Appendix C
Biological Resource Reports

ESA

626 Wilshire Boulevard
Suite 1100
Los Angeles, CA 90017
213.599.4300 phone
213.599.4301 fax

esassoc.com

April 3, 2019

Grace Alvarez
Habib Motlagh
24 S. D Street, Suite 100
Perris, CA 92572

Subject: Biological Resource Reconnaissance Report for the City of San Jacinto Esplanade Widening Phase I Project, Riverside County, California

Dear Ms. Alvarez:

This letter report documents the findings of a biological resource reconnaissance survey for wildlife species and vegetation communities on the City of San Jacinto's Esplanade Widening Phase I Project (Project). A description of the Project, methods used during the reconnaissance, survey results, and recommendations for avoiding and minimizing impacts to biological resources during construction of the Project are described below.

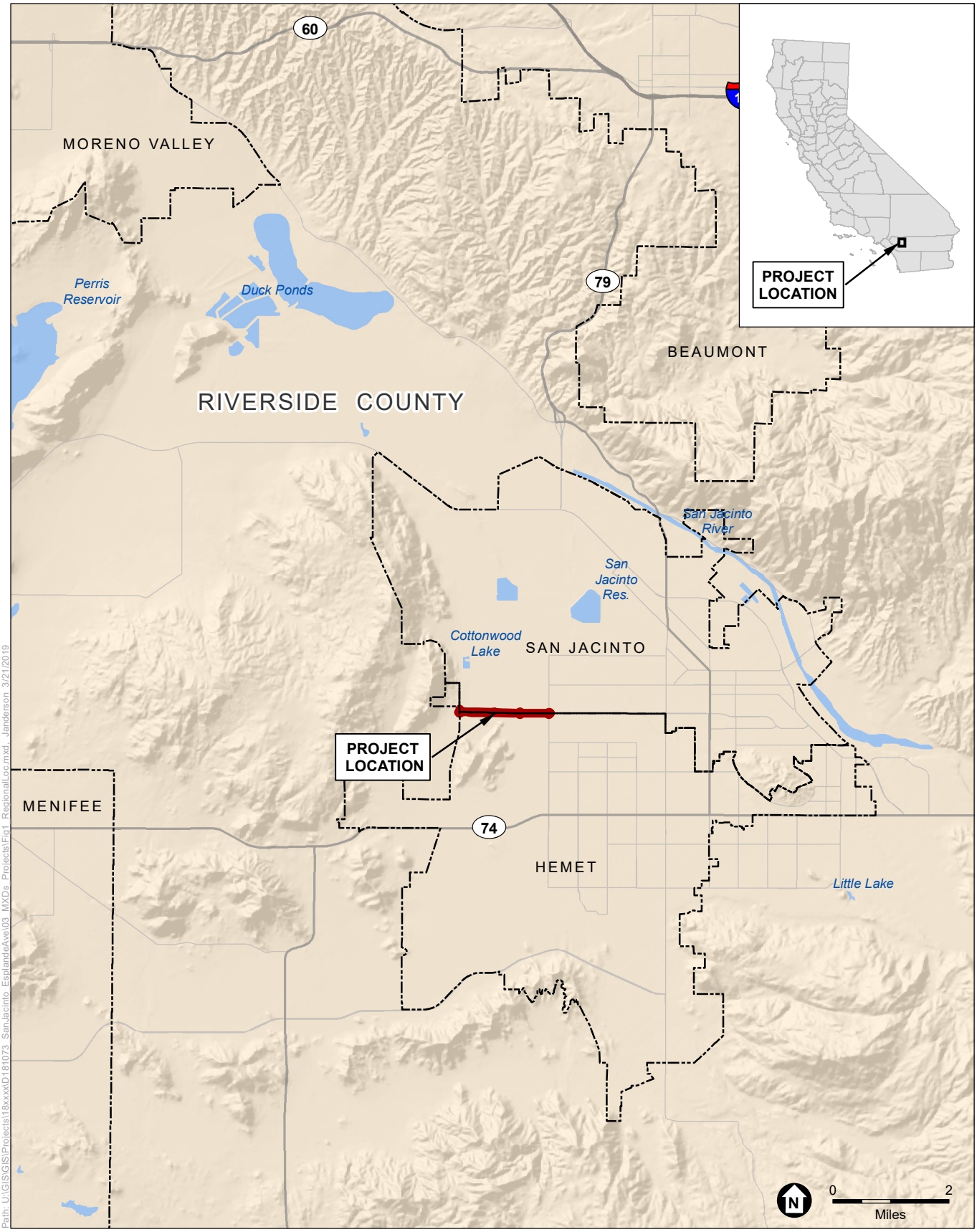
Project Description

The City of San Jacinto (City) proposes to widen Esplanade Avenue the width of two additional lanes north of the current alignment from Sanderson Avenue to Warren Road, approximately 1.5 miles (also referred to herein as "Project site") (**Figure 1**). The City's General Plan calls for a major arterial [112-foot right-of-way (ROW)] along Esplanade Avenue from Ramona Expressway to Warren Road to be expanded. The expansion will include providing four lanes of travel (two in each direction), curb or painted median, curb, gutter and sidewalk (**Figure 2**). The Project would be implemented in two phases (Phase 1 and Phase 2) and the scope of this report only covers Phase 1 of the Project.

Methods

Biological Resource Reconnaissance

The biological resource reconnaissance was conducted by Environmental Science Associates (ESA) biologists' Lily Sam and Ryan Villanueva on February 8, 2019 between the hours of 7:00 a.m. to 1:00 p.m. Temperatures during the reconnaissance ranged between 36 - 54° Fahrenheit with winds ranging between 0 to 3 miles per hour (mph) and clear skies. The reconnaissance consisted of mapping the vegetation communities and land uses that would be impacted by the Project (**Figure 3**) and noting the dominant species that comprise the communities.

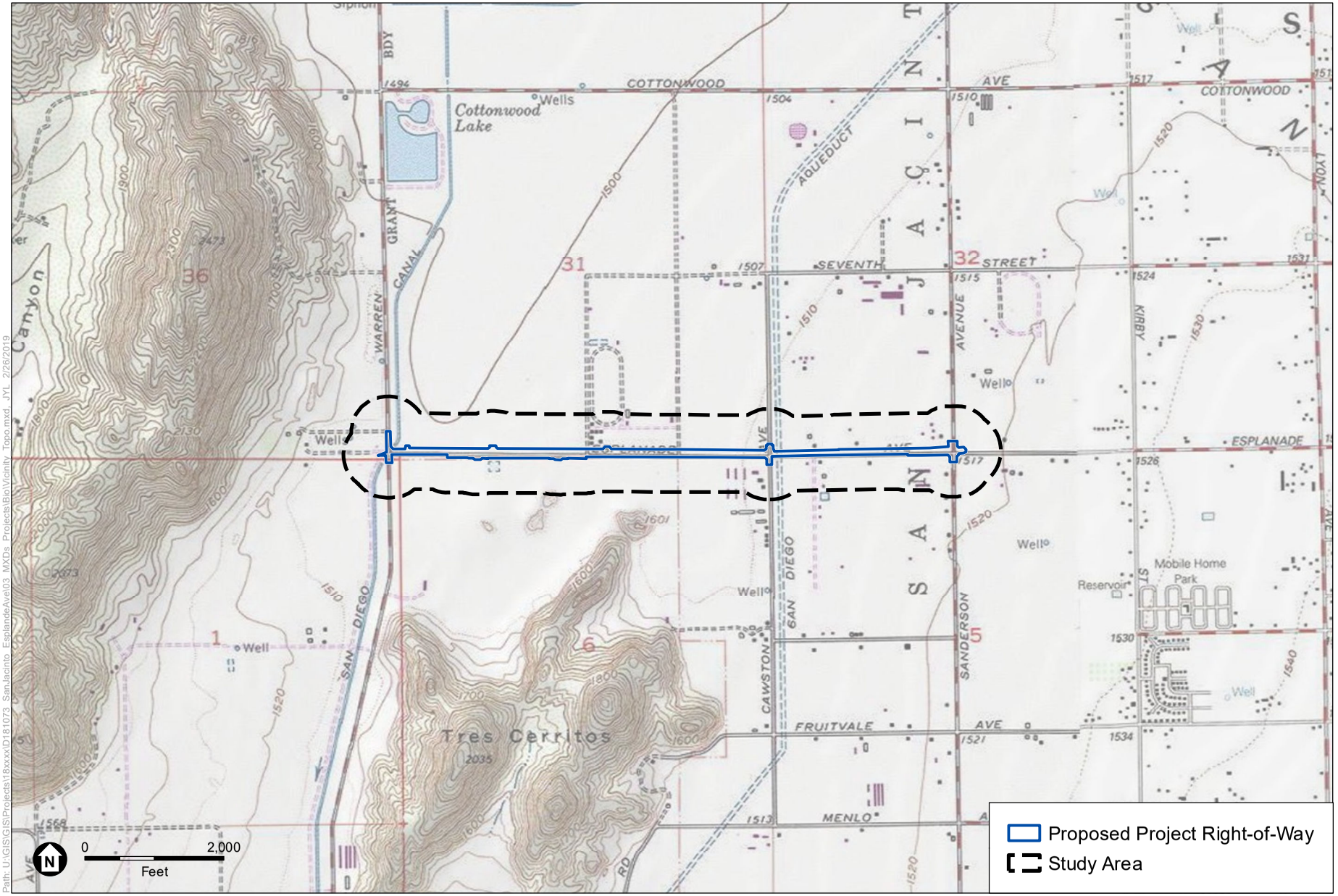


SOURCE: ESRI

San Jacinto Esplanade Avenue

Figure 1
Regional Location

ESA



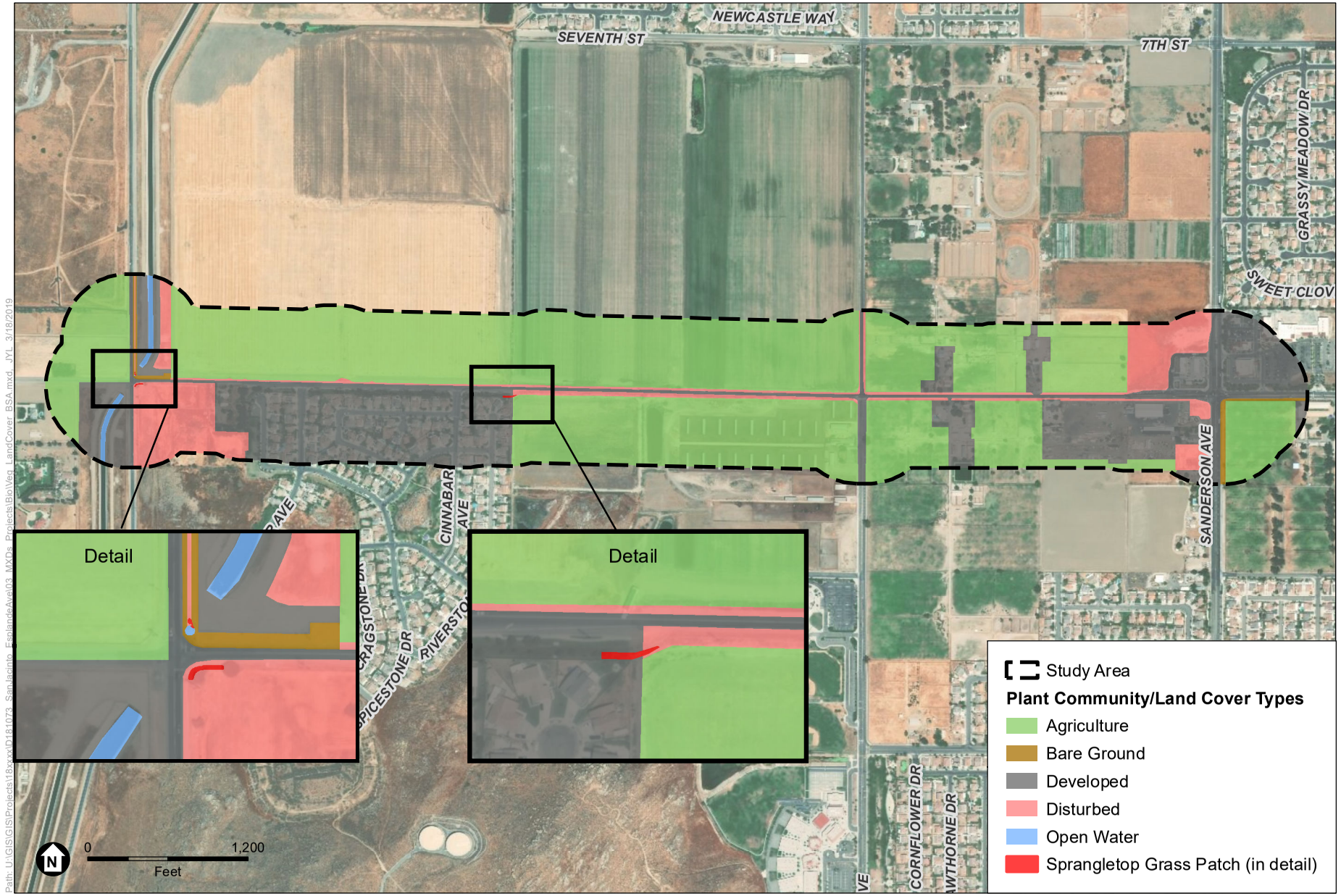
SOURCE: USGS 7.5' Topo Quad Lakeview 1976, 1980; San Jacinto 1978, 1980

San Jacinto Esplanade Avenue

Figure 2

USGS Topographic Map

ESA



SOURCE: ESRI

San Jacinto Esplanade Avenue

Figure 3

Plant Community/Land Cover Map

ESA

The biological reconnaissance was conducted along the proposed Project impact area, including a 500-foot buffer in all directions (i.e., study area). While all of the Project features were able to be surveyed, much of the 500 feet buffer area contained limited access as a majority of the areas adjacent to the proposed pipeline contained private property, active agricultural lands, and fenced areas. Areas with limited access were scanned with binoculars. Accessible areas were walked with 100% visual coverage to verify the plant communities, habitats, and the presence of burrows or burrowing owls. Any signs or direct observations of wildlife and wildlife activity were noted.

