APPENDIX B
Biological Resources Reports

Michael Baker
INTERNATIONAL

We Make a Difference

April 10, 2024 JN 196028

CITY OF LANCASTER
Attn: Kendall Brekke, Planner
44933 Fern Avenue
Lancaster, CA 93534

SUBJECT: Results of a Biological Resources Due Diligence Assessment for the Lancaster Eastside Annexation Project – City of Lancaster, County of Los Angeles, California

Dear Ms. Brekke:

Michael Baker International (Michael Baker) has prepared this report to document the results of a biological resources assessment for the Lancaster Eastside Annexation Project (project or project site) located in the City of Lancaster, County of Los Angeles, California. Michael Baker conducted a literature review to assess the potential for special-status plant and wildlife species[1] that have been documented or that are likely to occur on or within the immediate vicinity of the project site. No field surveys were conducted in support of this effort. Specifically, this report provides an assessment of the known occurrences of the special-status plant and wildlife species that were identified in the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database RareFind 5 (CNDDB; CDFW 2024a), the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants of California (CIRP; CNPS 2024), and the U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Consultation Project Planning Tool (IPaC; USFWS 2024), and other databases (as described in the Methodology section below) as potentially occurring in the vicinity of the project site.

Project Location

The project site is generally located north of State Route 138 (SR-138), east of SR-14, south of SR-58, and west of SR-395 in the City of Lancaster, County of Los Angeles, California (refer to Figure 1, *Regional Vicinity*). The project site is depicted in Section 15 of Township 7 North, Range 11 West, on the U.S. Geological Survey's (USGS) *Lancaster East, California* 7.5-minute quadrangle (refer to Figure 2, *Project Vicinity*). Specifically, the project site is located north of East Avenue J, east of 50th Street East, south of

[1] As used in this report, "special-status" refers to plant and wildlife species that are federally/State listed, proposed, or candidates; plant species that have been designated a California Rare Plant Rank species by the California Native Plant Society; wildlife species that are designated by the California Department of Fish and Wildlife as Fully Protected, Species of Special Concern, or Watch List species; State/locally rare vegetation communities; and species that warrant protection under local or regional preservation policies.

5 Hutton Centre Drive, Suite 500 | Santa Ana, CA 92707
Office: 949.472.3505 | Fax: 949.472.8373 | mbakerintl.com

East Avenue I, and west of 60th Street East in the City of Lancaster and totals 638 acres (refer to Figure 3, *Project Site*).

Methodology

Literature Review

Michael Baker conducted thorough literature reviews and records searches to determine which special-status biological resources have the potential to occur on or within the general vicinity of the project site. Previous special-status plant and wildlife species occurrence records within the USGS *Lancaster East, Alpine Butte*, *Rosamond*, *Rosamond Lake*, *Redman*, *Littlerock, Palmdale*, *Ritter Ridge*, and *Lancaster West*, *California* 7.5-minute quadrangles were identified through a query of the CNDDB (CDFW 2024a) and CIRP (CNPS 2024), and for the project region through a review of the IPaC (USFWS 2024a).

The current regulatory/conservation status of special-status plant and wildlife species was verified through lists and resources provided by the CDFW, specifically the *Special Animals List* (CDFW 2024b), *Special Vascular Plants, Bryophytes, and Lichens List* (CDFW 2024c), *State and Federally Listed Endangered and Threatened Animals of California* (CDFW 2024d), and *State and Federally Listed Endangered, Threatened, and Rare Plants of California* (CDFW 2024e). USFWS-designated Critical Habitat for species listed under federal Endangered Species Act (FESA) was reviewed online via the Environmental Conservation Online System: Threatened and Endangered Species Active Critical Habitat Report (USFWS 2024b). In addition, Michael Baker reviewed previously prepared reports, survey results, and literature, as available, detailing the biological resources previously observed on or within the vicinity of the project site to understand existing site conditions, confirm previous species observations, and note the extent of any disturbances, if present, that have occurred within the project site that would otherwise limit the distribution of special-status biological resources. Standard field guides and texts were reviewed for specific habitat requirements of special-status species, as well as the following resources for species information, previous data, and general context:

- *Biological Resource Assessment of APNs 3384-001-001, 002, and 003, Lancaster, California* (Hagan 2022)
- *Lancaster East Side Project – Cannabis Facility Project Biological Resources Assessment* (Michael Baker 2022a)
- *Results of a Biological Resources Due Diligence Assessment for the Lancaster East Side Project – Light Industrial Overlay Zone – City of Lancaster, County of Los Angeles, California* (Michael Baker 2022b)
- *Custom Soil Resource Report for Antelope Valley Area, California* (U.S. Department of Agriculture [USDA] 2024)
- National Wetlands Inventory (NWI) Mapper (USFWS 2024c)
- Google Earth Pro historic aerial imagery from 1985 to 2023 (Google, Inc. 2024)

- Historic aerial imagery from 1948 to 2020 (Historicaerials.com 2024)
- *City of Lancaster General Plan 2030* (City of Lancaster 2009)
- *City of Lancaster General Plan 2030 Master Environmental Assessment* (RBF Consulting 2009)
- Calflora Database (Calflora 2024)
- Species Accounts provided by Birds of the World (Billerman et. al 2022)
- Cornell Lab of Ornithology's eBird Database (eBird 2024)

Biological Field Survey/Habitat Assessment

A field survey was not conducted for the project as part of this specific effort. However, a field survey was conducted over most of the northern half of the project site in 2022 by Mark Hagan, whose Biological Resource Assessment report is referenced in this report (Hagan 2022). In addition, a field survey was conducted by Michael Baker biologists in 2022 approximately one mile south of the project site in an area generally bounded by East Avenue K to the north, 50th Street East to the east, East Avenue L to the south, and 40th Street East to the west (Michael Baker 2022a), and the results of that field survey were also considered in this analysis.

Summary of Regulations

This section discusses relevant laws, policies, and ordinances that may pose constraints to any future development within the project site on a holistic level. It should be noted that this section is not intended to be exhaustive and that additional policies may apply for proposed developments within the project site.

Federal

Federal Endangered Species Act of 1973

As defined within the FESA, an endangered species is any animal or plant listed by regulation as being in danger of extinction throughout all or a significant portion of its geographical range. A threatened species is any animal or plant that is likely to become endangered within the foreseeable future throughout all or a significant portion of its geographical range. Without a special permit, federal law prohibits the "take" of any individuals or habitat of federally listed species. Under Section 9 of the FESA, take is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct." The term "harm" has been clarified to include "any act which actually kills or injures fish or wildlife and emphasizes that such acts may include significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife." Enforcement of FESA is administered by the USFWS.

Under the definition used by the FESA, "Critical Habitat" refers to specific areas within the geographical range of a species that were occupied at the time it was listed that contain the physical or biological features that are essential to the survival and eventual recovery of that species and that may require special management considerations or protection, regardless of whether the species is still extant in the area. Areas

that were not known to be occupied at the time a species was listed can also be designated as Critical Habitat if they contain one or more of the physical or biological features that are essential to that species' conservation and if the occupied areas are inadequate to ensure the species' recovery. If a project may result in take or adverse modification to a species' designated Critical Habitat and the project has a federal nexus, the project proponent may be required to provide suitable mitigation. Projects with a federal nexus may include projects that occur on federal lands, require federal permits (e.g., federal Clean Water Act [CWA] Section 404 permit), or receive any federal oversight or funding. If there is a federal nexus, then the federal agency that is responsible for providing funds or permits would be required to consult with the USFWS under the FESA.

Whenever federal agencies authorize, fund, or carry out actions that may adversely modify or destroy Critical Habitat, they must consult with USFWS under Section 7 of the FESA. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing uses federal funds, or requires federal authorization or permits (i.e., funding from the federal Highway Administration or a permit from the U.S. Army Corps of Engineers [USACE]).

Migratory Bird Treaty Act

Pursuant to the federal Migratory Bird Treaty Act (MBTA) (16 U.S. Government Code [USC] 703) of 1918, as amended in 1972, federal law prohibits the taking of migratory birds or their nests or eggs (16 USC 703; 50 CFR 10, 21). The statute states:

"*Unless and except as permitted by regulations made as hereinafter provided in this subchapter, it shall be unlawful at any time, by any means or in any manner, to pursue, hunt, take, capture, kill, attempt to take, capture, or kill...any migratory bird, any part, nest, or egg of any such bird...included in the terms of the [Migratory Bird] conventions…*"

The MBTA covers the taking of any nests or eggs of migratory birds, except as allowed by permit pursuant to 50 CFR, Part 21. Disturbances causing nest abandonment and/or loss of reproductive effort (i.e., killing or abandonment of eggs or young) may also be considered a "take." This regulation seeks to protect migratory birds and active nests.

In 1972, the MBTA was amended to include protection for migratory birds of prey (e.g., raptors). Six families of raptors occurring in North America were included in the amendment: Accipitridae (kites, hawks, and eagles); Cathartidae (New World vultures); Falconidae (falcons and caracaras); Pandionidae (ospreys); Strigidae (typical owls); and Tytonidae (barn owls). The provisions of the 1972 amendment to the MBTA protects all species and subspecies of the families listed above. The MBTA protects over 800 species including geese, ducks, shorebirds, raptors, songbirds and many relatively common species.

Clean Water Act

Since 1972, the USACE and U.S. Environmental Protection Agency (EPA) jointly regulate discharges of dredged or fill material into "waters of the U.S." (WoUS), including wetland and non-wetland aquatic features, pursuant to Section 404 of the CWA. Section 404 is founded on the findings of a direct connection

between the aquatic feature in question and interstate commerce via Relatively Permanent Waters (RPW), and ultimately Traditional Navigable Waters (TNW), through direct or indirect connection as defined by USACE regulations. On September 8, 2023, the EPA and the USACE published the Revised Definition of "Waters of the United States"; Conforming (Revised Definition) in the Federal Register to define WoUS, at which point the final rule became effective across the nation including the state of California. Under the revised definition, WoUS. are defined as:[2]

(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;

(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 that are relatively permanent, standing or continuously flowing bodies of water;

(4) Wetlands adjacent to the following waters:

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

(ii) Relatively permanent, standing or continuously flowing bodies of water identified in paragraph (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;

(5) Intrastate lakes and ponds, streams, or wetlands not identified in paragraphs (a)(1) through (4) of this section 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) of this section.

State

California Environmental Quality Act

The California Environmental Quality Act (CEQA) provides for the protection of the environment within the State of California by establishing State policy to prevent significant, avoidable damage to the environment through the use of alternatives or mitigation measures for projects. It applies to actions directly undertaken, financed, or permitted by State lead agencies. If a project is determined to be subject to CEQA, the lead agency will be required to conduct an Initial Study (IS); if the IS determines that the project may have significant impacts on the environment, the lead agency will subsequently be required to write an Environmental Impact Report (EIR). A finding of non-significant effects will require either a Negative Declaration or a Mitigated Negative Declaration instead of an EIR. Section 15380 of the CEQA Guidelines independently defines "endangered" species as those whose survival and reproduction in the wild are in

[2] 40 CFR 120.2(a)

immediate jeopardy, while "rare" species are defined as those who are in such low numbers that they could become endangered if their environment worsens.

California Endangered Species Act

In addition to federal laws, the State of California has its own California Endangered Species Act (CESA), enforced by the CDFW. The CESA program maintains a separate listing of species beyond the FESA, although the provisions of each act are similar.

State-listed threatened and endangered species are protected under provisions of the CESA. Activities that may result in "take" of individuals (defined in CESA as; "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") are regulated by CDFW. Habitat degradation or modification is not included in the definition of "take" under CESA. Nonetheless, CDFW has interpreted "take" to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

The State of California considers an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is considered as one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management. A candidate species is one that potentially qualifies for listing under CESA, pending a formal review and assessment of available data; these species are afforded all of the same legal protections as if they were already listed. A rare species is one that is considered present in such small numbers throughout its range that it may become endangered if its present environment worsens. State threatened, endangered, and candidate species are fully protected against take, as defined above.

The CDFW has also produced a species of special concern list to serve as a species watch list. Species on this list are either of limited distribution or their habitats have been reduced substantially, such that a threat to their populations may be imminent. Species of special concern may receive special attention during environmental review, but they do not have formal statutory protection. At the federal level, USFWS also uses the label "species of concern" as an informal term that refers to species which might be in need of concentrated conservation actions.

As the species of concern designated by USFWS do not receive formal legal protection, the use of the term does not necessarily ensure that the species will be proposed for listing as a threatened or endangered species.

California Fish and Game Code

Sections 3503, 3503.5, 3511, and 3513. The CDFW administers the California Fish and Game Code (CFGC). There are particular sections of the CFGC that are applicable to natural resource management. For example, Section 3503 makes it unlawful to destroy any birds' nest or any birds' eggs that are protected under the MBTA. Further, any birds in the orders Falconiformes or Strigiformes (Birds of Prey), such as hawks, eagles, and owls, are protected under Section 3503.5 which makes it unlawful to take, possess, or destroy their nest or eggs. A consultation with CDFW may be required prior to the removal of any bird of

prey nest that may occur on a project site. Section 3511 lists fully protected bird species, where the CDFW is unable to authorize the issuance of permits or licenses to take these species. Pertinent species that are State fully protected include golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*). In addition, Section 3513 makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Sections 1600 *et seq*. Sections 1600 *et seq.* of the CFGC establishes a fee-based process to ensure that projects conducted in and around lakes, rivers, or streams do not adversely affect fish and wildlife resources, or when adverse impacts cannot be avoided, ensures that adequate mitigation and/or compensation is provided.

Section 1602 of the CFGC requires any person, State, or local governmental agency or public utility to notify CDFW before beginning any activity that will do one or more of the following:

(1) substantially obstruct or divert the natural flow of a river, stream, or lake;

(2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or

(3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

This applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State, including the maintenance of existing drain culverts, outfalls, and other structures. To avoid the need for a Lake or Streambed Alteration Agreement (LSAA) from CDFW, all proposed impacts should remain outside of the top of active banks and the canopy/dripline of any associated riparian vegetation, whichever is greater.

Native Plant Protection Act

Sections 1900–1913 of the CFGC were developed to preserve, protect, and enhance Rare and Endangered plants in the State of California. The act requires all State agencies to use their authority to carry out programs to conserve Endangered and Rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFW at least ten days in advance of any change in land use which would adversely impact listed plants. This allows the CDFW to salvage listed plant species that would otherwise be destroyed.

Porter-Cologne Act

Applicants for a federal license or permit for activities that may discharge to WoUS must seek a Water Quality Certification (WQC) from the State or Indian tribe with jurisdiction[3]. In California, there are nine (9) Regional Water Quality Control Boards (RWQCB) that issue or deny Certification for discharges within their geographical jurisdiction. Such Certification is based on a finding that the discharge will meet water quality standards, which are defined as numeric and narrative objectives in each RWQCB's Basin Plan, and

3 Title 33, United States Code, Section 1341; Clean Water Act Section.

other applicable requirements. The State Water Resources Control Board has this responsibility for projects affecting waters within multiple RWQCBs. The RWQCB's jurisdiction extends to all WoUS, including wetlands, and to waters of the State (described below).

The Porter-Cologne Act gives the State very broad authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. The Porter-Cologne Act has become an important tool for the regulatory environment following the SWANCC[4] and Rapanos[5] court cases, with respect to the state's authority over isolated and otherwise insignificant waters. Generally, in the event that there is no nexus to a TNW, any person proposing to discharge waste into waters of the State that could affect its water quality must file a Report of Waste Discharge. Although "waste" is partially defined as any waste substance associated with human habitation, the RWQCB also interprets this to include fill discharged into water bodies.

On April 2, 2019, the State Water Resources Control Board adopted a State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures), for inclusion in the forthcoming Water Quality Control Plan for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California. The Procedures consist of four major elements: 1) a wetland definition; 2) a framework for determining if a feature that meets the wetland definition is a water of the state; 3) wetland delineation procedures; and 4) procedures for the submittal, review, and approval of applications for WQCs and Waste Discharge Requirements (WDRs) for dredge or fill activities. The Procedures were approved by the Office of Administrative Law on August 28, 2019 and became effective May 28, 2020.

Local Policies and Ordinances

City of Lancaster Municipal Code

Chapter 15.66, *Biological Impact Fee*, of the *Lancaster Municipal Code* (Municipal Code) establishes a biological impact fee to mitigate long-term incremental impacts of new development on biological resources on a regional basis. The fee is based upon expected regional effects from new development and fees necessary to contribute to the City of Lancaster's "fair share" to mitigate impacts on a regional basis. The fee applies to all new development on vacant land which has not been previously developed. This includes land subdivisions, new development approvals, and requests for extension. The current Biological Impact Fee as of April 23, 2021 is $770 per acre of new development on vacant land.[6] Future development projects within the project site are expected to be subject to the biological impact fee established in Chapter 15.66 of the Municipal Code.

Los Angeles County's Significant Ecological Area Program

The County of Los Angeles has identified Significant Ecological Areas (SEA) as lands that contain irreplaceable biological resources. These areas support sustainable populations of their component species

4 *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers*, 531 U.S. 159 (2001).
5 *Rapanos v. United States*, 547 U.S. 715 (2006).
6 City of Lancaster Fee Schedule: https://www.cityoflancasterca.org/home/showpublisheddocument/43416/637686855310168407

and include undisturbed or lightly disturbed habitats that support valuable and threatened species, as well as linkages and corridors that promote species movement. SEAs are not considered wilderness preserves, but instead much of the land is privately held or used for public recreation. The SEA program is intended to ensure that privately held lands within the SEAs keep the right of reasonable use, while avoiding activities and development that are incompatible with the long-term survival of the SEAs. Cumulatively, twenty-one (21) SEAs have been identified within Los Angeles County.

Los Angeles County Code

Los Angeles County Code Chapter 22.102, *Hillside Management and Significant Ecological Areas*, establishes development guidelines and required permits for development in or near SEAs.

Existing Site Conditions

The project site is flat with an approximate elevation range of 2,390 to 2,420 feet above mean sea level, sloping gently downward from south to north. According to the *Custom Soil Resource Report for Antelope Valley Area, California* (USDA 2024), the project site is underlain by the following soil units (refer to Figure 4, *USDA Soils*):

- Cajon loamy sand, 0 to 2 percent slopes (CaA)
- Dune land (DuD)
- Hesperia loamy fine sand, 0 to 2 percent slopes (HgA)
- Hesperia loamy fine sand, 0 to 2 percent slopes, hummocky (HgA2)
- Hesperia fine sandy loam, 0 to 2 percent slope (HkA)
- Rosamond loamy fine sand (Rm)
- Rosamond loamy fine sand, hummocky (Rm2)
- Rosamond fine sandy loam (Ro)
- Rosamond loam (Rp)

Based on a review of historic aerial imagery, site usage has remained mostly constant since at least 1948 (Google, Inc. 2024; Historicaerials.com 2024). The northern half of the project site has primarily been used for agriculture since at least 1948, with the southern half of the site remaining undeveloped during this time period. Outside of the project site there is additional agricultural land and some rural residential land uses.

Vegetation Communities and Land Cover Types

A field survey of the entire project site was not conducted as part of this effort and thus, specific vegetation mapping is not available. However, vegetation mapping in the City of Lancaster's General Plan 2030 Master Environmental Assessment indicates that the project site is a mixture of desert wash, ruderal areas, and agricultural land (RBF Consulting 2009), and Hagan's 2022 report indicates that the northern half of the site away from Little Rock Wash is primarily agricultural with developed and landscaped cover types in the northwest corner where the buildings are. Contemporary field surveys with vegetation mapping

conforming to *A Manual of California Vegetation* (Sawyer et al. 2009) would be required in order to remap on-site vegetation with current accepted protocols that are adequate to determine potential mitigation requirements.

Wildlife

Natural vegetation communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predation. This section provides a general discussion of common wildlife species that are known to have been detected on-site by Michael Baker or other biologists based on published biological reports, or that are expected to occur based on existing site conditions.

Fish

No fish or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would support populations of fish are known to occur within the project site. Although Little Rock Wash is present within the project site, it is not a perennial feature and is not expected under normal conditions to have any fish or aquatic life. Therefore, no fish are expected to occur.

Amphibians

No amphibians or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable breeding habitat for amphibians are known to occur within the project site. Although Little Rock Wash is present within the project site, it is not a perennial feature and within the project site is not expected under normal conditions to have any amphibians or aquatic life. Therefore, no amphibians are expected to occur.

Reptiles

No reptile species were observed in the project site during the previous field survey (Hagan 2022). However, the project site is expected to provide habitat for reptilian species that are acclimated to edge environments. Common reptilian species that may be present within the project site include western side-blotched lizard (*Uta stansburiana elegans*), Great Basin whiptail (*Aspidoscelis tigris tigris*), red racer (*Coluber flagellum piceus*), northern Mohave rattlesnake (*Crotalus scutulatus scutulatus*), and Mohave desert sidewinder (*Crotalus cerastes cerastes*).

Birds

Avian species reported within the project site during the 2022 Hagan field survey included mountain plover (*Charadrius montanus*; a California species of special concern [SSC]), red-tailed hawk (*Buteo jamaicensis*), American kestrel (*Falco sparverius*), ring-necked dove (*Streptopelia capicola*; most likely a misidentification of Eurasian collared-dove [*Streptopelia decaocto*]), common raven (*Corvus corax*), horned lark (*Eremophila alpestris*), loggerhead shrike (*Lanius ludovicianus*; a California SSC), and western meadowlark (*Sturnella neglecta*) (Hagan 2022). Due to the small size of the project site and limited variety

of habitat types, a limited number of avian species may occur on-site, including both year-round residents, seasonal residents, and transient migrants. Based on Hagan (2022), examples of other avian species that may occur within the project site include mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), European starling (*Sturnus vulgaris*), house sparrow (*Passer domesticus*), and white-crowned sparrow (*Zonotrichia leucophrys*).

Nesting birds are protected pursuant to the MBTA and the CFGC[7]. To maintain compliance with the MBTA and CFGC, clearance surveys are typically required prior to any ground disturbance or vegetation removal activities to avoid direct or indirect impacts to active bird nests and/or nesting birds. Consequently, if an active bird nest is destroyed or if project activities result in indirect impacts (e.g., nest abandonment, loss of reproductive effort) to nesting birds, it is considered "take" and is potentially punishable by fines and/or imprisonment. The project site provides marginal nesting habitat for various year-round and seasonal bird species.

