

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND  
NATIVE PLANT PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE  
PROJECT, IN UNINCORPORATED SAN BERNARDINO COUNTY, CALIFORNIA**

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BERNARDINO COUNTY, CALIFORNIA**

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Table of Contents

SECTION 1.0 – INTRODUCTION	4
1.1 PROJECT LOCATION	4
1.2 PROJECT DESCRIPTION	4
SECTION 2.0 – METHODOLOGY	5
2.1 LITERATURE REVIEW	5
2.2 BIOLOGICAL RECONNAISSANCE-LEVEL SURVEY	5
2.3 JURISDICTIONAL FEATURES	6
2.4 VEGETATION	9
2.5 WILDLIFE	9
2.6 WILDLIFE CORRIDORS AND HABITAT CONSERVATION PLAN	9
SECTION 3.0 – RESULTS	9
3.1 LITERATURE REVIEW RESULTS	9
3.1.1 SPECIAL STATUS SPECIES	10
3.1.2 JURISDICTIONAL WATERS	12
3.1.3 DESIGNATED CRITICAL HABITAT	12
3.1.4 HYDROLOGY AND HYDROLOGIC CONNECTIVITY	12
3.1.5 SAN BERNARDINO COUNTY DEVELOPMENT CODE	12
3.2 FIELD STUDY RESULTS	14
3.2.1 HABITAT	14
3.2.2 SPECIAL STATUS SPECIES	14
3.2.3 NESTING BIRDS	15
3.2.4 JURISDICTIONAL WATERS	16
3.2.5 WETLANDS AND BLUE LINE STREAM	16
3.2.6 NATIVE PLANT PROTECTION PLAN	16
SECTION 4.0 – CONCLUSIONS AND RECOMMENDATIONS	17
4.1 JURISDICTIONAL AREAS	17
4.2 SENSITIVE SPECIES	17
4.3 SAN BERNARDINO COUNTY DEVELOPMENT CODE AND THE CALIFORNIA DESERT NATIVE PLANT ACT	18
4.4 BURROWING OWL	18
4.5 NESTING BIRDS	18

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

---

4.6 CERTIFICATION	19
Section 5 – REFERENCES	20
Appendix A – Figures	21
Appendix B – Photos	27
Appendix C – Regulatory Framework	32
Appendix D – Tables	39

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

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**SECTION 1.0 – INTRODUCTION**

Jennings Environmental, LLC (Jennings) was retained by Lilburn Corporation (Lilburn) to conduct a literature review and reconnaissance-level survey for the proposed Essex Sand and Gravel Mine Project in the unincorporated area of Yermo, California (Project). The survey identified vegetation communities, the potential for the occurrence of special status species, or habitats that could support special status wildlife species, and recorded all plants and animals observed or detected within the Project boundary. This biological resources assessment is designed to address the potential effects of the proposed project on designated critical habitats and/or any species currently listed or formally proposed for listing as endangered or threatened under the federal Endangered Species Act (ESA) and the California Endangered Species Act (CESA) or species designated as sensitive by the California Department of Fish and Wildlife (CDFW) or the California Native Plant Society (CNPS).

Information contained in this document is in accordance with accepted scientific and technical standards that are consistent with the requirements of the United States Fish and Wildlife Service (USFWS) and CDFW. Additionally, the site was surveyed for any drainage features that would meet the definition of the Waters of the US (WOUS), Waters of the State (WOS), or CDFW jurisdiction. Also, the project is located within the desert of San Bernardino County. As such, this report also contains the results of the Native Plant Protection Plan in accordance with San Bernardino County Development Code Section 88.01.060.

**1.1 PROJECT LOCATION**

The Project is generally located in Section 13, Township 8 North, Range 17 East, and is depicted within the *Fenner* U.S. Geological Survey's (USGS) 7.5-minute topographic map. More specifically the project is located within APN 0655-181-16, within an unincorporated area of San Bernardino County, California. The Project site is located approximately 6.43 miles southwest of the intersection of National Trails Highway and Interstate 40. The site is surrounded by vacant parcels (Figures 1 and 2 in Appendix A).

**1.2 PROJECT DESCRIPTION**

The quarry may supply locally sourced construction material. Project operations are likely to include the following: a borrow site for native material to repair transportation infrastructure, materials storage area, storage area for spoils, and a temporary staging area for nearby construction projects. Activities will likely include grading, excavation, and utilization of heavy construction machinery and processing plants for screening and asphalt concrete production. The Project seeks to resume rock mining within a smaller portion of the site. Prior to this report, the Project consisted of two overlapping areas of interest: the Previous Project Area from prior Project activities, and Proposed Project Area (Figure 2). The Proposed Project Area encompasses 74.14 acres.

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

---

**SECTION 2.0 – METHODOLOGY**

**2.1 LITERATURE REVIEW**

Prior to performing the field survey, existing documentation relevant to the Project site was reviewed. The most recent records of the California Natural Diversity Database (CNDDDB) managed by CDFW (CDFW 2023), the USFWS Critical Habitat Mapper (USFWS 2023), and the California Native Plant Society's Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California (CNPS 2023) were reviewed for the following quadrangle containing and surrounding the Project site: *Fenner, Fenner Spring, Little Piute Mountains, and Essex*, USGS 7.5-minute quadrangles. The *Fenner Spring, Little Piute Mountains, and Essex* quads were included in this search due to the sites' proximity to their borders. These databases contain records of reported occurrences of federal- or state-listed endangered or threatened species, California Species of Concern (SSC), or otherwise special status species or habitats that may occur within or in the immediate vicinity of the Project site. These sources include:

- California Natural Diversity Database (CNDDDB) managed by CDFW (CDFW 2023)
- USFWS Critical Habitat Mapper (USFWS 2023)
- California Native Plant Society's Electronic Inventory (CNPSEI) of Rare and Endangered Vascular Plants of California (CNPS 2023), issuer of the California Rare Plant Rank (CRPR).
- U.S. Fish and Wildlife (USFWS) threatened and endangered species occurrence GIS overlay;
- USGS National Map;
- Calwater Watershed Maps
- USFWS Designated Critical Habitat Maps
- San Bernardino County Biotic Recourses Overlay
- San Bernardino County Development Code, 88.01.060 Desert Native Plant Protection

**2.2 BIOLOGICAL RECONNAISSANCE-LEVEL SURVEY**

Field Surveys were conducted using Jennings Environmental Sub-Consultant, Mountain View Biological Consulting (MVBC). MVBC Biologists conducted a meandering pedestrian survey of the Survey Area during daylight hours under weather conditions that did not preclude observations of special-status species (Table 1) although the survey timing was outside the floristic period for rare plants, which precluded a include CDFW Rare Plant protocol survey. The site was accessed via National Trails Highway with no overland travel. MVBC recorded all evidence of DETO that was not previously documented in the Protocol Survey, including burrows, and categorized burrows according to the Field Manual (USFWS 2009). Biologists documented dominant vegetation alliances and recorded all flora and fauna observed. All tree locations were marked with individual points or as polygon aggregations, as appropriate, and labeled according to diameter at breast height (DBH) as required by County of San Bernardino General Biological Survey Report Protocol. Data were recorded with ESRI Fieldmaps and Survey123, and images were obtained using Solocator. Photographs of the Project site were taken to document existing conditions (Appendix B).

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

---

In addition to conducting the General Biological Assessment, MVBC also conducted protocol level desert tortoise surveys.

*Desert tortoise (Gopherus agassizii) Protocol Surveys*

The Project site is located within a region that does contain habitat suitable for the listed species, desert tortoise. Additionally, the site is located within designated critical habitat. As such, protocol surveys were conducted in accordance with the 2018 USFWS Desert Tortoise Survey Protocol as described below.

Small Project Surveys

Smaller project sites are expected to be used by too few tortoises to allow for accurate estimation of take. Operationally, the USFWS considers sites in Upper Virgin River Recovery Unit that are < 67 ha (165 acres) or in the rest of the desert tortoise range < 200 ha (500 acres) to be “small.” The action areas of small projects are less likely to include the entire home ranges of desert tortoises; therefore, desert tortoises that regularly use the area may be off site during surveys.

The USFWS protocol described for quantitative surveys should be followed, but can be completed at any time of year. The quantitative survey protocol is described below.

- Use 10-meter-wide belt transects to cover the action area.
- On the datasheet included in this guidance, record all evidence that indicates desert tortoises may be present (e.g., scat, burrows, carcasses, courtship rings, drinking depressions, etc. in addition to live tortoises).
- Use the Field Manual (USFWS 2009) to categorize the condition of sign.
- Record information and measure desert tortoises as described for large project sites.
- Use mirrors or flashlights to inspect burrows.

## **2.3 JURISDICTIONAL FEATURES**

A general assessment of jurisdictional waters was conducted by Jennings Environmental’s Regulatory Specialist, Gene Jennings. This assessment reviewed the site for the presence of waters regulated by the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and CDFW was conducted for the proposed Project area. Pursuant to Section 404 of the Clean Water Act, USACE regulates the discharge of dredged and/or fill material into waters of the United States. The State of California (State) regulates the discharge of material into waters of the State pursuant to Section 401 of the Clean Water Act and the California Porter- Cologne Water Quality Control Act (California Water Code, Division 7, §13000 et seq.). Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the California Fish and Game Code, CDFW regulates all substantial diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife. The initial assessment was conducted by a desktop survey through the USGS National Hydrography Dataset for hydrological connectivity. A discussion of the regulatory framework is provided in Appendix C.

The delineation was conducted based on aerial maps and global positioning units were used to assist in determining the limits of jurisdictional waters. All areas identified as supporting jurisdictional waters were measured to the nearest foot. Suspected jurisdictional areas were checked for the presence of definable

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

---

channels and/or wetland vegetation, riparian habitat, soils, and hydrology. The JD was conducted in accordance with regulations set forth in 33CFR part 328 and the USACE guidance documents referenced below:

- *USACE Wetlands Research Program Technical Report Y-87-1 (on-line edition), Wetlands Delineation Manual, Environmental Laboratory, 1987 (Wetland Delineation Manual).*
- *USACE Guidelines for Jurisdictional Determinations for Waters of the United States in the Arid Southwest, 2001 (Arid Southwest Guidelines).*
- *USACE Minimum Standards for Acceptance of Preliminary Wetlands Delineations, November 30, 2016 (Minimum Standards).*
- *USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), September 2008 (Arid West Supplement).*
- *USACE Jurisdictional Determination Form Instructional Guidebook, May 30, 2007 (JD Form Guidebook).*
- *USACE A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States, August 2008 (Delineation Manual).*

Mr. Jennings assessed the site for indicators of active surface flow (presence of hydrophytic vegetation, staining, cracked soil, ponding, etc.). All apparent flow regimes and corresponding hydrogeomorphic features (banks, racking, sediment sorting, destruction of vegetation, etc.) were identified. The lateral extent of USACE jurisdiction was measured at the Ordinary High Watermark (OHWM), which is indicated by a clear, natural line impressed on the bank, shelving, changes in the character of soil, and the presence of flow debris.