The information gathered during the reconnaissance was used to assess the potential for special-status species[1] to occur and confirm whether California Department of Fish and Wildlife (CDFW) sensitive natural communities[2] are present within the Project impact areas. Plant communities were characterized based on *A Manual of California Vegetation, Second Ed.* (Sawyer et al 2009), or by species dominance. Plant taxonomy followed Baldwin, et al. (2012).

The reconnaissance also included a burrowing owl habitat assessment and burrow search in accordance with the requirements of the Western Riverside County Multiple Species Habitat Conservation Program (MSHCP), which included a visual survey of the entire Project site, including a minimum 500-foot buffer, in search of suitable burrows that can be used by burrowing owl for wintering and nesting. This included identification of any sign of burrowing owl occupancy, such as white wash, pellets, feathers, and tracks. A formal delineation of potential jurisdictional resources[3] was performed on the same visit as the reconnaissance as well. The results of the jurisdictional delineation are provided in a separate report, but are summarized further below in this letter report. Representative photographs taken during the reconnaissance are provided in **Attachment A**.

Literature and Database Review

Prior to conducting the site reconnaissance, database searches of the CDFW California Natural Diversity Data Base (CNDDB) (CDFW 2019a), United States Fish and Wildlife's (USFWS) Critical Habitat Mapper (USFWS 2019a) and the California Native Plant Society (CNPS) Rare Plant Inventory (CNPS 2019) were conducted to query special-status biological resources that have been recorded in the region and that could potentially occur on the Project site. The query included the Lakeview United States Geological Survey (USGS) Quadrangle 7.5-minute map for which the Project site is located, as well as the surrounding eight USGS quadrangles (Sunnymead, El Casco, Beaumont, Perris, San Jacinto, Romoland, Winchester and Hemet). In addition, the Western Riverside County Regional Conservation Authority's (RCA) website and MSHCP Information Application was reviewed (RCA 2019).

Regulatory Framework

The following provides a general description of the applicable regulatory requirements for the Project, including federal, State, and local policies and guidelines.

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1 Special-status species include those listed as endangered, threatened, or candidate by the CESA or FESA. This also includes species with a California Rare Plant Rank (CRPR) of 1A, 1B, 2A, or 2B; California Fully Protected Species; Watch List Species and CDFW Species of Special Concern.

2 CDFW sensitive natural communities include those communities given a State rank of S1-S3 (CDFW 2019b).

Federal

Endangered Species Act (USC, Title 16, § 1531 through 1543)

The Federal Endangered Species Act (FESA) and subsequent amendments provide guidance for the conservation of endangered and threatened species and the ecosystems upon which they depend. In addition, the FESA defines species as threatened or endangered and provides regulatory protection for listed species. The FESA also provides a program for the conservation and recovery of threatened and endangered species as well as the conservation of designated critical habitat that USFWS determines is required for the survival and recovery of these listed species.

Section 7 of the FESA requires federal agencies, in consultation with and assistance from the Secretary of the Interior or the Secretary of Commerce, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. The USFWS and National Marine Fisheries Service (NMFS) share responsibilities for administering the FESA. Regulations governing interagency cooperation under Section 7 are found in CCR Title 50, Part 402. The opinion issued at the conclusion of consultation will include a statement authorizing "take" (i.e., to harass, harm, pursue, hunt, wound, kill, etc.) that may occur incidental to an otherwise legal activity.

Section 9 lists those actions that are prohibited under the FESA. Although take of a listed species is prohibited, it is allowed when it is incidental to an otherwise legal activity. Section 9 prohibits take of listed species of fish, wildlife, and plants without special exemption. The definition of "harm" includes significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns related to breeding, feeding, or shelter. "Harass" is defined as actions that create the likelihood of injury to listed species by disrupting normal behavioral patterns related to breeding, feeding, and shelter significantly.

Section 10 provides a means whereby a nonfederal action with the potential to result in take of a listed species can be allowed under an incidental take permit. Application procedures are found at 50 CFR 13 and 17 for species under the jurisdiction of USFWS and 50 CFR 217, 220, and 222 for species under the jurisdiction of NMFS.

Migratory Bird Treaty Act (16 USC 703 through 711)

The Migratory Bird Treaty Act (MBTA) is the domestic law that affirms, or implements, a commitment by the U.S. to four international conventions (with Canada, Mexico, Japan, and Russia) for the protection of a shared migratory bird resource. The MBTA makes it unlawful at any time, by any means, or in any manner to pursue, hunt, take, capture, or kill migratory birds. The law also applies to the removal of nests occupied by migratory birds during the breeding season. The MBTA makes it unlawful to take, pursue, molest, or disturb these species, their nests, or their eggs anywhere in the United States.

Federal Clean Water Act (33 USC 1251 through 1376)

The Clean Water Act (CWA) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 requires a federal license or permit that allows activities resulting in a discharge to waters of the United States to obtain state certification, thereby ensuring that the discharge will comply with provisions of the CWA. The RWQCB administers the certification program in

California. Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the United States. Section 404 establishes a permit program administered by USACE that regulates the discharge of dredged or fill material into waters of the United States, including wetlands. USACE implementing regulations are found at 33 CFR 320 and 330. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines, which were developed by the United States Environmental Protection Agency in conjunction with USACE (40 CFR 230). The guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

2015 Clean Water Rule

In 2015, the U.S. Army Corps of Engineers (USACE) and the Environmental Protection Agency (EPA) issued the Clean Water Rule detailing the process for determining Clean Water Act (CWA) jurisdiction over waters of the United States (waters of the U.S.) (USACE 2015). The rule is currently in effect in California and 21 other states. The 2015 Clean Water Rule includes a detailed process for determining which areas may be subject to jurisdiction under the Clean Water Act, and broadly classifies features into three categories: those that are jurisdictional by rule (Category A below), those that excluded by rule (Category C below) and those features that require a "significant nexus test" (Category B below).

The significant nexus test includes consideration of hydrologic and ecologic factors. For circumstances such as those described in Category B below, the significant nexus test would take into account physical indicators of flow (evidence of an ordinary high water mark [OHWM]), if a hydrologic connection to a Traditionally Navigable Water (TNW) exists, and if the aquatic functions of the water body have a significant effect (more than speculative or insubstantial) on the chemical, physical, and biological integrity of a TNW. The USACE and EPA will apply the significant nexus standard to assess the flow characteristics and functions of a potential waters of the U.S. to determine if it significantly affects the chemical, physical, and biological integrity of the downstream TNW.

Wetlands (including swamps, bogs, seasonal wetlands, seeps, marshes, and similar areas) are also considered waters of the U.S., and are defined by USACE as "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3[b]; 40 CFR 230.3[t]). Indicators of three wetland parameters (i.e., hydric soils, hydrophytic vegetation, and wetlands hydrology), as determined by field investigation, must be present for a site to be classified as a wetland by USACE (Environmental Laboratory 1987).

2015 Clean Water Rule Key Points Summary

(A) The USACE and EPA will assert jurisdiction over the following waters (jurisdictional by rule):

- TNWs.
- Interstate waters and wetlands.
- Territorial seas.
- Impoundments of waters (reservoirs, etc.).
- Tributaries with the following attributes:
  - Contributes flow to a TNW.
  - Contain bed, banks, and ordinary high water mark.
  - Can be natural, man-altered, or man-made.
  - Can have constructed breaks (culverts, pipes, etc.) or natural breaks.
- Waters "adjacent" to TNW and their tributaries, including:
  - Waters that are bordering, contiguous, or neighboring a TNW, interstate water, territorial sea, impoundment or tributary. Includes waters separated from other ''waters of the United States'' by constructed dikes or barriers, natural river berms, beach dunes or similar.
  - Waters within 100 feet of the OHWM of a TNW, interstate water, territorial sea, impoundment or tributary.
  - Waters within the 100-year floodplain and within 1,500 feet of a TNW, interstate water, territorial sea, impoundment or tributary.
  - Waters within 1,500 feet of the high tide line or OHWM of a TNW or territorial sea.

(B) The USACE and EPA will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a TNW unless excluded by rule (significant nexus test):

- Vernal pools that have a significant nexus to a TNW or territorial sea.
- Waters within the 100-year floodplain of a TNW, interstate water or territorial sea.
- Waters within 4,000 feet of the high tide line or OHWM of a TNW, interstate water, territorial sea, impoundment or tributary.

(C) The USACE and EPA will not assert jurisdiction over the following features (excluded by rule):

- Waste treatment facilities including basins and percolation ponds.
- Prior converted cropland.
- The following types of ditches:
  - Ephemeral ditches that are not a relocated tributary or excavated in a tributary.
  - Intermittent ditches that are not a relocated tributary, excavated in a tributary, or drain wetlands.
  - Ditches that do not flow, either directly or through another water, into a TNW, interstate waters, territorial sea.

- Artificially irrigated areas that would revert to upland.
- Artificial, constructed lakes and ponds created in dry land such as stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, cooling ponds
- Swimming pools or reflecting pools in dry land.
- Small ornamental waters created in dry land.
- Water-filled depressions created in dry land from mining or construction activities including pits for fill, sand, or gravel.
- Erosional features including gullies and rills that are not tributaries, non-wetland swales and constructed grass waterways.
- Puddles.
- Groundwater.
- Stormwater control features created in dry land.
- Wastewater recycling structures created in dry land including detention and retention basins, groundwater recharge basins, percolation ponds and water distributary structures.

Wetlands and Other Waters of the United States

Aquatic resources, including riparian areas, wetlands, and certain aquatic vegetation communities, are considered sensitive biological resources and can fall under the jurisdiction of several regulatory agencies. USACE exerts jurisdiction over waters of the United States, including all waters that are subject to the ebb and flow of the tide; wetlands and other waters such as lakes, rivers, streams (including intermittent or ephemeral streams), mudflats, sandflats, sloughs, prairie potholes, vernal pools, wet meadows, playa lakes, or natural ponds; and tributaries of the above features. USACE can also exert jurisdiction over ditches under certain circumstances such as those that are tributary to a traditional navigable water (TNW) or that replace a natural feature. The extent of waters of the United States is generally defined as that portion that falls within the limits of the OHWM. Typically, the OHWM corresponds to the two-year flood event.

Wetlands, including swamps, bogs, seasonal wetlands, seeps, marshes, and similar areas, are defined by USACE as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3[b]; 40 CFR 230.3[t]). Indicators of three wetland parameters (i.e., hydric soils, hydrophytic vegetation, and wetlands hydrology), as determined by field investigation, must be present for a site to be classified as a wetland by USACE (Environmental Laboratory, 1987).

State

California Endangered Species Act (California Fish and Game Code § 2050 et seq.)

The CESA establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The CESA mandates that State agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no State agency consultation procedures under the CESA. For projects that would affect a listed species under both the CESA and the FESA, compliance with the FESA would

satisfy the CESA if CDFW determines that the federal incidental take authorization is "consistent" with the CESA under California Fish and Game Code Section 2080.1. For projects that would result in take of a species listed under the CESA only, the project operator would have to apply for a take permit under Section 2081(b).

California State Fish and Game Code § 1602

Under these sections of the California Fish and Game Code, the project operator is required to notify CDFW prior to any project that would divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Pursuant to the code, a "stream" is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel having banks and supporting fish or other aquatic life. Based on this definition, a watercourse with surface or subsurface flows that supports or has supported riparian vegetation is a stream and is subject to CDFW jurisdiction. Altered or artificial watercourses, which may include ditches, that are valuable to fish and wildlife are subject to CDFW jurisdiction. CDFW also has jurisdiction over dry washes that carry water during storm events.

Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFW is required to propose reasonable project changes to protect the resource. These modifications are formalized in a Streambed Alteration Agreement, which becomes part of the plans, specifications, and bid documents for the project.

California Fully Protected Species

California fully protected species is described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species. CDFW is unable to authorize incidental take of fully protected species when activities are proposed in areas inhabited by those species.

California State Fish and Game Code §§ 2080 and 2081

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

California State Fish and Game Code §§ 3503, 3503.5, 3513, and 3800

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptors (i.e., species in the orders Falconiformes and Strigiformes), including its nests or eggs. Typical violations of these codes include destruction of active nests resulting from removal of vegetation in which the nests are located. Violation of Section 3503.5 could also include failure of active raptor nests resulting

from disturbance of nesting pairs by nearby project construction. This statute does not provide for the issuance of any type of incidental take permit.

Section 3800 of the California Fish and Game Code affords protection to all nongame birds, which are all birds occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds. Section 3513 of the California Fish and Game Code upholds the MBTA by prohibiting any take or possession of birds that are designated by the MBTA as migratory nongame birds except as allowed by federal rules and regulations promulgated pursuant to the MBTA.