Mammals

The project site provides marginal habitat for a limited number of mammalian species adapted to living in edge environments. Some of the mammalian species and/or sign detected within the project site during the Hagan (2022) field survey included Botta's pocket gopher (*Thomomys bottae*), California ground squirrel (*Otospermophilus beecheyi*), coyote (*Canis latrans*), domestic dog (*Canis familiaris*), and horse (*Equus caballus*). Several species of livestock were observed in the fenced homesite in the northwest corner of the project site (Hagan 2022). Other common mammalian species that may occur within the project site include deer mouse (*Peromyscus maniculatus*) and domestic cat (*Felis catus*). Bats occur throughout most of California. Bats may forage throughout much of the project site, especially if there are areas where insects accumulate (e.g. over agricultural fields). However, roosting habitat appears to be minimal or non-existent due to a general lack of roosting trees and the fact that the few on-site buildings in the northwest corner are still inhabited and in active use.

Migratory Corridors and Linkages

Wildlife corridors and linkages are key features for wildlife movement between habitat patches. Wildlife corridors are generally defined as those areas that provide opportunities for individuals or local populations to conduct seasonal migrations, permanent dispersals, or daily commutes, while linkages generally refer to broader areas that provide movement opportunities for multiple keystone/focal species or allow for propagation of ecological processes (e.g., for movement of pollinators), often between areas of conserved land.

[7] Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the California Fish and Game Code or any regulation made pursuant thereto; Section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey); and Section 3513 makes it unlawful to take or possess any migratory non-game bird except as provided by the rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act, as amended (16 U.S.C. § 703 *et seq.*).

The project site is mostly undeveloped and is located along the eastern edge of the City of Lancaster, where generally less development is present in the surrounding areas. The most obvious natural corridor within the project site is Little Rock Wash, which crosses from south to north along the eastern edge of the project site, originating in the San Gabriel Mountains as Little Rock Creek and terminating approximately one mile north of the project site. Little Rock Wash is not recognized as a corridor by the City of Lancaster General Plan (City of Lancaster 2009) or the *South Coast Missing Linkages: A Wildland Network for the South Coast Ecoregion* (South Coast Wildlands 2008). However, Little Rock Wash is recognized by Los Angeles County as part of the Antelope Valley SEA, which provides dispersal and migration opportunities between the San Gabriel Mountains and the playa lakes on Edwards Air Force Base. Other potential migratory pathways would generally be opportunistic across open space areas between agricultural fields, or possibly even through agricultural fields, but would likely be reduced by the presence of surrounding roadways and existing agricultural, commercial, and residential developments within the project site. These developments have fragmented the connection between the project site and surrounding naturally occurring vegetation communities. Elevated noise levels, vehicle roadway/traffic, lighting, and presence of humans and domestic pets are also expected to further decrease the suitability of the project site to be used as a wildlife movement corridor or linkage.

State and Federal Jurisdictional Resources

There are three agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The USACE Regulatory Branch regulates discharge of dredged or fill material into WoUS pursuant to Section 404 of the CWA and Section 10 of the Rivers and Harbors Act. Of the State agencies, the RWQCB regulates discharges to surface waters pursuant to Section 401 of the CWA and Section 13263 of the California Porter-Cologne Water Quality Control Act, and the CDFW regulates alterations to streambed and associated vegetation communities under Section 1600 *et seq*. of the CFGC.

According to the NWI Mapper, there are two (2) aquatic features within the project site (USFWS 2024c). Little Rock Wash, in particular, is the most prominent aquatic feature and may potentially qualify as a WoUS and/or water of the State regulated by the USACE, RWQCB, and/or CDFW As a result, prior to any development occurring within the project site it is recommended that a jurisdictional delineation be conducted to document the presence or absence of potentially jurisdictional features and evaluate the potential need to obtain permits from the USACE, RWQCB, and/or CDFW for any impacts to jurisdictional features.

Special-Status Biological Resources

The CNDDB (CDFW 2024a) and CIRP (CNPS 2024) were queried for locations of special-status plant and wildlife species, as well as special-status natural vegetation communities recorded in the USGS *Lancaster East, Alpine Butte*, *Rosamond*, *Rosamond Lake*, *Redman*, *Littlerock, Palmdale*, *Ritter Ridge*, and *Lancaster West*, *California* 7.5-minute quadrangles, and IPaC (USFWS 2024a) was queried for the project region. Twenty-three (23) special-status plant species and twenty-eight (28) special-status wildlife species were identified during the records search. No special-status vegetation communities were identified. The

potential for these species to occur within the project site generally cannot be determined without a recent biological survey of the area. The only recent survey that has been conducted was Hagan's field survey of the northern portion of the project site in 2022 (Hagan 2022). As a result, this section provides only a preliminary discussion of those special-status species that have been recorded within or adjacent to the project site, but a more detailed discussion of the potential for additional special-status species to occur would require a contemporary field survey across the entire project site to properly characterize on-site habitat. The information provided below is based primarily on records in the CNDDB (CDFW 2024a), the Calflora database (Calflora 2024), the eBird database (eBird 2024), and the aforementioned biological survey report by Hagan (2022). A depiction of known special-status species occurrences is shown in Figure 5, *Special-Status Species Occurrences*. Because the eBird database does not typically provide specific locations of records unless provided by the original observer, Figure 5 only includes special-status species recorded in the CNDDB and occurrences from Michael Baker's April 2022 field survey of the nearby project site to the southwest (Michael Baker 2022a).

Special-Status Plants

A total of twenty-three (23) special-status plant species have been recorded in the USGS *Lancaster East, Alpine Butte*, *Rosamond*, *Rosamond Lake*, *Redman*, *Littlerock, Palmdale*, *Ritter Ridge*, and *Lancaster West*, *California* 7.5-minute quadrangles by the CNDDB and CIRP (refer to Attachment B). Based on available data, no special-status plant species have been recorded within the project site. Most of the special-status plant records within the search radius are located more than five miles away from the project site and because of the distance, habitat fragmentation, and agricultural and disturbed habitat conditions within the project site, are not likely to occur within the project site. According to data available in the CNDDB (CDFW 2024a) and the Calflora database (Calflora 2024), the closest known occurrence of a special-status plant species to the project site is a 2011 record of golden goodmania (*Goodmania luteola*; California Rare Plant Rank [CRPR] 4.2), located approximately 2.7 miles northeast of the project. , Based on the CNDDB (CDFW 2024a) and Calflora database (Calflora 2024), no special-status plant species listed under FESA and/or CESA have been recorded from the vicinity of the project site; however, other special-status plant species have been recorded within 5 miles of the project site and include:

- alkali mariposa lily (*Calochortus striatus*; CRPR 1B.2)
- Mojave spineflower (*Chorizanthe spinosa*; CRPR 4.2)
- sagebrush loeflingia (*Loeflingia squarrosa* var. *artemisiaru*; CRPR 2B.2)
- crowned muilla (*Muilla coronata*; CRPR 4.2)
- Lancaster milk-vetch (*Astragalus preussii* var. *laxiflorus*; CRPR 1B.1)
- white pygmy-poppy (*Canbya candida*; CRPR 4.2)
- Mojave Indian paintbrush (*Castilleja plagiotoma*; CRPR 4.3)
- Rosamond eriastrum (*Eriastrum rosamondense*; CRPR 1B.1)

It should be noted that most of these records are over 40 years old (some over 100 years old), and may now be extirpated due to development of the surrounding region. In addition, most of the northern half of the

project site is used for agriculture and the southern half has been mostly cleared of vegetation, making it unlikely that special-status plants occur on-site.

Special-Status Wildlife

A total of twenty-eight (28) special-status wildlife species have been recorded in the USGS *Lancaster East, Alpine Butte*, *Rosamond*, *Rosamond Lake*, *Redman*, *Littlerock, Palmdale*, *Ritter Ridge*, and *Lancaster West*, *California* 7.5-minute quadrangles by the CNDDB and project region by the IPaC (refer to Attachment B). Mountain plover and loggerhead shrike (both California SSC) were reported to be on-site during the 2022 field survey of the northern half of the project site (Hagan 2022). According to records within the CNDDB (CDFW 2024a) and the eBird database (eBird 2024), other special-status wildlife species that have been previously recorded within or immediately adjacent to the project site include:

- Cooper's hawk (*Accipiter cooperii*; a California Watch List [WL] species)
- tricolored blackbird (*Agelaius tricolor*; a State threatened [ST] species)
- burrowing owl (*Athene cunicularia*; a California SSC)
- short-eared owl (*Aseo flammeus*; a California SSC)
- ferruginous hawk (*Buteo regalis*; a California WL species)
- Swainson's hawk (*Buteo swainsoni*; a ST species)
- northern harrier (*Circus hudsonius*; a California SSC)
- merlin (*Falco columbarius*; a California WL species)
- prairie falcon (*Falco mexicanus*; a California WL species)

All of these species should be considered to have a moderate to high potential to occur within the project site. There are multiple records in eBird of Swainson's hawk nesting north, across East Avenue I, of the project site in 1991, but it is unknown how long this nest was active (eBird 2024).

Based on the results of Hagan (2022), there is no suitable habitat in the project site to support desert kit fox (*Vulpes macrotis arsipus*; a CGFC protected furbearing mammal), American badger (*Taxidea taxus*; a California SSC), desert tortoise (*Gopherus agassizii*; a ST and federally threatened [FT] species), or Mohave ground squirrel (*Xerospermophilus mohavensis*; a ST species).

Critical Habitat

Under the definition included in the FESA, designated Critical Habitat refers to specific areas within the geographical range of a species that were occupied at the time it was listed that contain the physical or biological features that are essential to the survival and eventual recovery of that species. Areas of Critical Habitat may require special management considerations or protection, regardless of whether the species is still extant in the area. Areas that were not known to be occupied at the time a species was listed can also be designated Critical Habitat if they contain one or more of the physical or biological features that are essential to that species' conservation and if the other areas that are occupied are inadequate to ensure the species' recovery. If a project may result in take or adverse modification to a species' designated Critical

Habitat and the project has a federal nexus, the project proponent may be required to provide suitable mitigation. Projects with a federal nexus may include projects that occur on federal lands, require federal permits (e.g., CWA Section 404 permit), or receive any federal oversight or funding. If there is a federal nexus, then the federal agency that is responsible for providing funds or permits would be required to consult with the USFWS pursuant to the FESA.

The project site is not located within USFWS-designated Critical Habitat for any federally listed species (refer to Figure 6, *Critical Habitat*).

Significant Ecological Areas

The project site is located within the Antelope Valley SEA (refer to Figure 7, *Significant Ecological Areas*). The SEA extends from the Angeles National Forest to the playa lakes within Edwards Air Force Base, encompassing the whole of the two largest drainages exiting the northern slope of the San Gabriel Mountain range, and its geographical features serve as a major habitat linkage and movement corridor for all wildlife species within its vicinity. Highly mobile species and those that can utilize a diverse number of habitat types have the ability to move across such vast areas and through changing habitat types. For such species, the SEA may serve as an important system for long-term inter-populational genetic exchange. For smaller or less-mobile species, or taxa which are more narrowly restricted in their habitat needs, the SEA can serve as a broad linkage zone, in which individual movement can take place during seasonal or populational dispersals. This provides essential genetic exchange within and between metapopulations. The two drainages, combined with terrestrial desert-montane habitats transect portions of the SEA, providing linkage values and direct movement zones for all of the wildlife species present within the Los Angeles County portion of the Antelope Valley.

Because the project site is located within the Antelope Valley SEA, the site is subject to development restrictions associated with the SEA Program, the SEA Ordinance, and the Los Angeles County Code Chapter 22.102, as applicable.

Conclusions and Recommendations

All findings of this report as described above and summarized in this section should be considered preliminary and are based on a review of limited data available from previous studies and online databases. No field surveys were conducted in support of this report. This section summarizes the primary findings of this report and provides general recommendations and guidance for future proposed activities within the project site.

No special-status plant species are known to occur within the project site. However, special-status plant species that have been recorded in the general project vicinity include alkali mariposa lily (CRPR 1B.2), Mojave spineflower (CRPR 4.2), sagebrush loeflingia (CRPR 2B.2), crowned muilla (CRPR 4.2), Lancaster milk-vetch (CRPR 1B.1), white pygmy-poppy (CRPR 4.2), Mojave Indian paintbrush (CRPR 4.3), and Rosamond eriastrum (CRPR 1B.1), and golden goodmania (CRPR 4.2). Plants protected under

CESA or with a CRPR 1 or 2 are evaluated for significant impacts during CEQA analyses. Plants with CRPR 3 or 4 are typically not evaluated for significant impacts during CEQA analyses except in cases where CRPR 4 species may be locally significant (e.g., the only population in the region). For any future proposed development on undisturbed (i.e., undeveloped and non-agriculture) lands, it is recommended that a species-specific habitat assessment and/or focused plant surveys be conducted if suitable habitat is present to support these species, or any other special-status plant species known to occur in the region.

Special-status wildlife species that were documented on-site during the Hagan 2022 field survey include mountain plover (a California SSC) and loggerhead shrike (a California SSC). Those that have been recorded in the immediate vicinity according to records in the CNDDB (CDFW 2024a) and the eBird database (eBird 2024) include Cooper's hawk (a California WL species), tricolored blackbird (a ST species), burrowing owl (a California SSC), short-eared owl (a California SSC), ferruginous hawk (a California WL species), Swainson's hawk (a ST species), northern harrier (a California SSC), merlin (a California WL species), and prairie falcon (a California WL species). Hagan noted burrowing owl feathers on-site during his 2022 survey, but stated there were no suitable burrows, no suitable cover habitat, and no other owl sign observed (Hagan 2022). Desert kit fox (a CGFC protected furbearing mammal), American badger (a California SSC), desert tortoise (a FT and ST species), and Mohave ground squirrel (a ST species) are known to occur in the region, but Hagan noted that no suitable habitat for these species occurs on-site (Hagan 2022). Based on the database searches, previously prepared biological resource reports, and the evaluation presented in this report, Michael Baker recommends the following:

- In areas of suitable habitat, focused surveys for burrowing owl, desert kit fox, American badger, desert tortoise, and/or Mohave ground squirrel may be required in support of a CEQA analysis.
- Regardless of focused survey findings, if suitable habitat for burrowing owl is present, two (2) separate preconstruction surveys are required prior to any ground disturbance, one no less than 14 days prior to disturbance, and the other within 24 hours prior to ground disturbance.
- If any renewable energy uses are proposed within the project site, focused surveys for Swainson's hawk conforming to the 2010 Antelope Valley protocol (CEC and CDFW 2010) may be required, particularly due to the previous record of an active nest across the street from the project site (eBird 2024).
- Take of any wildlife species that are protected under FESA, CESA, and/or are designated as SSC or fully protected species in California would potentially qualify for significant impacts during CEQA analyses. Species that are protected under FESA and/or CESA would also require consultation with the USFWS under Section 7 or Section 10 of FESA and/or an Incidental Take Permit from the CDFW under Section 2081 of CESA.
- If present, impacts to other fossorial special-status animals (i.e. burrowing owl, desert kit fox, American badger) are likely to require a relocation plan and extensive coordination with CDFW to relocate animals offsite.

Aquatic features potentially falling under federal and/or State jurisdiction are known to be present within the project site but were not fully analyzed as part of this report. Michael Baker recommends:

- As part of the CEQA analysis of any proposed development within the project site, a regulatory specialist should be consulted to determine if a jurisdictional delineation is necessary to determine the presence or absence of potentially jurisdictional features.
- Impacts to jurisdictional features may require regulatory permits from the USACE, RWQCB, and/or the CDFW as applicable.

In order to develop a clearer understanding of on-site biological resources, future impacts that could occur, and future mitigation and/or permitting that may be required, it is recommended that a biological field survey of the entire proposed annexation be conducted, followed by a detailed biological resources assessment and focused species surveys as appropriate to determine baseline data for the project site.

Please do not hesitate to contact me at (949) 533-0918 or ryan.winkleman@mbakerintl.com should you have any questions or require further information.

Sincerely,



Ryan Winkleman
Senior Biologist

Attachments:

A. *Project Figures*
B. *Literature Review Results*
C. *References*

Attachment A

Project Figures



\\Santca1hub\irvica1fs1\HROOT\pdata\196028\Admin\Reports\Environmental\Tech Studies\JD\6_FIGURES

Michael Baker INTERNATIONAL

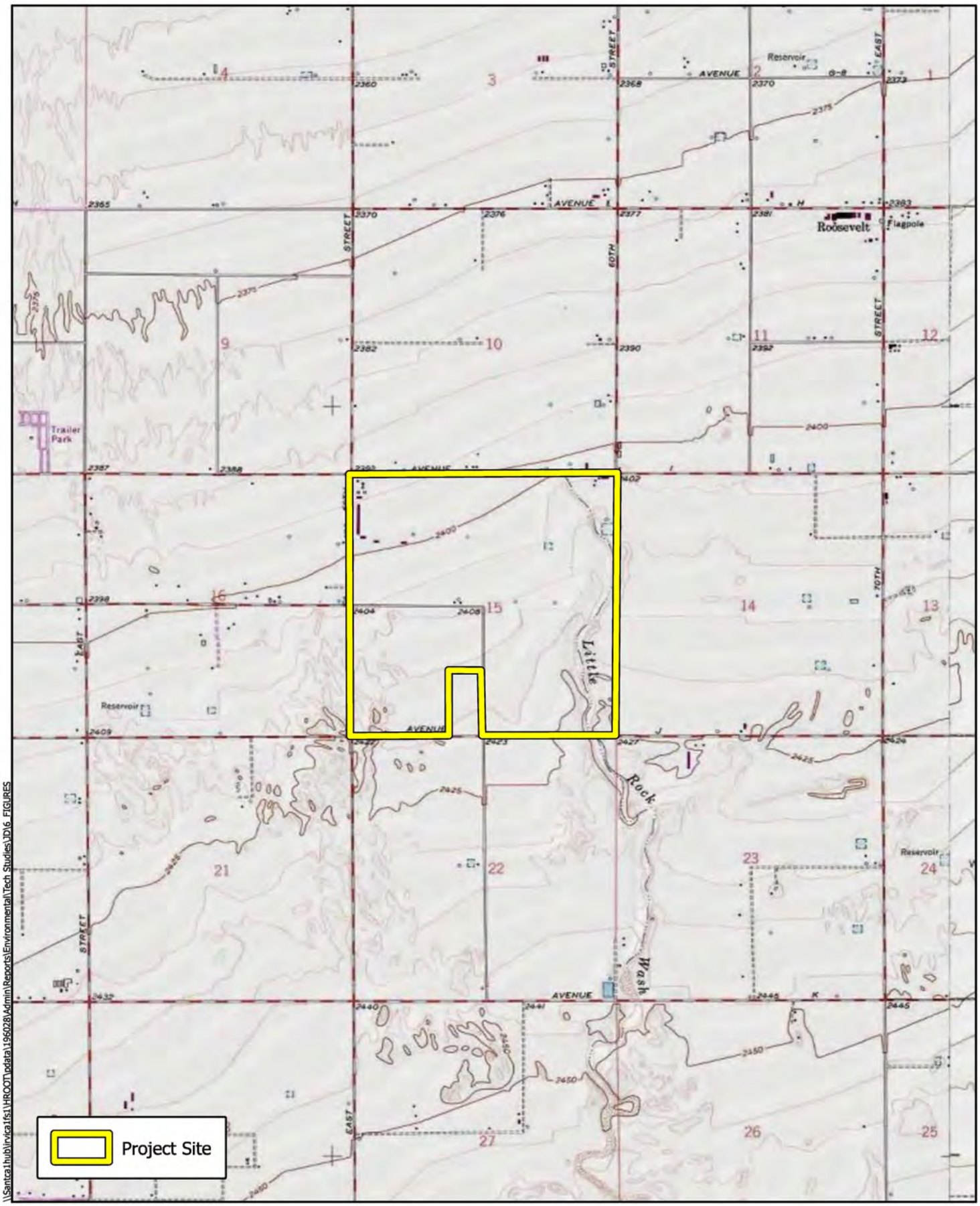
0 5 10 Miles

Source: ArcGIS Online, National Geographic Basemap, Lancaster, California

LANCASTER EASTSIDE ANNEXATION PROJECT
BIOLOGICAL RESOURCES DUE DILIGENCE ASSESSMENT

Regional Vicinity

Figure 1



\\Santca1hub\nvica1fs1\HROOT\pdata\196028\Admin\Reports\Environmental\Tech Studies\DD6_FIGURES

