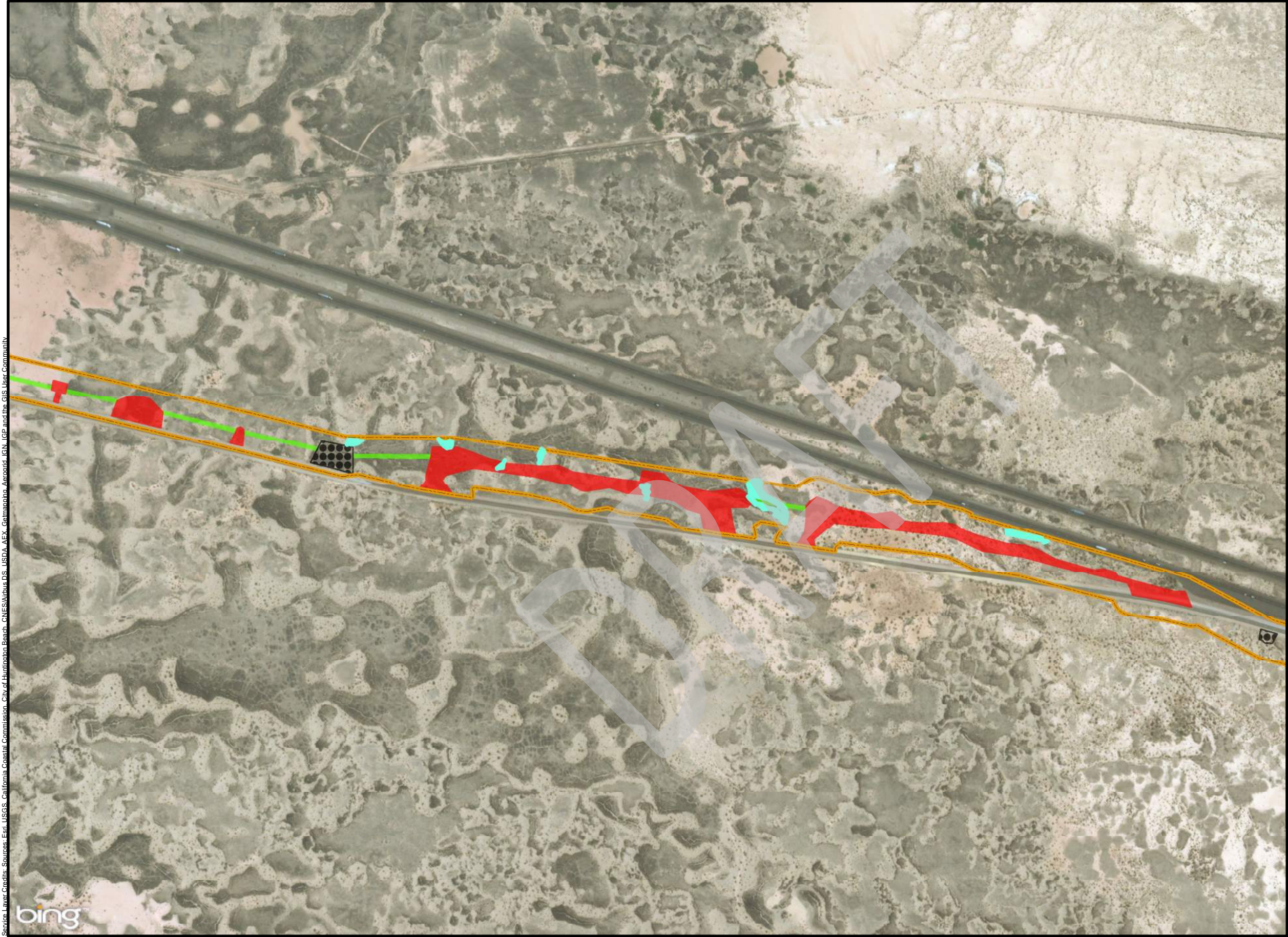


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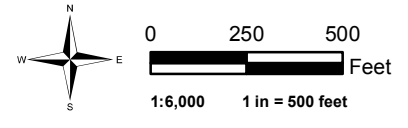


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- Legend**
- Survey Area
  - Project Components**
  - Pole Work Areas
  - Pull Sites
  - Pedestrian Access Structure Work Area
  - Suitable Habitat**
  - Mojave fringe-toed lizard