Evaluation of CDFW jurisdiction followed guidance in the Fish and Game Code and *A Review of Stream Processes and Forms in Dryland Watersheds* (CDFW, 2010). Specifically, CDFW jurisdiction was delineated by measuring the elevations of land that confine a stream to a definite course when its waters rise to their highest level and to the extent of associated riparian vegetation. Here the bank-full width was used to mark the lateral extent of the jurisdictional drainages.

Potential wetland areas were assessed by searching for hydrophytes and depressions/ponded areas where water would likely collect. Three soil pits were dug to evaluate the soils on site and determine if hydric soils were present. Plant species were identified and given an indicator status as prescribed in the 2013 National Wetland Plant List (Arid West Region) (Lichvar, 2013). Vegetation nomenclature follows *The Jepson Manual, Vascular Plants of California*, 2nd Edition (Baldwin, 2012). When the Jepson Manual does not list a common name, common name nomenclature follows the United States Department of Agriculture, Natural Resources Conservation Service (USDA) Plants Database (USDA, 2014a).

In order to be considered a *jurisdictional wetland* under Section 404, an area must possess three wetland characteristics: *hydrophytic vegetation*, *hydric soils*, and *wetland hydrology*.

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN BERNARDINO COUNTY, CALIFORNIA**

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Hydrophytic vegetation

Hydrophytic vegetation is plant life that grows, and is typically adapted for life, in permanently or periodically saturated soils. The hydrophytic vegetation criterion is met if more than 50 percent of the dominant plant species from all strata (tree, shrub, and herb layers) is considered hydrophytic. Hydrophytic species are those included on the 2013 National Wetland Plant List (Arid West Region) (Lichvar, 2013). Each species on the list is rated according to a wetland indicator category, as shown in Table A. To be considered hydrophytic, the species must have *wetland indicator status*, i.e., be rated as OBL, FACW or FAC.

**Table 1: Wetland Indicator Vegetation Categories**

Category	Probability
Obligate Wetland (OBL)	Almost always occur in wetlands (estimated probability >99%)
Facultative Wetland (FACW)	Usually occur in wetlands (estimated probability 67 to 99%)
Facultative (FAC)	Equally likely to occur in wetlands and non-wetlands (estimated probability 34 to 66%)
Facultative Upland (FACU)	Usually occur in non-wetlands (estimated probability 67 to 99%)
Obligate Upland (UPL)	Almost always occur in non-wetlands (estimated probability >99%)

Hydric Soil

Soil maps from the USDA-NRCS Web Soil Survey (USDA 2015) were reviewed for soil types found within the subject property. Hydric soils are saturated or inundated long enough during the growing season to develop anaerobic conditions that favor growth and regeneration of hydrophytic vegetation. There are a number of indirect indicators that may signify the presence of hydric soils including hydrogen sulfide generation, the presence of iron and manganese concretions, certain soil colors, gleying, and the presence of mottling. Generally, hydric soils are dark in color or may be gleyed (bluish, greenish, or grayish), resulting from soil development under anoxic (without oxygen) conditions. Bright mottles within an otherwise dark soil matrix indicate periodic saturation with intervening periods of soil aeration. Hydric indicators are particularly difficult to observe in sandy soils, which are often recently deposited soils of flood plains (entisols) and usually lack sufficient fines (clay and silt) and organic material to allow use of soil color as a reliable indicator of hydric conditions. Hydric soil indicators in sandy soils include accumulations of organic matter in the surface horizon, vertical streaking of subsurface horizons by organic matter, and organic pans.

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

---

The hydric soil criterion is satisfied at a location if soils in the area can be inferred or observed to have a high groundwater table, if there is evidence of prolonged soil saturation, or if there are any indicators suggesting a long-term reducing environment in the upper part of the soil profile. Reducing conditions are most easily assessed using soil color. Soil colors were evaluated using the Munsell Soil Color Charts (Gretag/Macbeth, 2000). Soil pits were dug to an approximate depth of 18 to evaluate soil profiles for indications of anaerobic and redoximorphic (hydric) conditions in the subsurface.

Wetland Hydrology

The wetland hydrology criterion is satisfied at a location based upon conclusions inferred from field observations that indicate an area has a high probability of being inundated or saturated (flooded, ponded, or tidally influenced) long enough during the growing season to develop anaerobic conditions in the surface soil environment, especially the root zone (USACE, 1987 and 2008b).

## **2.4 VEGETATION**

All plant species observed within the Project site were recorded. Vegetation communities within the Project site were identified and qualitatively described. Plant communities were determined in accordance with the *Manual of California Vegetation, Second Edition* (Sawyer et al. 2009). Plant nomenclature follows that of *The Jepson Manual, Second Edition* (Baldwin et al. 2012). A comprehensive list of the plant species observed during the survey is provided in Appendix D.

## **2.5 WILDLIFE**

All wildlife and wildlife signs observed and detected, including tracks, scat, carcasses, burrows, excavations, and vocalizations, were recorded. Additional survey time was spent in those habitats most likely to be utilized by wildlife (native vegetation, wildlife trails, etc.) or in habitats with the potential to support state- and/or federally listed or otherwise special-status species. Notes were made on the general habitat types, species observed, and the conditions of the Project site. A comprehensive list of the wildlife species observed during the survey is provided in Appendix D.

## **2.6 WILDLIFE CORRIDORS AND HABITAT CONSERVATION PLAN**

According to the California Essential Habitat Connectivity Project, the Project Site is not mapped within an area for wildlife movement and is not within a habitat conservation plan. Additionally, the site is not within a desert linkage as mapped by the Mojave Desert Land Trust.

## **SECTION 3.0 – RESULTS**

### **3.1 LITERATURE REVIEW RESULTS**

According to the CNDDDB, CNPSEI, and other relevant literature and databases, 11 sensitive species including 4 listed species, have been documented in the *Fenner, Fenner Spring, Little Piute Mountains, and Essex* quads. This list of sensitive species and habitats includes any State and/or federally-listed threatened or endangered species, CDFW-designated Species of Special Concern (SSC), and otherwise

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

---

Special Animals. “Special Animals” is a general term that refers to all of the taxa in the CNDDDB that CDFW is interested in tracking, regardless of their legal or protection status. This list is also referred to as the list of “species at risk” or “special status species.” The CDFW considers the taxa on this list to be those of greatest conservation need.

An analysis of the likelihood of the occurrence of all CNDDDB-sensitive species documented in the *Fenner*, *Fenner Spring*, *Little Piute Mountains*, and *Essex* quads are provided in Table 2, in Appendix D. This analysis takes into account species range as well as documentation within the vicinity of the project area and includes the habitat requirements for each species and the potential for their occurrence on the site, based on required habitat elements and range relative to the current site conditions.

### **3.1.1 SPECIAL STATUS SPECIES**

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

The desert tortoise is a State and federally-listed threatened species. Throughout its range, it is threatened by habitat loss, domestic grazing, predation, collections, and increased mortality rates. The desert tortoise is typically found in creosote bush scrub. They are most often found on level or sloped ground where the substrate is firm but not too rocky. Tortoise burrows are typically found at the base of shrubs, in the sides of washes and hillsides. Because a single tortoise may have many burrows distributed throughout its home range, it is not possible to predict the exact numbers of individuals on a site based upon burrow numbers.

In 1992 the US Bureau of Land Management issued the *California Statewide Desert Tortoise Management Policy* which included categorizing habitat into three levels of classification. The management goal for Category I areas is to maintain stable, viable populations and to increase the population where possible. The management goal for Category II areas is to maintain stable, viable populations. The management goal for Category III areas is to limit population declines to the extent feasible. In April 1993, the BLM amended the CDCA plan to delineate these three categories of desert tortoise habitat on public lands. Although habitat categories apply only to public lands administered by the BLM, regulatory agencies typically determine habitat compensation ratios based on the nearest BLM habitat categories (Desert Tortoise Compensation Team 1991). With the adoption of the West Mojave Plan (U.S. Bureau of Land Management 2005), all lands that are outside Desert Wildlife Management Areas, including the subject parcel, are characterized as Category 3 Habitat, which is the lowest priority management area for viable populations of the desert tortoise.

#### *Burrowing Owl (Athene cunicularia)*

The burrowing owl (BUOW) is a state and federal SSC. This owl is a mottled, brownish and sand-colored, dove-sized raptor, with large, yellow eyes, a rounded head lacking ear tufts, white eyebrows, and long legs compared to other owl species. It is a ground-dwelling owl typically found in arid prairies, fields, and open areas where vegetation is sparse and low to the ground. The BUOW is heavily dependent upon the presence of mammal burrows, with ground squirrel burrows being a common choice, in its habitat to provide shelter from predators, inclement weather, and to provide a nesting place (Coulombe 1971). They are also known to make use of human-created structures, such as cement culverts and pipes, for burrows.

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

---

BUOW spends a great deal of time standing on dirt mounds at the entrance to a burrow or perched on a fence post or other low to the ground perch from which they hunt for prey. BUOW frequently hunt by hovering in place above the ground and dropping on their prey from above. They feed primarily on insects such as grasshoppers, June beetles, and moths, but will also take small rodents, birds, and reptiles. They are active during the day and night but are considered a crepuscular owl; generally observed in the early morning hours or at twilight. The breeding season for BUOW is February 1 through August 31. Up to 11, but typically 7 to 9, eggs are laid in a burrow, abandoned pipe, or other subterranean hollows where incubation is complete in 28-30 days. Young BUOW fledge in 44 days. The BUOW is considered a migratory species in portions of its range, which includes western North America from Canada to Mexico, and east to Texas and Louisiana. BUOW populations in California are considered to be sedentary or locally migratory.