California Environmental Quality Act Guidelines, § 15380

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

Native Plant Protection Act (California Fish and Game Code §§ 1900 through 1913)

California's NPPA requires all State agencies to use their authority to carry out programs to conserve endangered and rare native plants. Provisions of the NPPA prohibit the taking of listed plants from the wild and require notification of CDFW at least 10 days in advance of any change in land use. This allows CDFW to salvage listed plant species that would otherwise be destroyed. The project operator is required to conduct botanical inventories and consult with CDFW during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

California Wetland Definition

Unlike the federal government, California has adopted the Cowardin et al. (1979) definition of wetlands. For purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes (at least 50 percent of the aerial vegetative cover); (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is nonsoil and saturated with water or covered by shallow water at some time during the growing season of each year.

Under normal circumstances, the federal definition of wetlands requires all three wetland identification parameters to be met, whereas the Cowardin definition requires the presence of at least one of these parameters. For this reason, identification of wetlands by State agencies consists of the union of all areas that are periodically

inundated or saturated or in which at least seasonal dominance by hydrophytes may be documented or in which hydric soils are present.

Section 401 Clean Water Act

Under Section 401 of the CWA, the local RWQCB, Santa Ana RWQCB, must certify that actions receiving authorization under Section 404 of the CWA also meet State water quality standards. The RWQCB requires projects to avoid impacts to wetlands if feasible and requires that projects do not result in a net loss of wetland acreage or a net loss of wetland function and values. Compensatory mitigation for impacts to wetlands and/or waters of the State is required.

Porter-Cologne Water Quality Control Act

The RWQCB also has jurisdiction over waters deemed 'isolated' or not subject to Section 404 jurisdiction under the SWANCC decision. Dredging, filling, or excavation of isolated waters constitutes a discharge of waste to waters of the State and prospective dischargers are required obtain authorization through an Order of Waste Discharge or waiver thereof from the RWQCB and comply with other requirements of Porter-Cologne Act.

Regional

Western Riverside County Multiple Species Habitat Conservation Plan

The MSHCP is a comprehensive, multi-jurisdictional habitat conservation plan (HCP) focused on the conservation of species and their associated habitats in western Riverside County. The primary goal of the MSHCP is to maintain biological and ecological diversity within a rapidly urbanizing region. The MSHCP involves the assembly and management of a 500,000-acre Conservation Area for the conservation of natural habitats and their constituent wildlife populations. The MSHCP was developed to serve as a HCP pursuant to the Natural Communities Conservation Planning (NCCP) Act and Section 10(a)(1)(B) of the FESA. The MSHCP encompasses 1.26 million acres and includes all unincorporated Riverside County land west of the crest of the San Jacinto Mountains to the Orange County line as well as jurisdictional areas of the Cities of Temecula, Murrieta, Lake Elsinore, Canyon Lake, Norco, Corona, Riverside, Moreno Valley, Banning, Beaumont, Calimesa, Perris, Hemet, and San Jacinto. The overarching purpose of the plan is to balance development and economic interests with species and lands conservation goals. The MSHCP permits development of lands and take of species "in exchange for the assembly and management of a coordinated MSHCP Conservation Area" (Western Riverside County Regional Conservation Authority, 2003a).

The City of Hemet and the City of San Jacinto have adopted ordinances to implement the MSHCP, which addresses habitat protection issues throughout the County and Cities and establishes "criteria areas," which require high levels of habitat protection. All development projects within criteria areas are first required to undergo an extensive habitat assessment and if necessary, undergo an acquisition process from the RCA.

Existing Conditions

Land Cover Vegetation Communities

As shown in Figure 3, the study area is primarily comprised of agricultural lands, developed areas and disturbed areas that are devoid of vegetation, with minor areas that support sprangletop grass patches and open water.

Agricultural Lands

The agricultural lands within the Project area are characterized by the presence of crops, primarily sod, and cattle farming/grazing lands which are dominated by highly disturbed open fields. Agricultural lands are located throughout the study area and cover approximately 5.56 acres of the Project site.

Developed and Disturbed Areas

Developed areas are characterized by the presence of paved roads, residences, commercial facilities and associated landscaped areas containing non-native ornamental plants. Developed areas are located throughout the biological study area and cover 10.53 acres of the Project site.

Disturbed areas are characterized by signs of recent disturbance, typically in the form of disking for agricultural purposes or roadside maintenance, and the presence of non-native plants such as red brome (*Bromus madritensis*), red-stemmed filaree (*Erodium cicutarium*), foxtail barley (*Hordeum murinum*), cheeseweed (*Malva parvifolia*), Russian thistle (*Salsola tragus*), London rocket (*Sisymbrium irio*), and a number of other non-native plants. Native plants observed within disturbed areas included annual sunflower (*Helianthus annuus*) and common fiddeneck (*Amsinckia intermedia*). Disturbed areas are located throughout the study area and cover 5.91 acres.

A variety of planted trees on the Project site occur along roadways and residential areas. These include Eucalyptus (*Eucalyptus* sp.), liquidambar (*Liquidambar styraciflua*), olive (*Olea europaea*), prickley pear (*Opuntia* sp.), palo verde (*Parkinsonia aculeata*), pine trees (*Pinus* sp.), cottonwood (*Populus* sp.), Peruvian pepper tree (*Schinus molle*), and Mexican fan palm (*Washingtonia robusta*).

Bare ground is used to characterize habitats that have hard, compacted soils and are devoid of vegetation, which occurs at the western end of the Project site and along Sanderson Avenue. Bare ground covers 0.41 acres of the Project site.

Sprangletop Grass Patches

Patches of sprangletop grass (*Leptochloa fusca* ssp) are located at the northeastern and southeastern corners of Esplanade Avenue and Warren Road. This native community consists of saturated soils and hydrophytic vegetation. This community is dominated by sprangletop grass and some areas also contain small amounts of tubered bulrush (*Bolboschoenus glaucus*), northern willow herb (*Epilobium ciliatum*), scarlet pimpernel (*Lysimachia arvensis*), white sweetclover (*Melilotus albus*), and annual beard grass (*Polypogon monspeliensis*). Sprangletop grass patches covers less than 0.1 acre of the Project site.

Open Water

Open water occurred within a roadside ditch located at the northeast corner of Esplanade Avenue and Warren Road. Sprangletop grass patches occur along the margins of the ditch. As shown on Figure 2, the San Diego Canal and an agricultural pond located to the south of Esplanade Avenue and west of Cawston Avenue are also present in the vicinity, both of which and contain open water. Open water covers 1.06 acre of the biological study area and 0.01 acre of the Project site.

Wildlife

Common birds observed during the reconnaissance included Canada goose (*Branta canadensis*), red-tailed hawk (*Buteo jamaicensis*), Anna's hummingbird (*Calypte anna*), turkey vulture (*Cathartes aura*), hermit thrush

(*Catharus guttatus*), killdeer (*Charadrius vociferous*), rock pigeon (*Columba livia*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), snowy egret (*Egretta thula*), American kestrel (*Falco sparverius*), house finch (*Haemorhous mexicanus*), California gull (*Larus californicus*), northern mockingbird (*Mimus polyglottos*), house sparrow (*Passer domesticus*), cliff swallow (*Petrochelidon pyrrhonota*), white-faced ibis (*Plegadis chihi*), bushtit (*Psaltriparus minimus*), great-tailed grackle (*Quiscalus mexicanus*), black phoebe (*Sayornis nigricans*), Allen's hummingbird (*Selasphorus sasin*), yellow-rumped warbler (*Setophaga coronate*), western bluebird (*Sialia mexicana*), Eurasian collard-dove (*Streptopelia decaocto*), European starling (*Sturnus vulgaris*), Cassin's kingbird (*Tyrannus vociferans*), and mourning dove (*Zenaida macroura*). Three special-status wildlife species, northern harrier (*Circus hudsonius*), California horned-lark (*Eremophila alpestris*), and white-faced ibis (*Plegadis chihi).* These species were observed or otherwise detected flying over the site or foraging near the site during the biological reconnaissance. Mosquitofish (*Gambusia affinis*), was observed in the open water within the roadside ditch.

Special-Status Biological Resources

According to the CNDDB, CNPS and USFWS databases, a total of 54 special-status plant species, 49 special-status wildlife species, and six (6) sensitive natural communities have been previously recorded within the database search area (i.e., within the region). However, 96 of these special-status species do not have the potential to occur in the study area, because the habitat is not suitable due to its disturbed condition and surrounding urbanization, improper vegetation and soil requirements, and/or the Project site is outside the known range for the species. Sensitive natural communities are omitted from discussion, because it was confirmed that none are present within the study area. The results of the database searches are provided in **Attachment B**.

Special-Status Plants and Wildlife

Based on the habitats (e.g., soils, vegetation cover, slope, hydrology, etc.) and land cover (e.g., Disturbed and Developed, Agricultural Land and Spangletop Grass Patches) that are present, previously recorded species occurrences in the region, it was determined that three special-status wildlife species and seven special-status plant species have potential to occur within the study area: Cooper's hawk (*Accipiter cooperi*), coastal whiptail (*Aspidoscelis tigris* ssp. *stejnegeri*), burrowing owl (*Athene cunicularia*), San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*), Parish's brittlescale (*Atriplex parishii*), Davidson's saltscale (*Atriplex serenana* var. *davidsonii*), smooth tarplant (*Centromadia pungens* ssp. *laevis*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), little mousetail (*Myosurus minimus* ssp. *apus*) and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*). Three special-status wildlife species, northern harrier, California horned lark, and white-faced ibis were observed to be present (foraging) within the agricultural fields and nearby agricultural pond located in close proximity to the Project site. All six wildlife species and seven plant species are MSHCP-covered species. **Table 1** identifies the protective status of the species that were observed, including those that have the potential to occur based on their preferred habitat requirements and the quality of habitat located within the study area.

The "Potential for Occurrence" category indicated in Table 1 is defined as follows:

- **Low Potential:** The Project area and/or immediate vicinity provides low-quality habitat for a particular species, such as improper substrate, disturbed or otherwise degraded habitat, or improper assemblage of desired vegetation, and/or the site is outside of the known range of the species.
- **Moderate Potential:** The Project area and/or immediate vicinity provides marginal habitat for a particular species. For example, proper substrate may be present, but the desired vegetation assemblage or density is

less than ideal, or substrate and vegetation are suitable, but the site is outside of the known elevation range of the species.

- **High Potential:** The Project area and/or immediate vicinity provides high-quality or ideal habitat (i.e., soils, vegetation assemblage, and topography) for a particular species and/or there are known occurrences in the general vicinity of the Project area.

TABLE 1
SPECIAL-STATUS WILDLIFE AND PLANT SPECIES WITH POTENTIAL TO OCCUR AT THE PROJECT SITE

Common Name	Scientific Name	Status[1,2] (Federal/State/CNPS)	Habitat	Potential to Occur at Project Site
Birds				
Cooper's hawk	*Accipiter cooperi*	None/SWL/None	Woodland, chiefly of open, interrupted or marginal type. Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river flood-plains; also, live oaks. Can also occur in parks, neighborhoods, over fields, at backyard feeders, tree-lined urban streets.	**High**. Open fields and residential neighborhoods with mature trees adjacent to the Project area provide suitable nesting habitat.
burrowing owl	*Athene cunicularia*	None/SSC/None	Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran Desert scrub, Valley & foothill grassland. Also known to occur within open agricultural fields with fossorial mammal burrows present.	**Moderate.** Potential foraging habitat is present on the Project site in the untilled agricultural lands and disturbed areas. Little evidence of ground dwelling mammal activity or suitable burrows were observed during the field reconnaissance.
northern harrier	*Circus hudsonius*	None/SSC/None	Breed in dry upland habitats and use a range of habitats with low vegetation, including deserts, coastal sand dunes, pasturelands, croplands, dry plains, grasslands, old fields, estuaries, open floodplains, and marshes.	**Present.** Observed flying over the Project site. Good foraging habitat near site with the presence of active agricultural lands and disturbed lands dominated by a short herbaceous layer but not likely to nest in the study area. Likely attracted by nearby waterbodies to the north.
California horned lark	*Eremophila alpesris actia*	None/SWL/None	Favor bare, dry ground and areas of short, sparse vegetation. Common habitats include prairies, deserts, beaches, dunes, and heavily grazed pastures. Horned Larks also frequent areas cleared by humans, such as plowed fields and mowed expanses around airstrips.	**Present.** Observed flying over and foraging adjacent to the Project site within the nearby agricultural fields.

Common Name	Scientific Name	Status[1,2] (Federal/State/CNPS)	Habitat	Potential to Occur at Project Site
white-faced ibis	*Plegadis chihi*	None/SWL/None	Marsh, swamp, & wetland	**Present.** Observed flying over the site. Marginal foraging and nesting habitat within Project site. Likely attracted by nearby waterbodies to the north. Not expected to occur within the roadside ditch, but could potentially be present within the nearby agriculture pond.
Reptiles				
coastal whiptail	*Aspidoscelis tigris* ssp. *stejnegeri*	None/SSC/None	Woodland, riparian, deserts, semiarid areas with sparse vegetation and open areas	**Moderate.** Disturbed areas, agricultural lands and bare ground may provide suitable habitat, primarily where friable soils are present with open vegetation cover.
Plants				
Munz's onion	*Allium munzii*	FE/ST/1B.1	Chaparral, coastal scrub, cismontane woodland, pinyon and juniper woodland, valley and foothill grassland. Heavy clay soils; grows in grasslands & openings within shrublands or woodlands. Elevation range: 375-1040 m.	**Low.** Agricultural lands, developed and disturbed areas, areas of bare ground, sprangletop grass patches and open water habitat do not provide habitat associated with this species, which is typically found in openings in coastal scrub.
San Diego ambrosia	*Ambrosia pumila*	FE/None/1B.1	Chaparral, coastal scrub, valley and foothill grassland. Sandy loam or clay soil; sometimes alkaline. In valleys; persists where disturbance has been superficial. Sometimes on margins or near vernal pools. Elevation range: 3-580 m.	**Low**. Disturbed areas and sprangletop grass patches within ditches and the catch basin may provide suitable habitat; however, the species is primarily found in the Santa Ana Mountain foothills.
San Jacinto Valley crownscale	*Atriplex coronata* var. *notatior*	FE/None/1B.1	Playas, valley and foothill grassland, vernal pools. Alkaline areas in the San Jacinto River Valley. Elevation range: 35-460 m.	**High.** Inactive, untilled agricultural lands, developed and disturbed areas, areas of bare ground, sprangletop grass patches and open water habitat provide marginal habitat associated with this species, for which many locations are recorded within one mile south of the Project site.