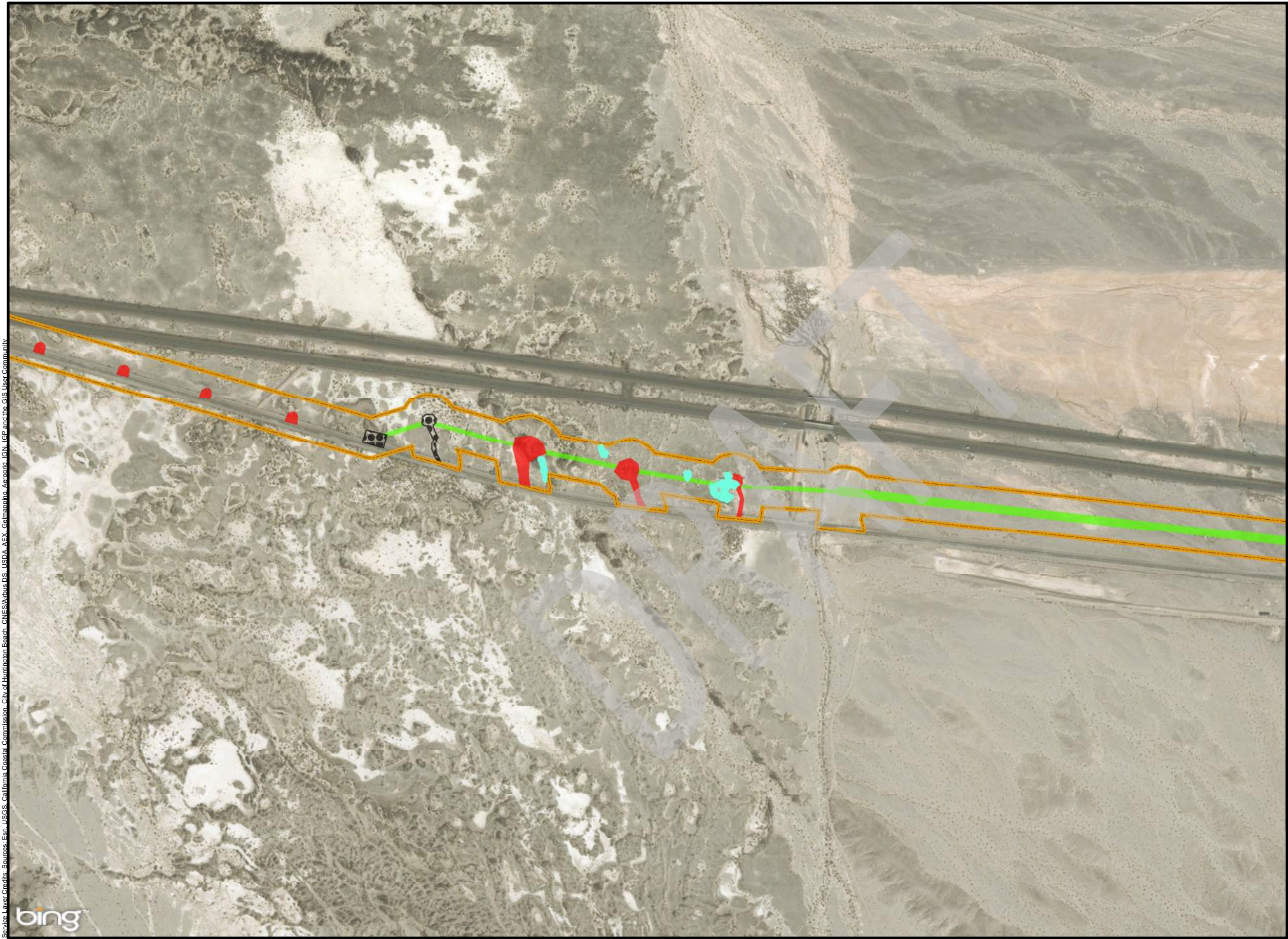


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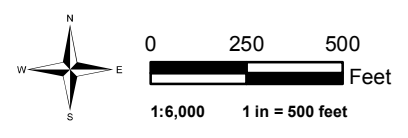
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**Legend**

- Survey Area
- Project Components**
- Pole Work Areas
- Pull Sites
- Pedestrian Access Structure Work Area
- Suitable Habitat**
- Mojave fringe-toed lizard