Throughout its range, the BUOW is vulnerable to habitat loss, predation, vehicular collisions, and destruction of burrow sites, and the poisoning of ground squirrels (Grinnell and Miller 1944, Zarn 1974, Remsen 1978). BUOW has disappeared from significant portions of their range in the last 15 years and, overall, nearly 60% of the breeding groups of owls known to have existed in California during the 1980s had disappeared by the early 1990s (Burrowing Owl Consortium 1993). The BUOW is not listed under the state or federal Endangered Species Act but is considered both a federal and state Species of Special Concern. The BUOW is a migratory bird protected by the international treaty under the Migratory Bird Treaty Act of 1918 and by State law under the California Fish and Game Code (CDFG Code #3513 & #3503.5).

Desert Kit Fox (*Vulpes macrotis*)

The desert kit fox is not federally- or state-listed, but is considered a species of local concern by the County of Los Angeles. It is an uncommon to rare permanent resident in arid habitats within southern California (CDFW 2017b). Kit foxes are threatened by a number of human activities, including poaching, pesticide and rodenticide use, and direct poisoning, as well as heavy agricultural and urban development (Eder 2005). Desert kit foxes occur in the desert and other arid habitats, including sagebrush flats, creosote scrub, and annual grassland habitats, and other areas with scattered brush, scrub, and shrubs. They are an important predator of small mammals, preying on black-tailed jackrabbits (*Lepus californicus*), desert cottontails (*Sylvilagus audubonii*), kangaroo rats, ground squirrels, and other rodents, insects, reptiles, birds, and bird eggs. Limited vegetation may be taken. Desert kit foxes excavate burrows in loose-textured sandy or loamy soils for shelter, pupping, and as an escape from extreme heat and cold (Eder 2005, CDFW B). Open, level areas are preferred for burrowing. Man-made structures and infrastructure, including culverts and pipes, also may be used for denning where suitable friable soils are not present (CDFW B).

American Badger (*Taxidea taxus*)

The American badger is a CDFW Species of Special Concern. Badgers are uncommon, permanent residents throughout California, and occur most commonly in open stages of shrub, woodland, and herbaceous habitats. They are tenacious diggers and occur where friable soils support denning and burrowing activities. They are active year-round, and most often nocturnal, although they may be active during the day. They prey upon fossorial rodents, especially California ground squirrels and pocket gophers; rats and

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

---

mice, some reptiles, insects, eggs, birds, and carrion also may be taken. Breeding typically occurs in the summer and early fall, with pups being born the following March or April in burrows dug in relatively dry, often sandy soil. American badgers are threatened primarily by indiscriminate trapping, agricultural conversion, and the eradication of ground squirrels and other fossorial rodents that comprise the majority of their prey base (CDFW B).

### **3.1.2 JURISDICTIONAL WATERS**

Aerial imagery of the site was examined and compared with the surrounding USGS 7.5-minute topographic quadrangle maps to identify drainage features within the survey area as indicated from topographic changes, blue-line features, or visible drainage patterns. The U.S. Fish and Wildlife Service National Wetland Inventory and Environmental Protection Agency (EPA) Water Program “My Waters” data layers were also reviewed to determine whether any hydrologic features and wetland areas had been documented within the vicinity of the site. Similarly, the Soil maps from the U.S. Department of Agriculture (USDA) - Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2023) were reviewed to identify the soil series on-site and to check if they have been identified regionally as hydric soils. Upstream and downstream connectivity of waterways (if present) was reviewed in the field, on aerial imagery, and topographic maps to determine jurisdictional status.

### **3.1.3 DESIGNATED CRITICAL HABITAT**

The site is located within the USFWS-designated Critical Habitat for the federally endangered desert tortoise. As such, protocol surveys were completed to determine the presence or absence of this species within the critical habitat. See section 3.2.3 for the results of the protocol desert tortoise surveys.

### **3.1.4 HYDROLOGY AND HYDROLOGIC CONNECTIVITY**

Hydrologically, the project site is located within an undefined Hydrologic Sub-Area (HSA 710.20), as identified on the Calwater Watershed maps. This undefined area comprises a 704,024-acre drainage area within the larger Lower Watson Wash Watershed Area (Hydrologic Unit Code [HUC10] 1810010033, US Watershed Maps) (CalTrans, 2023). The Lower Watson Wash watershed is bordered to the north by the Upper Watson Wash watershed, to the east by the Upper Homer Wash watershed, to the south by the Lower Homer Wash watershed, and to the west by the Schulyler Wash and Clipper Valley Wash watersheds. (Figure 3 in Appendix A).

### **3.1.5 SAN BERNARDINO COUNTY DEVELOPMENT CODE**

#### **§ 88.01.060 Desert Native Plant Protection.**

This Section provides regulations for the removal or harvesting of specified desert native plants in order to preserve and protect the plants and to provide for the conservation and wise use of desert resources. The provisions are intended to augment and coordinate with the Desert Native Plants Act (Food and Agricultural Code §§ 80001 *et seq.*) and the efforts of the State Department of Food and Agriculture to implement and enforce the Act. Section § 88.01.060 of the San Bernardino Development Code is described below.

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

---

(a) *Definitions.* Terms and phrases used within this Section shall be defined in Division 10 (Definitions) and/or defined by the California Food and Agricultural Code. The California Food and Agricultural Code definition, if one exists, shall prevail over a conflicting definition in this Development Code.

(b) *Applicability.* The provisions of this Section shall apply to desert native plants specified in Subdivision (c) (Regulated Desert Native Plants) that are growing on any of the following lands, unless exempt in compliance with § 88.01.030 (Exempt Activities):

(1) Privately owned or publicly owned land in the Desert Region.

(2) Privately owned or publicly owned land in any parts of the Mountain Region in which desert native plants naturally grow in a transitional habitat.

(c) *Regulated Desert Native Plants.* The following desert native plants or any part of them, except the fruit, shall not be removed except under a Tree or Plant Removal Permit in compliance with § 88.01.050 (Tree or Plant Removal Permits). In all cases the botanical names shall govern the interpretation of this Section.

(1) The following desert native plants with stems two inches or greater in diameter or six feet or greater in height:

(A) *Dalea spinosa* (smoketree).

(B) All species of the genus *Prosopis* (mesquites).

(2) All species of the family Agavaceae (century plants, nolinias, yuccas).

(3) Creosote Rings, ten feet or greater in diameter.

(4) All Western Joshua trees.

(5) Any part of any of the following species, whether living or dead:

(A) *Olneya tesota* (desert ironwood).

(B) All species of the genus *Prosopis* (mesquites).

(C) All species of the genus *Cercidium* (palos verdes).

(d) *Compliance with Desert Native Plants Act.* Removal actions of all plants protected or regulated by the Desert Native Plants Act (Food and Agricultural Code §§ 80001 *et seq.*) shall comply with the provisions of the Act before the issuance of a development permit or approval of a land use application.

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

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### **3.2 FIELD STUDY RESULTS**

#### **3.2.1 HABITAT**

The habitat on site consists of approximately 71.83 acres of creosote bush-brittle bush scrub (*Larrea tridentata* - *Encelia farinosa* Shrubland Alliance) was mapped on site. This plant association is dominated by creosote bush and brittle bush (*Encelia farinosa*), a short open canopy and a seasonal herbaceous annual layer. Creosote bush – brittle bush scrub habitats have well-drained soils and frequently occur on small washes, rills, alluvial fans, and colluvium on upland slopes. This habitat type is not considered to be a sensitive habitat type that requires CEQA review. However, there is presence of vegetation that is subject to the San Bernardino Desert Native Plant Protection Development Code.

The site also contained approximately 18.67 acres of creosote bush-brittle bush scrub showed evidence of rock mining and is categorized as “disturbed” for this assessment. This area included denuded soils, sparse or damaged vegetation of which approximately 75% was native. The sparse vegetation cover was approximately 20% and included creosote bush, cheesebush (*Ambrosia salsola*), Skeleton weed (*Eriogonum deflexum*), Mediterranean grass (*Schismus arabicus*) and Foxtail chess (*Bromus madritensis*).

#### **3.2.2 SPECIAL STATUS SPECIES**

No State and/or federally listed threatened or endangered species or other sensitive species were observed on-site during surveys.

##### Desert Tortoise

The habitat within the southeast corner of the site is minimally suitable for desert tortoise. However, because the site is within designated critical habitat, protocol surveys were completed for this species. Protocol surveys were conducted using the 2018 USFWS Desert Tortoise Protocol.

**Findings:** No live desert tortoises were observed within the Project area. A class 5 desert tortoise carcass was located within the within the Previous Project Area (Figure 4, Appendix A. The anterior portion of the shell was absent and broken, which is considered disarticulated. However, scutes were not peeling off the bone, and the shell was mostly complete. The shell was cracked and no spinal cord was present. No other desert tortoise sign was observed. Additionally, the tortoise survey identified additional suitable burrows that were not occupied. There was no sign of tortoise (scat, tracks, etc.) within the entrance to the burrows or in the vicinity of the burrows.

##### Burrowing Owl

Based on the August 2023 field survey, the site does contain suitable habitat for this species. However, no burrowing owls were observed during the site visit. No portion of the Project site showed any evidence of past or present BUOW activity. No feathers, whitewash, or castings were found.

**Findings:** Although burrowing owl was absent from the site during the survey, there is suitable habitat within the Project site. As such, it is recommended that pre-construction surveys be

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

---

completed for this species. The pre-construction survey should follow the recommended guidance from CDFW.

Desert Kit Fox

The site is suitable for this species. This species was not observed during the survey. However, some burrows of suitable size or shape were observed. Therefore, the following mitigation measure should be implemented:

***Findings:*** Prior to any ground disturbing activities, a pre-construction survey for this species should be conducted by a qualified biologist. The surveys should be conducted during the appropriate times to observe the target species and using the most current survey protocol.

American Badger

The site is suitable for this species. This species was not observed during the survey. However, some burrows of suitable size or shape were observed. Therefore, the following mitigation measure should be implemented:

***Findings:*** Prior to any ground disturbing activities, a pre-construction survey for this species should be conducted by a qualified biologist. The surveys should be conducted during the appropriate times to observe the target species and using the most current survey protocol.

**3.2.3 NESTING BIRDS**

The Project site and immediate surrounding area does contain marginal habitat suitable for nesting birds. As such the Project is subject to the following nesting bird regulations. Recommendations for avoidance and minimization are in section 4.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act of 1918. This Act implements four international conservation treaties that the U.S. entered into with Canada in 1916, Mexico in 1936, Japan in 1972, and Russia in 1976. It is intended to ensure the sustainability of populations of all protected migratory bird species. The Act has been amended with the signing of each treaty, as well as when any of the treaties were amended, such as with Mexico in 1976 and Canada in 1995. The Act prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the Department of Interior U.S. Fish and Wildlife Service.