Michael Baker INTERNATIONAL

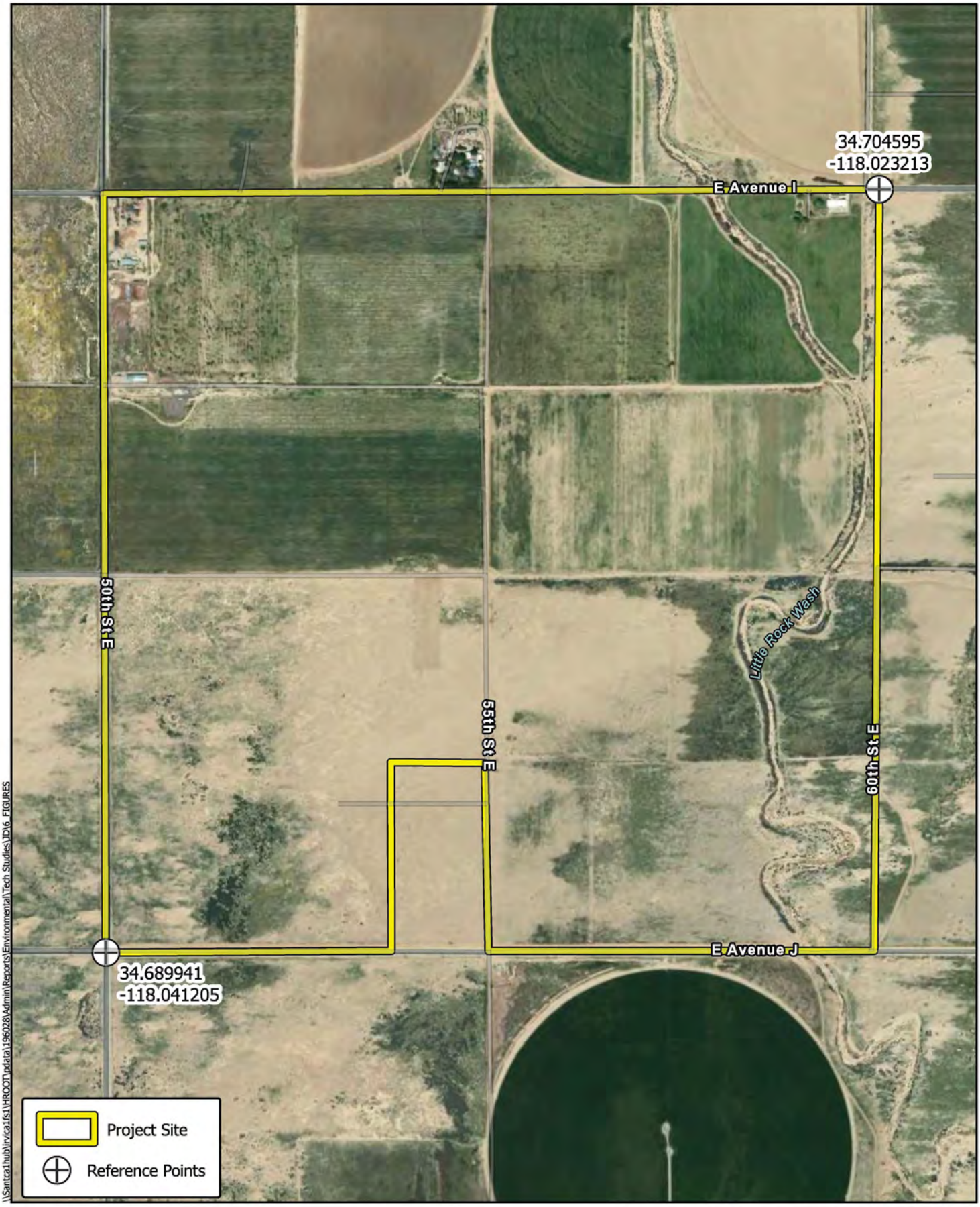
0 0.25 0.5 Miles

Source: USGS 7.5-Minute topographic quadrangle maps: Lancaster East, California

LANCASTER EASTSIDE ANNEXATION PROJECT
BIOLOGICAL RESOURCES DUE DILIGENCE ASSESSMENT

Project Vicinity

Figure 2



\\Santa1hub\nvica1fs1\HROOT\pdata\196028\Admin\Reports\Environmental\Tech Studies\DD6_FIGURES

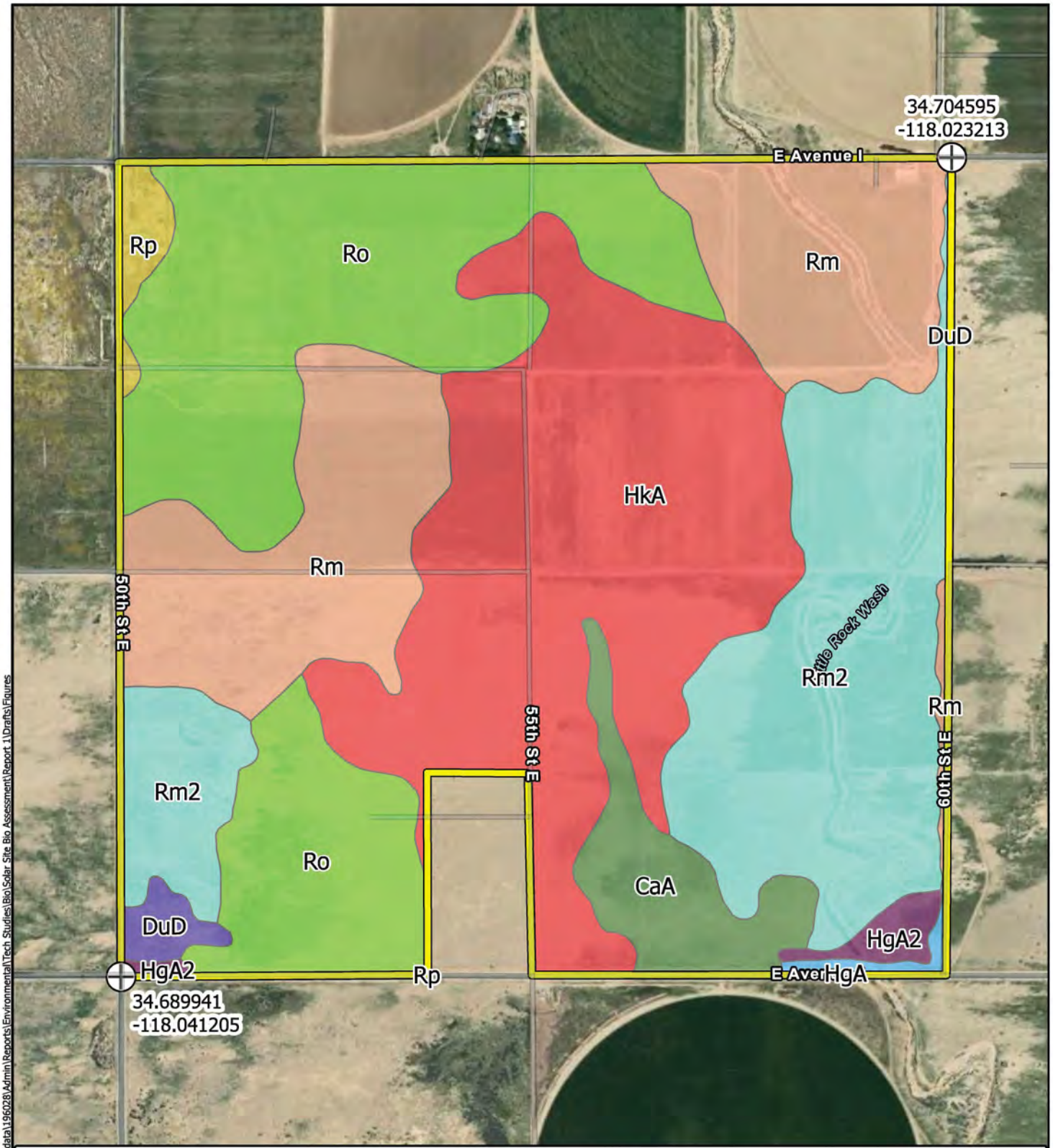
Michael Baker INTERNATIONAL

Source: ArcGIS Online World Imagery Basemap. Lancaster, California

LANCASTER EASTSIDE ANNEXATION PROJECT
BIOLOGICAL RESOURCES DUE DILIGENCE ASSESSMENT

Project Site

Figure 3



\\santca1hub\invca1fs1\WROOT\data\196028\Admin\Reports\EnvironmentalTech Studies\Bio\Solar Site Bio Assessment\Report 1\Drafts\Figures

Michael Baker INTERNATIONAL

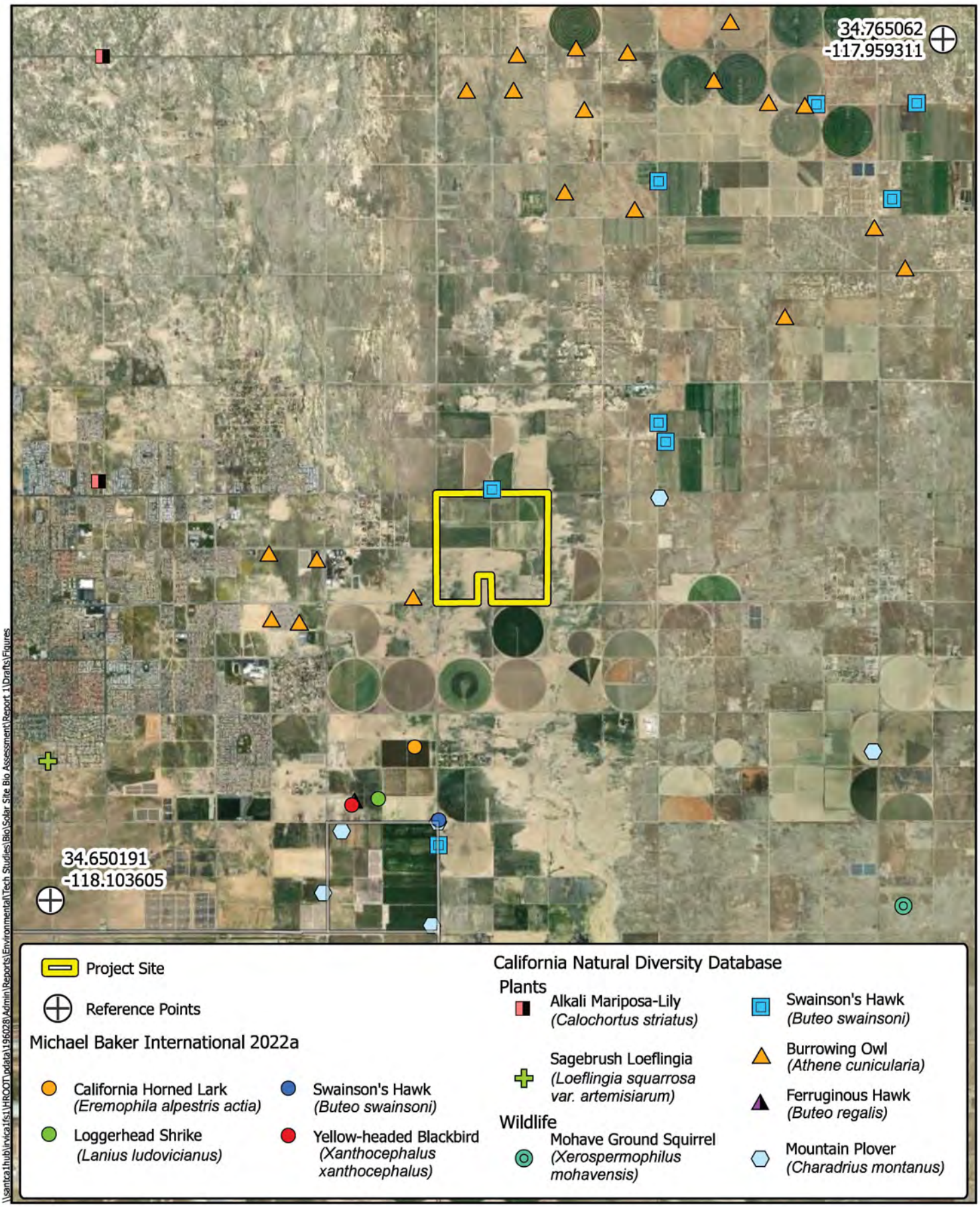
0 500 1,000 Feet

LANCASTER EASTSIDE ANNEXATION PROJECT
BIOLOGICAL RESOURCES DUE DILIGENCE ASSESSMENT

USDA Soils

Sources: USDA SSURGO Database (March 2024), ArcGIS Online World Imagery Basemap. Lancaster, California

Figure 4



Michael Baker INTERNATIONAL

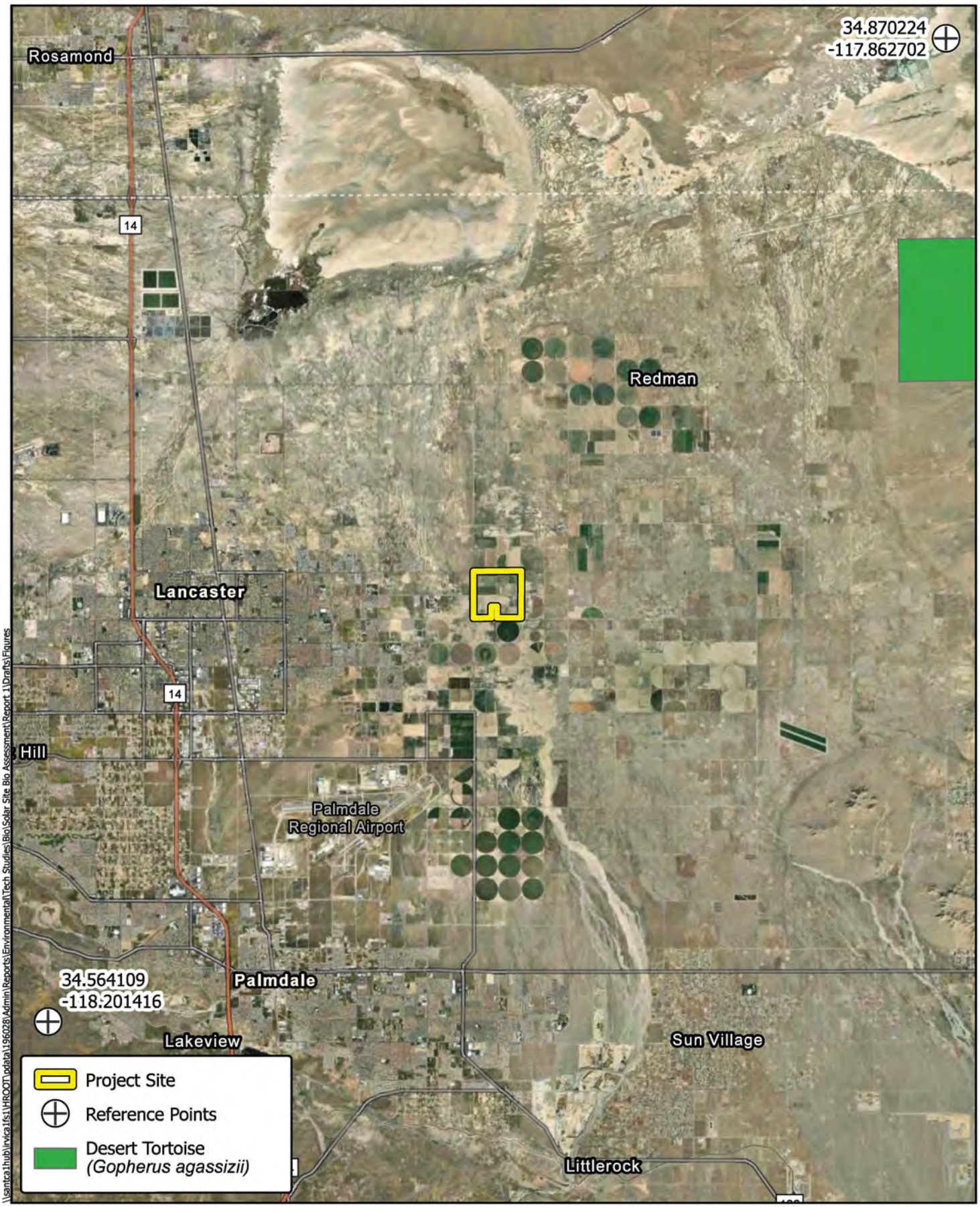
0 1 2 Miles

LANCASTER EASTSIDE ANNEXATION PROJECT
BIOLOGICAL RESOURCES DUE DILIGENCE ASSESSMENT

Special-Status Species Occurrences

Sources: CA Dept.Fish & Wildlife Natural Diversity Database (CNDDB) (March 2024), ArcGIS Online World Imagery Basemap, Lancaster, California

Figure 5



LANCASTER EASTSIDE ANNEXATION PROJECT
BIOLOGICAL RESOURCES DUE DILIGENCE ASSESSMENT

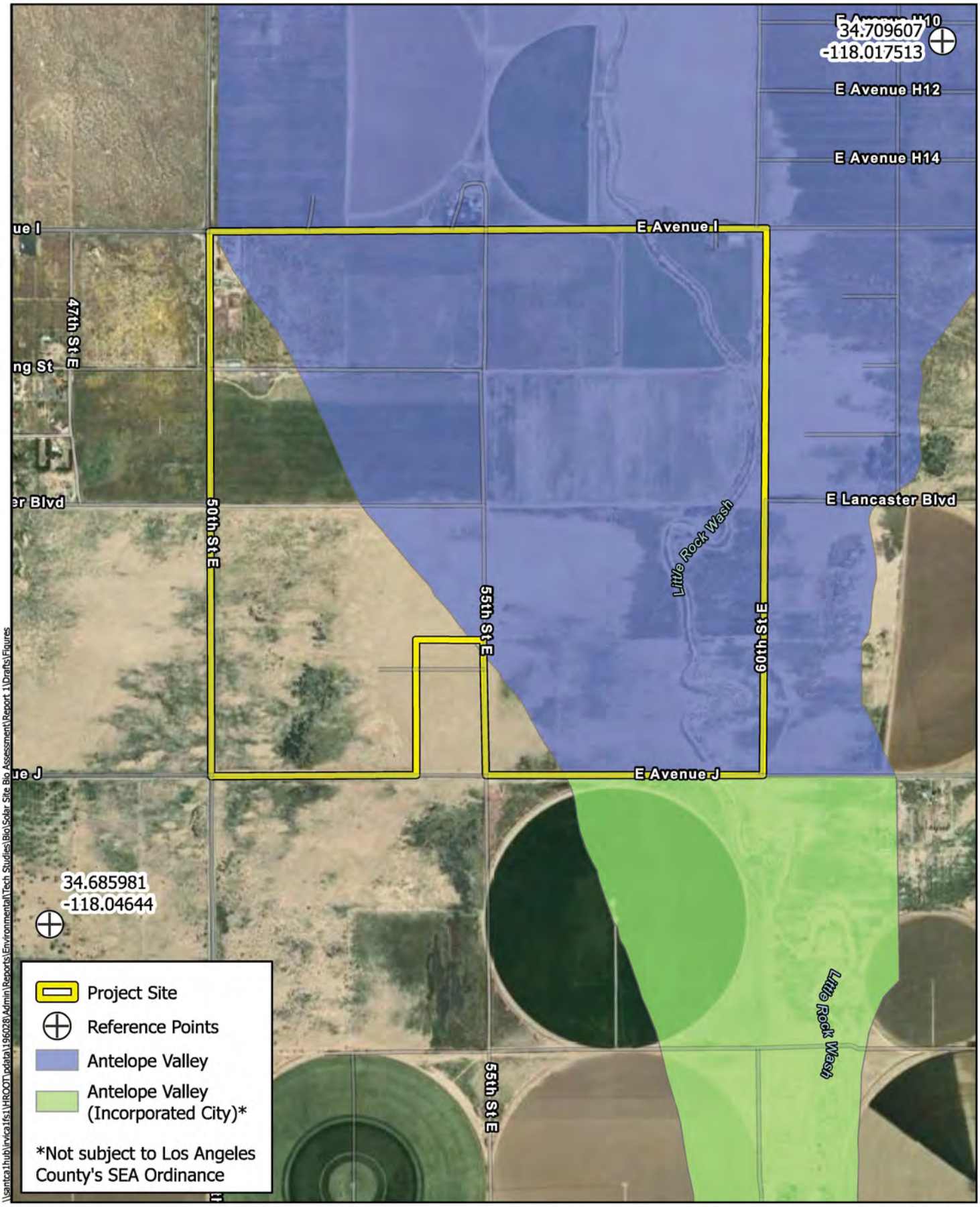
Michael Baker INTERNATIONAL

0 1 2 Miles

Sources: US Fish & Wildlife Service ECOS. ArcGIS Online World Imagery Basemap. Lancaster, California

Critical Habitat

Figure 6



\\santca1hub\invca1fs1\WROOT\data\196028\Admin\Reports\Environmental\Tech Studies\Bio\Solar Site Bio Assessment\Report 1\Drafts\Figures

Michael Baker INTERNATIONAL

Sources: Los Angeles County, ArcGIS Online World Imagery Basemap, Lancaster, California

LANCASTER EASTSIDE ANNEXATION PROJECT
BIOLOGICAL RESOURCES DUE DILIGENCE ASSESSMENT

Significant Ecological Areas

Figure 7

Attachment B

Literature Review Results

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Rosamond (3411872) OR Rosamond Lake (3411871) OR Redman (3411778) OR Alpine Butte (3411768) OR Lancaster East (3411861) OR Lancaster West (3411862) OR Littlerock (3411758) OR Palmdale (3411851) OR Ritter Ridge (3411852))
 AND Taxonomic Group IS (Fish OR Amphibians OR Reptiles OR Birds OR Mammals OR Mollusks OR Arachnids OR Crustaceans OR Insects)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G1G2	S2	SSC
Aimophila ruficeps canescens southern California rufous-crowned sparrow	ABPBX91091	None	None	G5T3	S4	WL
Anniella pulchra Northern California legless lizard	ARACC01020	None	None	G3	S2S3	SSC
Arizona elegans occidentalis California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
Artemisiospiza belli belli Bell's sparrow	ABPBX97021	None	None	G5T2T3	S3	WL
Asio flammeus short-eared owl	ABNSB13040	None	None	G5	S2	SSC
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S2	SSC
Bombus crotchii Crotch's bumble bee	IIHYM24480	None	Candidate Endangered	G2	S2	
Buteo regalis ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S4	
Charadrius montanus mountain plover	ABNNB03100	None	None	G3	S2	SSC
Charadrius nivosus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S3	SSC
Circus hudsonius northern harrier	ABNKC11011	None	None	G5	S3	SSC
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G4	S2	SSC
Emys marmorata western pond turtle	ARAAD02030	Proposed Threatened	None	G3G4	S3	SSC
Falco columbarius merlin	ABNKD06030	None	None	G5	S3S4	WL
Gopherus agassizii desert tortoise	ARAAF01012	Threatened	Threatened	G3	S2S3	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Helminthoglypta fontiphila Soledad shoulderband	IMGASC2250	None	None	G1	S1	
Lanius ludovicianus loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
Perognathus inornatus San Joaquin pocket mouse	AMAFD01060	None	None	G2G3	S2S3	
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G4	S4	SSC
Plegadis chihi white-faced ibis	ABNGE02020	None	None	G5	S3S4	WL
Thamnophis hammondii two-striped gartersnake	ARADB36160	None	None	G4	S3S4	SSC
Toxostoma lecontei Le Conte's thrasher	ABPBK06100	None	None	G4	S3	SSC
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S3	
Xerospermophilus mohavensis Mohave ground squirrel	AMAFB05150	None	Threatened	G3	S2	

Record Count: 27

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Rosamond (3411872) OR Rosamond Lake (3411871) OR Redman (3411778) OR Alpine Butte (3411768) OR Lancaster East (3411861) OR Lancaster West (3411862) OR Littlerock (3411758) OR Palmdale (3411851) OR Ritter Ridge (3411852))
 AND Taxonomic Group IS (Ferns OR Gymnosperms OR Monocots OR Dicots OR Lichens OR Bryophytes)