Common Name	Scientific Name	Status[1,2] (Federal/State/CNPS)	Habitat	Potential to Occur at Project Site
Parish's brittlescale	*Atriplex parishii*	None/None/1B.1	Vernal pools, chenopod scrub, playas. Usually on drying alkali flats with fine soils. Elevation range: 4-1420 m.	**High.** Inactive, untilled agricultural lands, developed and disturbed areas, areas of bare ground, sprangletop grass patches and open water habitat provide marginal habitat associated with this species, for which several locations are recorded within one mile south of the Project site.
Davidson's saltscale	*Atriplex serenana* var. *davidsonii*	None/None/1B.2	Coastal bluff scrub, coastal scrub. Alkaline soil. Elevation range: 0-480 m.	**High.** Inactive, untilled agricultural lands, developed and disturbed areas, areas of bare ground, sprangletop grass patches and open water habitat provide marginal habitat associated with this species, for which many locations are recorded within one mile south of the Project site.
thread-leaved brodiaea	*Brodiaea filifolia*	FT/SE/1B.1	Chaparral (openings), cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools. Usually associated with annual grassland and vernal pools; often surrounded by shrubland habitats. Occurs in openings on clay soils. Elevation range: 15-1030 m.	**Low.** Agricultural lands, developed and disturbed areas, areas of bare ground, sprangletop grass patches and open water habitat do not provide habitat associated with this species; however, the species is recorded within two miles of the Project site.
round-leaved filaree	*California macrophylla*	None/None/None	Valley grassland, foothill woodland.	**Low.** Agricultural lands, developed and disturbed areas, areas of bare ground, sprangletop grass patches and open water habitat do not provide habitat associated with this species.
smooth tarplant	*Centromadia pungens* ssp. *laevis*	None/None/1B.1	Alkali playa, Chenopod scrub, Meadow and seep, Riparian woodland, Valley and foothill grassland & Wetland.	**High**. Disturbed areas and sprangletop grass patches within ditches and the catch basin may provide suitable habitat.
many-stemmed dudleya	*Dudleya multicaulis*	None/None/1B.2	Chaparral, coastal scrub, valley and foothill grassland. In heavy, often clayey soils or grassy slopes. Elevation range: 1-910 m.	**Low.** Agricultural lands, developed and disturbed areas, areas of bare ground, sprangletop grass patches and open water habitat do not provide habitat associated with this species.
Coulter's goldfields	*Lasthenia glabrata ssp. coulteri*	None/None/1B.1	Coastal salt marshes, playas, vernal pools. Usually found on alkaline soils in playas, sinks, and grasslands. Elevation range: 1-1375 m.	**High**. Disturbed areas and sprangletop grass patches within ditches and the catch basin may provide suitable habitat.

Common Name	Scientific Name	Status[1,2] (Federal/State/CNPS)	Habitat	Potential to Occur at Project Site
little mousetail	*Myosurus minimus* ssp. *apus*	None/None/3.1	Vernal pools, valley and foothill grassland. Alkaline soils. Elevation range: 20-640 m.	**High.** Inactive, untilled agricultural lands, developed and disturbed areas, areas of bare ground, sprangletop grass patches and open water habitat provide marginal habitat associated with this species, for which many locations are recorded within one mile south of the Project site.
mud nama	*Nama stenocarpa*	None/None/2B.2	Marshes and swamps. Lake shores, river banks, intermittently wet areas. Elevation range: 5-500 m.	**Low**. Disturbed areas and sprangletop grass patches within ditches and the catch basin may provide suitable habitat; however, species records concentrated within San Jacinto Wildlife Reserve to the north.
spreading navarretia	*Navarretia fossalis*	FT/None/1B.1	Vernal pools, chenopod scrub, marshes and swamps, playas. San Diego hardpan and San Diego claypan vernal pools; in swales & vernal pools, often surrounded by other habitat types. Elevation range: 15-850 m.	**Low.** Agricultural lands, developed and disturbed areas, areas of bare ground, sprangletop grass patches and open water habitat do not provide habitat associated with this species. No vernal pool habitat present.
California Orcutt grass	*Orcuttia californica*	FE/SE/1B.1	Vernal pools. Elevation range: 10-660 m.	**Low.** Agricultural lands, developed and disturbed areas, areas of bare ground, sprangletop grass patches and open water habitat do not provide habitat associated with this species. No vernal pool habitat present.
Wright's trichocoronis	*Trichocoronis wrightii* var. *wrightii*	None/None/2B.1	Marshes and swamps, riparian forest, meadows and seeps, vernal pools. Mud flats of vernal lakes, drying river beds, alkali meadows. Elevation range: 5-435 m.	**Moderate**. Disturbed areas and sprangletop grass patches within ditches and the catch basin may provide suitable habitat. Chiefly found within the main San Jacinto River floodplain.

1 Federal/State/Other Status: FE – Federally listed as endangered, FT – Federally listed as threatened, SE – State listed as endangered, ST – State listed as threated, SSC – Species of Special Concern, SWL – State Watch List

2 All species included in Table 2-8 are also MSHCP covered species.

California Rare Plant Ranking (CRPR)
CRPR 1B Plants considered rare, threatened or endangered in California and elsewhere;
CRPR 2B Plants are considered rare, threatened, or endangered in California but more common elsewhere;
CRPR 3 Plants about which more information is needed;
CRPR 0.1 Seriously threatened in California;
CRPR 0.2 Moderately threatened in California

Results

Three special-status avian species, California horned lark, northern harrier, and white-faced ibis, were observed flying overhead during the site reconnaissance. The white–faced ibis was likely an incidental sighting associated with nearby waterbodies in the region that can provide foraging habitat, such as San Jacinto Reservoir located approximately 2.5 miles to the northeast, or recharge ponds along the San Jacinto River. The California horned larks and the northern harrier were observed foraging within the nearby agricultural fields; however, neither of these species are expected to nest within or immediately adjacent to the Project site because of the presence of active and ongoing use of agricultural lands and the lack of shrubby vegetation near marshes.

Open areas containing untilled agricultural lands and disturbed areas abutting active roadways do not provide suitable foraging habitat for burrowing owls. Untilled agricultural lands and disturbed areas not abutting active roadways provide suitable foraging habitat for burrowing owls, although no suitable burrows, owls, or signs of owls were observed during the site visit. A few, small rodent burrows of undetermined species were observed along Esplanade Avenue and Sanderson Avenue, but none were of the appropriate size for burrowing owl as these were likely created by smaller species such as the common deer mouse. California ground squirrel (*Otospermophilus beecheyi*) burrows are often favored by burrowing owl; however, none were observed during the survey, nor were any other small mammals. The agricultural and fallow fields of row crops and sod make for suitable foraging habitat for burrowing owl; however, no sign of burrowing owl presence was observed in these areas either. Since no suitable burrows are present, no focused surveys are required at this time.

Open areas consisting of agricultural fields and disturbed areas that abut active roadways do no provide suitable foraging habitat for coastal whiptail. Agricultural fields and disturbed areas that do not abut active roadways provide suitable foraging habitat for coastal whiptail; however, no individuals or sign thereof was observed during the site visit; which is not to suggest that this species could not be present.

Within the study area, sprangletop grass patches and disturbed habitat within the ditches and catch basin may provide suitable habitat for San Jacinto Valley crownscale, Parish's brittlescale, Davidson's saltscale, smooth tarplant, Coulter's goldfields, little mousetail and Wright's trichocoronis, since these species do well in disturbed riparian habitats and disturbed wet areas. Sprangletop grass patches account for 0.04 acre within the study area. This includes ditches along Esplanade Avenue and Warren Road and the catch basin south of Esplanade Avenue adjacent to Turnstone Court, both of which are maintained, but provide marginal habitat for these species. However, marginal suitable habitat for these species is limited to ditches north of Esplanade Avenue and east Warren Road within the Project site where impacts are proposed to occur (Figure 3). Sprangletop grass patches within the study area are limited to three locations; one location in the southern tip of the ditch east of Warren Road and north of Esplanade Avenue and two locations in the ditch south of Esplanade Avenue. Only the sprangletop patch east of Warren Road and north of Esplanade Avenue occurs within the Project site where impacts are to occur. No individuals of these species were observed during the survey, but a focused rare plant survey was not conducted for this species during the appropriate blooming period. Non-native plant species such as white sweetclover were present within the marginally suitable ditches and catch basin and can outcompete native plants making it less likely for natives to occur such as those listed above. As noted in CNDDB and CalFlora, one individual smooth tarplant was collected within the project area in 2006.

There is no critical habitat in the study area. The nearest critical habitat is located approximately 1.6 miles south of the Project site, which was established for preserving spreading navarretia (*Navarretia fossalis*) [3]. In addition, critical habitat for San Bernardino kangaroo rat (*Dipodomys merriami parvus*) occurs approximately 4 miles to the east of the Project site within the San Jacinto River. The construction and operation of the Project would not present any negative effects on the critical habitats located in the region.

Nesting Birds

The habitat on the Project site is highly disturbed by anthropogenic activities and traffic, and the flora within the Project site consists mostly of non-native, ruderal species. As such there is moderate quality habitat for foraging and nesting birds. Nonetheless, vegetation that does occur on the Project site (i.e., pine trees, Eucalyptus trees, cottonwood trees and landscaped plants) and the adjacent agricultural fields have the potential to provide nesting and foraging habitat for a variety of common bird species, particularly horned larks, which are a ground-nesting species.

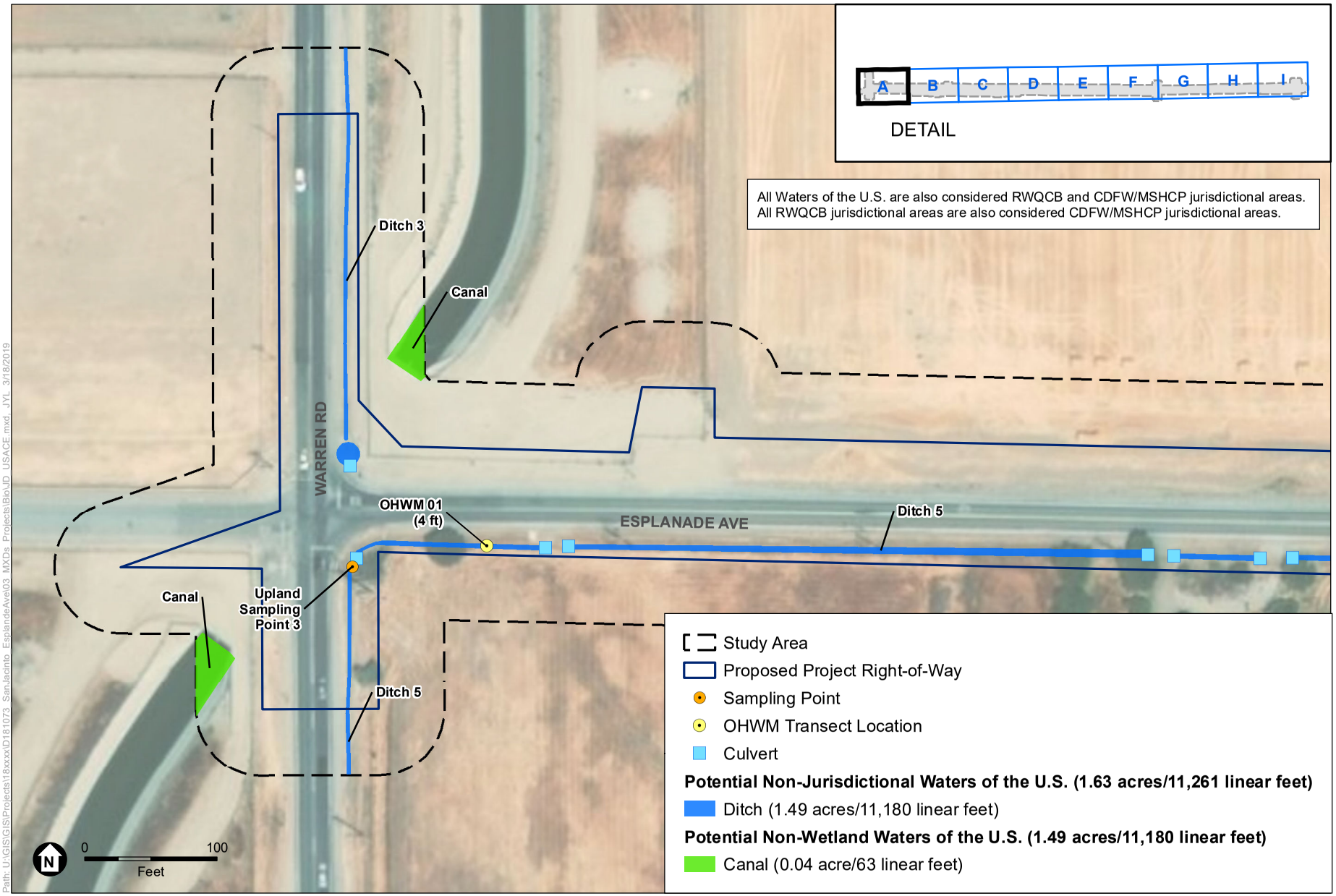
Jurisdictional Waters

As depicted on **Figures 4A** through **4I** and **5A** through **5I**, three potentially jurisdictional waters types were observed on or adjacent to the Project site that include ditches, catch basin and canal. The ditches and catch basin are likely not regulated by the USACE as they appear to lack a connection with a TNW and are excluded by rule in accordance with the 2015 Clean Water Rule. However, they may be regulated by the RWQCB, and/or CDFW. The San Diego Canal is the only canal feature onsite and is considered a potential non-wetland waters of the U.S. as it is perennial and connects with Lake Skinner to the south which is an impoundment of Tucalota Creek, a tributary to a TNW, the Santa Margarita River. Anticipated permits include a Waste Discharge Requirement issued by the RWQCB and a Streambed Alteration Agreement issued by CDFW.