California Fish and Game Code

The Project site is also subject to Sections 3503 and 3503.5 of the Fish and Game Code. Section 3503 states, "It is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto". And Section 3503.5 states, "It is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto".

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN BERNARDINO COUNTY, CALIFORNIA**

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**3.2.4 JURISDICTIONAL WATERS**

Waters of the United States and Waters of the State

The USACE has the authority to permit the discharge of dredged or fill material in WOUS under Section 404 CWA. While the Regional Water Quality Board has authority over the discharge of dredged or fill material in WOS under Section 401 CWA as well as the Porter-Cologne Water Quality Control Act. The Project area was surveyed with 100 percent visual coverage and Drainage A on-site does not meet the definition for WOUS and WOS. Therefore, there are no permits needed from the Army Corps of Engineers or the Regional Water Quality Board.

Fish and Game Code Section 1602 - State Lake and/or Streambed

The CDFW asserts jurisdiction over any drainage feature that contains a definable bed and bank or associated riparian vegetation. The Project area was surveyed with 100 percent visual coverage and Drainage A on-site is considered jurisdictional under CDFW. Table 1 below details the extent of CDFW jurisdiction within the channel (Figure 5 in Appendix A).

**Table 2 – Jurisdiction Areas for the Essex Project**

<b>Feature</b>	<b>Bank-Full width (feet)</b>	<b>Length (feet)</b>	<b>Max Channel Depth (feet)</b>	<b>WoUS Corps jurisdiction (acres)</b>	<b>FGC 1600 CDFW jurisdiction (acres)</b>
<b>Drainage A</b>	675	4,266	3	0	38.6
<b>Total</b>				0	38.6

Although the drainage is present within the Previous Project Area, the current Project Area has reduced the boundary of the site to exclude any work from within the wash. As such no regulatory permits will be required for the proposed Project.

**3.2.5 WETLANDS AND BLUE LINE STREAM**

According to the National Wetlands Inventory Map (NWI), the jurisdictional area is mapped as Riverine. More specifically the classification is listed as R4SBJ (R=Riverine, 4=Intermittent, SB=Streambed, and J=Intermittently Flooded). Although the site is classified as Riverine, there are no wetlands present within the Project site. For an area to be classified as a Wetland, it must meet the three requirements listed above. The site does not have sufficient hydrology, hydrophytic vegetation, or hydric soils. Therefore, there are no wetlands present on-site.

**3.2.6 NATIVE PLANT PROTECTION PLAN**

The Proposed Project Site does contain silver cholla, pencil cholla, clustered barrel cactus, Engleman’s hedgehog cactus, barrel cactus, spiny fishhook cactus, beavertail, and Mojave yucca, which is are protected species under San Bernardino County Development Code § 88.01.060 and the California Desert Native Plant Act. See section 4 for recommendations on required permits for compliance.

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

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**SECTION 4.0 – CONCLUSIONS AND RECOMMENDATIONS**

Based on the literature review and personal observations made in the immediate vicinity, no State and/or federally-listed threatened or endangered species are documented/or expected to occur within the Project site. Additionally, no plant species with the California Rare Plant Rank (CRPR) of 1 or 2 were observed on-site or documented to occur on-site in the relevant databases. No other sensitive species were observed within the project area or buffer area.

**4.1 JURISDICTIONAL AREAS**

As noted above the Project has reduced the Project footprint to exclude the wash area, As such, there are no streams, channels, washes, or swales that meet the definitions of Section 1600 of the State of California Fish and Game Code (FGC) under the jurisdiction of the CDFW, Section 401 (“Waters of the State” ) of the Clean Water Act (CWA) under the jurisdiction of the Regional Water Quality Control Board (RWQCB), or “Waters of the United States” (WoUS) as defined by Section 404 of the CWA under the jurisdiction of the U.S. Army Corps of Engineers (Corps) within the subject parcel. Therefore, no permit from any regulatory agency will be required.

**4.2 SENSITIVE SPECIES**

*Desert tortoise*

Although a desert tortoise carcass was found within the Previous Project Area (desert wash), the proposed Project does not propose any disturbance to the wash and the Project boundary will be fenced with desert tortoise fencing following currently acceptable guidelines from the USFWS.

However, because the site does contain suitable habitat and tortoise have been documented within the region, it is recommended that pre-construction surveys be completed for this species prior to any ground-disturbing activities or desert tortoise fence installation. These surveys should be conducted by a qualified biologist and at an appropriate time of day/year to observe signs of desert tortoise. Surveys should also be conducted using the current survey protocol from the USFWS.

If desert tortoise are found onsite during the pre-construction clearance survey, coordination will need to occur with the USFWS and CDFW to determine if avoidance and minimization measures can be implemented to avoid any direct or indirect impacts to desert tortoise, or if “Take” permits will need to be prepared and approved by the USFWS and CDFW.

Desert Kit Fox and American Badger

The site is suitable for these species. Therefore, the following mitigation measure should be implemented:

Prior to any ground disturbing activities, a pre-construction survey for this species should be conducted by a qualified biologist. The surveys should be conducted during the appropriate times to observe the target species and using the most current survey protocol.

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

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#### **4.3 SAN BERNARDINO COUNTY DEVELOPMENT CODE AND THE CALIFORNIA DESERT NATIVE PLANT ACT**

As stated above, the Project is subject to compliance with the San Bernardino County Development Code § 88.01.060 and the California Desert Native Plant Act. Therefore, the following mitigation measure should be put in place:

Any native desert plant protected by the Desert Native Plant Act that, is proposed to be impacted, should be flagged for relocation on-site, to a nursery, or suitable other entity (as determined by the County) prior to construction. Any construction that removes any protected plant species would require a permit from the agricultural commissioner.

#### **4.4 BURROWING OWL**

##### *Burrowing Owl*

Since there is some habitat within the Project site and adjacent area that is suitable for BUOW in general, the following mitigation measure should be implemented:

##### *30-Day Pre-Construction Survey*

Prior to the start of any construction, a 30-day pre-construction survey should be conducted for the presence of BUOW. Surveys shall be completed following the recommendations and guidelines provided within the 2012 BUOW Staff Report provided by the CDFW.

#### **4.5 NESTING BIRDS**

##### *Nesting Birds*

Since there is some of the habitat within the Project site and adjacent area that is marginally suitable for nesting birds in general, the following mitigation measure should be implemented.

Nesting bird nesting season generally extends from February 1 through September 15 in southern California and specifically, March 15 through August 31 for migratory passerine birds. To avoid impacts to nesting birds (common and special status) during the nesting season, a qualified Avian Biologist will conduct pre-construction Nesting Bird Surveys (NBS) prior to Project-related disturbance to nestable vegetation to identify any active nests. If no active nests are found, no further action will be required. If an active nest is found, the biologist will set appropriate no-work buffers around the nest which will be based upon the nesting species, its sensitivity to disturbance, nesting stage, and expected types, intensity, and duration of the disturbance. The nests and buffer zones shall be field-checked weekly by a qualified biological monitor. The approved no-work buffer zone shall be clearly marked in the field, within which no disturbance activity shall commence until the qualified biologist has determined the young birds have successfully fledged and the nest is inactive.

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

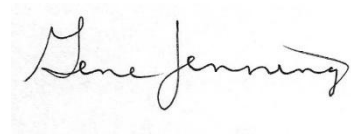
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**4.6 CERTIFICATION**

I hereby certify that the statements furnished herein, and in the attached exhibits present data and information required for this analysis to the best of my ability, and the facts, statements, and information presented are true and correct to the best of my knowledge and belief. This report was prepared in accordance with professional requirements and standards. Fieldwork conducted for this assessment was performed by me. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the project proponent and that I have no financial interest in the project.

Please do not hesitate to contact me at 909-534-4547 should you have any questions or require further information.

Sincerely,

A handwritten signature in black ink that reads "Gene Jennings". The signature is written in a cursive style with a long, sweeping tail on the final letter.

Gene Jennings  
Principal/Regulatory Specialist

Appendices:

- Appendix A – Figures
- Appendix B – Site Photos
- Appendix C – Regulatory Framework
- Appendix D – Tables