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Astragalus hornii var. hornii Horn's milk-vetch	PDFAB0F421	None	None	GUT1	S1	1B.1
Astragalus preussii var. laxiflorus Lancaster milk-vetch	PDFAB0F721	None	None	G4T2	S1	1B.1
Calochortus striatus alkali mariposa-lily	PMLIL0D190	None	None	G3	S2S3	1B.2
Canbya candida white pygmy-poppy	PDPAP05020	None	None	G3G4	S3S4	4.2
Chorizanthe parryi var. parryi Parry's spineflower	PDPGN040J2	None	None	G3T2	S2	1B.1
Cymopterus deserticola desert cymopterus	PDAPI0U090	None	None	G2	S2	1B.2
Eriastrum rosamondense Rosamond eriastrum	PDPLM030G0	None	None	G1?	S1?	1B.1
Eriophyllum mohavense Barstow woolly sunflower	PDAST3N070	None	None	G2	S2	1B.2
Loeflingia squarrosa var. artemisiarum sagebrush loeflingia	PDCAR0E011	None	None	G5T3	S2	2B.2
Opuntia basilaris var. brachyclada short-joint beavertail	PDCAC0D053	None	None	G5T3	S3	1B.2
Puccinellia simplex California alkali grass	PMPOA53110	None	None	G2	S2	1B.2

Record Count: 11

CALIFORNIA NATIVE PLANT SOCIETY

CNPS Rare Plant Inventory

Search Results

23 matches found. Click on scientific name for details

Search Criteria: 9-Quad include [**3411871:3411778:3411872:3411768:3411861:3411758:3411851:3411852:3411862**]

▲ SCIENTIFIC NAME	COMMON NAME	FAMILY	LIFEFORM	BLOOMING PERIOD	FED LIST	STATE LIST	GLOBAL RANK	STATE RANK	CA RARE PLANT RANK	CA ENDEMIC	DATE ADDED	PHOTO
Androsace elongata ssp. *acuta*	California androsace	Primulaceae	annual herb	Mar-Jun	None	None	G5? T3T4	S3S4	4.2		1994-01-01	 © 2008 Aaron Schusteff
Astragalus hornii var. *hornii*	Horn's milk-vetch	Fabaceae	annual herb	May-Oct	None	None	GUT1	S1	1B.1		2006-12-01	No Photo Available
Astragalus preussii var. *laxiflorus*	Lancaster milk-vetch	Fabaceae	perennial herb	Mar-May	None	None	G4T2	S1	1B.1		1988-01-01	No Photo Available
Calochortus striatus	alkali mariposa-lily	Liliaceae	perennial bulbiferous herb	Apr-Jun	None	None	G3	S2S3	1B.2		1974-01-01	No Photo Available
Calystegia peirsonii	Peirson's morning-glory	Convolvulaceae	perennial rhizomatous herb	Apr-Jun	None	None	G4	S4	4.2	Yes	1974-01-01	No Photo Available
Canbya candida	white pygmy-poppy	Papaveraceae	annual herb	Mar-Jun	None	None	G3G4	S3S4	4.2	Yes	1974-01-01	No Photo Available
Castilleja plagiotoma	Mojave paintbrush	Orobanchaceae	perennial herb (hemiparasitic)	Apr-Jun	None	None	G4	S4	4.3	Yes	1974-01-01	No Photo Available
Chorizanthe parryi var. *parryi*	Parry's spineflower	Polygonaceae	annual herb	Apr-Jun	None	None	G3T2	S2	1B.1	Yes	1994-01-01	 © 2012 Keir Morse
Chorizanthe spinosa	Mojave spineflower	Polygonaceae	annual herb	Mar-Jul	None	None	G4	S4	4.2	Yes	1974-01-01	 © 2011 Benjamin Smith

Cymopterus deserticola	desert cymopterus	Apiaceae	perennial herb	Mar-May	None	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
Diplacus johnstonii	Johnston's monkeyflower	Phrymaceae	annual herb	May-Aug	None	None	G4	S4	4.3	Yes	2001-01-01	No Photo Available
Eriastrum rosamondense	Rosamond eriastrum	Polemoniaceae	annual herb	Apr-May(Jun-Jul)	None	None	G1?	S1?	1B.1	Yes	2013-12-04	No Photo Available
Eriophyllum mohavense	Barstow woolly sunflower	Asteraceae	annual herb	Mar-May	None	None	G2	S2	1B.2	Yes	1974-01-01	No Photo Available
Goodmania luteola	golden goodmania	Polygonaceae	annual herb	Apr-Aug	None	None	G3	S3	4.2		1994-01-01	 © 2007 Steve Matson
Loeflingia squarrosa var. *artemisiarum*	sagebrush loeflingia	Caryophyllaceae	annual herb	Apr-May	None	None	G5T3	S2	2B.2		1974-01-01	No Photo Available
Lycium torreyi	Torrey's box-thorn	Solanaceae	perennial shrub	(Jan-Feb)Mar-Jun(Sep-Nov)	None	None	G4G5	S3	4.2		2015-05-05	No Photo Available
Monardella exilis	Mojave monardella	Lamiaceae	annual herb	Apr-Sep	None	None	G3?	S3	4.2		2022-08-04	No Photo Available
Muilla coronata	crowned muilla	Themidaceae	perennial bulbiferous herb	Mar-Apr(May)	None	None	G3	S3	4.2		1988-01-01	No Photo Available
Opuntia basilaris var. *brachyclada*	short-joint beavertail	Cactaceae	perennial stem	Apr-Jun(Aug)	None	None	G5T3	S3	1B.2	Yes	1980-01-01	No Photo Available
Perideridia pringlei	adobe yampah	Apiaceae	perennial herb	Apr-Jun(Jul)	None	None	G4	S4	4.3	Yes	1974-01-01	No Photo Available
Puccinellia simplex	California alkali grass	Poaceae	annual herb	Mar-May	None	None	G2	S2	1B.2		2015-10-15	 © 2017 Chris Winchell
Syntrichopappus lemmonii	Lemmon's syntrichopappus	Asteraceae	annual herb	Apr-May(Jun)	None	None	G4	S4	4.3	Yes	1974-01-01	No Photo Available
Yucca brevifolia						CC			CBR		2011-12-13	No Photo Available

Showing 1 to 23 of 23 entries

Suggested Citation:

IPaC resource list

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

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

NOT FOR CONSULTATION

Location

Los Angeles County, California



Local office

Carlsbad Fish And Wildlife Office

(760) 431-9440
(760) 431-5901

Endangered species

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

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

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

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

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

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

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

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

NOT FOR CONSULTATION

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

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

Birds

NAME	STATUS
California Condor Gymnogyps californianus There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/8193	Endangered
Southwestern Willow Flycatcher Empidonax traillii extimus Wherever found There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/6749	Endangered

Reptiles

NAME	STATUS
Desert Tortoise Gopherus agassizii There is **final** critical habitat for this species. Your location does not overlap the critical habitat. https://ecos.fws.gov/ecp/species/4481	Threatened
Southwestern Pond Turtle Actinemys pallida Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4768	Proposed Threatened

Insects

NAME	STATUS
Monarch Butterfly Danaus plexippus Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

NOT FOR CONSULTATION

Critical habitats

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

There are no critical habitats at this location.

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

Bald & Golden Eagles

There are no documented cases of eagles being present at this location. However, if you believe eagles may be using your site, please reach out to the local Fish and Wildlife Service office.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

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

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

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

NOT FOR CONSULTATION

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

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

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

What if I have eagles on my list?

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

NOT FOR CONSULTATION

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act[1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats[3] should follow appropriate regulations and consider implementing appropriate conservation measures, as described in the links below. Specifically, please review the "Supplemental Information on Migratory Birds and Eagles".

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Eagle Management https://www.fws.gov/program/eagle-management
- Measures for avoiding and minimizing impacts to birds https://www.fws.gov/library/collections/avoiding-and-minimizing-incidental-take-migratory-birds
- Nationwide conservation measures for birds https://www.fws.gov/sites/default/files/documents/nationwide-standard-conservation-measures.pdf
- Supplemental Information for Migratory Birds and Eagles in IPaC https://www.fws.gov/media/supplemental-information-migratory-birds-and-bald-and-golden-eagles-may-occur-project-action

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

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

NAME	BREEDING SEASON
California Thrasher Toxostoma redivivum This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Jan 1 to Jul 31
Costa's Hummingbird Calypte costae This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA https://ecos.fws.gov/ecp/species/9470	Breeds Jan 15 to Jun 10
Marbled Godwit Limosa fedoa This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9481	Breeds elsewhere
Mountain Plover Charadrius montanus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3638	Breeds elsewhere
Tricolored Blackbird Agelaius tricolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/3910	Breeds Mar 15 to Aug 10

NOT FOR CONSULTATION

Probability of Presence Summary

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

Probability of Presence ( )

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

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

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

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

Breeding Season ( )

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

Survey Effort (|)

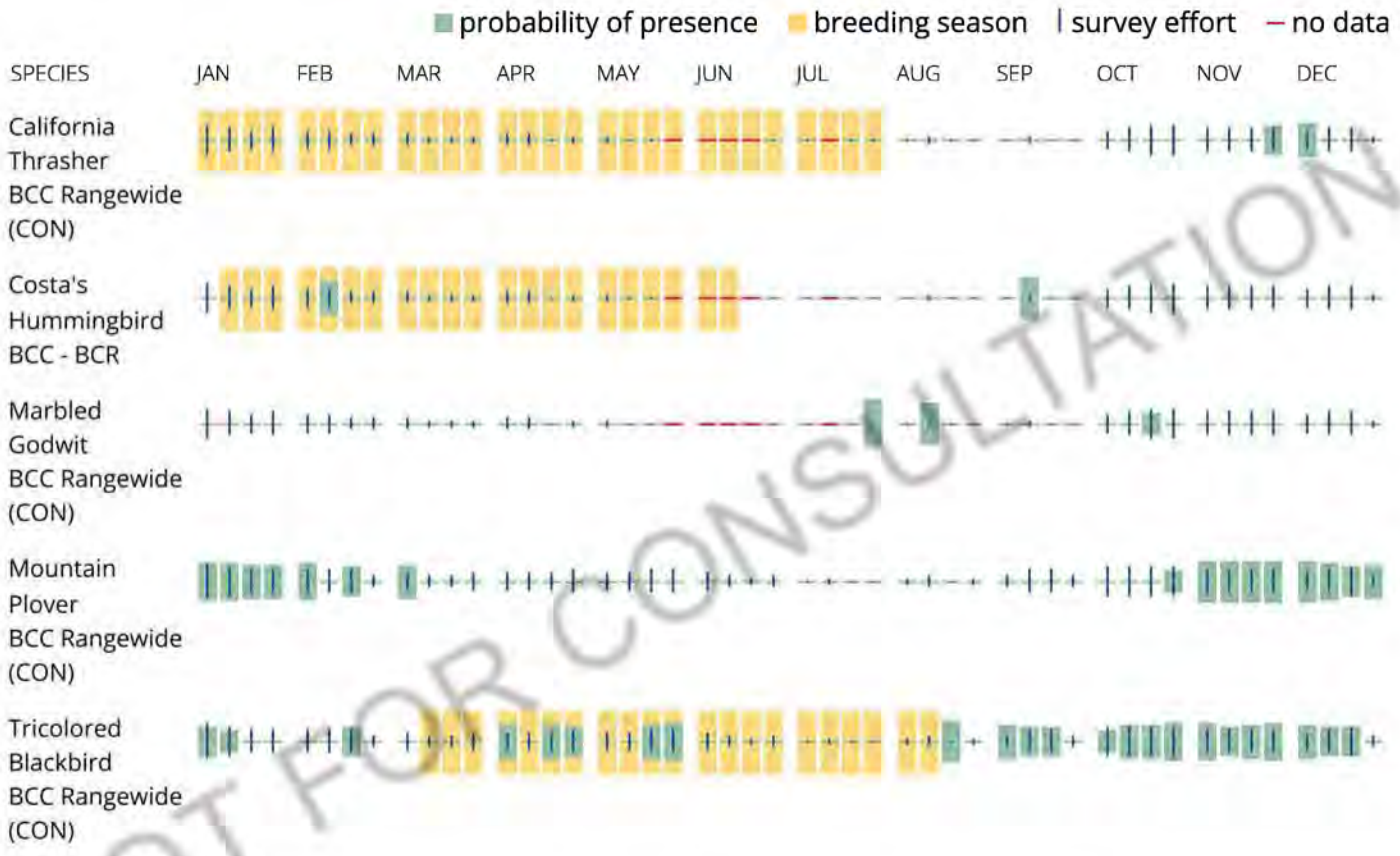
Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

NOT FOR CONSULTATION

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

No Data (–)
A week is marked as having no data if there were no survey events for that week.

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



NOT FOR CONSULTATION

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

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

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

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

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

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

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

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

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

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

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

What are the levels of concern for migratory birds?

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

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

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

Details about birds that are potentially affected by offshore projects

NOT FOR CONSULTATION

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

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

What if I have eagles on my list?

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

Proper Interpretation and Use of Your Migratory Bird Report

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

NOT FOR CONSULTATION

Facilities

National Wildlife Refuge lands

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

There are no refuge lands at this location.

Fish hatcheries

There are no fish hatcheries at this location.

Wetlands in the National Wetlands Inventory (NWI)

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

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Wetland information is not available at this time

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the NWI map to view wetlands at this location.

NOT FOR CONSULTATION

Data limitations

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

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

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

Data exclusions

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

been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

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

Attachment C

References

Billerman, S. M., Keeney, B. K., Rodewald, P. G., and T. S. Schulenberg (Editors). 2022. Birds of the World. Cornell Laboratory of Ornithology, Ithaca, NY, USA. Accessed online at: https://birdsoftheworld.org/bow/home.

California Department of Fish and Wildlife (CDFW). 2024a. RareFind 5, California Natural Diversity Data Base, California. Data base report on threatened, endangered, rare or otherwise sensitive species and communities for the USGS *Lancaster East, Alpine Butte*, *Rosamond*, *Rosamond Lake*, *Redman*, *Littlerock, Palmdale*, *Ritter Ridge*, and *Lancaster West, California* 7.5-minute quadrangles.

CDFW. 2024b. *Special Animals List*. California Department of Fish and Wildlife. Sacramento, CA.

CDFW. 2024c. *Special Vascular Plants, Bryophytes, and Lichens List*. Quarterly publication. 140 pp.

CDFW. 2024d. *State and Federally Listed Endangered and Threatened Animals of California*. California Department of Fish and Wildlife. Sacramento, CA.

CDFW. 2024e. *State and Federally Listed Endangered, Threatened, and Rare Plants of California*. California Department of Fish and Wildlife. Sacramento, CA.

Calflora: Information on California plants for education, research and conservation, with data contributed by public and private institutions and individuals, including the Consortium of California Herbaria (Calflora). 2024. Berkeley, California: The Calflora Database [a non-profit organization]. Accessed online at: https://www.calflora.org/.

California Native Plant Society (CNPS). 2024. Inventory of Rare and Endangered Plants of California (online edition, v9.5). Accessed online at: http://www.rareplants.cnps.org/.

City of Lancaster. 2009. *City of Lancaster General Plan 2030.*

Crother, B. I. (ed.). 2017. Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in Our Understanding pp. 1–102. SSAR Herpetological Circular 43.

eBird. 2024. eBird: An online database of bird distribution and abundance [web application]. eBird, Cornell Lab of Ornithology, Ithaca, New York. Accessed online at: http://www.ebird.org.

Google, Inc. 2024. Google Earth Pro Historical Aerial Imagery Version 7.3.6.9796. Build date 02/22/2024. Aerial Imagery dated 1985 through 2023.

Hagan, M. 2022. *Biological Resource Assessment of APNs 3384-001-001, 002, and 003, Lancaster, California.* March 2022.

Historicaerials.com. 2024. Accessed online at: http://www.historicaerials.com/viewer.

Michael Baker International (Michael Baker). 2022a. *Lancaster East Side Project – Cannabis Facility Site Biological Resources Assessment*. Prepared for City of Lancaster. June 2022.

Michael Baker. 2022b. *Results of a Biological Resources Due Diligence Assessment for the Lancaster East Side Project – Light Industrial Overlay Zone – City of Lancaster, County of Los Angeles, California.* Prepared for City of Lancaster. June 2022.

RBF Consulting. 2009. *City of Lancaster General Plan 2030 Master Environmental Assessment.* Prepared for City of Lancaster. April 2009.

Sawyer, J.O., T. Keeler-Wolf, and J. Evens. 2009. *A Manual of California Vegetation (Second Edition)*. California Native Plant Society, Sacramento, California, USA.

South Coast Wildlands. 2008. *South Coast Missing Linkages: A Wildland Network for the South Coast Ecoregion*. Produced in cooperation with partners in the South Coast Missing Linkages Initiative. Accessed online at: http://www.scwildlands.org.

U.S. Department of Agriculture (USDA). 2024. *Custom Soil Resource Report for Antelope Valley Area, California.* Accessed online at: http://websoilsurvey.nrcs.usda.gov/app/.

U.S. Fish and Wildlife Service (USFWS). 2024a. IPaC Information for Planning and Consultation. Accessed online at: https://ecos.fws.gov/ipac/.

USFWS. 2024b. ECOS Environmental Conservation Online System: Threatened and Endangered Species Active Critical Habitat Report. Accessed online at: https://ecos.fws.gov/ecp/report/table/critical-habitat.html.

USFWS. 2024c. National Wetlands Inventory Mapper. Accessed online at: https://fwsprimary.wim.usgs.gov/wetlands/apps/wetlands-mapper/.

Biological Resource Assessment of APNs 3384-001-001, 002, and 003 Lancaster, California

Amended March 14, 2022
February 22, 2022

Mark Hagan, Wildlife Biologist
44715 17th Street East
Lancaster, CA 93535
(661) 723-0086
(661) 433-9956 (M)

B.S. Degree, Wildlife Management
Humboldt State University

Biological Resource Assessment of APNs 3384-001-001, 002, and 003, Lancaster, California

Mark Hagan, Wildlife Biologist, 44715 17th Street East, Lancaster, CA 93535

Abstract

Annexation has been proposed for APNs 3384-001-001, 002, and 003, Lancaster, California. The approximately 280 acre (112 ha) study area was located north of Lancaster Boulevard and east of 50th Street East, T7N, R11W, the NW1/4 of the NE1/4 and the S1/2 of the NE1/4 and the NW1/4 of Section 15, S.B.B.M. A line transect survey was conducted on 9, 11, 12, and 14 February 2022 to inventory biological resources. The proposed project area was characteristic of active agricultural fields, a small portion of Little Rock Wash, and a home site with farm animals. A total of 24 plant species and 23 wildlife species or their sign were observed during the line transect survey. Plant species within the fenced and occupied portion of the study site were not surveyed. Farm animals which could be observed or heard outside of the fenced, occupied areas were included in the total wildlife species. No desert tortoises (*Gopherus agassizii*) or their sign were observed during the field survey. The study site did not contain suitable habitat to support desert tortoises. No protection measures for desert tortoises are recommended. The proposed project site was located within the geographic range of the Mohave ground squirrel (*Xerospermophilus mohavensis*). The study site did not contain suitable habitat to support Mohave ground squirrels. No protection measures for Mohave ground squirrels are recommended. No burrowing owls (*Athene cunicularia*) were observed during the field survey. Burrowing owl feathers were observed along the southwest portion of the agricultural field. No other burrowing owl sign was observed within the study site. No potential cover sites for burrowing owls were present. A few California ground squirrel (*Citellus beecheyi*) burrows were observed within the study site but were too small for burrowing owl use at this time. The ongoing plowing would be expected to prevent these from developing into viable cover sites for burrowing owls in the future. Trees within the northwest corner of the study area and the various facilities within the study site provide potential nesting sites for migratory birds to include Swainson's hawk (*Buteo swainsoni*) and other raptor species. Swainson's hawk have been documented nesting within a 5 mile radius of the study site. The study site appears to have limited forage value for Swainson's hawks. No Joshua tree (*Yucca brevifolia*), alkali mariposa lilies (*Calochortus striatus*), desert cymopterus (*Cymopterus deserticola*), Barstow woolly sunflowers (*Eriophyllum mohanense*) or other sensitive plants are expected to occur within the study area due to the high level of impacts and the lack of suitable habitat. No protection measures for sensitive plants are recommended. No other state or federally listed species are expected to occur within the proposed project area. An ephemeral wash system (Little Rock Creek) was observed along and just within the southeastern boundary of the study site.

Recommended Protection Measures:

Prior to future potential development of this site the following are recommended.

Consistent with the "Staff Report on Burrowing Owl Mitigation" a take avoidance (pre-construction) survey should be accomplished within 14 days of ground disturbing activities (CDFG 2012). If burrowing owls or their sign are detected during the take avoidance survey further studies based on the Staff Report will be applied as appropriate.

If possible, removal of the trees and facilities will occur outside the breeding season for migratory birds. Breeding generally lasts from February to July but may extend beyond this time frame. If tree or facility removal will occur during or close to the nesting season, a qualified biologist will survey all potential nesting areas to be disturbed as close as possible but no more than one week prior to removal. If active bird nests are found, impacts to nests will be avoided by either delaying work or establishing initial buffer areas of a minimum of 500 feet (152 m) around active raptor nests and 50 feet (15 m) around active passerine nests. The project biologist will determine if the buffer areas should be increased or decreased based on the nesting bird response to disturbances.

Loss of Swainson's hawk foraging habitat would require consultation with CDFW under the California Endangered Species Act (CESA) to determine if there would be mitigation requirements.

The CDFW administers the Fish and Game Code Section 1602, Lake and Streambed Alteration Program. Little Rock Creek is present along and within a portion of the eastern boundary of the study site (Figure 3). Any project that may impact a water resource either by changing its course or depositing material into it is required to be reviewed under Section 1602. Mitigation measures for sensitive bird species, if any, could be incorporated into mitigations required for Little Rock Creek.

Significance: This project would not result in a significant adverse impact to biological resources with implementation of minimization measures.

Annexation has been proposed for APNs 3384-001-001, 002, and 003 (Figure 1). Future potential development would include installation of access roads, parking, and utilities (water, sewer, electric, etc.). The entire project area would be regraded prior to construction activities.