Service Layer Credits: Sources: Esri, USGS, California Coastal Commission, City of Huntington Beach, CNES/Airbus DS, USDA, AFX, Galois/Info, Aerialoid, IGN, IGP and the GIS User Community

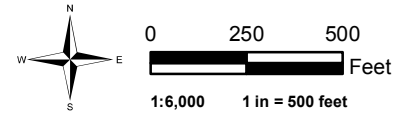


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**Legend**

- Survey Area
- Project Components**
- Helicopter Landing Zone
- Pole Work Areas
- Pull Sites
- Underground Work Area
- Pedestrian Access Structure Work Area
- Rare Plant Survey Results**
- Utah vine milkweed



Service Layer Credits: Sources: Esri, USGS, California Coastal Commission, City of Huntington Beach, CNES/Airbus DS, USDA, AFX, Garmin/DeLorme, Aerialoid, IGN, IGP and the GIS User Community



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*Appendix B:*  
SITE PHOTOGRAPHS

DRAFT



PHOTO 1:



**EMORY'S CRUCIFIXION-THORN (*CASTELA EMORYI*):**  
CNPS LIST 2B.2. A PERENNIAL SHRUB OFTEN ASSOCIATED WITH GRAVELLY SOILS IN CREOSOTE BUSH SCRUB. ONE INDIVIDUAL WAS DOCUMENTED ON HALLORAN SANDY LOAM SOIL 100 FEET OUTSIDE THE PROPOSED PROJECT SURVEY AREA NORTH OF U.S. ROUTE 66. PHOTO TAKEN ON 04/22/2017 .

PHOTO 2:

**UTAH VINE MILKWEED (*FUNASTRUM UTAHENSEIS*):**  
CNPS LIST 4.2. A PERENNIAL HERB TYPICALLY ASSOCIATED WITH CREOSOTE BUSH COMMUNITIES. APPROXIMATELY 25 INDIVIDUALS WERE DOCUMENTED 50 FEET OUTSIDE THE SURVEY AREA ON DESERT SAND DUNE SOIL WITH CREOSOTE BUSH, WHITE BURSAE, AND NON-NATIVE SAHARAN MUSTARD. PHOTO TAKEN ON 04/26/2017.



PHOTO 3:

SUITABLE MOJAVE FRINGED-TOED LIZARD HABITAT CONSISTING OF FINE SANDY HUMMOCKS. PHOTO TAKEN ON 08/29/2017.



PHOTO 4:

SUITABLE MOJAVE FRINGED-TOED LIZARD HABITAT CONSISTING OF FINE SANDY HUMMOCKS. PHOTO TAKEN ON 08/31/2017.





PHOTO 5:



MARGINALLY SUITABLE SANDY DUNE HABITAT FOR MOJAVE FRINGED-TOED LIZARD. PHOTO TAKEN ON 08/29/2017.

PHOTO 6:

MARGINALLY SUITABLE SANDY DUNE HABITAT FOR MOJAVE FRINGED-TOED LIZARD WITH VOLCANIC SCREE IN BACKGROUND. PHOTO TAKEN ON 08/31/2017.



DRAFT

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*Appendix C:*

SPECIAL-STATUS BIOLOGICAL RESOURCES OCCURRING OR POTENTIALLY OCCURRING ON OR  
IN THE VICINITY (WITHIN 3 MILES) OF THE GALE TO PISGAH PROJECT

DRAFT



Species Name Potential Sites (based on range)	Status <sup>1</sup>			Distribution, Habitat, and Occurrence Potential <sup>2</sup>	Activity / Bloom Period
	Federal	State	CNPS		
<b>SENSITIVE VEGETATION COMMUNITIES / LAND COVER TYPES</b>					
Alkali Playa Community	-	S3	-	<p>Alkali playa is a rare community of habitats that are intermittently flooded or saturated. Examples include dry lake beds and margins, hummocks, lagoon bars, old lake beds perched above current drainages, and seeps.</p> <p><b>Occurs.</b> Present at Troy Dry Lake approximately 7-8 miles east of Newberry Springs.</p>	
<i>Atriplex polycarpa</i> (Allscale scrub) Alliance - Desert Saltbush Scrub	-	S3	-	<p><i>Atriplex polycarpa</i> is dominant in the shrub canopy with <i>Ambrosia dumosa</i>, <i>Ambrosia salsola</i>, <i>Atriplex canescens</i>, <i>Bromus rubens</i>, <i>Chamaesyce polycarpa</i>, <i>Cleome isomeris</i>, <i>Isocoma acradenia</i>, and <i>Larrea tridentata</i>. Emergent trees may be present at low cover, including <i>Prosopis glandulosa</i>. Habitats include washes, playa lake beds and shores, dissected alluvial fans, rolling hills, terraces, and edges of large, low gradient washes. Soils may be carbonate rich, alkaline, sandy, or sandy clay loams. Elevation ranges from -75 to 1,500m.</p> <p><b>Occurs.</b> Present along alignment west of Troy Dry Lake (alkali playas).</p>	