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

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**Section 5 – REFERENCES**

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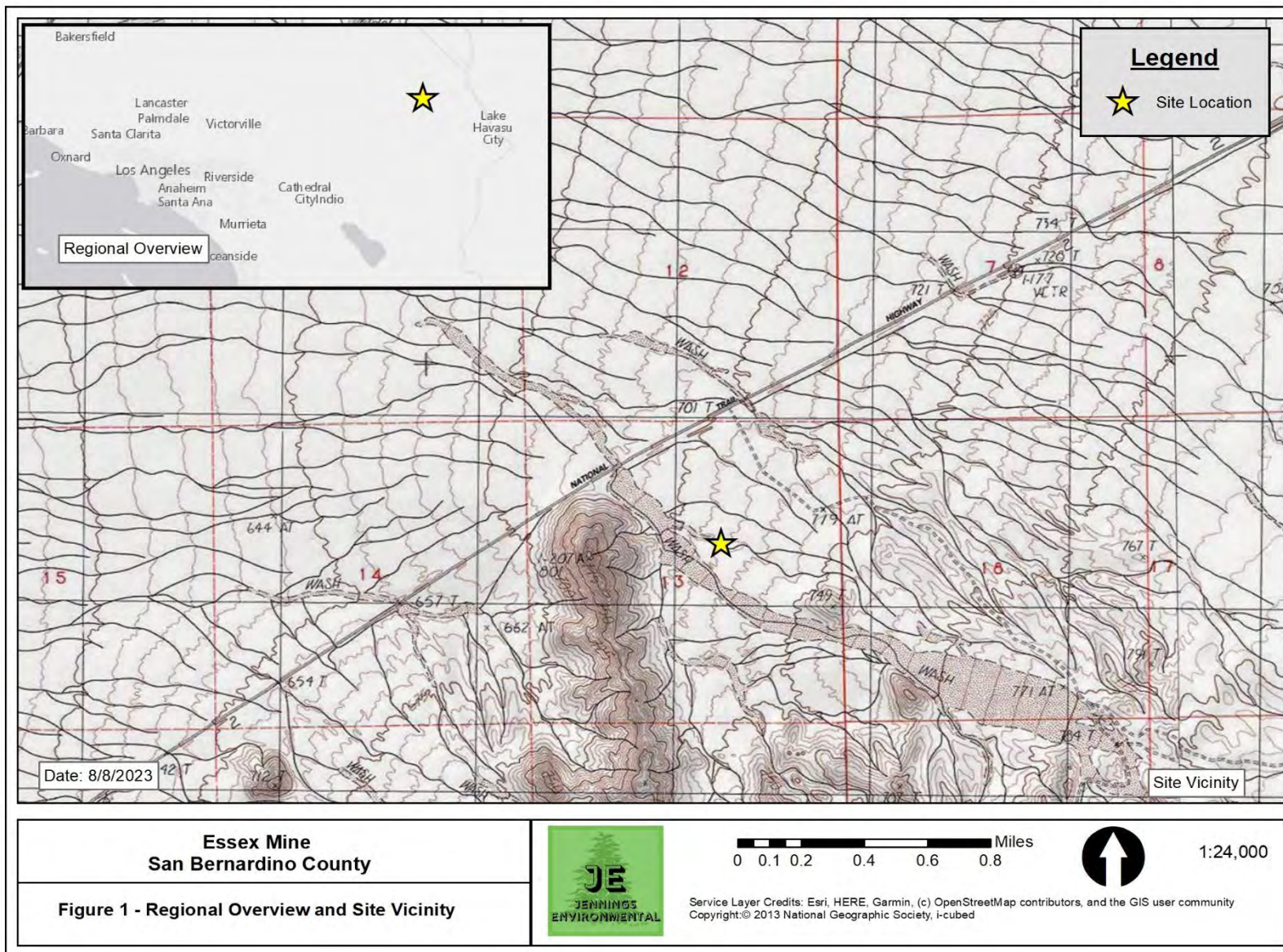
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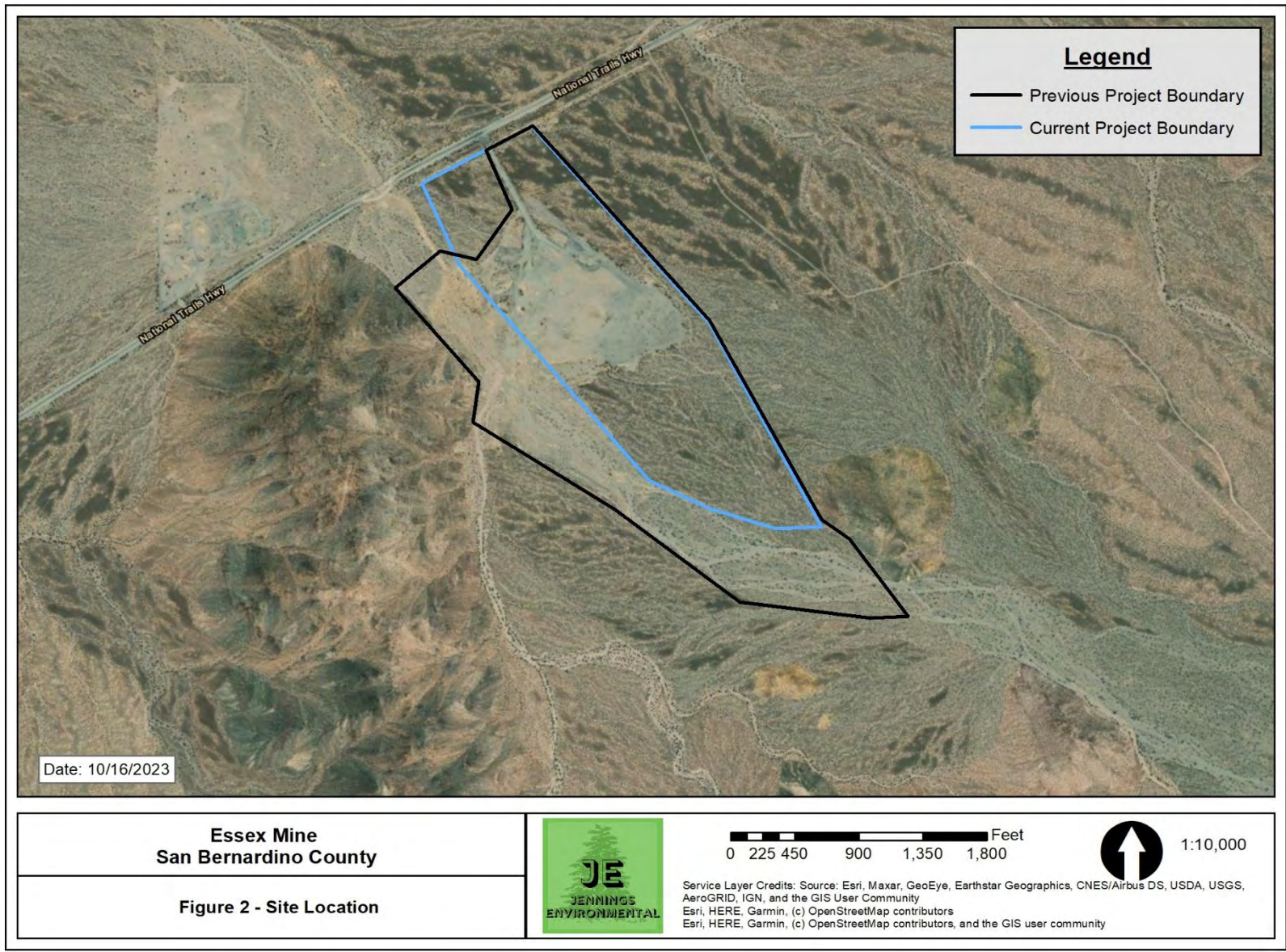
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## **Appendix A – Figures**

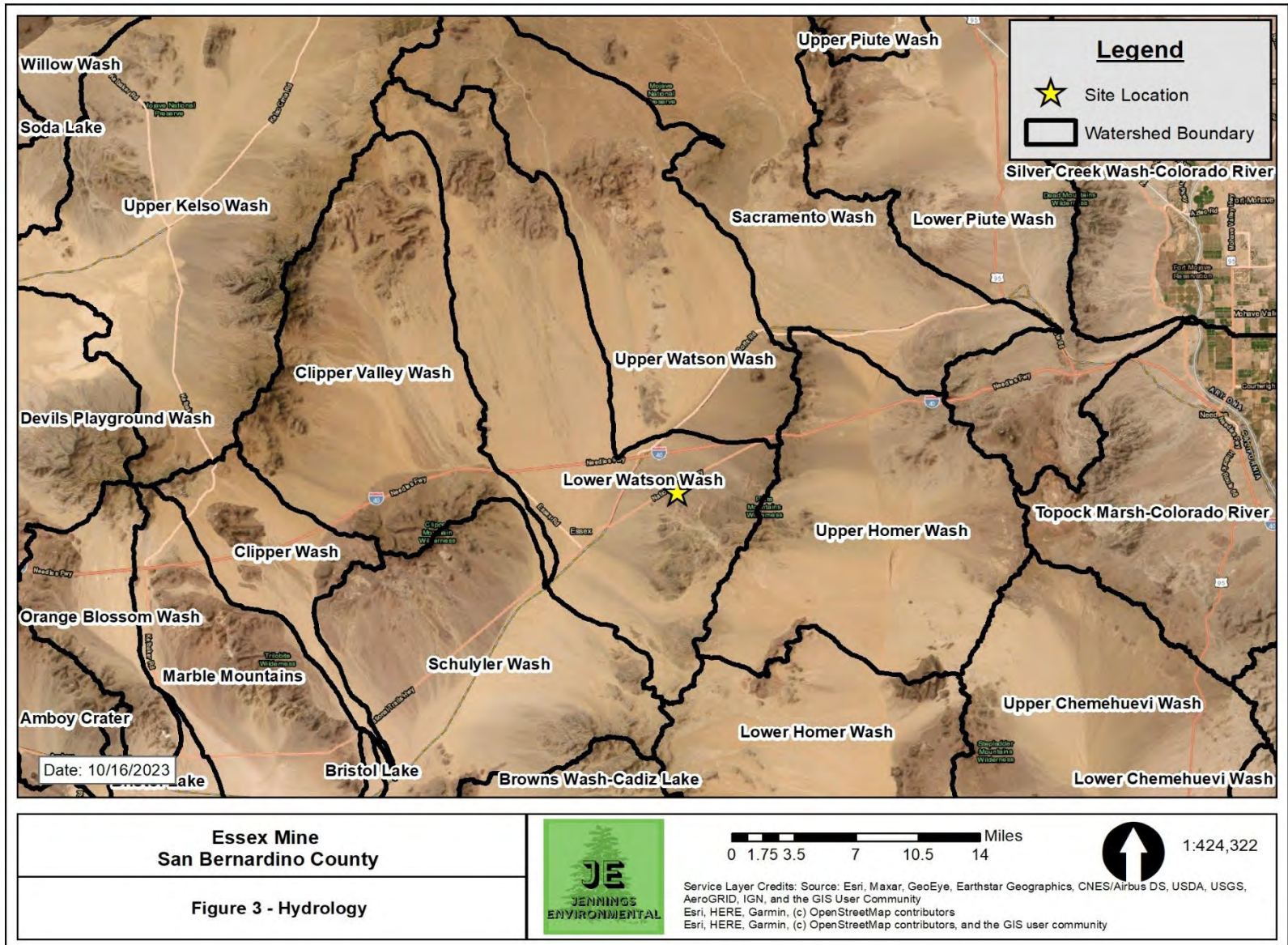
**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN BERNARDINO COUNTY, CALIFORNIA**