Ditches that convey stormwater flow off the roadway and urban runoff occur along both sides of Esplanade Avenue as well as the east side of Warren Road. The ditches are mostly earthen bottomed and 2 to 5 feet wide. Flows within the ditches likely seep back into the ground within the ditches, flow into the catch basin south of Esplanade Ave and seep into the ground or drain into Reflection Lake to the north. Native vegetation and/or open water occur within small portions of the ditches at the northeast and southeast corners of the intersection of Esplanade Ave and Warren Road and are fed via urban runoff.

A catch basin is located south of Esplanade Avenue and west of Turnstone Court and connects to the ditch that runs south of Esplanade Avenue. The San Diego Canal contains open water and occurs at the northeastern and southwestern corners of the intersection of Esplanade Ave and Warren Road.

[3] US Department of Fish and Wildlife ECOS database. https://fws.maps.arcgis.com/home/webmap/viewer.html?webmap=9d8de5e265ad4fe09893cf75b8dbfb77. Accessed February 2019



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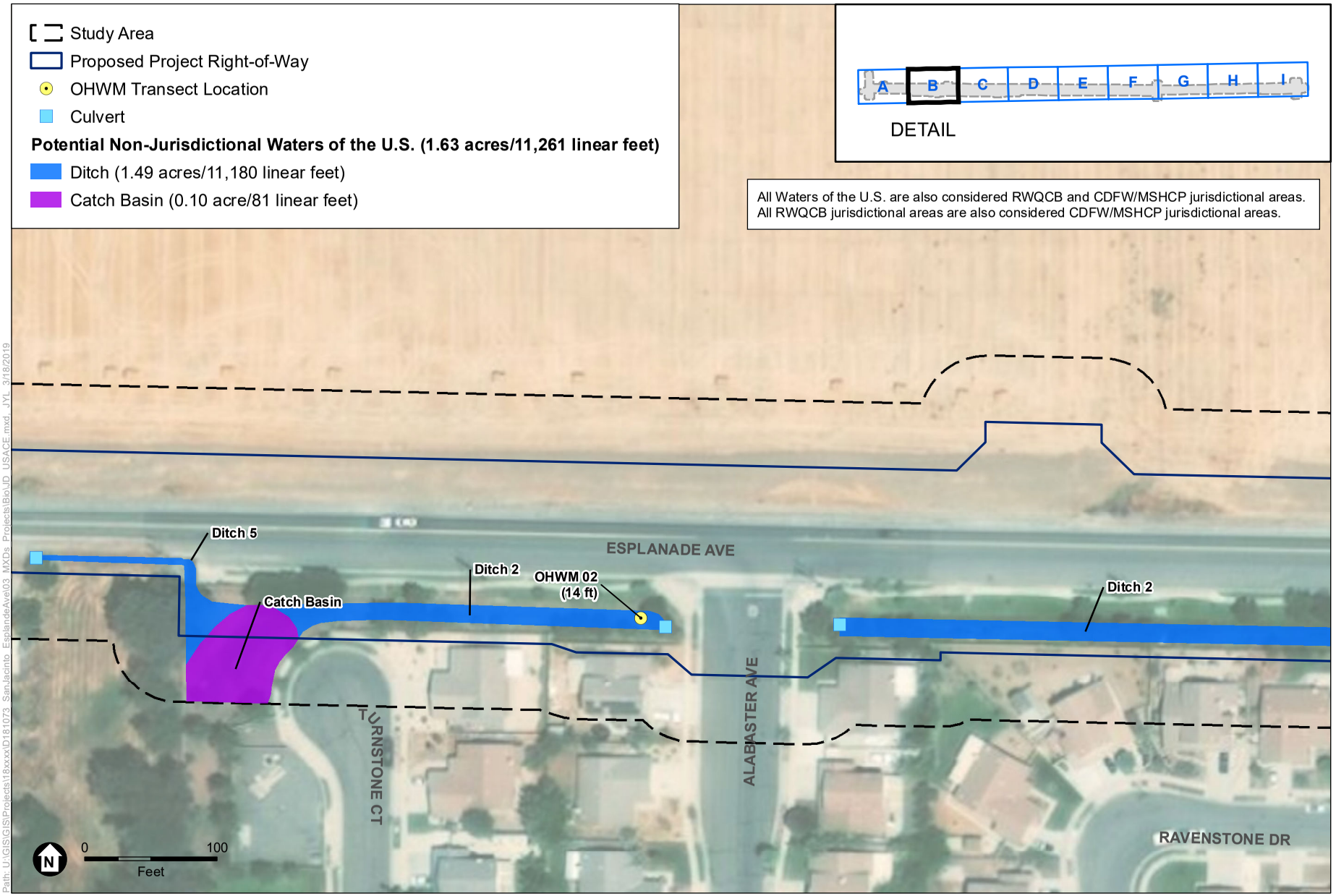
SOURCE: ESRI 2017

San Jacinto Esplanade Avenue

Figure 4A

Jurisdictional Delineation Map -
Potential Non-Wetland Waters and Non-Jurisdictional Waters of the U.S.

ESA



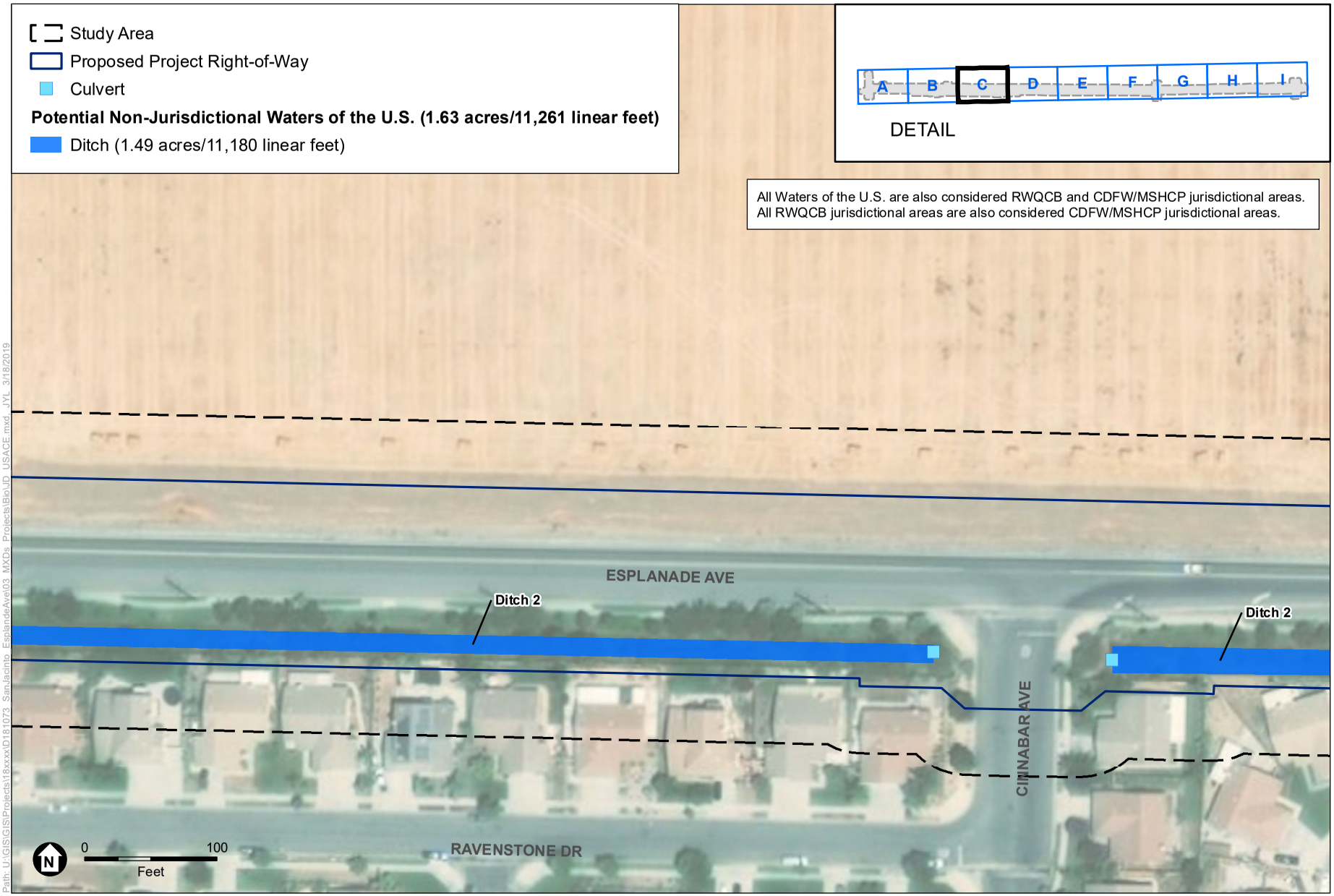
SOURCE: ESRI 2017

San Jacinto Esplanade Avenue

Figure 4B

Jurisdictional Delineation Map -
Potential Non-Wetland Waters and Non-Jurisdictional Waters of the U.S.

ESA



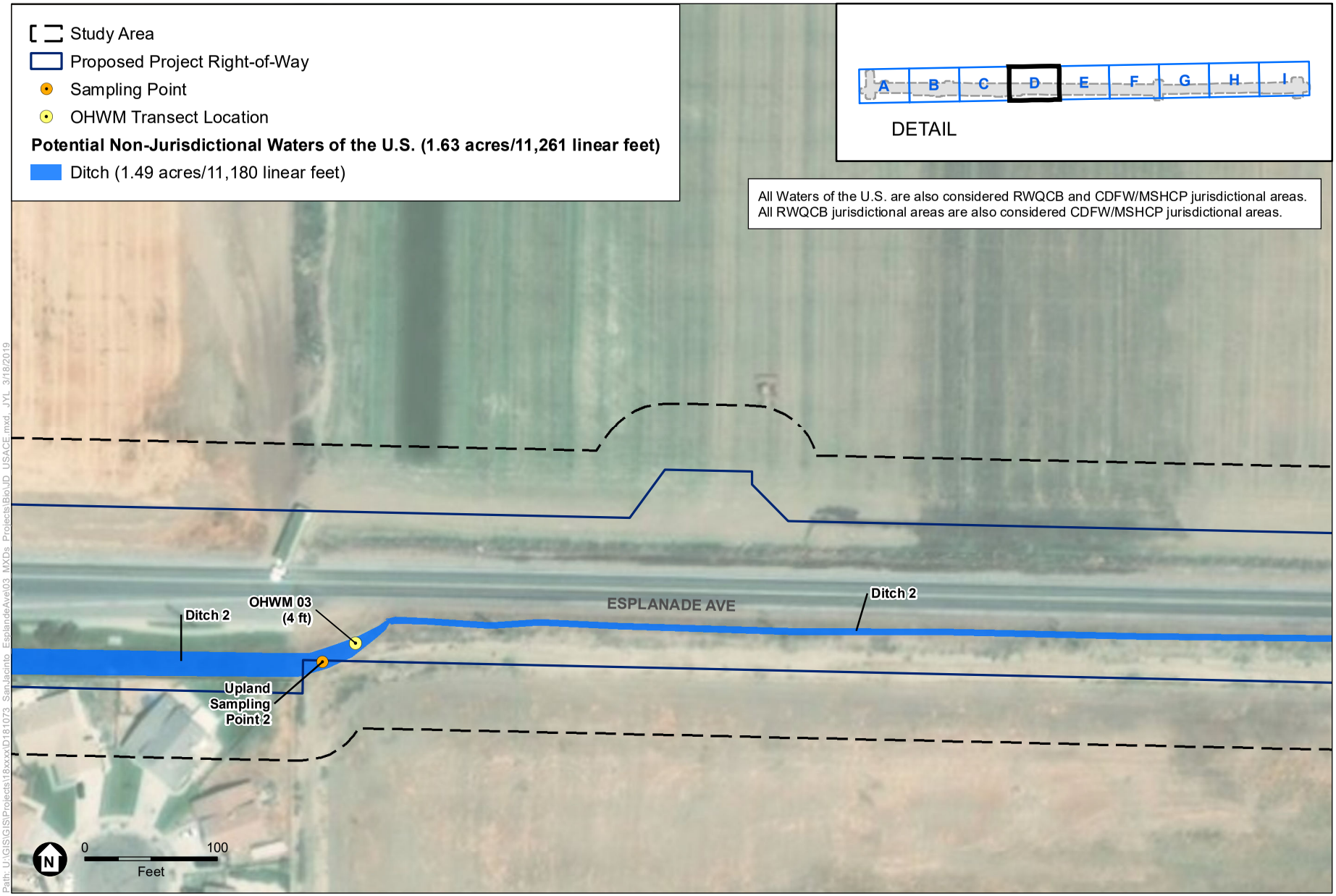
SOURCE: ESRI 2017

San Jacinto Esplanade Avenue

Figure 4C

Jurisdictional Delineation Map -
Potential Non-Wetland Waters and Non-Jurisdictional Waters of the U.S.