An environmental analysis should be conducted prior to any development project. An assessment of biological resources is an integral part of environmental analyses (Gilbert and Dodds 1987). The purpose of this study was to provide an assessment of biological resources potentially occurring within, or utilizing the proposed project area. Specific focus was on the presence/absence of rare, threatened and endangered species of plants and wildlife. Species of concern included the desert tortoise (*Gopherus agassizii*), Mohave ground squirrel (*Xerospermophilus mohavensis*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), desert kit fox (*Vulpes macrotis)*, Joshua tree (*Yucca brevifolia*), desert cymopterus (*Cymopterus deserticola*), Barstow woolly sunflower (*Eriophyllum mohanense*), and alkali mariposa lily (*Calochortus striatus*).

Study Area

The approximately 280 acre (112 ha) study area was located north of Lancaster Boulevard and east of 50th Street East, T7N, R11W, the NW1/4 of the NE1/4 and the S1/2 of the NE1/4 and the NW1/4 of Section 15, S.B.B.M. (Figures 2 and 3). The southern boundary of the project site was formed by Lancaster Boulevard (dirt road). Old abandoned agricultural fields

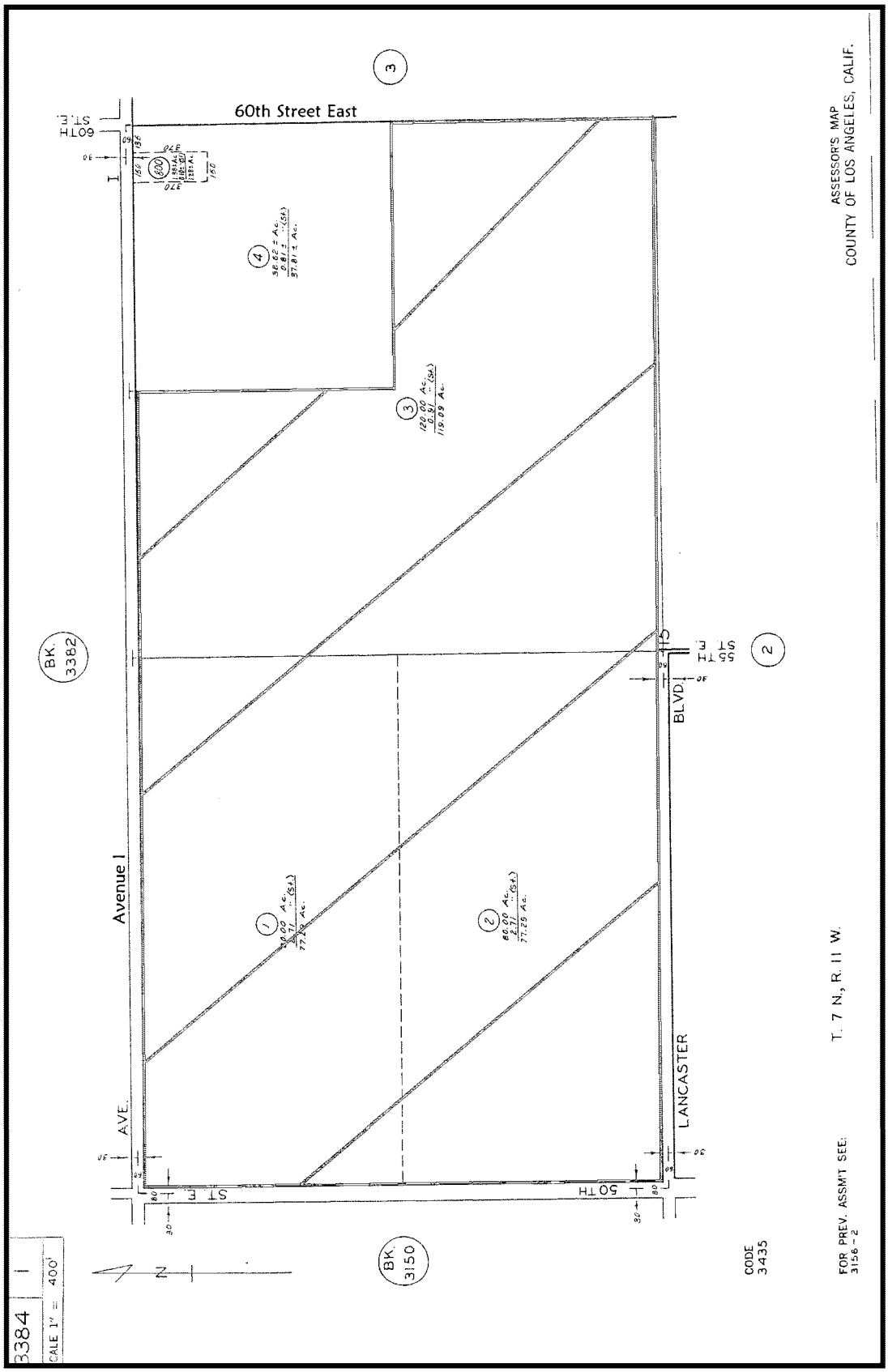


Figure 1. Location of proposed project site as depicted on APN map.

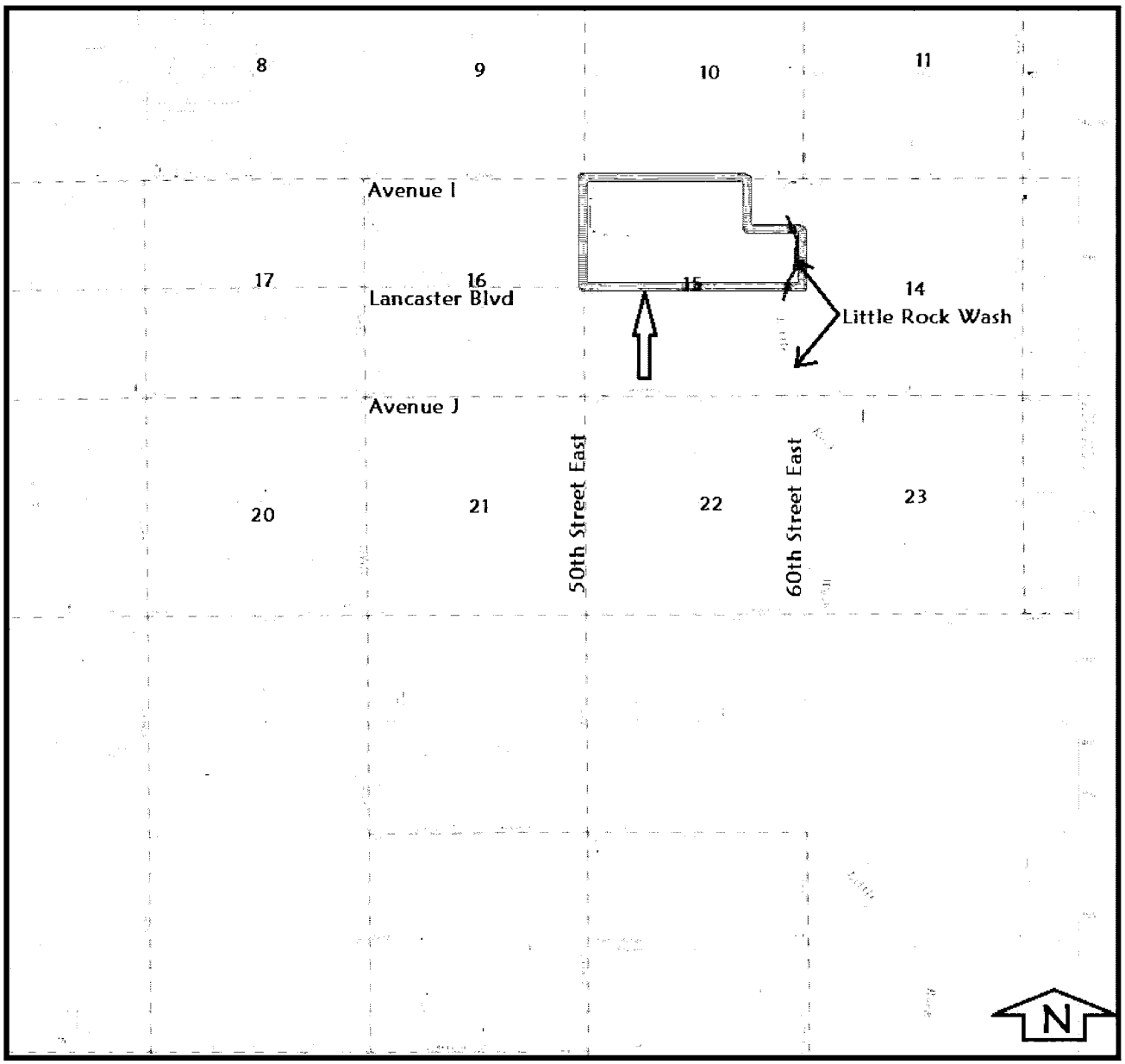


Figure 2. Approximate location of study area as depicted on U.S.G.S. Quadrangle, Lancaster East, Calif., 7.5', 1974.

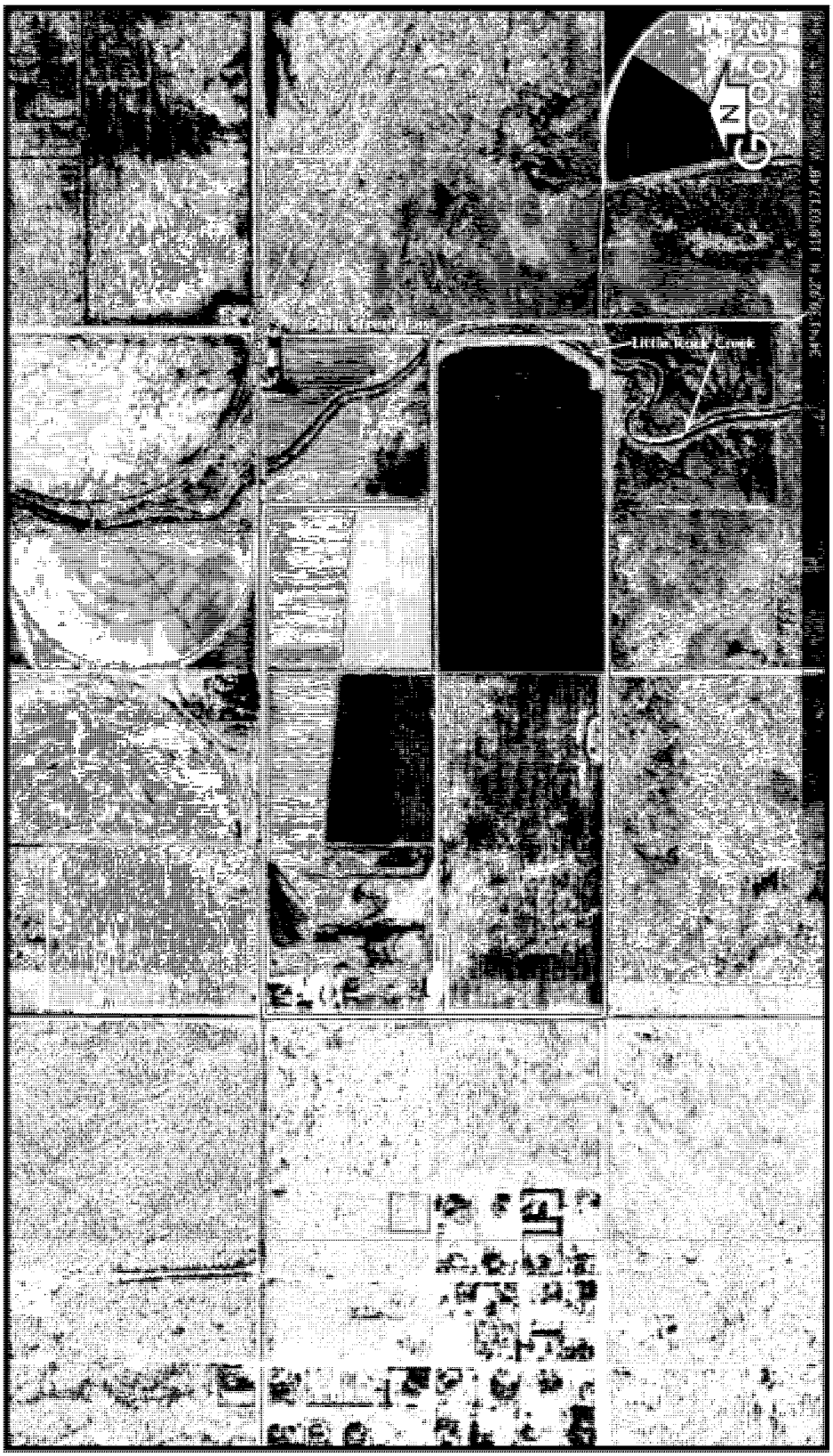


Figure 3. Approximate location of study area showing surrounding land use as depicted on excerpt from Google Earth Aerial Photography, April 2017.

and heavily impacted desert habitat existed south of Lancaster Boulevard. Avenue I formed the northern boundary of the study area. A home site, and old abandoned and active agricultural fields existed north of Avenue I. The western boundary was formed by 50th Street East. Old agricultural fields existed west of 50th Street E. Residential housing was present west of those agricultural fields. The northeast corner bordered an active agricultural field. The southeastern boundary was formed by 60th Street East and Little Rock Creek. Old agricultural fields and disturbed fields existed east of 60th Street East and Little Rock Creek. Topography of the site ranged from approximately 2,390 to 2,412 feet (771 to 778 m) above sea level.

Methods

A line transect survey was conducted to inventory plant and wildlife species occurring within the proposed project area (Cooperrider et al. 1986, Davis 1990). The USFWS (2010) has provided recommendations for survey methodology to determine presence/absence and abundance/distribution of desert tortoises. Line transects were walked in an east-west orientation within the study site. Line transects ranged from approximately 1,320 to 2,640 feet (426 to 852 m) long and spaced approximately 100 feet (32 m) apart (U.S. Fish & Wildlife Service 2010). Random transects were walked within and immediately adjacent to Little Rock Wash within the study site. The California Department of Fish and Game (2012) prepared recommendations for burrowing owl survey methodology. Consistent with the survey protocol the entire site was surveyed and adjacent areas were evaluated (CDFG 2012). A habitat assessment was conducted for Mohave ground squirrels (MGS) to determine whether potential habitat was present for the species (CDFW 2019). A habitat assessment was conducted for migratory birds to include Swainson's hawk.

All observations of plant and animal species were recorded in field notes. Field guides were used to aid in the identification of plant and animal species (Arnett and Jacques 1981, Borror and White 1970, Burt and Grossenheider 1976, Gould 1981, Jaeger 1969, Knobel 1980, Robbins et al. 1983, Stark 2000). Observations were aided with the use of 10x42 and 10x50 binoculars. Observations of animal tracks, scat, and burrows were also utilized to determine the presence of wildlife species inhabiting the proposed project area (Cooperrider et al. 1986, Halfpenny 1986, Lowrey 2006, Murie 1974). Aerial photographs, California Natural Diversity Database (CNDDB 2020), eBird 2022, reports from the area (Hagan 2020a-c, 2021), and the USGS topographic map were reviewed. Photographs of the study site were taken (Appendix A).

Results

A total of 54 line transects were walked on 9, 11, 12, and 14 February 2022. Weather conditions consisted of warm temperatures (estimated 70 to 75 degrees F), 0 to 5% cloud cover, and light to no winds during surveys. Sandy clay and sandy loam surface soil textures were present within the study area. Little Rock Wash was delineated on the USGS topographic map within the study area. Little Rock Wash was observed on the aerial photography and was observed during the field survey within the eastern boundary of the study site.

The proposed project area was characteristic of active agricultural fields, a small portion of Little Rock Wash, and a home site with farm animals (Appendix A). A total of 24 plant species were observed during the line transect survey of the agricultural fields and Little Rock Wash (Table 1). The agricultural fields were all but devoid of shrubs. Red stemmed filaree (*Erodium cicutarium*), and tumble mustard (*Sisymbrium altisissiimum*) were the dominant annual species throughout the agricultural fields and Little Rock Creek. Annuals within these two areas were predominately invasive, weedy species (Table 1).

The home site was fenced and consisted of multiple facilities. The home site was currently occupied. Ornamental landscaping was present within this home site with multiple large trees. No transects were completed past the fence lines and plants within the residential area were not documented. No Joshua trees, alkali mariposa lilies, Barstow woolly sunflowers, desert cymopterus, or suitable habitat were observed within the study site. Farm animals (Table 2) were observed through the fence line in this area.

A total of 23 wildlife species, or their sign were observed during the line transect survey (Table 2). No desert tortoises or their sign were observed during the field survey. No burrowing owls or sign of occupation were observed within the study site. A few small California ground squirrel (*Citellus beecheyi*) burrows were observed along the edges of the agricultural fields. Two inactive and deteriorating bird nests were observed in two of the facilities during the field survey. No desert kit foxes or their sign were observed during the field survey. No suitable desert tortoise or MGS habitat was present within the study site.

Small amounts of scattered litter and debris were observed within the study site. Plastic water lines (cut up) were observed within the agricultural fields. Trash dumps, a camper, and two dead bovine were observed within the Little Rock Creek portion.

Discussion

It is likely that most annual species (other than agricultural crops) were visible during the time the field survey was performed. Greater than 75% of the annual biomass represented within the project site consisted of weedy species (Table 1). Based on the lack of habitat, no sensitive plant species are expected to exist within the study site. Although not observed, several wildlife species would be expected to occur within the proposed project area (Table 3).

Human impacts have eliminated all native habitat within this study site. Habitat in the general area is severely degraded, fragmented or already developed. Burrowing animals within the proposed project area are not expected to survive construction activities. Evidence of burrowing animals in the area was very low, therefore small impacts to burrowing animals would be expected. More mobile species, such as lagomorphs (rabbits and hares), coyotes (*Canis latrans*), and birds are expected to survive, but they will have less cover and foraging habitat available.

The desert tortoise is a state endangered and federally threatened listed species. The proposed project area was located within the geographic range of the desert tortoise. The proposed project site was not located within critical habitat designated for the Mojave population

Table 1. List of plant species that were observed during the line transect survey of APNs 3384-001-001, 002, and 003, Lancaster, California.

Common Name	Scientific Name
Willow, small (2 in agricultural field)	*Salix exigua*
Tamarisk, small (5 in agricultural field)	*Tamarix sp.*
Rabbit brush	*Chrysothamnus nauseosis*
Jimson weed (by road)	*Datura meteloides*
Vinegar weed	*Trichostema lanceolatum*
Chinese pusley	*Heliotropium curassavicum*
Fiddleneck	*Amsinckia tessellata*
Gourd (harvest remnants)	Family: Cucurbitaceae
Red stemmed filaree	*Erodium cicutarium*
Russian thistle	*Salsola iberica*
Horseweed	*Canyza honariensis*
Russian knapweed	*Rhaponticum repens*
Tansy mustard	*Descurainia sophia*
Tumble mustard	*Sisymbrium altisissiimum*
Saltgrass	*Disticlus spicata*
Schismus	*Schismus* sp.
Bermuda grass	*Cynodon dactylon*
Foxtail barley	*Hordeum leporinum*
Cheatgrass	*Bromus tectorum*

Only in wash or immediate wash area.

Allscale	*Atriplex polycarpa*
Great basin sagebrush	*Artemisia tridentata*
Four-wing saltbush	*Atriplex canescens*
Desert rumex	*Rumex* sp.
Giant reed	*Arundo donax*

Table 2. List of wildlife species, or their sign, that were observed during the line transect survey of APNs 3384-001-001, 002, and 003, Lancaster, California.

Common Name	Scientific Name
Rodents	Order: Rodentia
Pocket gopher	*Thomomys bottae*
California ground squirrel	*Citellus beecheyi*
Coyote	*Canis latrans*
Domestic dog	*Canis familiaris*
Horse	*Equus sp.*
Mountain plover	*Charadrius montanus*
Red tail hawk	*Buteo jamaicensis*
American kestrel	*Falco sparverius*
Ring-neck dove	*Streptopelia capicola*
Burrowing owl (feathers)	*Athene cunicularia*
Swallow sp.	Family: Hirundinidae
Common raven	*Corvus corax*
Loggerhead shrike	*Lanius ludovicianus*
Horned lark	*Eremophila alpestris*
Western meadowlark	*Sturnella neglecta*
Fly	Order: Diptera
Painted lady	*Vanessa cardui*

Farm animals observed in northwest corner homesite.

Chicken	*Gallus* sp.
Sheep	*Ovis* sp.
Goat	*Capra* sp.
Geese	*Anser* sp.
Bull	*Bos* sp.

Table 3. List of wildlife species that may occur within the study area, APNs 3384-001-001, 002, and 003, Lancaster, California.

Common Name	Scientific Name
Deer mouse	*Peromyscus maniculatus*
Domestic cat	*Felis catus*
Side blotched lizard	*Uta stansburiana*
Mourning dove	*Zenaida macroura*
Northern mockingbird	*Mimus polyglottos*
European starling	*Sturnus vulgaris*
House sparrow	*Passer domesticus*
White crowned sparrow	*Zonotrichia leucophrys*
Moth	Order: Lepidoptera
Beetle, fuzzy, black	*Edrotes ventricosus*
Dragonfly	Order: Odonata
Grasshopper	Order: Orthoptera
Cricket	Order: Orthoptera

of the desert tortoise. No desert tortoise habitat was present within, adjacent, or in proximity to the project site. Based on field observations, desert tortoises are not present within the study area. No protection measures are recommended for desert tortoises.

The MGS is a state listed threatened species. The study area was located within the geographic range of MGS. MGS habitat is recognized to consist of a variety of desert scrub habitats, none of which occur any longer within, adjacent, or in proximity to the project site. A table listing MGS habitats and a discussion of required shrubs and annuals can be found in the publication titled "A Conservation Strategy for the Mohave Ground Squirrel" (CDFW 2019). No suitable habitat was present to support MGS within or around this study site. No protection measures are recommended for MGS.

Desert kit foxes are a fully protected species by California Department of Fish and Wildlife (CDFW). No sign of desert kit fox activity was observed within the study site. Based on this field survey desert kit foxes are not resident within this study site. No protection measures are recommended for desert kit foxes.