Species Name Potential Sites (based on range)	Status <sup>1</sup>			Distribution, Habitat, and Occurrence Potential <sup>2</sup>	Activity / Bloom Period
	Federal	State	CNPS		
<i>Prosopis glandulosa</i> (Mesquite thicket) Alliance	-	S3	-	<p><i>Prosopis glandulosa</i> is dominant or co-dominant in the small tree canopy with <i>Salix exigua</i>, <i>Salix lasiolepis</i>, and <i>Sambucus nigra</i>. Shrubs may include <i>Allenrolfea occidentalis</i>, <i>Ambrosia dumosa</i>, <i>Atriplex canescens</i>, <i>Atriplex polycarpa</i>, <i>Bebbia juncea</i>, <i>Petalonyx thurberi</i>, <i>Pluchea sericea</i>, <i>Rhus ovata</i>, or <i>Suaeda moquinii</i>. Habitats include fringes of playa lakes, river terraces, stream banks, floodplains, rarely flooded margins of arroyos and washes, and sand dunes. Elevation ranges from 75 to 1,100m.</p> <p><b>Occurs.</b> Scattered across desert riparian areas within the Project survey area.</p>	
<i>Suaeda moquinii</i> (Bush seepweed scrub) Alliance	-	S3	-	<p><i>Suaeda moquinii</i> is dominant or co-dominant in the shrub and herbaceous layers with <i>Allenrolfea occidentalis</i>, <i>Atriplex canescens</i>, <i>Atriplex polycarpa</i>, <i>Frankenia salina</i>, <i>Kochia californica</i>, <i>Sarcobatus vermiculatus</i>, and <i>Sporobolus airoides</i>. Habitats include flat to gently sloping valley bottoms, playas, toe slopes adjacent to alluvial fans, and bajadas. Soils are deep; saline or alkaline. Elevation ranges from 0 to 1,300m.</p> <p><b>Occurs.</b> Present adjacent to Troy Dry Lake approximately 7-8 miles east of Newberry Springs.</p>	

**PLANTS**



Species Name Potential Sites (based on range)	Status <sup>1</sup>			Distribution, Habitat, and Occurrence Potential <sup>2</sup>	Activity / Bloom Period
	Federal	State	CNPS		
<i>Amaranthus watsonii</i> Watson's amaranth	–	–	4.3	An annual herb that occurs in Mojavean and Sonoran desert scrub. 20-1,700m.  <b>Unlikely.</b> Species preferred habitat is found on-site. CCH record (1958) approximately 2.5 miles west of Project alignment. Not identified during 2017 botanical surveys.	Apr-Sep
<i>Androstephium breviflorum</i> Small-flowered androstephium	–	–	2B.2	A perennial bulbiferous herb found in desert dunes and Mojavean desert scrub (bajadas). 220-800m.  <b>Absent.</b> Species preferred habitat is found on-site within creosote bush communities. Species recorded in CNDDB (2010) within 500 feet of Project alignment. Plant observed at reference site but absent within Project survey area during 2017 botanical surveys.	Mar-Apr
<i>Castela emoryi</i> Emory's crucifixion-thorn	–	–	2B.2	A perennial deciduous shrub found in gravelly areas of playas and Mojavean and Sonoran desert scrub. 90-725m.  <b>Occurs.</b> During 2017 botanical surveys, one individual approximately 100 feet outside Project survey area was identified in Halloran sandy loam soil and associated with creosote bush habitat.	Jun-Jul
<i>Cryptantha clokeyi</i> Clokey's cryptantha	–	–	1B.2	An annual herb that occurs in Mojavean desert scrub. 725-1,365m.  <b>Absent.</b> Species preferred habitat is found on-site within creosote bush communities. Plant observed at reference site but absent within Project survey area during 2017 botanical surveys.	April