ESA



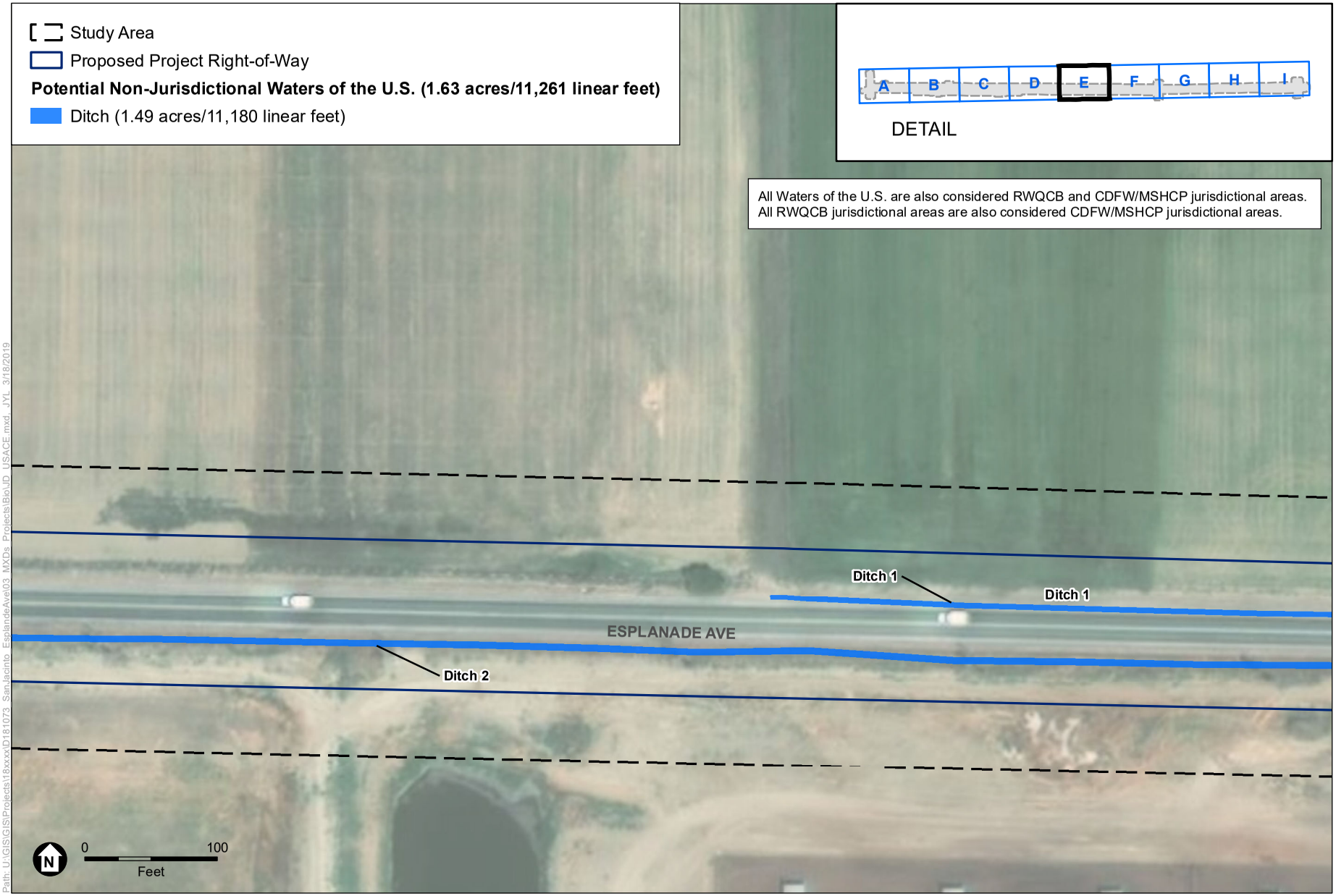
SOURCE: ESRI 2017

San Jacinto Esplanade Avenue

Figure 4D

Jurisdictional Delineation Map -
Potential Non-Wetland Waters and Non-Jurisdictional Waters of the U.S.

ESA



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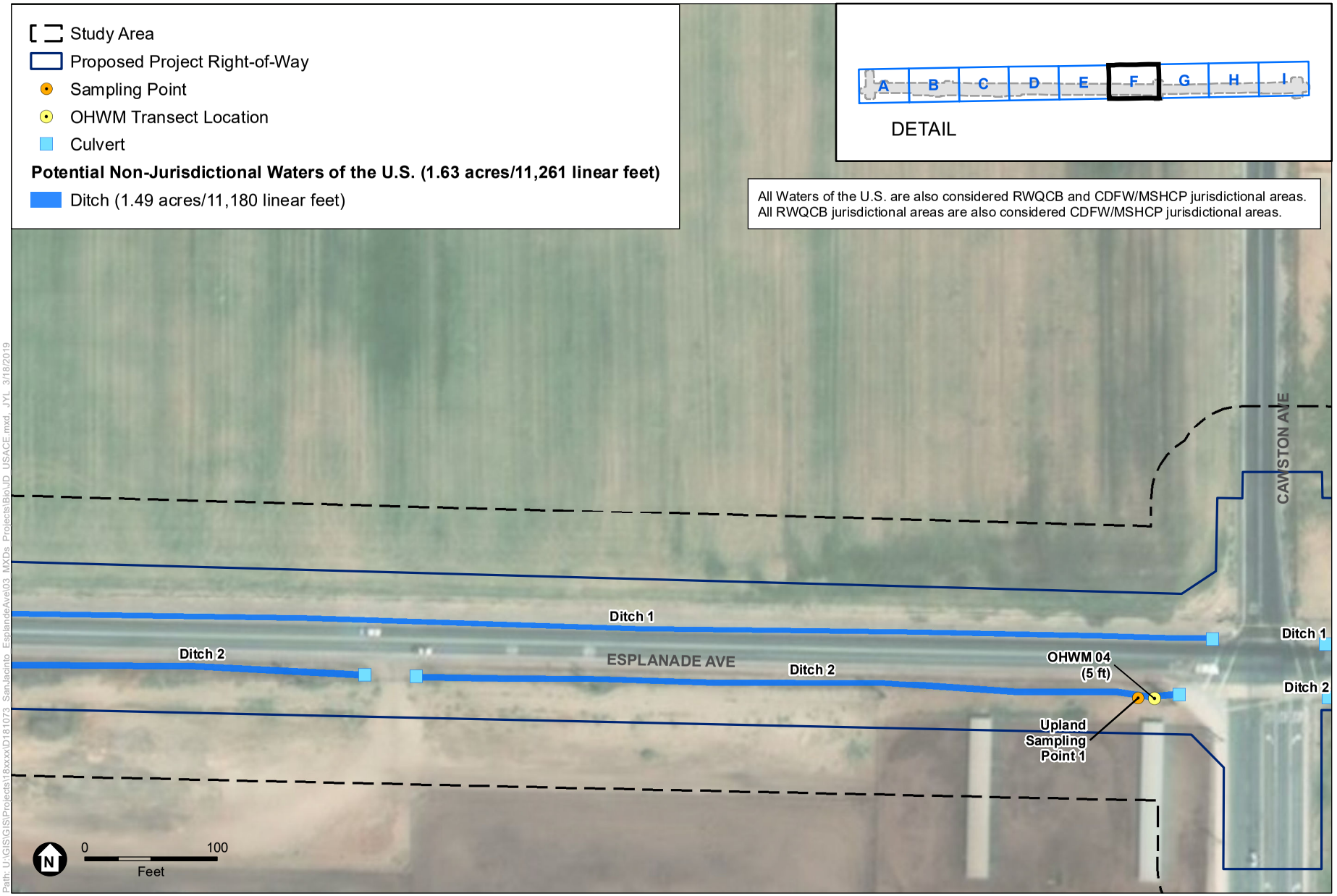
SOURCE: ESRI 2017

San Jacinto Esplanade Avenue

Figure 4E

Jurisdictional Delineation Map -
Potential Non-Wetland Waters and Non-Jurisdictional Waters of the U.S.

ESA



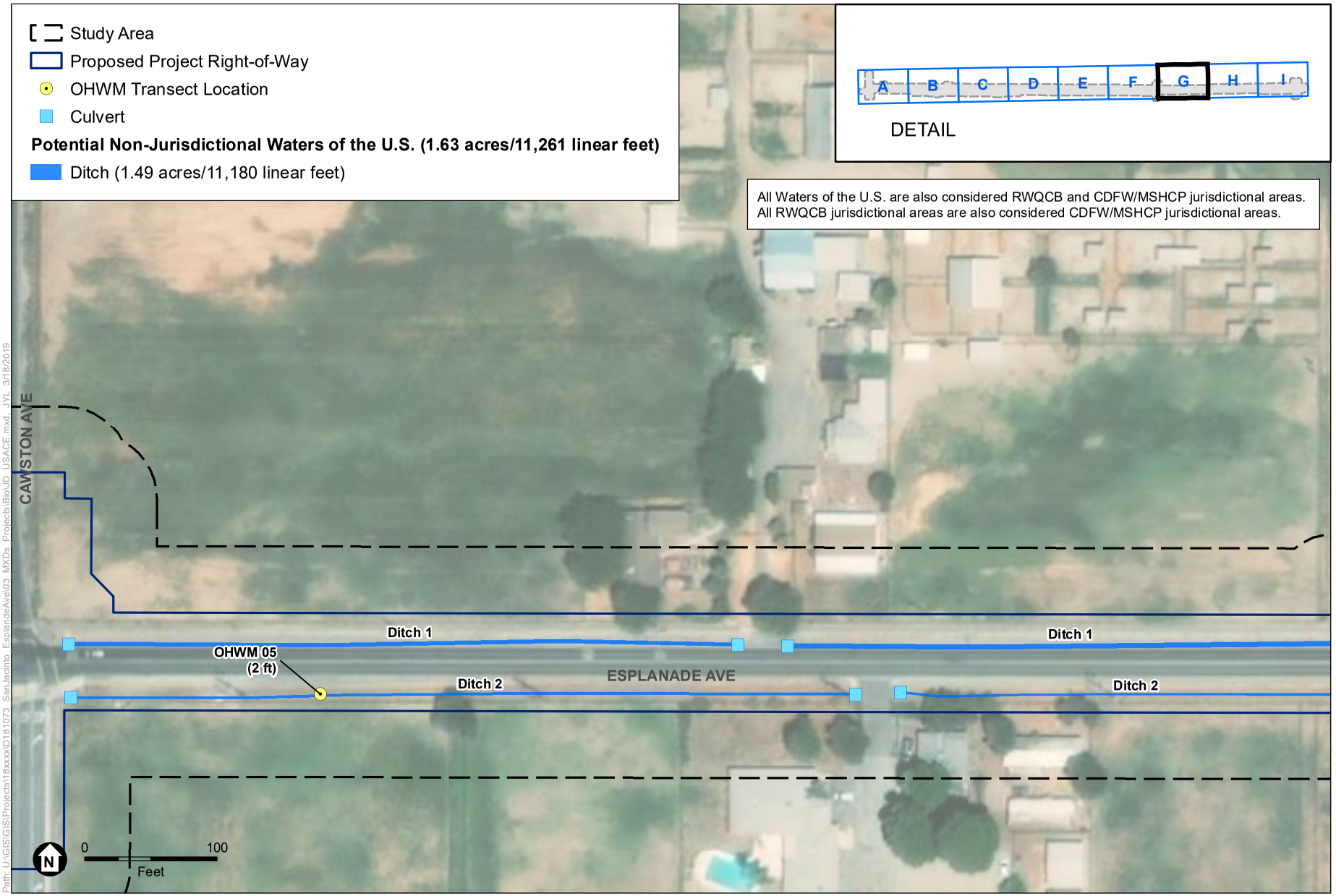
SOURCE: ESRI 2017

San Jacinto Esplanade Avenue

Figure 4F

Jurisdictional Delineation Map -
Potential Non-Wetland Waters and Non-Jurisdictional Waters of the U.S.