Many species of birds and their active nests are protected under the Migratory Bird Treaty Act. The urban landscaping, facilities, and wash within the study area offer potential nesting and foraging habitat for migratory birds. The agricultural fields offer some limited foraging habitat but would not be suitable nesting habitat due to the ongoing land disturbance. Little rodent and insect sign were observed during the field survey. In addition to the Migratory Bird Treaty Act, some species of birds have added protection through state and federal listings and rules. There were four species of birds with added protection that were either observed within the study site or were previously observed near the study site (burrowing owl, Swainson's hawk, mountain plover (*Charadrius montanus*), and loggerhead shrike (*Lanius ludovicianus*)), that would be expected to use the site.

Burrowing owls are considered a species of special concern by the CDFW. The few California ground squirrel burrows within the study site are not of sufficient size to provide suitable habitat for burrowing owls. These burrows occurred mainly along the edges of the fields and would be impacted on a regular basis during plowing activities. Burrowing owl feathers were observed within the study site. The feathers all occurred within the southwest corner within approximately 100 feet (32 m) of the southern boundary. No sign was observed which would indicate the owl was resident within the study site. There is suitable habitat and previous burrowing owl observations around the study site. The CNDDB for Lancaster East documented burrowing owl presence from 2004 to 2009 in proximity of the study site (CNDDB 2020). The eBird site has documented burrowing owl presence from 1 to 5 miles to the north and east of the study site from 2011 to 2021. The closest sighting was at 70th Street East and Avenue H (eBird 2022). The presence of domestic dogs (*Canis familiaris*), and active agricultural activities within the study site would not be conducive to burrowing owl residency. It is possible the area would provide some potential foraging habitat.

Swainson's hawk is a state listed threatened species. Suitable nesting habitat is present within the northwest corner home site and immediately north of Avenue I and 60th Street East. Swainson's hawks were documented at Avenue I and 60th Street East in the last 5 years and have

been observed flying over or perching within 5 miles of the study site (eBird 2022). Swainson's hawk nests have been documented within 5 miles of the study site in the last 5 years. Swainson's hawk observations within east Lancaster have been strongly correlated to the active agricultural fields, away from residential tracts (eBird 2022, CNDDB 2020). Impacts to a Swainson's hawk, as well as impacts to suitable habitat within 5 miles of an active nest, if it would lead to a significant impact to the species survival or to the survival of nestlings is considered a potential take by the California Endangered Species Act (CESA). Swainson's hawks have been observed at 50th Street East and Avenue L and at 50th Street East and Avenue N in 2020 (eBird 2022). The study site appears to have limited foraging habitat for Swainson's hawks due to a low prey base. Data already exists on the recent presence of breeding Swainson's hawks therefore, no additional surveys for Swainson's hawk are recommended if ground disturbing activities for development do not occur from 1 April through 31 August.

Mountain plovers are considered a species of special concern by the CDFW. Mountain plovers were observed foraging within the agricultural fields at the study site. Review of the CNDDB and eBird indicated observations in proximity to the study site. All these observations were during the winter months. Mountain plovers would not be expected to nest within the study site. Loggerhead shrikes are considered a species of special concern by the CDFW. A loggerhead shrike was observed within the study site. No observations of nesting loggerhead shrike have been documented within or in proximity to the study site in either the CNDDB or eBird.

No suitable habitat for alkali mariposa lily, Barstow woolly sunflower or desert cymopterus was observed within the study site. Based on the results of the field survey these species are not expected to occur within the study area and no protection measures are recommended. No other state or federally listed threatened or endangered species are expected to occur within the proposed project area (California Department of Fish and Wildlife 2020, 2021, Smith and Berg 1988, U.S. Fish & Wildlife Service 2016).

Landscape design should incorporate the use of native plants to the maximum extent feasible. Native plants that have food and cover value to wildlife should be used in landscape design (Adams and Dove 1989). Diversity of native plants should be maximized in landscape design (Adams and Dove 1989).

Recommended Protection Measures:

Prior to future potential development of this site the following are recommended.

Consistent with the "Staff Report on Burrowing Owl Mitigation" a take avoidance (pre-construction) survey should be accomplished within 14 days of ground disturbing activities (CDFG 2012). If burrowing owls or their sign are detected during the take avoidance survey further studies based on the Staff Report will be applied as appropriate.

If possible, removal of the trees and facilities will occur outside the breeding season for migratory birds. Breeding generally lasts from February to July but may extend beyond this time frame. If tree removal will occur during or close to the nesting season, a qualified biologist will survey all potential nesting areas to be disturbed as close as possible but no more than one week

prior to removal. If active bird nests are found, impacts to nests will be avoided by either delaying work or establishing initial buffer areas of a minimum of 500 feet (152 m) around active raptor nests and 50 feet (15 m) around active passerine nests. The project biologist will determine if the buffer areas should be increased or decreased based on the nesting bird response to disturbances.

Loss of Swainson's hawk foraging habitat would require consultation with CDFW under the California Endangered Species Act (CESA) to determine if there would be mitigation requirements.

The CDFW administers the Fish and Game Code Section 1602, Lake and Streambed Alteration Program. Little Rock Creek is present along and within a portion of the eastern boundary of the study site (Figure 3). Any project that may impact a water resource either by changing its course or depositing material into it is required to be reviewed under Section 1602. Mitigation measures for sensitive bird species, if any, could be incorporated into mitigations required for Little Rock Creek.

Significance: This project would not result in a significant adverse impact to biological resources with implementation of minimization measures.

Literature Cited

Adams, L.W. and L.E. Dove. 1989. Wildlife reserves and corridors in the urban environment. National Institute for Urban Wildlife, Columbia, MD. 91pp.

Arnett, R.H., Jr. and R.L. Jacques, Jr. 1981. Simon and Schuster's guide to insects. Simon and Schuster, Inc. New York. 511pp.

Borror, D.J. and R.E. White. 1970. A field guide to insects. Houghton Mifflin Company, Boston. 404pp.

Burt, W.H. and R.P Grossenheider. 1976. A field guide to the mammals. Houghton Mifflin Company, Boston. 289pp.

California Department of Fish and Game. 2012. Staff report on burrowing owl mitigation. Calif. Dept. of Fish and Wildlife, Wildlife Branch, Sacramento, CA. 36pp.

California Department of Fish and Wildlife. 2019. A conservation strategy for the mohave ground squirrel, *xerospermophilus mohavensis*. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=171301&inline . 29pp.

California Department of Fish and Wildlife. 2020. State and federally listed endangered and threatened animals in california. Calif. Dept. of Fish and Wildlife California Natural Diversity Database, Sacramento, CA. 32pp.

California Department of Fish and Wildlife. 2021. State and federally listed endangered, threatened, and rare plants of california. Calif. Dept. of Fish and Wildlife California Natural Diversity Database, Sacramento, CA. 25pp.

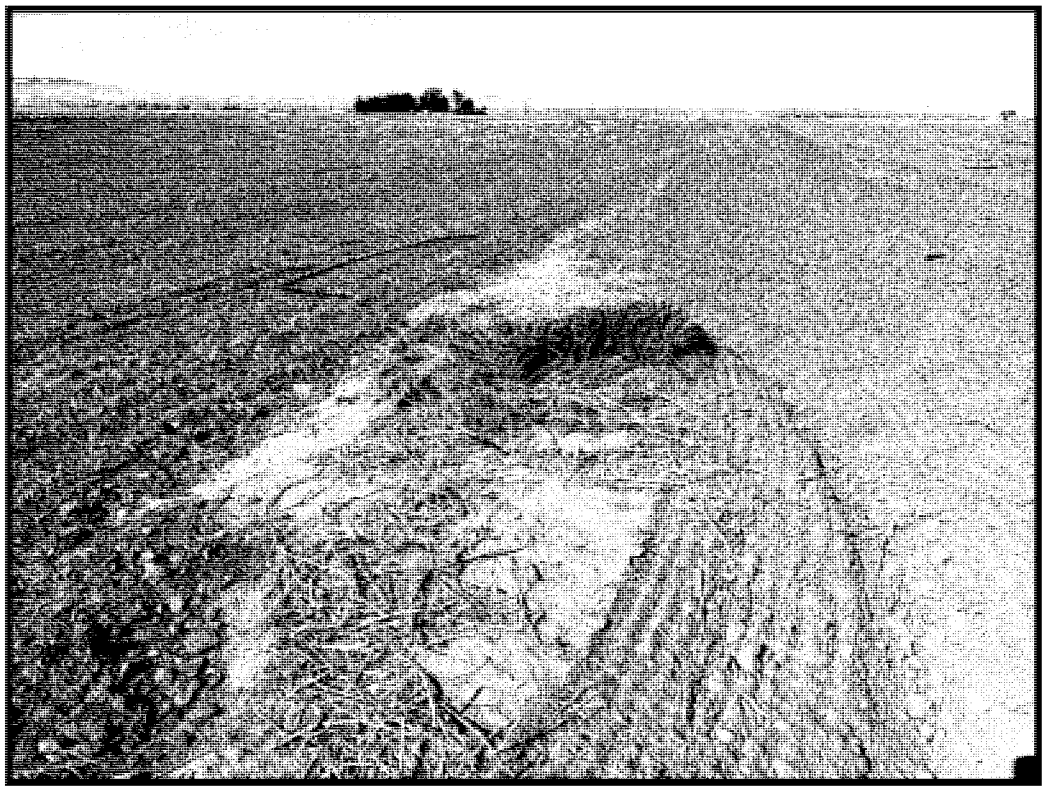
California Natural Diversity Database (CNDDB). 2020. Lancaster east quadrangle. Calif. Dept. of Fish and Wildlife California Natural Diversity Database, Sacramento, CA. 33pp.

Cooperrider, A.L., Boyd, R.J. and H.R. Stuart, Eds. 1986. Inventory and monitoring of wildlife habitat. U.S. Dept. of Inter., Bur. Land Manage. Service Center, CO. 858pp.

Davis, D.E. 1990. Handbook of census methods for terrestrial vertebrates. CRC Press, Boca Raton, FL. 397pp.
eBird. 2022. eBird: An online database of bird distribution and abundance [web application]. eBird, Cornell Lab of Ornithology, Ithaca, New York. Available: http://www.ebird.org. (Accessed: February 18, 2022)
Gilbert, F.F. and D.G. Dodds. 1987. The philosophy and practice of wildlife management. Krieger Publishing Company, Malabar, FL. 279pp.
Gould, F.W. 1981. Grasses of southwestern united states. Univ. of Arizona Press, Tucson, AZ. 343pp.
Hagan, M. 2020a. Biological resource assessment of apns 3150-013-032, 039, lancaster, california. Mark Hagan, 44715 17th Street East, Lancaster, CA. 15pp.
Hagan, M. 2020b. Biological resource assessment of APN 3386-007-007, lancaster, california. Mark Hagan, 44715 17th Street East, Lancaster, CA. 17pp.
Hagan, M. 2020c. Biological resource assessment of TTM 60367, lancaster, california. Mark Hagan, 44715 17th Street East, Lancaster, CA. 13pp.
Hagan, M. 2021. Update to the 2005 "biological resources assessment of tentative tract number 63365, lancaster, california." Mark Hagan, 44715 17th Street East, Lancaster, CA. 3pp.
Halfpenny, J. 1986. A field guide to mammal tracking in western america. Johnson Publishing Company, Boulder, CO. 161pp.
Jaeger, E.C. 1969. Desert wild flowers. Stanford Univ. Press, Stanford, CA. 322pp.
Knobel, E. 1980. Field guide to the grasses, sedges and rushes of the united states. Dover Publications Inc. New York, NY 83pp.
Lowery, J.C. 2006. The tracker's field guide. The Globe Pequot Press, Gilford, CT 408pp.
Murie, O.J. 1974. A field guide to animal tracks. Houghton Mifflin Company, Boston. 375pp.
Robbins, C.S., Bruun, B. and H.S. Zim. 1983. A field guide to identification: birds of north america. Golden Press, NY. 360pp.
Smith, J.P., Jr. and K. Berg, Eds. 1988. Inventory of rare and endangered plants vascular plants of california. Calif. Native Plant Society, Special Publication No. 1. Fourth Edition, Sacramento, CA. 168pp.
Stark, M. 2000. A flower-watchers guide to wildflowers of the western mojave desert Published by Milt Stark. Lancaster, CA 160pp.
U.S. Fish & Wildlife Service. 2016. Listed species believed to or known to occur in California. 8pp. http://ecos.fws.gov/tess_public/reports/species-listed-by-state-report?state=CA&status=listed , accessed 1 March 2016.
U.S. Fish & Wildlife Service. 2010. Preparing for any action that may occur within the range of the Mojave desert tortoise (gopherus agassizii), 2010 field season. U.S. Fish & Wildl. Serv. 16pp.

Appendix A. Photographic Maps and Representative Photographs of Study Site

Close up aerial of study site.



Southeast portion of the agricultural field, hay bale in center of photo. Trees are off the study site, north of Avenue I.



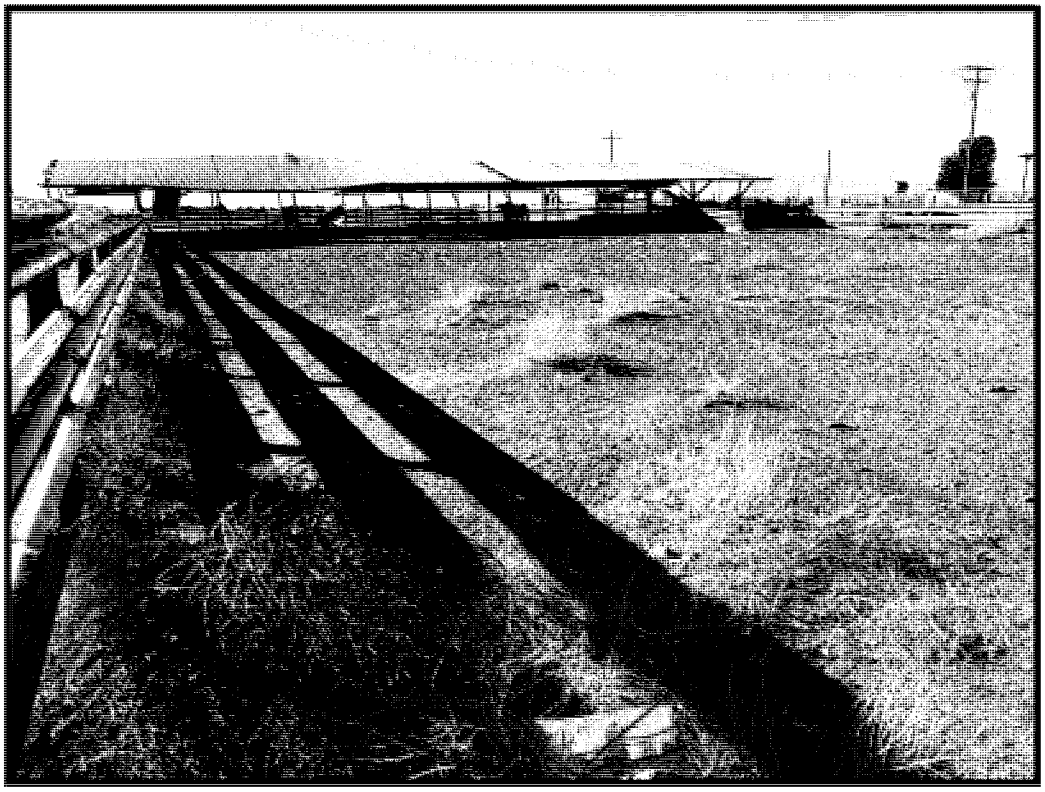
Looking at center of agricultural field towards northwest from south boundary.



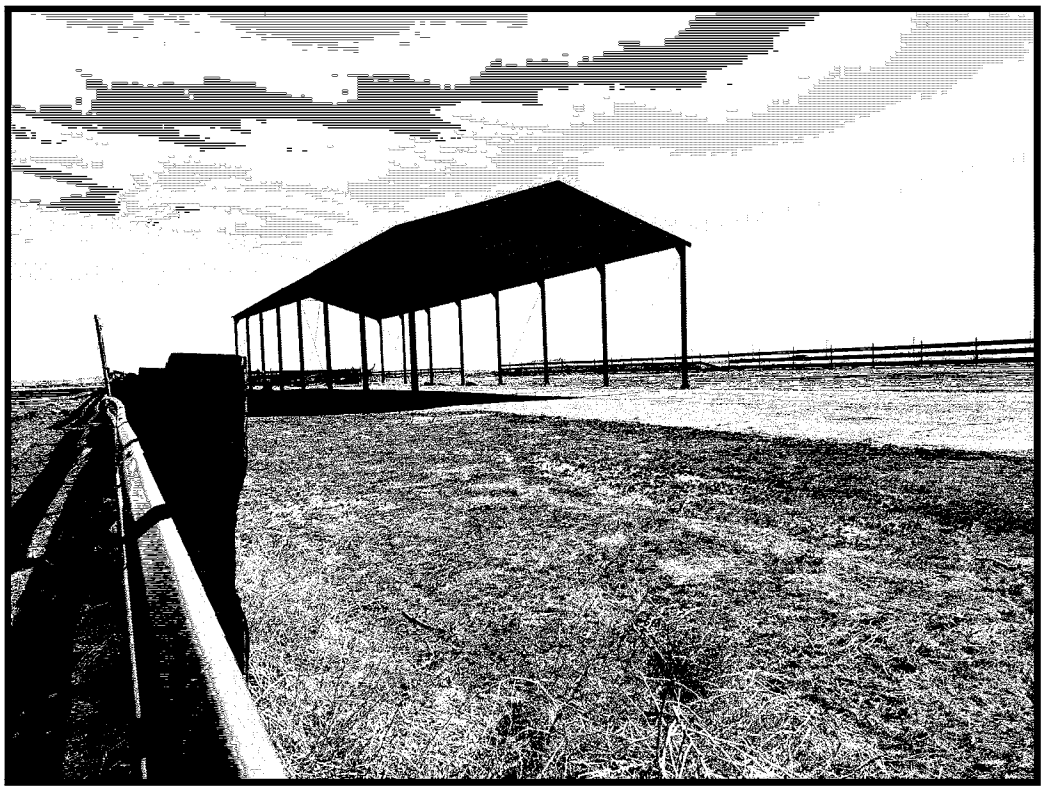
Close up aerial of the main facilities within the northwest portion of the study site.



Sheep, geese, chickens, etc. within this portion of the study site.



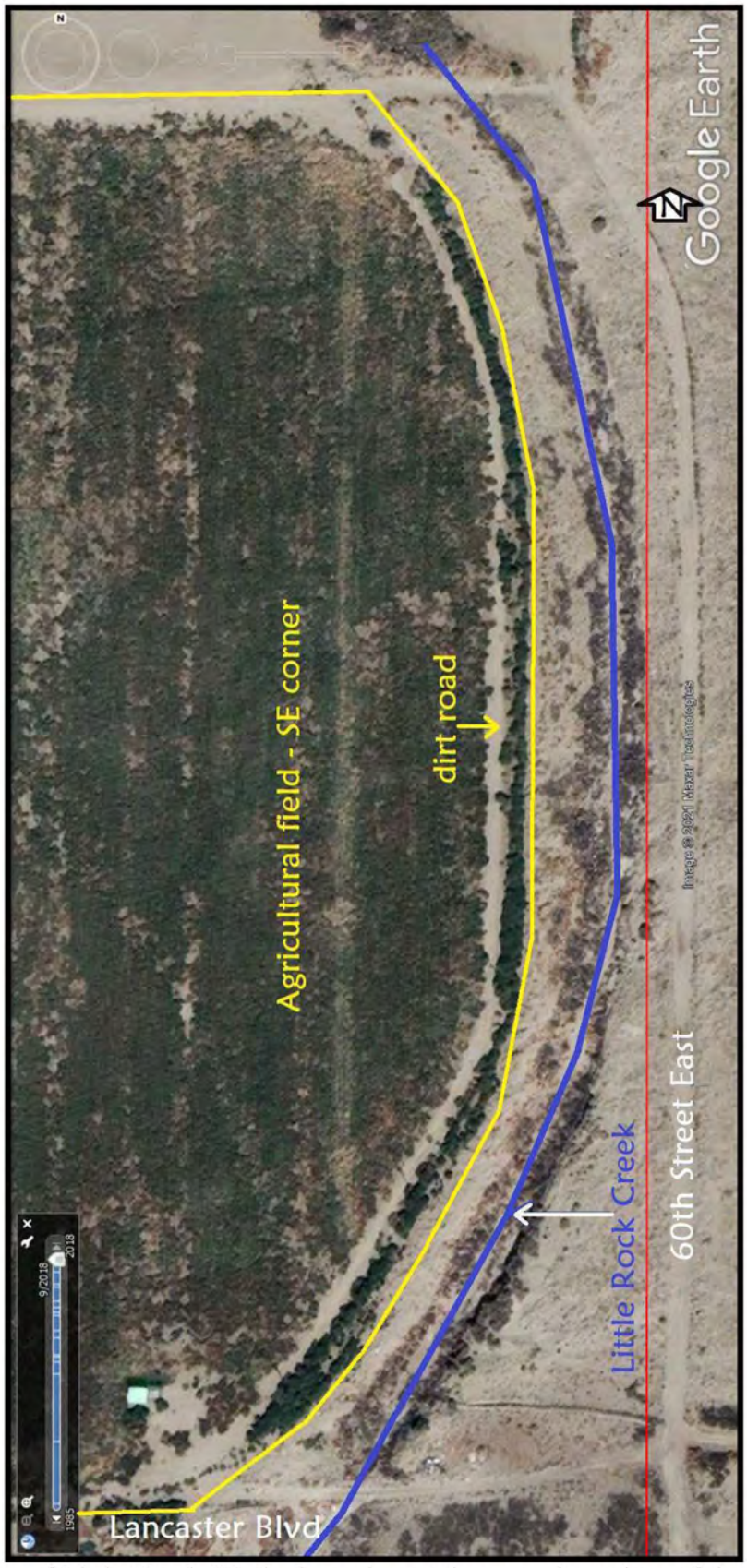
Farm facility containing bull and pigs.