Species Name Potential Sites (based on range)	Status <sup>1</sup>			Distribution, Habitat, and Occurrence Potential <sup>2</sup>	Activity / Bloom Period
	Federal	State	CNPS		
<i>Cryptantha holoptera</i> Winged Cryptantha	–	–	4.3	An annual herb found in Mojavean and Sonoran desert scrub. 100-1,690m.  <b>Unlikely.</b> Species preferred habitat is found on-site. CCH record (1995) approximately 3 miles southeast of Project alignment. Not identified during 2017 botanical surveys.	Mar-Apr
<i>Cymopterus multinervatus</i> Purple-nerve cymopterus	–	–	2B.2	A perennial herb found in sandy or gravelly areas in Mojavean desert scrub and pinyon-juniper woodland. 790-1,800m.  <b>Does not occur.</b> For the one CNDDDB record (date unknown), the exact location is unknown (upper Box Springs Wash, Rodman Mountains). Also outside elevation range. Not identified during 2017 botanical surveys.	Mar-Apr
<i>Funastrum utahense</i> Utah vine milkweed	–	–	4.2	A perennial herb found in sandy or gravelly habitats of Mojavean and Sonoran desert scrub. 100-1,435m.  <b>Occurs.</b> During 2017 botanical surveys, 25 individuals approximately 50 feet outside the survey area were identified on desert sand dune soil and associated with creosote bush, white bursage, and non-native Saharan mustard. During 2016 botanical surveys, 14 individuals were identified in the same vicinity.	Mar-Oct



Species Name Potential Sites (based on range)	Status <sup>1</sup>			Distribution, Habitat, and Occurrence Potential <sup>2</sup>	Activity / Bloom Period
	Federal	State	CNPS		
<i>Menodora spinescens</i> var. <i>mohavensis</i> Mojave menodora	-	-	1B.2	A perennial deciduous shrub that occurs in Mojavean desert scrub on Andesite gravel, rocky hillsides, and canyons. 690-2,000m.  <b>Does not occur.</b> During 2017 & 2016 botanical surveys, species was identified at reference sites but not in survey area. Also slightly outside elevation range.	Apr-May
<i>Mentzelia tridentata</i> Creamy blazing star	-	-	1B.3	An annual herb that occurs in rocky, gravelly, and sandy areas of Mojavean desert scrub. 700-1,175m.  <b>Unlikely.</b> Species preferred habitat is found on-site, although slightly outside elevation range. Several recent records (CCH 2014, CNDDDB 2011 & 2014) in western portion of Project, but approximately 2 miles south of alignment. Older CNDDDB records (1946, 1924, and unknown date) closer to alignment, but exact locations unknown. Not identified during 2017 botanical surveys. During 2016 botanical surveys, species not identified at reference site or in survey area.	Mar-May
<i>Mimulus mohavensis</i> Mojave monkeyflower	-	-	1B.2	An annual herb that occurs in sandy or gravelly areas, often in washes, in Joshua tree woodland and Mojavean desert scrub. 600-1,200m.  <b>Unlikely.</b> Species preferred habitat is found on-site. Recent CNDDDB records within the Mojave Monkeyflower ACEC south of western portion of Project. During 2017 & 2016 botanical surveys, species not identified at reference site or in survey area.	Apr-Jun