ESA



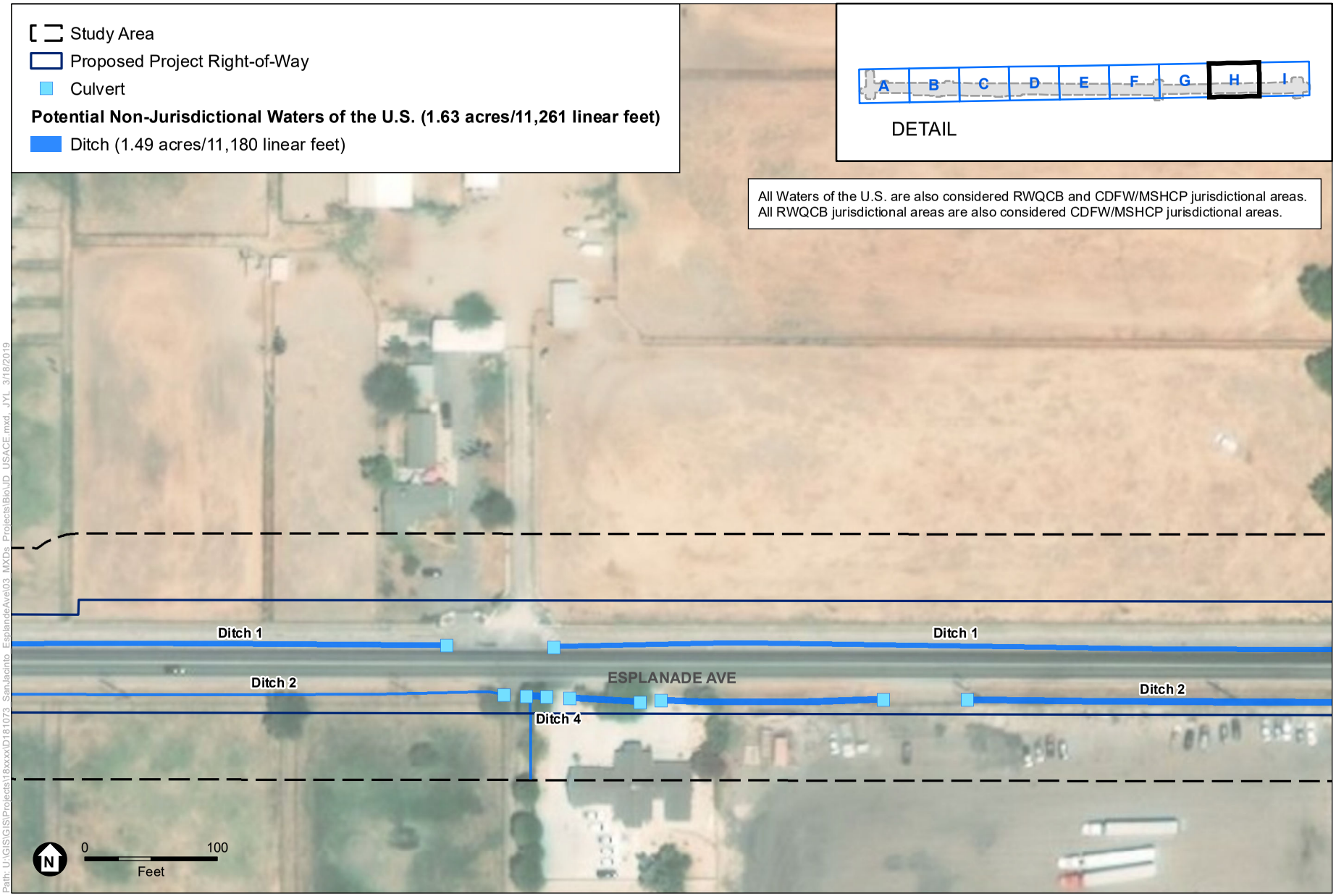
SOURCE: ESRI 2017

San Jacinto Esplanade Avenue

Figure 4G

Jurisdictional Delineation Map -
Potential Non-Wetland Waters and Non-Jurisdictional Waters of the U.S.

ESA



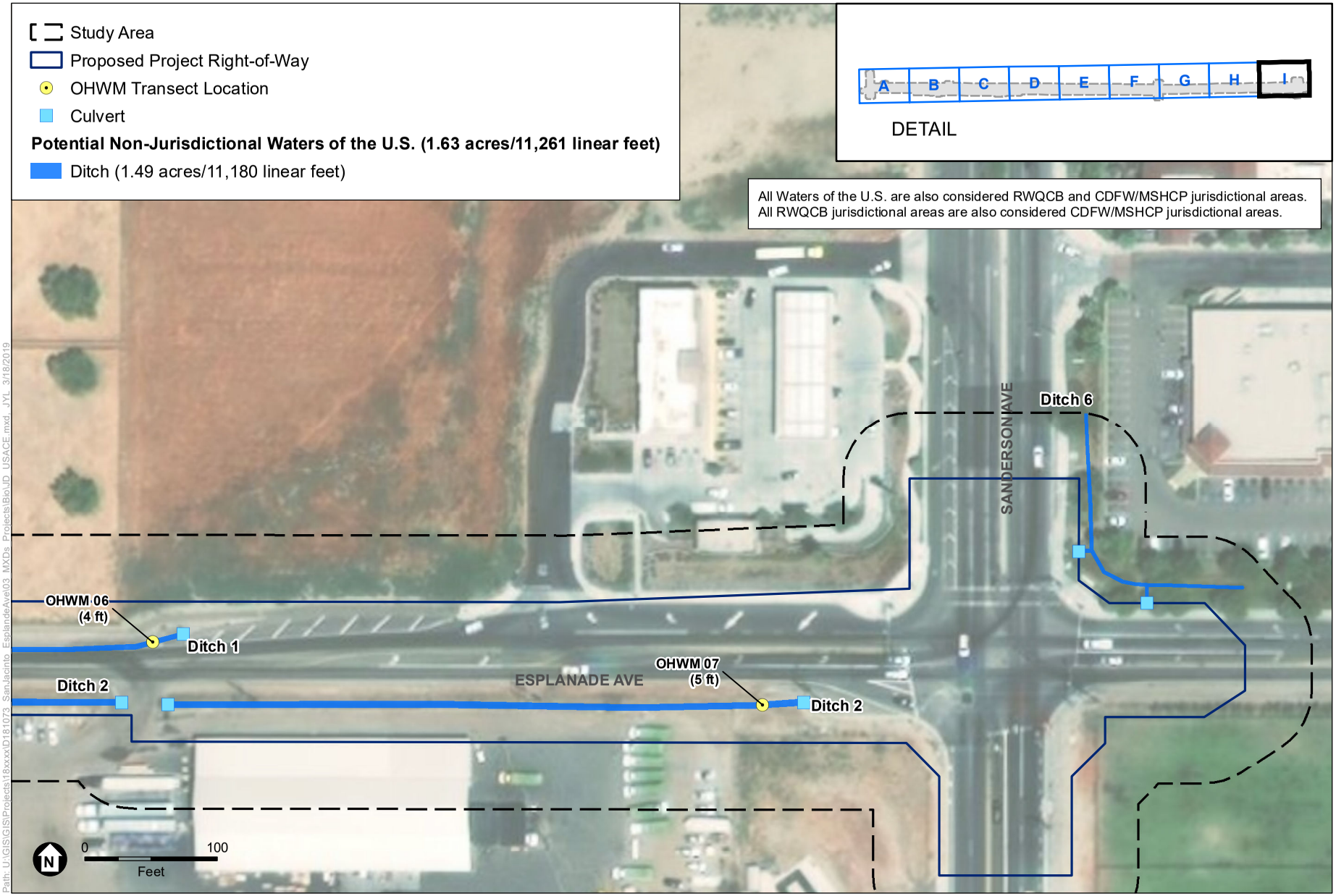
SOURCE: ESRI 2017

San Jacinto Esplanade Avenue

Figure 4H

Jurisdictional Delineation Map -
Potential Non-Wetland Waters and Non-Jurisdictional Waters of the U.S.

ESA



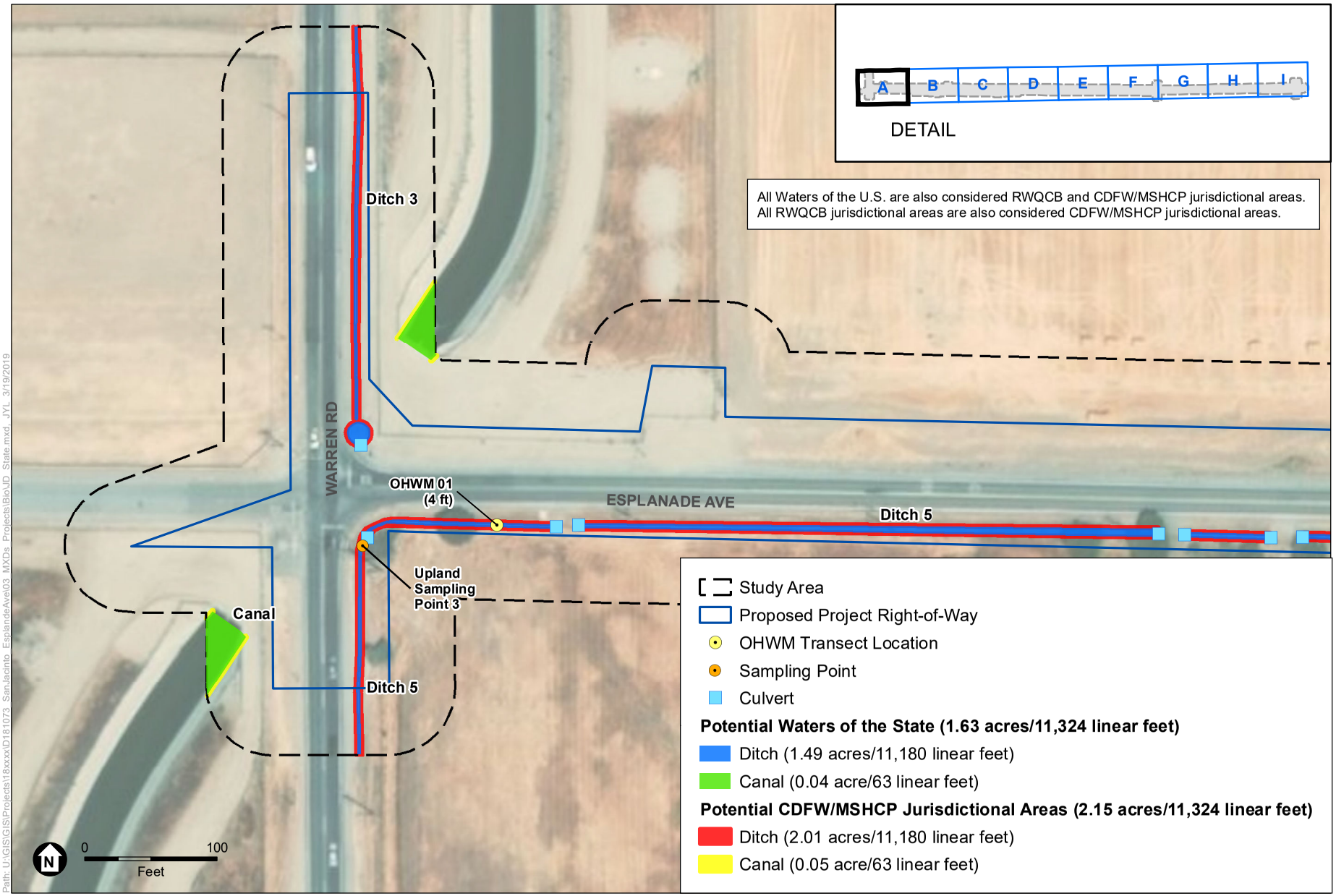
SOURCE: ESRI 2017

San Jacinto Esplanade Avenue

Figure 4I

Jurisdictional Delineation Map -
Potential Non-Wetland Waters and Non-Jurisdictional Waters of the U.S.