Hay barn



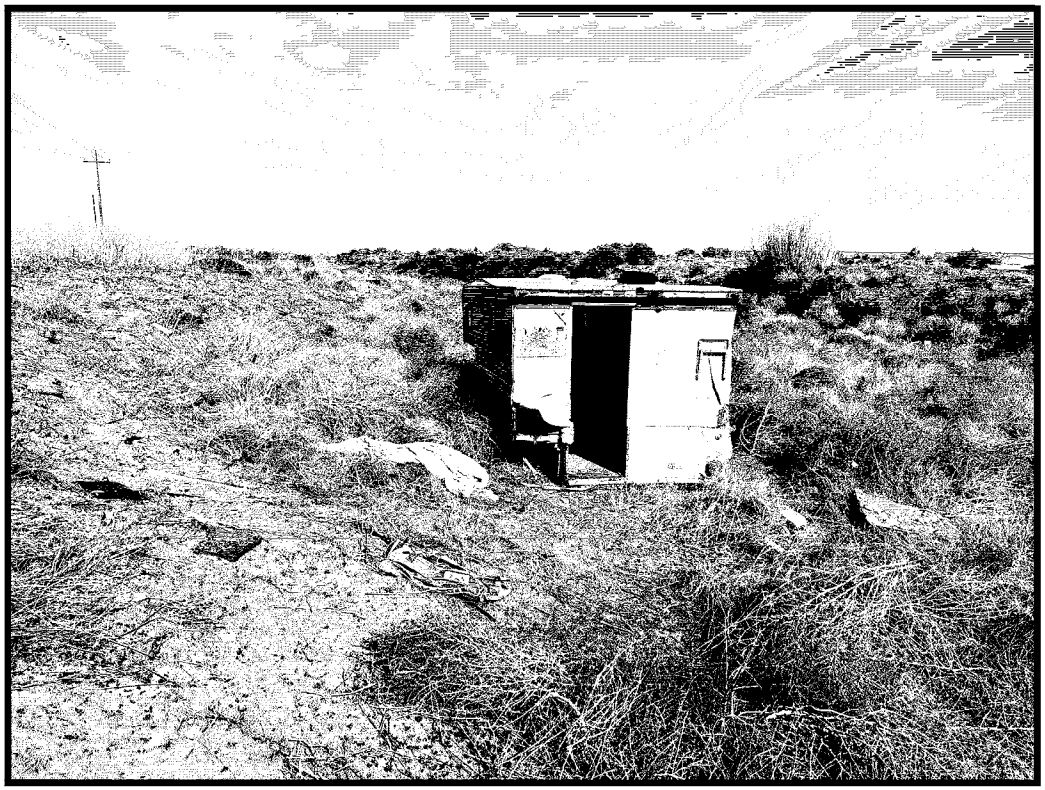
Water Pump/Irrigation facility



Close up of Little Creek Wash along the southeastern boundary of the study site.



Looking into Little Rock Creek from northeast corner of the study site.



View looking into Little Rock Creek from top of berm in southeast corner of study site.



View within Little Rock Creek from the southeast corner looking north.



View looking towards west from east of Little Rock Creek, southeast corner of the study site. Shrubs in background line the eastern boundary of the wash. Small facility in upper left of photograph is within the agricultural portion of the study site.

Michael Baker INTERNATIONAL

We Make a Difference

JN 196028

CITY OF LANCASTER
Attn: *Kendall Brekke*
Planner
44933 Fern Avenue
Lancaster, California 93534

SUBJECT: Delineation of State and Federal Jurisdictional Waters for the Lancaster Eastside Annexation Project – City of Lancaster, Los Angeles County, California

Dear Ms. Brekke:

Michael Baker International (Michael Baker) has prepared this report to document the results of a literature review and desktop delineation of State and federal jurisdictional waters that was conducted for the proposed Lancaster Eastside Annexation Project (project or project site) located in Roosevelt, an unincorporated area in Los Angeles County, California. Specifically, the delineation was conducted to identify and document the extent of aquatic features within the project site that potentially fall under the jurisdictional authority of the U.S. Army Corps of Engineers (USACE), the Regional Water Quality Control Board (RWQCB), and the California Department of Fish and Wildlife (CDFW). This report summarizes the methodology utilized throughout the course of the delineation, defines the jurisdictional authority of the regulatory agencies, and documents the findings made by Michael Baker. This report presents Michael Baker's determination of jurisdictional boundaries based on the most current regulations, written policy, and guidance approved by the regulatory agencies. However, please note that only the regulatory agencies can make a final determination of jurisdictional limits.

PROJECT LOCATION

The project site is located in the Antelope Valley in northern Los Angeles County, approximately 70 miles north of downtown Los Angeles. The project site consists of two areas within unincorporated Los Angeles County: 1) an approximately 638-acre area herein referred to as the "annexation area", and 2) an approximately 288-acre area within the annexation area herein referred to as the "solar facility site". The proposed annexation area and solar facility site together makeup the "project site" as referenced in this document. The annexation area is generally bound by East Avenue I to the north, 60th Street East to the east, East Avenue J to the south, and 50th Street East to the west. The solar facility site consists of three parcels (Assessor's Parcel Numbers [APNs] 3384-001-001, -002, and -003) in the northern portion of the annexation area, generally bound by East Avenue I to the north, 60th Street East to the east, East Lancaster

5 Hutton Centre Drive, Suite 500 | Santa Ana, CA 92707
Office: 949.472.3505 | Fax: 949.472.8373 | mbakerintl.com

Boulevard to the south, and 50th Street East to the west. The project site is depicted in Section 15, Township 7 North, Range 11 West on the U.S. Geological Survey's (USGS) *Alpine Butte* and *Lancaster East.* The project site is located on the APNs shown in Table 1 and at latitude 34.697150° and longitude -118.032317° (refer to Figure 3, *Project Site*, in Attachment A).

Table 1: Assessor's Parcel Numbers Associated with the Project Site

APN		
3384-001-001	3384-002-040	3384-002-044
3384-001-003	3384-002-009	3384-002-028
3384-001-800	3384-002-010	3384-002-035
3384-001-002	3384-002-011	3384-002-026
3384-002-001	3384-002-016	3384-002-023
3384-002-002	3384-002-017	3384-002-022
3384-002-036	3384-002-012	3384-002-047
3384-002-037	3384-002-015	3384-002-025
3384-002-008	3384-002-013	3384-002-044
3384-002-038	3384-002-041	3384-002-028
3384-002-039	3384-002-042	3384-002-035
3384-002-043	3384-002-034	3384-002-045

PROJECT DESCRIPTION

The project consists of two components: 1) annexation of an approximately 638-acre area into the City's jurisdiction, and 2) development of an approximately 288-acre solar facility in the northern half of the annexation area.

STATE AND FEDERAL REGULATIONS

There are three key agencies that regulate activities within inland lakes, streams, wetlands, and riparian areas in California. The USACE regulates activities that result in the discharge of dredged or fill material into waters of the U.S., including wetlands, pursuant to Section 404 of the federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the RWQCB regulates discharges to waters of the State, including wetlands, pursuant to Section 401 of the CWA, Section 13263 of the California Porter-Cologne Water Quality Control Act (Porter-Cologne Act), and State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State; and, the CDFW regulates alterations to lakes, streambeds, and riparian habitats pursuant to Section 1600 *et seq*. of the California Fish and Game Code (CFGC).

LITERATURE REVIEW

Prior to conducting the field delineation, Michael Baker conducted a review of relevant literature and materials to obtain a general understanding of the environmental setting and preliminarily identify features/areas within the project site that may fall under the jurisdiction of the regulatory agencies. Refer to the subsections below for a summary of relevant materials, databases, technical reports, and guidance documents that were obtained/reviewed by Michael Baker. In addition, a complete list of references is provided as Attachment E to this report.

Antelope Fremont Valleys Watershed

The project site contains 3 Hydrologic Units: Brainard Canyon-Little Rock Wash (HUC-12 180902061103), an unnamed watershed (180902061602), and Town of Roosevelt (HUC-12 180902061603). These hydrologic units are located within the greater Antelope-Fremont Valleys Watershed (HUC-8 18090206) which drains a 3,367-square mile area. This watershed is located within the western Mojave Desert, and generally flows toward Rosamond, Buckhorn, and Rogers dry lakes where it terminates. Rosamond, Buckhorn, and Rogers dry lakes are intrastate dry lakes not connected by surface flows to a Relatively Permanent Water (RPW) or Traditionally Navigable Water (TNW). The watershed is bounded to the south and west by the San Gabriel Mountains, to the northwest by the Tehachapi Mountains, and to the east by desert hills and buttes. Flows within the Antelope Valley begin at the surrounding hills and mountains and tend toward the center of the valley where the dry lakes are located.

Existing Setting

Generally, the project site is flat with an approximate elevation range of 2,427 to 2,457 feet above mean sea level. Based on a review of historic aerial imagery, most of the project site has remained undeveloped since at least the 1980s. The undeveloped portions of the project site can be described as areas that are relatively undisturbed and areas that are generally used for agricultural purposes. Structures on-site include a residence with farm animals, numerous outbuildings, and groundwater pumphouses used for agricultural (row crop) production in the northwestern portion of the site. A telecommunications facilities building with an aboveground storage tank is located in the northeast corner of the project site. Farming facilities in the northwestern portion of the site are fenced on all sides while the remainder of the site is unfenced. In the surrounding vicinity, there is additional agricultural land and some rural residential land uses. The eastern portion of the site is bisected by Little Rock Wash flowing from the San Gabriel Mountains.

Climate

The climate in Lancaster, California is described as a semiarid climate with hot, dry summers, and cool, partly cloudy winters. Lancaster averages 5.10 inches of annual total precipitation, the majority of which

falls in December through March. High temperatures range from an average of 99°F in July to a low of 57°F in January. Low temperatures range from an average of 64°F in July to 28°F in January (WRCC 2024).

Soils

According to the *Custom Soil Resources Report for Orange County and Part of Riverside County, California* (U.S. Department of Agriculture [USDA] 2024a), the project site is underlain by 11 soil map units:

- Cajon loamy sand, 0 to 2 percent slopes;
- Cajon loamy sand, loamy substratum, 0 to 2 percent slopes;
- Dune land;
- Hesperia loamy fine sand, 0 to 2 percent slopes;
- Hesperia loamy fine sand, 0 to 2 percent slopes, hummocky;
- Hesperia fine sandy loam, 0 to 2 percent slopes;
- Rosamond loamy fine sand;
- Rosamond loamy fine sand, hummocky;
- Rosamond fine sandy loam;
- Rosamond loam;
- Rosamond loamy fine sand, slightly saline.

Michael Baker also reviewed the *Hydric Soils List for California* (USDA 2024b) to preliminarily verify whether the soil map units listed above was classified as a "hydric soil" in the Antelope Valley and Los Angeles areas. According to the list, the subject soil map units are not listed as hydric.

National Wetlands Inventory

Based on a review of the U.S. Fish and Wildlife Service's (USFWS) National Wetlands Inventory (NWI) (USFWS 2024), one riverine resource mapped in the NWI coincides with the project site and is shown in Attachment B. Little Rock Wash is depicted within the NWI and is classified as riverine intermittent streambed intermittently-flooded (R4SBJ). This feature enters the project site from the south and flows north and off the project site.

Flood Zone

Based on a review of the Federal Emergency Management Agency's (FEMA) National Flood Hazard Layer Viewer (FEMA 2024), the project site is located within Flood Insurance Rate Map (FIRM) Panel Number 06037C0450F. The project site occurs within Zone A as shown in Attachment C. Zone A is described as an area without base flood elevation determinations.

National Hydrography Dataset

Based on a review of the National Hydrography Dataset (NHD) Advanced Viewer (USGS 2024), one intermittent drainage, Little Rock Wash, is mapped within the project site, as shown in Attachment D. Features within this portion of the Antelope Valley generally flow north to northeast and eventually into Rosamond Dry Lake, an isolated, intrastate dry lakebed.

METHODOLOGY

Michael Baker certified wetland delineator Megan Minter conducted a desktop jurisdictional delineation using the most recent, agency approved methodology, to identify and map the extent of State and federal jurisdictional features (i.e., wetland and non-wetland waters of the U.S., waters of the State, streambed, riparian vegetation) located within the boundaries of the project site using aerial imagery. Based on the project's location, potential State and federal wetlands were delineated in accordance with the methods and guidance provided in the *Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, Version 2.0* (Arid West Regional Supplement; USACE 2008), and the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (State Water Resources Control Board 2019b).

Features were drawn on the desktop using the latest aerial imagery from Google Earth to identify specific widths and lengths of jurisdictional features and the location of any ordinary high-water mark (OHWM) indicators. Michael Baker then used ESRI ArcGIS Pro software to calculate the total acreage of jurisdictional features and prepare final project figures.

RESULTS

Non-Wetland Features

Little Rock Wash

Little Rock Wash is a large ephemeral wash flowing across the Antelope Valley from south to north. It begins on the north side of the San Gabriel mountains near Bare Mountain and flows north-northeast and into the manmade Little Rock Reservoir. From there, it exits the mountains and flows into the Antelope Valley near the town of Littlerock. Finally, it flows north through the project site and dissipates south of Rosamond Dry Lake. For much of its length upstream of the project site, Little Rock Wash is a wide, braided drainage with many bifurcated channels; its large alluvial area is apparent on aerial imagery. Approximately 4 miles south of the project site, the wash narrows into a single, meandering channel that becomes smaller until dissipating north of the project site. An unvegetated OHWM is visible on aerial

imagery as indicated by a change in sediment texture, a break in bank slope, visible benches, change in sediment color, and change in vegetation cover. The OHWM ranges from 8 to 40 feet wide within the project site. The larger vegetated channel, which extends beyond the lateral limits of the OHWM, is visible on aerial imagery flowing north through the project site for 7,722 feet where it is ranges from 50 to 100 feet wide. No flowing water within the project site is visible on current or historic aerial imagery.

FINDINGS

While evidence of an OHWM was noted within the boundaries of the project site, Little Rock Wash exhibits an ephemeral flow regime with no continuous surface connection to downstream traditional navigable water (TNW). Little Rock Wash is located within an endorheic basin and do not contain any outlet to a TNW. The USACE has previously determined that the desert wash streams within the basin do not have a connection to a downstream TNW and therefore are non-jurisdictional under 2023 Rule. In addition, following the recent Supreme Court decisions, many former jurisdictional determinations within the Antelope-Fremont Valley HUC 8 have similarly documented the absence of downstream traditional navigable waters, the absence of interstate or foreign commerce related to water use, and the geographic physical isolation of dry lake basins/playas including Rosamond Dry Lake (SPL-2010-00495-CO, SPL, SPL-2011-01084-SLP, SPL-2013-00717, SPL-2014-00543-SLP, SPL-2017-00109-SLP, SPL-2019-00643-AJW), Buckhorn and Roger Dry Lakes (SPL-2011-01084-SLP, SPL-2015-00713-SLP, SPL-2017-00702-SLP), and Amargosa Creek (SPL-2013-00507-SLP, SPL-2016-00689-SLP, SPL-2017-00026-SLP). Therefore, Little Rock Wash is not considered waters of the U.S. and would not fall under the regulatory authority of the USACE. However, Little Rock Wash does comprise approximately 3.6 acres of RWQCB non-wetland waters of the State and 17.4 acres CDFW vegetated streambed. Refer to Table 2 below and Figure 4 provided in Attachment A.

Table 2: State and Federal Jurisdictional Resources

Feature Name	Location Lat/Long	Cowardin Type	Linear Feet	Acreage within Project Site			
				RWQCB		CDFW	
				Non-Wetland Waters of the State	Wetland Waters of the State	Vegetated Streambed	Riparian
Little Rock Wash	34.697215°, -118.024580°	R4SBC	7,722	3.6	-	17.4	-
TOTAL			7,722	**3.6**	**-**	**17.4**	**-**

CONCLUSIONS AND RECOMMENDATIONS

The USACE regulates discharge of dredged or fill material into waters of the U.S. pursuant to Section 404 of the CWA and Section 10 of the Rivers and Harbors Act. Since no USACE jurisdictional areas occur

within the project site, no permit will be required from the USACE prior to commencement of construction activities. The applicant is required to obtain an Approved Jurisdictional Determination from the USACE in order to confirm the findings of this report.

The RWQCB regulates discharges to surface waters pursuant to Section 401 of the CWA and Section 13263 of the Porter-Cologne Act. Temporary and/or permanent impacts resulting from the proposed project would require a Water Discharge Requirement (WDR) from the RWQCB pursuant to the Porter-Cologne Act prior to impacts occurring within jurisdictional areas. The RWQCB also requires that CEQA compliance be obtained prior to obtaining authorization. A RWQCB application fee is required with the application package and is calculated based on the acreage of jurisdictional impacts.

The CDFW regulates alterations to lakes, streambeds, and riparian habitats pursuant to Section 1600 *et seq*. of the CFGC. Therefore, formal notification to and subsequent authorization from CDFW would be required prior to commencement of any construction activities within the CDFW jurisdictional areas. The CDFW also requires that CEQA compliance be obtained prior to issuing the final Lake and Streambed Alteration Agreement (LSAA). In addition, a notification fee is required, which is calculated based on project costs within CDFW jurisdictional areas.

Please do not hesitate to contact me at (949) 330-4218 or daniel.cardoza@mbakerintl.com should you have any questions or require further information.

Sincerely,



Daniel Cardoza, PWS
Regulatory Services Technical Manager
Natural Resources Department

Attachments:

A. *Project Figures*
B. *USFWS National Wetlands Inventory Map*
C. *FEMA Flood Insurance Rate Map*
D. *USGS National Hydrography Dataset Advanced Viewer Map*
E. *References*

Attachment A

Project Figures



\\Santca1hub\jvica1fs1\HROOT\pdata\196028\Admin\Reports\Environmental\Tech Studies\JD16_FIGURES

Michael Baker INTERNATIONAL

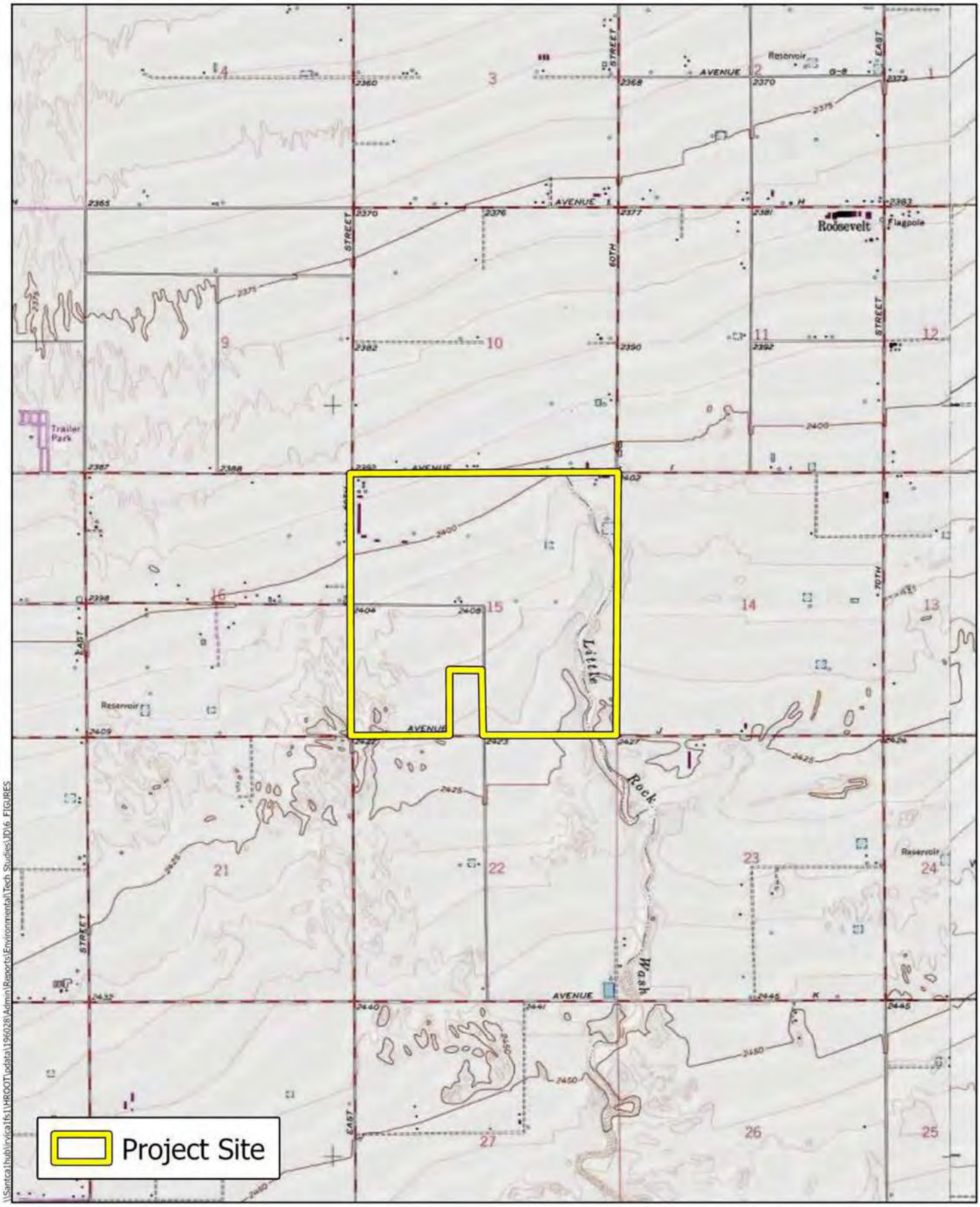
0 5 10 Miles

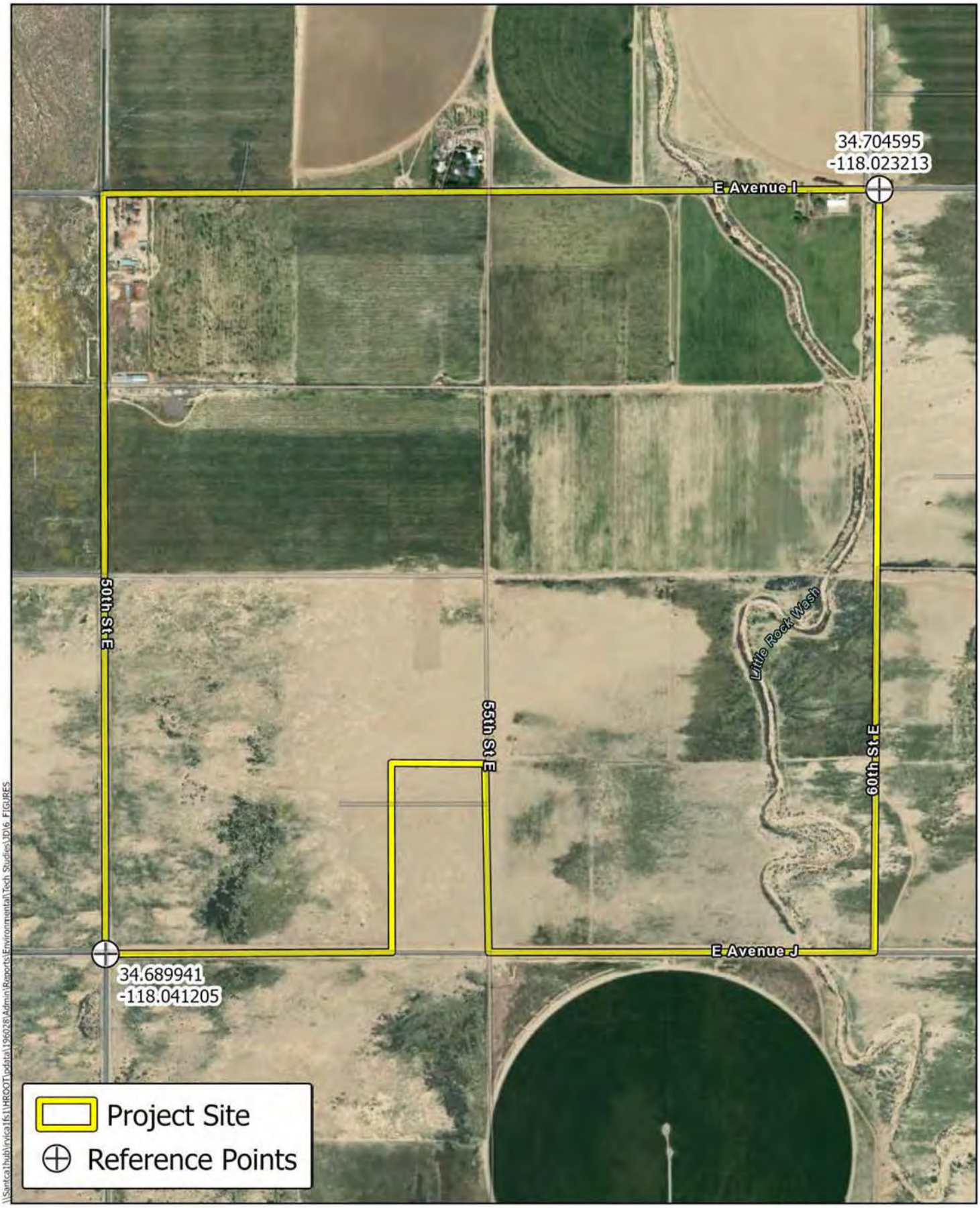
Source: ArcGIS Online, National Geographic Basemap, Lancaster, California