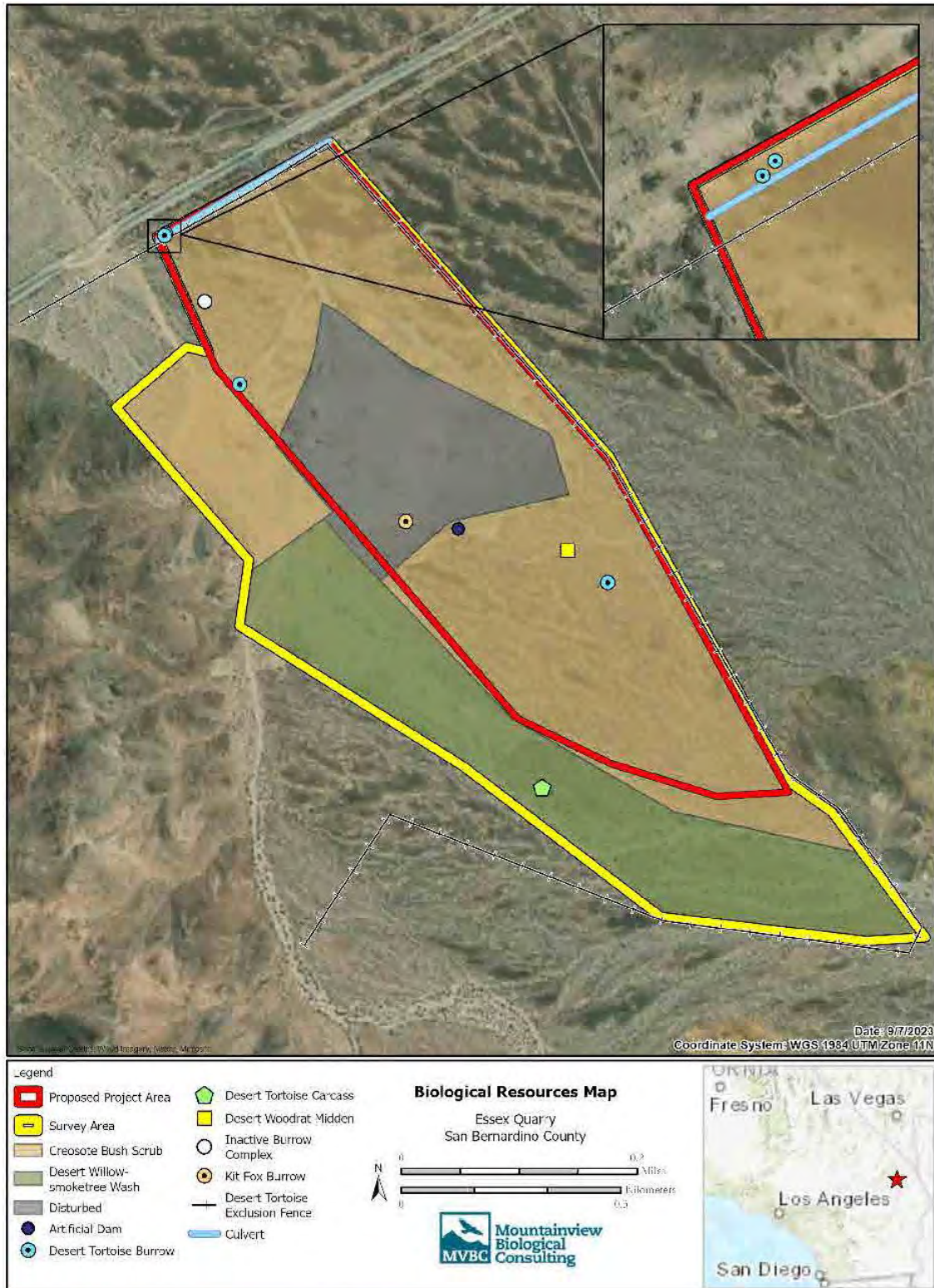
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**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN BERNARDINO COUNTY, CALIFORNIA**

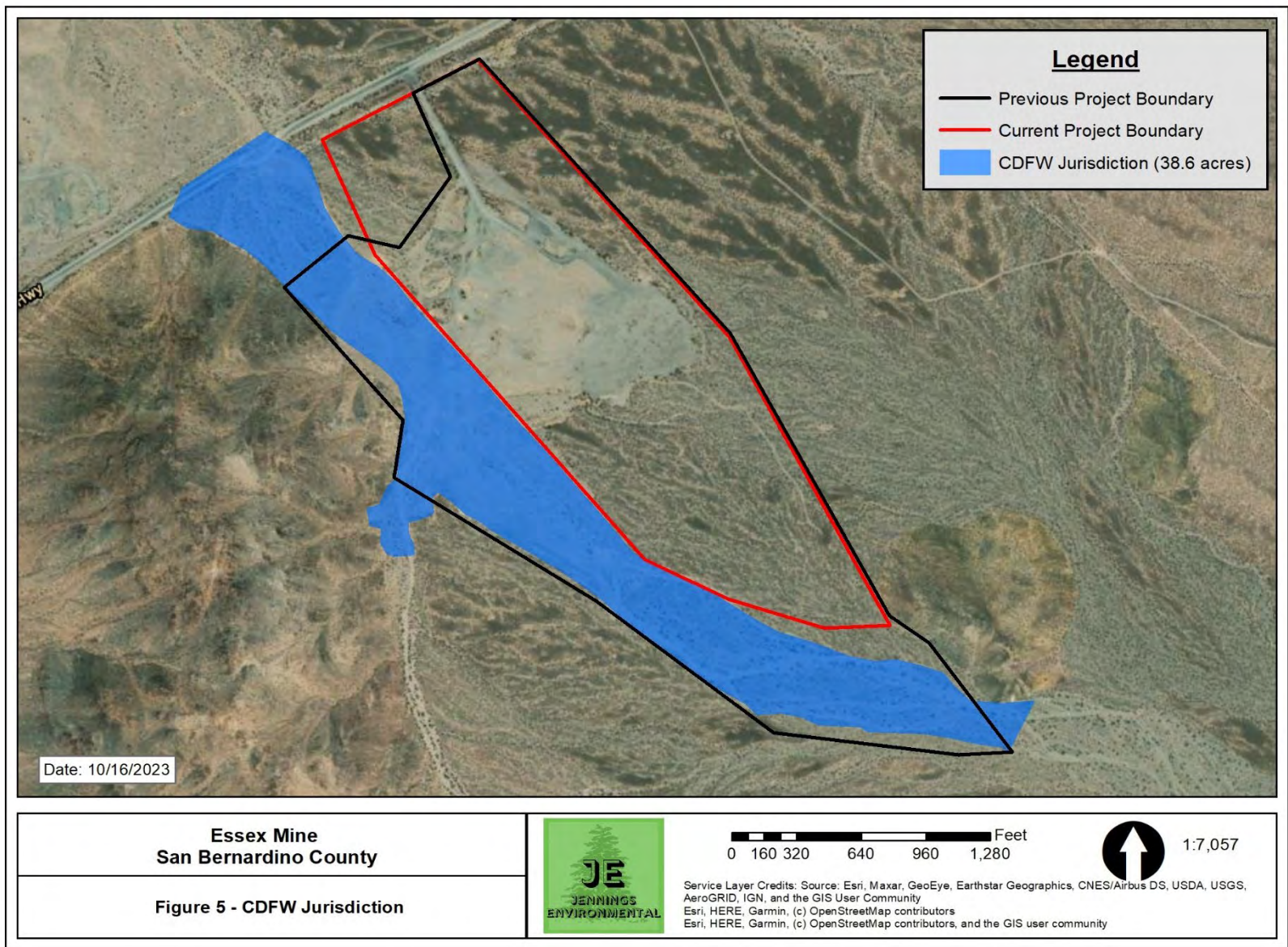


**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN BERNARDINO COUNTY, CALIFORNIA**



**Figure 4. Biological Resources Map**

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN BERNARDINO COUNTY, CALIFORNIA**



## **Appendix B – Photos**

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN BERNARDINO COUNTY, CALIFORNIA**

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*General Site Photos*



**GS 01** Creosote bush – brittle bush scrub on north portion of the site; National Trail Highway is visible in the distance



**GS 02** Creosote bush – brittle bush scrub central to the site

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN BERNARDINO COUNTY, CALIFORNIA**

---



**GS 03** Creosote bush – brittle bush scrub



**GS 04** Ecotone between creosote bush scrub and desert wash

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN BERNARDINO COUNTY, CALIFORNIA**



GS 09 Disturbed habitat



GS 10 Disturbed habitat with boulder stockpile

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN BERNARDINO COUNTY, CALIFORNIA**

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GS 11 Disturbed habitat with stockpile



GS 12 Disturbed habitat with vehicle tracks

## **Appendix C – Regulatory Framework**

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

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## **1.1 FEDERAL JURISDICTION**

### **1.1.1 United States Army Corps of Engineers**

Activities within inland streams, wetlands, and riparian areas in California are regulated by agencies at the federal, state, and regional levels. At the federal level, the U.S. Army Corps of Engineers (USACE) Regulatory Program regulates activities within wetlands and waters of the US pursuant to Section 404 of the Federal Clean Water Act (CWA).

At the state level, the California Department of Fish and Wildlife (CDFW) regulates activities within the bed, bank, and associated habitat of a stream under the Fish and Game Code §§ 1600–1616. The California State Water Resources Board (SWRB) delegates authority at the regional level to Regional Water Quality Control Boards (RWQCB) that are responsible for regulating discharge into waters of the US under Section 401 of the federal CWA and waters of the State under the California Porter-Cologne Water Quality Act.

The CWA was implemented to maintain and restore the chemical, physical, and biological integrity of the Waters of the United States (33 Code of Federal Regulations [CFR] Part 328 Section 328.3). “Waters of the US” are defined as follows:

#### **§ 328.3 Definitions.**

For the purpose of this regulation these terms are defined as follows:

(a) *Waters of the United States* means:

(1) Waters which are:

(i) Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

(ii) The territorial seas; or

(iii) Interstate waters, including interstate wetlands;

(2) Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under paragraph (a)(5) of this section;

(3) Tributaries of waters identified in paragraph (a)(1) or (2) of this section:

(i) That are relatively permanent, standing or continuously flowing bodies of water; or

(ii) That either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section;

(4) Wetlands adjacent to the following waters:

(i) Waters identified in paragraph (a)(1) of this section; or

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

---

- (ii) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3)(i) of this section and with a continuous surface connection to those waters; or
  - (iii) Waters identified in paragraph (a)(2) or (3) of this section when the wetlands either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section;
- (5) Intrastate lakes and ponds, streams, or wetlands not identified in paragraphs (a)(1) through (4) of this section:
- (i) That are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in paragraph (a)(1) or (a)(3)(i) of this section; or
  - (ii) That either alone or in combination with similarly situated waters in the region, significantly affect the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section.
- (b) The following are not “waters of the United States” even where they otherwise meet the terms of paragraphs (a)(2) through (5) of this section:
- (1) Waste treatment systems, including treatment ponds or lagoons, designed to meet the requirements of the Clean Water Act;
  - (2) Prior converted cropland designated by the Secretary of Agriculture. The exclusion would cease upon a change of use, which means that the area is no longer available for the production of agricultural commodities. Notwithstanding the determination of an area’s status as prior converted cropland by any other Federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with EPA;
  - (3) Ditches (including roadside ditches) excavated wholly in and draining only dry land and that do not carry a relatively permanent flow of water;
  - (4) Artificially irrigated areas that would revert to dry land if the irrigation ceased;
  - (5) Artificial lakes or ponds created by excavating or diking dry land to collect and retain water and which are used exclusively for such purposes as stock watering, irrigation, settling basins, or rice growing;
  - (6) Artificial reflecting or swimming pools or other small ornamental bodies of water created by excavating or diking dry land to retain water for primarily aesthetic reasons;
  - (7) Waterfilled depressions created in dry land incidental to construction activity and pits excavated in dry land for the purpose of obtaining fill, sand, or gravel unless and until the construction or excavation operation is

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

---

abandoned and the resulting body of water meets the definition of waters of the United States; and

(8) Swales and erosional features (*e.g.*, gullies, small washes) characterized by low volume, infrequent, or short duration flow.