Species Name Potential Sites (based on range)	Status <sup>1</sup>			Distribution, Habitat, and Occurrence Potential <sup>2</sup>	Activity / Bloom Period
	Federal	State	CNPS		
<i>Pediomelum castoreum</i> Beaver Dam breadroot	-	-	1B.2	<p>A perennial herb that occurs in sandy areas, washes, and roadcuts in Joshua tree woodland and Mojavean desert scrub. 610-1,525m.</p> <p><b>Does not occur.</b> Species preferred habitat is found on-site. Species recorded in CNDDDB (1943, 1941, and 1915) and CCH (1943) at western end of Project, but exact locations unknown. Not identified during 2017 botanical surveys.</p>	Apr-May
<i>Penstemon albomarginatus</i> White-margined beardtongue	-	-	1B.1	<p>A perennial herb that occurs in stabilized desert dunes and sandy Mojavean desert scrub. 640-1,065m.</p> <p><b>Unlikely.</b> Numerous CNDDDB and CCH records from 1943 through 2014 at eastern end of Project, with closest records approximately 2,000 feet from alignment. During 2017 &amp; 2016 botanical surveys, species not identified at reference site or in survey area.</p>	Mar-May
<i>Phacelia parishii</i> Parish's phacelia	-	-	1B.1	<p>An annual herb that occurs in clay or alkaline areas in Mojavean desert scrub and playas. 540-1,200m.</p> <p><b>Unlikely.</b> Species preferred habitat is found on-site. CCH record (1992) approximately 2 miles north of Project material laydown yard. Not identified during 2017 botanical surveys. During 2016 botanical surveys, species was identified at reference site but not in survey area.</p>	Apr-May

**FISH**





Species Name Potential Sites (based on range)	Status <sup>1</sup>			Distribution, Habitat, and Occurrence Potential <sup>2</sup>	Activity / Bloom Period
	Federal	State	CNPS		
<i>Siphateles bicolor mohavensis</i> Mohave tui chub	FE	SE FP	—	<p>Historically, the Mohave tui chub occurred throughout the Mojave River drainage. A small population persisted in isolated ponds near the terminus of the Mojave River at Soda Springs. Historically, within the Mojave River, the Mohave tui chub was associated with deep pools and sloughs of the river and was not found very far into small tributaries. Currently occupies habitats with water depth of four feet with some freshwater flow for a mineralized and alkaline environment, with some aquatic plants.</p> <p><b>Does not occur.</b> Populations in Mojave River near Daggett and Yermo presumed extirpated due to competition and hydrology alteration.</p>	Year-round

**REPTILES**



Species Name Potential Sites (based on range)	Status <sup>1</sup>			Distribution, Habitat, and Occurrence Potential <sup>2</sup>	Activity / Bloom Period
	Federal	State	CNPS		
<i>Actinemys marmorata</i> Northern western pond turtle	–	SSC	–	<p>Found in ponds, lakes, rivers, streams and irrigation ditches with abundant vegetation and logs, rocks and exposed banks for basking. In streams, prefers pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking. May enter brackish water and even seawater. Usually found in woodland, forest and grasslands.</p> <p><b>Does not occur.</b> Population from Yermo (CNDDDB 1987) is considered extirpated.</p>	Feb-Nov
<i>Gopherus agassizii</i> Desert tortoise	FT	ST	–	<p>Throughout the Mojave Desert south along the Colorado river and along the east side of the Salton Basin. A desert species that needs firm ground to dig burrows, or rocks to shelter among. Found in arid sandy or gravelly locations along riverbanks, washes, sandy dunes, alluvial fans, canyon bottoms, desert oases, rocky hillsides, creosote flats and hillsides.</p> <p><b>Likely.</b> During 2017 focused surveys, no desert tortoise or sign identified. During 2016 focused surveys, two burrows (Class 3 and 4) identified at eastern end of alignment. During 2011 focused surveys, four Class 5 carcasses identified. Numerous CNDDDB records (2007-2010) of live desert tortoises and sign north of eastern portion of alignment, with nearest live tortoise approximately 1 mile north of Pisgah Substation and nearest sign approximately 0.5 mile north of Pisgah Substation.</p>	Mar-Oct



Species Name Potential Sites (based on range)	Status <sup>1</sup>			Distribution, Habitat, and Occurrence Potential <sup>2</sup>	Activity / Bloom Period
	Federal	State	CNPS		
<i>Uma scoparia</i> Mojave fringe-toed lizard	-	SSC	-	<p>Inhabits areas of fine windblown sand in the Mojave Desert from the southern end of Death Valley south to the Colorado River around Blythe, and into extreme western Arizona. Found in sparsely-vegetated arid areas with fine wind-blown sand, including dunes, flats with sandy hummocks formed around the bases of vegetation, washes, and the banks of rivers. Needs fine, loose sand for burrowing.</p> <p><b>Likely.</b> Patches of suitable habitat were identified along alignment. During 2017 focused surveys, none identified. During 2016 focused surveys, none identified. According to DRECP, current populations include dune complexes near Daggett, Yermo, Newberry Springs, and Pisgah. CNDDDB records (2008, 1982) at eastern end of Project vicinity, with nearest record (2008) approximately 0.75 mile north of alignment.</p>	Feb-Nov