LANCASTER EASTSIDE ANNEXATION PROJECT
LANCASTER, CA

Regional Vicinity

Figure 1


Project Site
Michael Baker
INTERNATIONAL
0
0.25
0.5
Miles
Source: USGS 7.5-Minute topographic quadrangle maps: Lancaster East, California
LANCASTER EASTSIDE ANNEXATION PROJECT
LANCASTER, CA
Project Vicinity
Figure 2
\\Santca1hub\irvca1fs1\IHROOT\pdata\196028\Admin\Reports\Environmental\Tech Studies\JD16_FIGURES



\\Santca1hub\rivca1fs1\HROOT\pdata\196028\Admin\Reports\EnvironmentalTech Studies\JD16_FIGURES

Michael Baker INTERNATIONAL

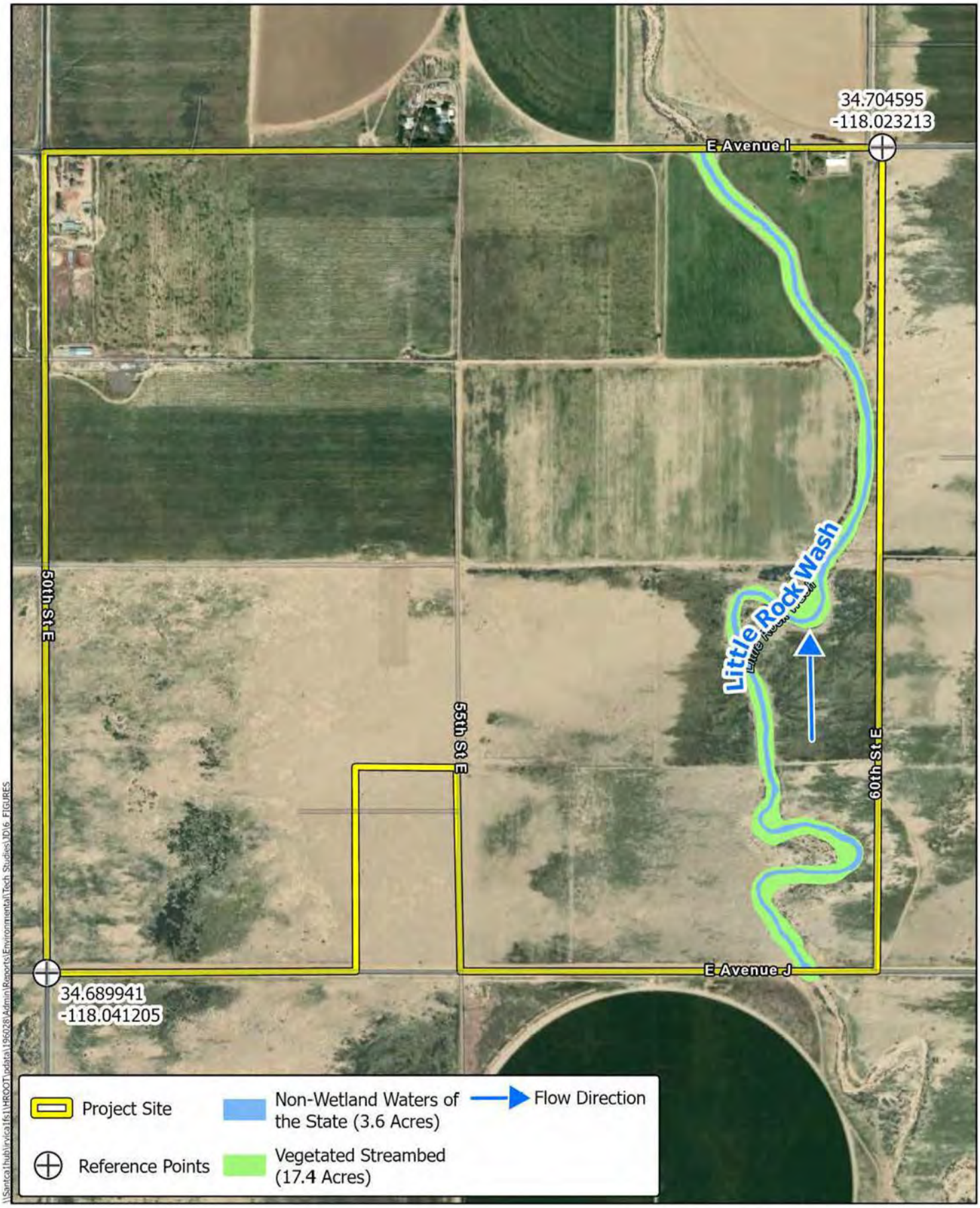
0 500 1,000 Feet

Source: ArcGIS Online World Imagery Basemap. Lancaster, California

LANCASTER EASTSIDE ANNEXATION PROJECT
LANCASTER, CA

Project Site

Figure 3



LANCASTER EASTSIDE ANNEXATION PROJECT
LANCASTER, CA

Michael Baker INTERNATIONAL

0 500 1,000 Feet

Regional Board/CDFW Jurisdictional Map

Source: ArcGIS Online World Imagery Basemap. Lancaster, California

Figure 4

Attachment B

USFWS National Wetlands Inventory Map

U.S. Fish and Wildlife Service

National Wetlands Inventory

Lancaster Eastside Annexation



March 13, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Attachment C

FEMA Flood Insurance Rate Map

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0 North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures**. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD83, GRS 1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at http://www.ngs.noaa.gov.

Base map information shown on this FIRM was derived from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1994 or later and from National Geospatial-Intelligence Agency imagery produced at a scale of 1:4,200 from photography dated 2003 or later.

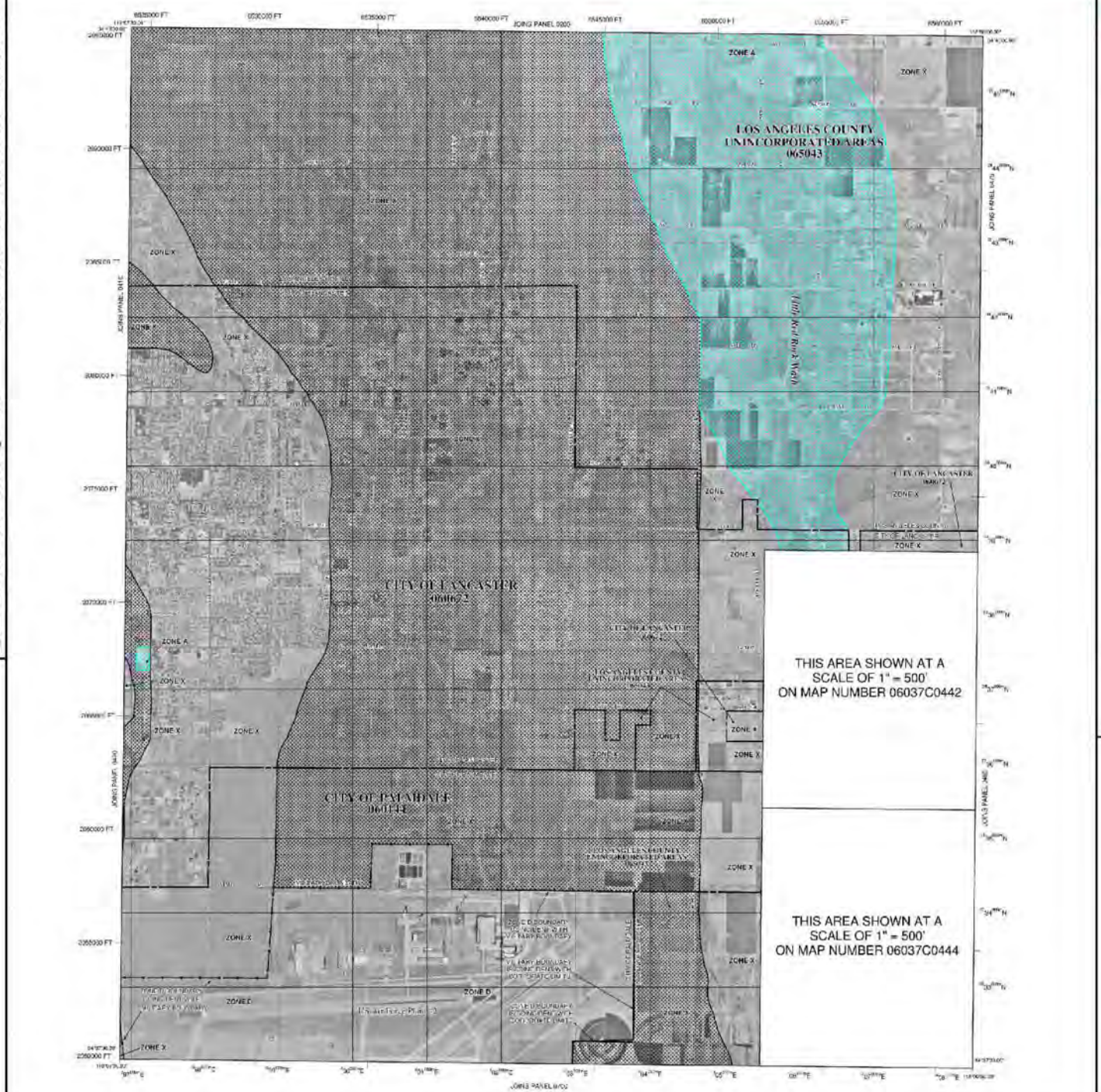
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a listing of Communities Table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://www.msc.fema.gov.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A — No Base Flood Elevations determined.

ZONE AE — Base Flood Elevations determined.

ZONE AH — Flood depths of 1 to 3 feet (usually areas of ponding); base flood elevations determined.

ZONE AO — Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.

ZONE AR — Special Flood Hazard area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.

ZONE A99 — Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.

ZONE V — Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.

ZONE VE — Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X — Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X — Areas determined to be outside the 0.2% annual chance floodplain.

ZONE D — Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are generally bounded by either or adjacent to special flood hazard areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

- A — A — Cross section line
- 23 — 23 — Transect line
- 97°07'30", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 1000-meter Universal Transverse Mercator grid values, zone 11
- 5000-foot grid ticks: California State Plane coordinate system, V zone (FIPSZONE 0405), Lambert Conformal Conic
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River mile

MAP REPOSITORY
Refer to listing of repositories on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
September 26, 2008
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

For communities' map revision history prior to countywide mapping, refer to the Community Map History table located in the Flood Insurance Study report for this jurisdiction.

To determine if flood insurance is available in this community, contact your insurance agent or call the National Flood Insurance Program at 1-800-638-6620.

MAP SCALE 1" = 2000'
1000 0 2000 4000 FEET
500 0 500 1000 METERS

PANEL 0450F

FIRM

FLOOD INSURANCE RATE MAP

LOS ANGELES COUNTY, CALIFORNIA AND INCORPORATED AREAS

PANEL 450 OF 2350
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
LOS ANGELES COUNTY	065043	0450	F
LANCASTER, CITY OF	060672	0450	F
PALMDALE, CITY OF	060144	0450	F

Notice to User: The Map Number shown below should be used when placing map orders; the Community Number shown above should be used on insurance applications for the subject community.

NATIONAL FLOOD INSURANCE PROGRAM

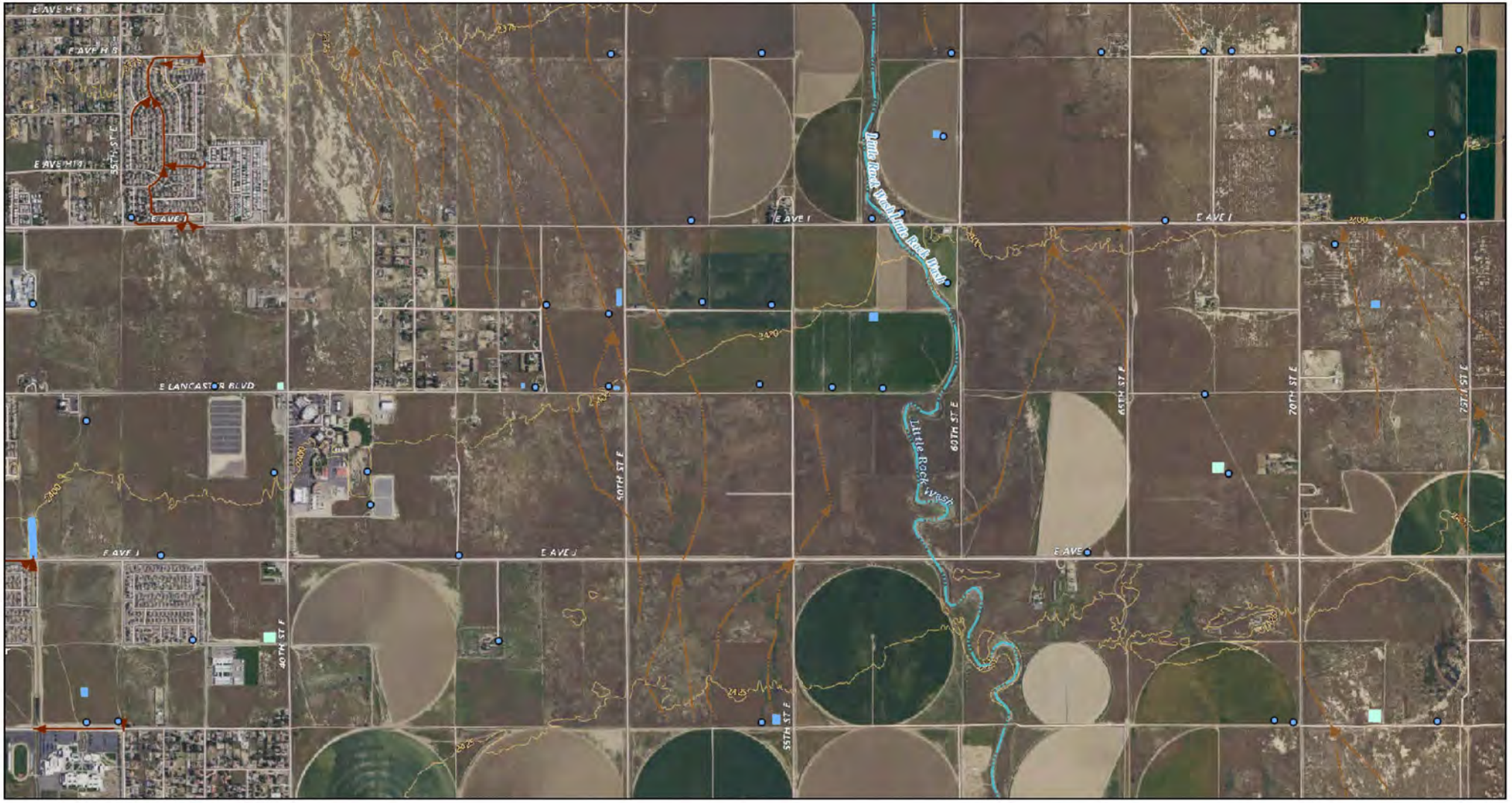
MAP NUMBER
06037C0450F
EFFECTIVE DATE
SEPTEMBER 26, 2008

Federal Emergency Management Agency

Attachment D

USGS National Hydrography Dataset Advanced Viewer Map

The National Map Advanced Viewer



3/13/2024, 10:21:34 AM

1:22,239

0 0.23 0.45 0.9 mi

0 0.35 0.7 1.4 km

Waterbody - Large Scale
- Estuary
- Ice Mass
- Lake Pond
- Playa
- Reservoir
- Swamp Marsh

Area - Large Scale
- Area of Complex Channels
- Area to be Submerged
- BayInlet
- Bridge
- CanalDitch
- DamWeir
- Flume
- Foreshore
- Hazard Zone
- Inundation Area
- Lock Chamber
- Rapids
- SeaOcean
- Special Use Zone
- Spillway
- StreamRiver
- Submerged Stream
- Wash
- Water IntakeOutflow

Flowline - Large Scale
- Perennial
- Intermittent
- Ephemeral
- Artificial Path
- Canal Ditch
- Coastline
- Connector
- Pipeline
- Underground Conduit

Flow Direction
- Connector
- CanalDitch
- Underground Conduit
- StreamRiver
- StreamRiver - Perennial
- StreamRiver - Intermittent
- StreamRiver - Ephemeral
- Pipeline
- Artificial Path

Line - Large Scale
- Line
- Tunnel

Point
- Point Event
- Dam/Weir
- Other

USGS The National Map: Orthoimagery and US Topo. Data refreshed August, 2023., USGS TNM – National Hydrography Dataset. Data Refreshed January, 2024.

USGS
2021 USGS

Attachment E

References

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual*. Technical Report Y-87-1. Vicksburg, MS: U.S. Army Engineer Waterways Experiment Station.

Federal Register. 2023. *Revised Definition of "Waters of the United States";* 88 F.R. 3004 (January 18, 2023) (to be codified at 33 CFR 328 and 40 CFR 120).

Federal Emergency Management Agency (FEMA). 2024. National Flood Hazard Layer FIRMette Flood Insurance Rate Map Nos 06037C0450F. Accessed online at: https://msc.fema.gov/nfhl.

Google, Inc. 2024. Google Earth Pro Imagery Version 7.3.6.9750, build date January 12, 2024. Aerial Image dated June 15, 2023.

Lichvar, R.W., D.C. Finnegan, M.P. Ericsson, and W. Ochs. 2006. *Distribution of Ordinary High Water Mark Indicators and their Reliability in Identifying the Limits of "Waters of the United States" in the Arid Southwestern Channels*. ERDC/CRREL TR-06-5. Hanover, New Hampshire: U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory.

Lichvar, R.W., and S.M. McColley. 2008. *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual*. ERDC/CRREL TR-08-12. Hanover, NH: U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory.

SWRCB. 2019b. *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State*. Effective May 28, 2020. Available online at: https://www.waterboards.ca.gov/water_issues/programs/cwa401/wrapp.html.

U.S. Army Corps of Engineers (USACE). 2008. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0).* ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

USACE. 2016. *Special Public Notice: Updated Map and Drawing Standards for the South Pacific Regulatory Division Regulatory Program*. Issued on February 10, 2016.

USACE. 2017. *Special Public Notice: Minimum Standards for Acceptance of Aquatic Resources Delineation Reports*. Issued on March 16, 2017.

USACE. 2024. *National Wetland Plant List, Version 3.5.* U.S. Army Corps of Engineers, Engineer Research and Development Center Cold Regions Research and Engineering Laboratory. Accessed online at: http://wetland-plants.usace.army.mil/.

U.S. Department of Agriculture (USDA). 2024a. *Custom Soil Resources Report for Antelope Valley Area, California*. Accessed online at: https://websoilsurvey.sc.egov.usda.gov/.

USDA. 2024b. *Hydric Soils List of California*. Accessed online at: https://www.nrcs.usda.gov/publications/query-by-state.html.

U.S. Fish and Wildlife Service (USFWS). 2024. *National Wetlands Inventory*. Accessed online at: http://www.fws.gov/wetlands/Data/Mapper.html.

U.S. Geological Survey (USGS). 2024a. *National Hydrography Dataset*. Accessed online at: https://viewer.nationalmap.gov/advanced-viewer/.

USGS. 2024b. *Alpine Butte* 7.5 Minute Topographic Quadrangle. Accessed via Google Earth February 2024.

USGS. 2024c. *Lancaster East* 7.5 Minute Topographic Quadrangle. Accessed via Google Earth February 2024.

Western Regional Climate Center (WRCC). 2024. Lancaster, California Climate Summary. Retrieved from http://wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca4747