(c) In this section, the following definitions apply:

(1) *Wetlands* means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically

adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

(2) *Adjacent* means bordering, contiguous, or neighboring. Wetlands separated from other waters of the United States by man-made dikes or barriers, natural river berms, beach dunes, and the like are “adjacent wetlands.”

(3) *High tide line* means the line of intersection of the land with the water’s surface at the maximum height reached by a rising tide. The high tide line may be determined, in the absence of actual data, by a line of oil or scum along shore objects, a more or less continuous deposit of fine shell or debris on the foreshore or berm, other physical markings or characteristics, vegetation lines, tidal gages, or other suitable means that delineate the general height reached by a rising tide. The line encompasses spring high tides and other high tides that occur with periodic frequency but does not include storm surges in which there is a departure from the normal or predicted reach of the tide due to the piling up of water against a coast by strong winds such as those accompanying a hurricane or other intense storm.

(4) *Ordinary high water mark* means that line on the shore established by the fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

(5) *Tidal waters* means those waters that rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by hydrologic, wind, or other effects.

(6) *Significantly affect* means a material influence on the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section. To determine whether waters, either alone or in combination

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

---

with similarly situated waters in the region, have a material influence on the chemical, physical, or biological integrity of waters identified in paragraph (a)(1) of this section, the functions identified in paragraph (c)(6)(i) of this section will be assessed and the factors identified in paragraph (c)(6)(ii) of this section will be considered:

(i) Functions to be assessed:

- (A) Contribution of flow;
- (B) Trapping, transformation, filtering, and transport of materials (including nutrients, sediment, and other pollutants);
- (C) Retention and attenuation of floodwaters and runoff;
- (D) Modulation of temperature in waters identified in paragraph (a)(1) of this section; or
- (E) Provision of habitat and food resources for aquatic species located in waters identified in paragraph (a)(1) of this section;

(ii) Factors to be considered:

- (A) The distance from a water identified in paragraph (a)(1) of this section;
- (B) Hydrologic factors, such as the frequency, duration, magnitude, timing, and rate of hydrologic connections, including shallow subsurface flow;
- (C) The size, density, or number of waters that have been determined to be similarly situated;
- (D) Landscape position and geomorphology; an
- (E) Climatological variables such as temperature, rainfall, and snowpack.

## **1.2 STATE JURISDICTION**

The State of California (State) regulates discharge of material into waters of the State pursuant to Section 401 of the CWA as well as the California Porter-Cologne Water Quality Control Act (Porter-Cologne; California Water Code, Division 7, §13000 et seq.). Waters of the State are defined by Porter-Cologne as “any surface water or groundwater, including saline waters, within the boundaries of the state” (Water Code Section 13050(e)). Waters of the State broadly includes all waters within the State’s boundaries (public or private), including waters in both natural and artificial channels.

### **1.2.1 Regional Water Quality Control Board**

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

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Under Porter-Cologne, the State Water Resources Control Board (SWRCB) and the local Regional Water Quality Control Boards (RWQCB) regulate the discharge of waste into waters of the State. Discharges of waste include “fill, any material resulting from human activity, or any other ‘discharge’ that may directly or indirectly impact ‘waters of the state.’” Porter-Cologne reserves the right for the State to regulate activities that could affect the quantity and/or quality of surface and/or groundwaters, including isolated wetlands, within the State. Wetlands were defined as waters of the State if they demonstrated both wetland hydrology and hydric soils. Waters of the State determined to be jurisdictional for these purposes require, if impacted, waste discharge requirements (WDRs).

When an activity results in fill or discharge directly below the OHWM of jurisdictional waters of the United States (federal jurisdiction), including wetlands, a CWA Section 401 Water Quality Certification is required. If a proposed project is not subject to CWA Section 401 certification but involves activities that may result in a discharge to waters of the State, the project may still be regulated under Porter-Cologne and may be subject to waste discharge requirements. In cases where waters apply to both CWA and Porter-Cologne, RWQCB may consolidate permitting requirements to one permit.

### **1.2.2 California Department of Fish and Wildlife**

Pursuant to Division 2, Chapter 6, Sections 1600-1602 of the California Fish and Game Code, the California Department of Fish and Wildlife (CDFW) regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFW defines a “stream” (including creeks and rivers) as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation” (California Code of Regulations, Title 14, Section 1.72). The jurisdiction of CDFW may include areas in or near intermittent streams, ephemeral streams, rivers, creeks, dry washes, sloughs, blue-line streams that are indicated on USGS maps, watercourses that may contain subsurface flows, or within the flood plain of a water body. CDFW’s definition of “lake” includes “natural lakes or man-made reservoirs.” CDFW limits of jurisdiction typically include the maximum extents of the uppermost bank-to-bank distance and/or the outermost extent of riparian vegetation dripline, whichever measurement is greater.

In a CDFW guidance of stream processes and forms in dryland watersheds (Vyverberg 2010), streams are identified as having one or more channels that may all be active or receive water only during some high flow event. Subordinate features, such as low flow channels, active channels, banks associated with secondary channels, floodplains, and stream-associated vegetation, may occur within the bounds of a single, larger channel. The water course is defined

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT  
PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN  
BERNARDINO COUNTY, CALIFORNIA**

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by the topography or elevations of land that confine a stream to a definite course when its waters rise to their highest level. A watercourse is defined as a stream with boundaries defined by the maximal extent or expression on the landscape even though flow may otherwise be intermittent or ephemeral.

Artificial waterways such as ditches (including roadside ditches), canals, aqueducts, irrigation ditches, and other artificially created water conveyance systems also may be under the jurisdiction of CDFW. CDFW may claim jurisdiction over these features based on the presence of habitat characteristics suitable to support aquatic life, riparian vegetation, and/or stream-dependent terrestrial wildlife. As with natural waterways, the limit of CDFW jurisdiction of artificial waterways includes the uppermost bank-to-bank distance and/or the outermost extent of riparian vegetation dripline, whichever measurement is greater.

CDFW does not have jurisdiction over wetlands but has jurisdiction to protect against a net loss of wetlands. CDFW supports the wetland criteria recognized by USFWS; one or more indicators of wetland conditions must exist for wetlands conditions to be considered present. The following is the USFWS accepted definition of a wetland:

Wetlands are lands transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. For purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the lands supports hydrophytes, (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and is saturated with water or covered by shallow water at some time during the growing season of each year (Cowardin et al. 1979).

In A Clarification of the U.S. Fish and Wildlife Service's Wetland Definition (Tiner 1989), the USFWS definition was further clarified "that in order for any area to be classified as wetland by the Service, the area must be periodically saturated or covered by shallow water, whether wetland vegetation and/or hydric soils are present or not; this hydrologic requirement is addressed in the first sentence of the definition." When considering whether an action would result in a net loss of wetlands, CDFW will extend jurisdiction to USFWS-defined wetland conditions where such conditions exist within the riparian vegetation that is associated with a stream or lake and does not depend on whether those features meet the three-parameter USACE methodology of wetland determination. If impacts to wetlands under the jurisdiction of CDFW are unavoidable, a mitigation plan will be implemented in coordination with CDFW to support the CDFW policy of "no net loss" of wetland habitat.

## **Appendix D – Tables**

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN BERNARDINO COUNTY, CALIFORNIA**

**Table 1. Species Observed On-Site**

<u>Scientific Name</u>	<u>Common Name</u>	<u>Family</u>	<u>Status</u>	<u>Other Notes (Density, etc)</u>
<b>Plants</b>				
<i>Yucca schidigera</i>	Mojave yucca	Agavaceae	CDNPA	~0.1/acre
<i>Ambrosia salsola</i>	Cheesebush	Asteraceae		
<i>Bebbia juncea</i>	Sweetbush	Asteraceae		Only observed in desert wash.
<i>Dicoria canescens</i>	Desert twinbugs	Asteraceae		
<i>Encelia farinosa</i>	Brittlebrush	Asteraceae		
<i>Amsinckia tessellata</i>	Fiddleneck	Boraginaceae		
<i>Phacelia crenulata</i>	Crenulate-leaved phacelia	Boraginaceae		
<i>Lepidium fremontii</i>	Desert pepper grass	Brassicaceae		
<i>Cylindropuntia echinocarpa</i>	Silver cholla	Cactaceae	CDNPA	
<i>Cylindropuntia ramosissima</i>	Pencil cholla	Cactaceae	CDNPA	
<i>Echinocactus polycephalus</i>	Clustered barrel cactus	Cactaceae	CDNPA	
<i>Echinocereus engelmannii</i>	Engleman's hedgehog cactus	Cactaceae	CDNPA	
<i>Ferocactus cylindraceus</i>	Barrel cactus	Cactaceae	CDNPA	~10/acre. Evenly spread out.
<i>Mammillaria tetrancistra</i>	Spiny fishhook cactus	Cactaceae	CDNPA	
<i>Opuntia basilaris</i>	Beavertail	Cactaceae	CDNPA	
<i>Marah spp.</i>	Wild Cucumber	Cucurbitaceae		Assoc. with desert woodrat midden.
<i>Chamaesyce albomarginata</i>	Rattlesnake weed	Euphorbiaceae		
<i>Dalea mollissima</i>	Downy dalea	Fabaceae		
<i>Psoralea argophylla</i>	Smoketree	Fabaceae	CDNPA, SBCDC	
<i>Senegalia greggii</i>	Catclaw acacia	Fabaceae		
<i>Phacelia crenulata</i>	Notch leaved phacelia	Hydrophyllaceae		
<i>Krameria erecta</i>	Ratany	Krameriaceae		Only observed in washes.
<i>Salvia columbariae</i>	Chia sage	Lamiaceae		Only observed in washes.
<i>Chylisimia brevipes</i>	Desert primrose	Onagraceae		
<i>Bromus madritensis</i>	Foxtail chess	Poaceae	Invasive; Non-Native	
<i>Schismus arabicus</i>	Mediterranean grass	Poaceae	Invasive; Non-Native	

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN BERNARDINO COUNTY, CALIFORNIA**

<u>Scientific Name</u>	<u>Common Name</u>	<u>Family</u>	<u>Status</u>	<u>Other Notes (Density, etc)</u>
<i>Loeseliastrum matthewsii</i>	Desert calico	Polemoniaceae		
<i>Chorizanthe brevicornu</i>	Brittle chorizanth	Polygonaceae		
<i>Chorizanthe rigida</i>	Rigid chorizanth	Polygonaceae		
<i>Eriogonum deflexum</i>	Skeleton weed	Polygonaceae		Only observed in disturbed habitat.
<i>Eriogonum fasciculatum</i>	Buckwheat	Polygonaceae		
<i>Eriogonum inflatum</i>	Desert trumpet	Polygonaceae		
<i>Lycium andersonii</i>	Anderson's desert thorn	Solanaceae		
<i>Physalis crassifolia</i>	Thick leaved ground cherry	Solanaceae		
<i>Phoradendron californicum</i>	California mesquite mistletoe	Visaceae		Only observed in smoke trees.
<i>Larrea tridentata</i>	Creosote bush	Zygophyllaceae		No protected circles observed.