**BIRDS**



Species Name Potential Sites (based on range)	Status <sup>1</sup>			Distribution, Habitat, and Occurrence Potential <sup>2</sup>	Activity / Bloom Period
	Federal	State	CNPS		
<p><i>Agelaius tricolor</i> Tricolored blackbird (nesting colony)</p>	-	CE SSC	-	<p>Species breeds locally west of the Cascade Range, Sierra Nevada, and southeastern deserts from Humboldt and Shasta counties south to extreme southwest San Bernardino County, western Riverside County, and western and southern San Diego County. Primarily breeds in freshwater marshes dominated by cattails (<i>Typha</i> spp.) or bulrushes (<i>Schoenoplectus</i> spp.). Small breeding colonies in southern California often occur at private and public lakes, reservoirs, and parks surrounded by shopping centers, subdivisions, and other urban development.</p> <p><b>Likely.</b> Not identified during surveys. Two potentially extant nesting colony records (CNDDDB 2014) within 1 mile of alignment:</p> <ul style="list-style-type: none"> <li>• NW corner of Elkhorn Street and Spyrock Avenue in cattail marsh in pond, less than 500 feet north of alignment; and</li> <li>• NE corner of Minneola Road and Swansea Street in cattail marsh in pond, two-thirds of a mile north of alignment.</li> </ul>	<p>Year-round Breeding: Mar-Aug</p>



Species Name Potential Sites (based on range)	Status <sup>1</sup>			Distribution, Habitat, and Occurrence Potential <sup>2</sup>	Activity / Bloom Period
	Federal	State	CNPS		
<i>Aquila chrysaetos</i> Golden eagle (nesting and wintering)	-	FP WL	-	<p>Found throughout western North America. Occurs primarily in mountainous canyon land, rimrock terrain of open desert, and grassland areas. Usually nests on cliffs, but also nests in trees, on the ground, and in human-made structures. Typically forages in open habitats.</p> <p><b>Likely.</b> Not identified during surveys. Known nesting site (CNDDDB 1979) approximately two-thirds of a mile south of alignment in Newberry Mountains. Suitable foraging habitat throughout alignment.</p>	<p>Year-round</p> <p>Breeding: Jan-Aug</p>
<i>Athene cunicularia</i> Burrowing owl	-	SSC	-	<p>Inhabits relatively flat and open areas such as grasslands, coastal dunes, and agricultural areas; requires the presence of burrows for nesting and roosting activities. An uncommon to locally common resident in California.</p> <p><b>Unlikely.</b> During 2017 focused surveys, four potential burrows identified along the alignment; no live owls or definitive sign identified. During 2016 focused surveys, four potential burrows identified along the alignment; no live owls or definitive sign identified. During 2011 desert tortoise surveys, no burrowing owl or sign identified. CNDDDB records (2008-2009) greater than two miles from alignment.</p>	<p>Year-round</p> <p>Breeding: Mar-Sep</p>



Species Name Potential Sites (based on range)	Status <sup>1</sup>			Distribution, Habitat, and Occurrence Potential <sup>2</sup>	Activity / Bloom Period
	Federal	State	CNPS		
<i>Icteria virens</i> Yellow-breasted chat (nesting)	-	SSC	-	<p>A breeding species in the U.S., in California a very locally distributed species throughout Southern Coast Range and Peninsular Range from Santa Clara County south to San Diego County. Largely confined to riparian and shrubby habitats.</p> <p><b>Unlikely.</b> Not identified during surveys. CNDDDB record (1911) from Yermo. Could occur at various water features in the vicinity with riparian habitat, but unlikely along alignment.</p>	Breeding: May-Aug
<i>Toxostoma lecontei</i> Le Conte's Thrasher	-	SSC	-	<p>Prefers undisturbed sparsely vegetated desert flats, dunes, alluvial fans, or gently rolling hills having a high proportion of saltbush or shadscale (<i>Atriplex</i> spp.) and/or cylindrical cholla cactus (<i>Opuntia</i> spp.). It can also occupy other desert habitats with similar structural profiles but lacking saltbush/shadscale or cholla cactus.</p> <p><b>Likely.</b> Not identified during surveys, but suitable habitat present along alignment.</p>	Year-round
<b>MAMMALS</b>					



Species Name Potential Sites (based on range)	Status <sup>1</sup>			Distribution, Habitat, and Occurrence Potential <sup>2</sup>	Activity / Bloom Period
	Federal	State	CNPS		
<i>Ovis canadensis nelsoni</i> Desert bighorn sheep	-	FP	-	<p>In California, the desert bighorn sheep is found in the dry, desert mountains of southeastern California. Desert bighorn live throughout the inter-mountain west in a large number of desert mountain ranges in eastern California, much of Nevada, northwestern Arizona, New Mexico, southern Utah, southern Colorado, and Mexico.</p> <p><b>Unlikely.</b> CNDDDB record (1986) of herd in Newberry Mountains, less than 2 miles south of alignment, but unlikely to be present along alignment.</p>	Year-round
<i>Xerospermophilus mohavensis</i> Mojave ground squirrel	-	ST	-	<p>Found throughout northwestern Mojave Desert in San Bernardino, Los Angeles, Kern, and Inyo counties. Occurs in a variety of desert shrubland habitats. Most often found in creosote bush scrub, but also found in desert saltbush scrub, desert sink scrub, desert greasewood scrub, shadscale scrub, Joshua tree woodland, and Mojave mixed woody scrub. Mohave ground squirrels typically occupy areas with open vegetative cover and small bushes, and prefers deep, sandy to gravelly soils on flat to moderately sloping terrain.</p> <p><b>Does not occur.</b> Project is outside the historic range of the species.</p>	Year-round



<sup>1</sup> Status	CNPS (California Rare Plant Rank)	<sup>2</sup> Occurrence Potential
<b>Federal</b>	1A: Plants presumed extirpated in California and either rare or extinct elsewhere	Special-status species with the potential to occur within the Survey Area were evaluated based on SCE’s Species Presence/Absence Determination flow-chart:
FE: Federally Endangered	1B: Plants rare, threatened, or endangered in California and elsewhere	Occurs: the species and/or positive sign was observed on-site during site visit or field survey.
FT: Federally Threatened	2A: Plants presumed extirpated in California, but common elsewhere	Absent: the species and/or positive sign was not observed on-site during focused survey(s) during the appropriate blooming/activity period (and, for plants, observed at a reference population).
DL: Delisted	2B: Plants rare, threatened, or endangered in California, but more common elsewhere	Likely: all site features indicate this species is very likely present and should be expected. Criteria include:
<b>State</b>	3: Plants about which more information is needed - a review list	<ul style="list-style-type: none"> <li>• Project site within geographic range;</li> <li>• Suitable habitat present (e.g., soils, vegetation communities, elevation, roost sites, leaf litter/debris, water, host plants, etc.); and</li> <li>• Distance to historical record(s) less than 25 years old are less than 500 feet (plants/fish), 1,000 feet (riparian wildlife), 1 mile (birds/bats), 2 miles (large mammals), or 3 miles (small mammals/herps).</li> </ul>
SE: State Endangered	4: Plants of limited distribution - a watch list	Unlikely: species could occur, but records of the species are not locally known. Criteria include:
ST: State Threatened	0.1: Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)	<ul style="list-style-type: none"> <li>• Project site within geographic range;</li> <li>• Suitable habitat present (e.g., soils, vegetation communities, elevation, roost sites, leaf litter/debris, water, host plants, etc.); and</li> <li>• Distance to historical record(s) less than 25 years old are more than 500 feet (plants/fish), 1,000 feet (riparian wildlife), 1 mile (birds/bats), 2 miles (large mammals), or 3 miles (small mammals/herps); or historical record 26-75 years old indicates it is extant and accurately mapped.</li> </ul>
SR: State Rare	0.2: Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)	Does Not Occur: species would not occur because the Project site is outside known or current geographic/elevation range, lacks habitat or suitable conditions, and/or there is reasonable certainty to assume absent based on historical records.
CE: State Candidate Endangered	0.3: Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)	
CT: State Candidate Threatened	CBR: Considered But Rejected	
SSC: California Species of Special Concern		
FP: Fully Protected		
WL: Watch List		
DL: Delisted		
Vegetation Communities: Ranks are based on a one to five scale, ranging from critically imperiled (S1) to demonstrably secure (S5). S1-S3 communities considered rare.		





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