**Animals**

<u>Scientific Name</u>	<u>Common Name</u>	<u>Family</u>	<u>Group</u>	<u>Status</u>
<i>Aspidoscelis tigris</i>	tiger whiptail	Teiidae	Reptile	No status
<i>Dipsosaurus dorsalis</i>	desert iguana	Iguanidae	Reptile	No status
<i>Sauromalus ater</i>	common chuckwalla	Iguanidae	Reptile	No status
<i>Uta stansburiana</i>	common side-blotched lizard	Phrynosomatidae	Reptile	No status
<i>Gopherus agassizii</i>	Mojave DETO	Testudinidae	Reptile	FT, ST
<i>Callisaurus draconoides</i>	zebra-tailed lizard	Phrynosomatidae	Reptile	No status
<i>Zenaida macroura</i>	Mourning Dove	Columbidae	Bird	No status
<i>Cathartes aura</i>	Turkey Vulture	Cathartidae	Bird	No status
<i>Corvus corax</i>	Common Raven	Corvidae	Bird	No status
<i>Eremophila alpestris</i>	Horned Lark	Alaudidae	Bird	No status
<i>Salpinctes obsoletus</i>	Rock Wren	Troglodytidae	Bird	No status
<i>Mimus polyglottos</i>	Northern Mockingbird	Mimidae	Bird	No status
<i>Myiarchus cinerascens</i>	Ash-throated Flycatcher	Tyrannidae	Bird	No status
<i>Amphispiza bilineata</i>	Black-throated Sparrow	Passerellidae	Bird	No status
<i>Ammospermophilus leucurus</i>	white-tailed antelope squirrel	Sciuridae	Mammal	No status
<i>Vulpes macrotis arsipus</i>	desert kit fox	Canidae	Mammal	No status
<i>Equus asinus</i>	wild burro	Equidae	Mammal	No status

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN BERNARDINO COUNTY, CALIFORNIA**

**Table 2 – CNDDDB Potential to Occur for the *Fenner, Fenner Spring, Little Piute Mountains, and Essex* Quadrangles**

<u>Scientific Name</u>	<u>Common Name</u>	<u>Federal/State Status</u>	<u>Other Status</u>	<u>Habitat</u>	<u>Potential to Occur</u>
Anaxyrus canorus	Yosemite toad	Threatened, None	G2, S2, CDFW-SSC	Vicinity of wet meadows in central High Sierra, 6,400 to 11,300 feet in elevation. Primarily montane wet meadows; also in seasonal ponds associated with lodgepole pine and subalpine conifer forest.	Suitable habitat for this species does not occur on site. As such, this species is considered <b>absent</b> from the Project site.
Claytonia megarhiza	fell-fields claytonia	None, None	G5, S2, 2B.3	Alpine boulder and rock field, subalpine coniferous forest. In the crevices between rocks, rocky or gravelly soil. 2560-3505 m.	Suitable habitat for this species does not occur on site. As such, this species is considered <b>absent</b> from the Project site.
Falco mexicanus	prairie falcon	None, None	G5, S4, CDFW-WL	Inhabits dry, open terrain, either level or hilly. Breeding sites located on cliffs. Forages far afield, even to marshlands and ocean shores. Most common in desert scrub, desert wash, and Joshua tree habitats; occurs in almost every desert habitat. Require friable soil for burrow and nest construction.	Suitable habitat for this species does not occur on site. As such, this species is considered <b>absent</b> from the Project site.
Gopherus agassizii	desert tortoise	Threatened, Threatened	G3, S2S3	Creosote bush habitat with large annual wildflower blooms preferred.	Suitable habitat for this species does occur on site. As such, <b>pre-construction</b> surveys are recommended.

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN BERNARDINO COUNTY, CALIFORNIA**

<u>Scientific Name</u>	<u>Common Name</u>	<u>Federal/State Status</u>	<u>Other Status</u>	<u>Habitat</u>	<u>Potential to Occur</u>
Gulo gulo	wolverine	Proposed Threatened, Threatened	G4, S1, CDFW-FP	Found in the north coast mountains and the Sierra Nevada. Found in a wide variety of high elevation habitats. Needs water source. Uses caves, logs, burrows for cover and den area. Hunts in more open areas. Can travel long distances.	Suitable habitat for this species does not occur on site. As such, this species is considered <b>absent</b> from the Project site.
Lupinus gracilentus	slender lupine	None, None	G3, S3, 1B.3	Subalpine coniferous forest. Semi-moist shaded areas. 2380-2895 m.	Suitable habitat for this species does not occur on site. As such, this species is considered <b>absent</b> from the Project site.
Ovis canadensis nelsoni	desert bighorn sheep	None, None	G4T4, S3, CDFW-FP	Widely distributed from the White Mtns in Mono Co. to the Chocolate Mts in Imperial Co. Open, rocky, steep areas with available water and herbaceous forage. Pinyon and juniper woodland.	Suitable habitat for this species does not occur on site. As such, this species is considered <b>absent</b> from the Project site.
Pellaea truncata	spiny cliff-brake	None, None	G5, S3, 2B.3	Granitic boulders and fissures in granite cliffs, also in volcanic or sandy limestone soils. 1215-1920 m.	Suitable habitat for this species does not occur on site. As such, this species is considered <b>absent</b> from the Project site.
Rana sierrae	Sierra Nevada yellow-legged frog	Endangered, Threatened	G1, S2, CDFW-WL	Always encountered within a few feet of water. Tadpoles may require 2 - 4 yrs to complete their aquatic development.	Suitable habitat for this species does not occur on site. As such, this species is considered <b>absent</b> from the Project site.

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN BERNARDINO COUNTY, CALIFORNIA**

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<u>Scientific Name</u>	<u>Common Name</u>	<u>Federal/State Status</u>	<u>Other Status</u>	<u>Habitat</u>	<u>Potential to Occur</u>
Taxidea taxus	American badger	None, None	G5, S3, CDFW-SSC	<p>Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.</p> <p>Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground.</p>	<p>Suitable habitat for this species does occur on site. As such, <b>pre-construction</b> surveys are recommended.</p>
Toxostoma lecontei	Le Conte's thrasher	None, None	G4, S3, CDFW-SSC	<p>Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground.</p>	<p>Suitable habitat for this species does not occur on site. As such, this species is considered <b>absent</b> from the Project site.</p>

**BIOLOGICAL RESOURCES ASSESSMENT, JURISDICTIONAL DELINEATION, AND NATIVE PLANT PROTECTION PLAN FOR THE ESSEX SAND AND GRAVEL MINE PROJECT, IN UNINCORPORATED SAN BERNARDINO COUNTY, CALIFORNIA**

**Coding and Terms**

E = Endangered T = Threatened C = Candidate FP = Fully Protected SSC = Species of Special Concern R = Rare

**State Species of Special Concern:** An administrative designation given to vertebrate species that appear to be vulnerable to extinction because of declining populations, limited acreages, and/or continuing threats. Raptor and owls are protected under section 3502.5 of the California Fish and Game code: "It is unlawful to take, possess or destroy any birds in the orders Falconiformes or Strigiformes or to take, possess or destroy the nest or eggs of any such bird."

**State Fully Protected:** The classification of Fully Protected was the State's initial effort in the 1960's to identify and provide additional protection to those animals that were rare or faced possible extinction. Lists were created for fish, mammals, amphibians and reptiles. Fully Protected species may not be taken or possessed at any time and no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock.

**Global Rankings (Species or Natural Community Level):**

G1 = Critically Imperiled – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.

G2 = Imperiled – At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.

G3 = Vulnerable – At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.

G4 = Apparently Secure – Uncommon but not rare; some cause for long-term concern due to declines or other factors.

G5 = Secure – Common; widespread and abundant.

? = Uncertainty in the exact status of an element (could move up or down one direction from current rank)

**Subspecies Level:** Taxa which are subspecies or varieties receive a taxon rank (T-rank) attached to their G-rank. Where the G-rank reflects the condition of the entire species, the T-rank reflects the global situation of just the subspecies. For example: the Point Reyes mountain beaver, *Aplodontia rufa* ssp. *phaea* is ranked G5T2. The G-rank refers to the whole species range i.e., *Aplodontia rufa*. The T-rank refers only to the global condition of ssp. *phaea*.

**State Ranking:**

S1 = Critically Imperiled – Critically imperiled in the State because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the State.

S2 = Imperiled – Imperiled in the State because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the State.

S3 = Vulnerable – Vulnerable in the State due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the State.

S4 = Apparently Secure – Uncommon but not rare in the State; some cause for long-term concern due to declines or other factors.

S5 = Secure – Common, widespread, and abundant in the State.

**California Rare Plant Rankings (CNPS List):**

1A = Plants presumed extirpated in California and either rare or extinct elsewhere.

1B = Plants rare, threatened, or endangered in California and elsewhere.

2A = Plants presumed extirpated in California, but common elsewhere.

2B = Plants rare, threatened, or endangered in California, but more common elsewhere.

3 = Plants about which more information is needed; a review list.

4 = Plants of limited distribution; a watch list.

**Threat Ranks:**

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

.2 = Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)

.3 = Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)