ESA



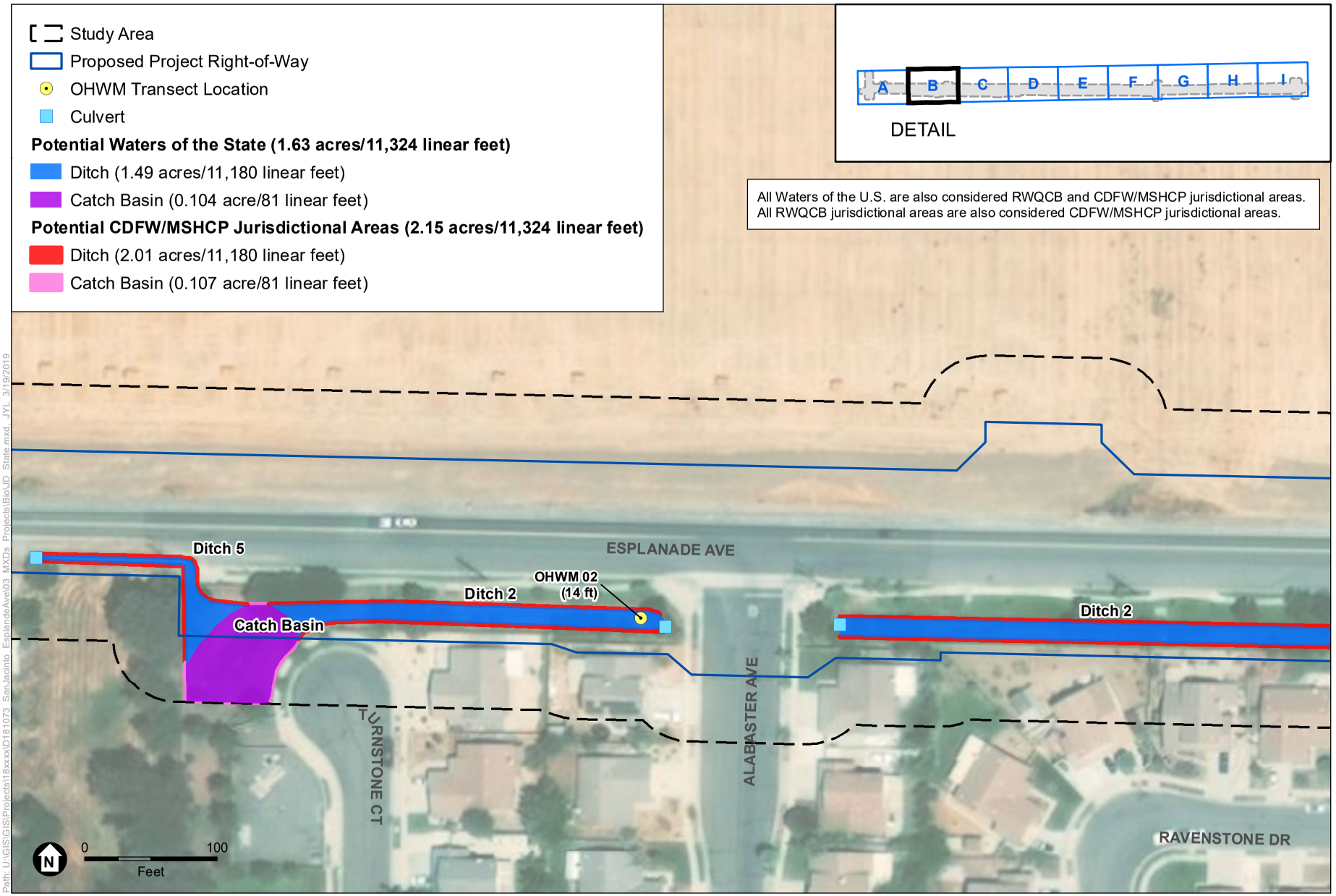
SOURCE: ESRI 2017

San Jacinto Esplanade Avenue

Figure 5A

Potential Waters of the State and CDFW/MSHCP Jurisdictional Areas

ESA



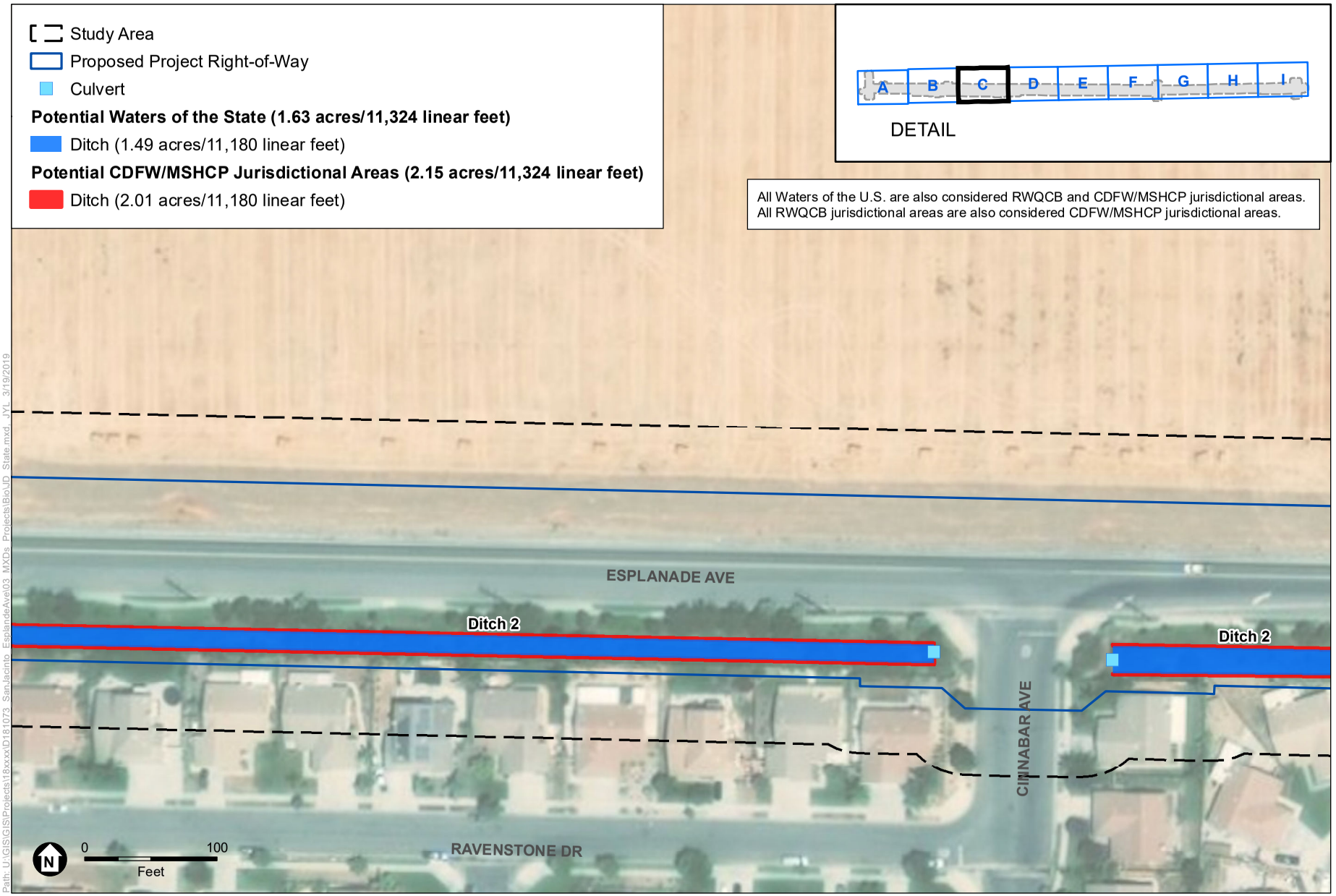
SOURCE: ESRI 2017

San Jacinto Esplanade Avenue

Figure 5B

Potential Waters of the State and CDFW/MSHCP Jurisdictional Areas

ESA



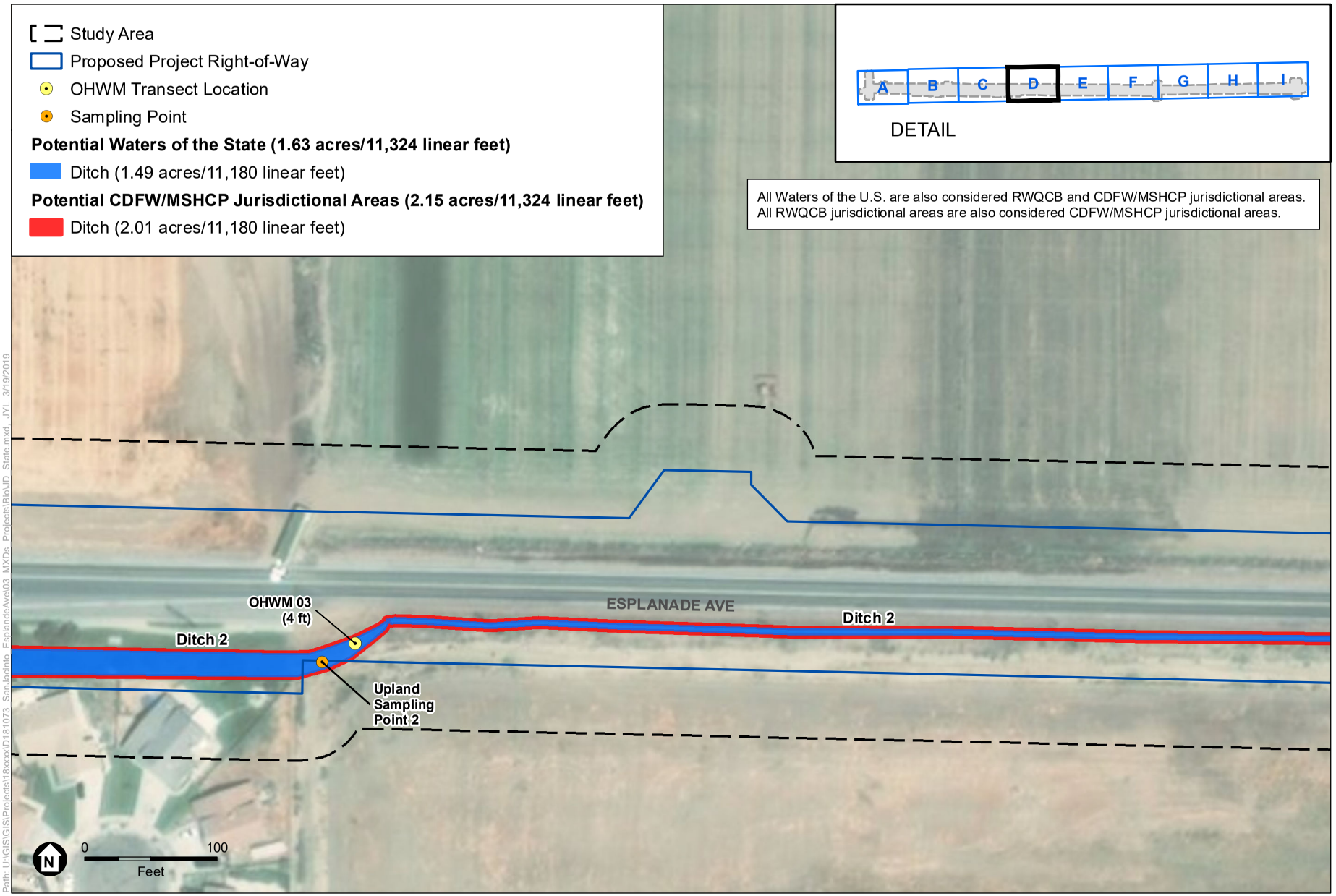
SOURCE: ESRI 2017

San Jacinto Esplanade Avenue

Figure 5C

Potential Waters of the State and CDFW/MSHCP Jurisdictional Areas

ESA



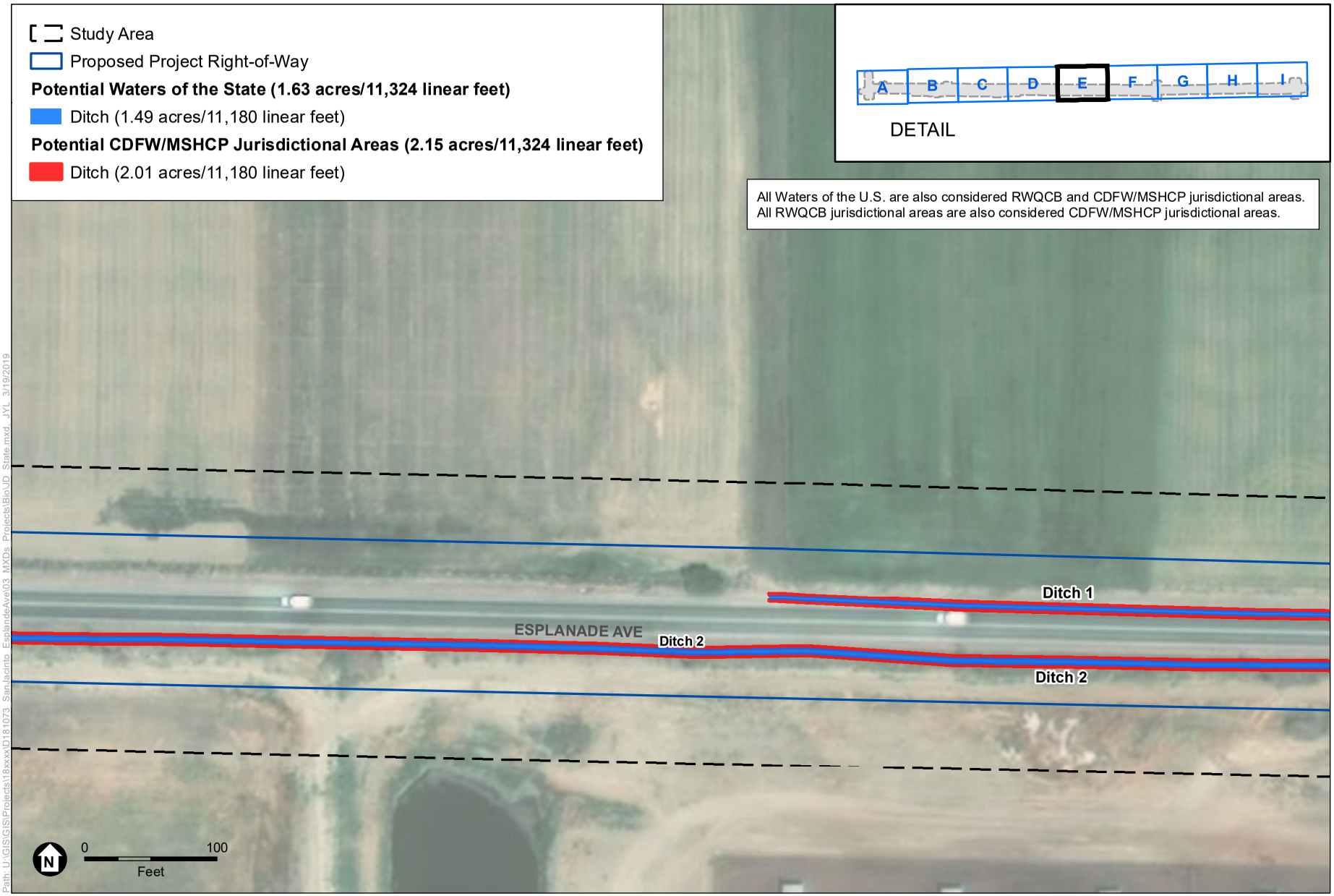
SOURCE: ESRI 2017

San Jacinto Esplanade Avenue

Figure 5D

Potential Waters of the State and CDFW/MSHCP Jurisdictional Areas

ESA



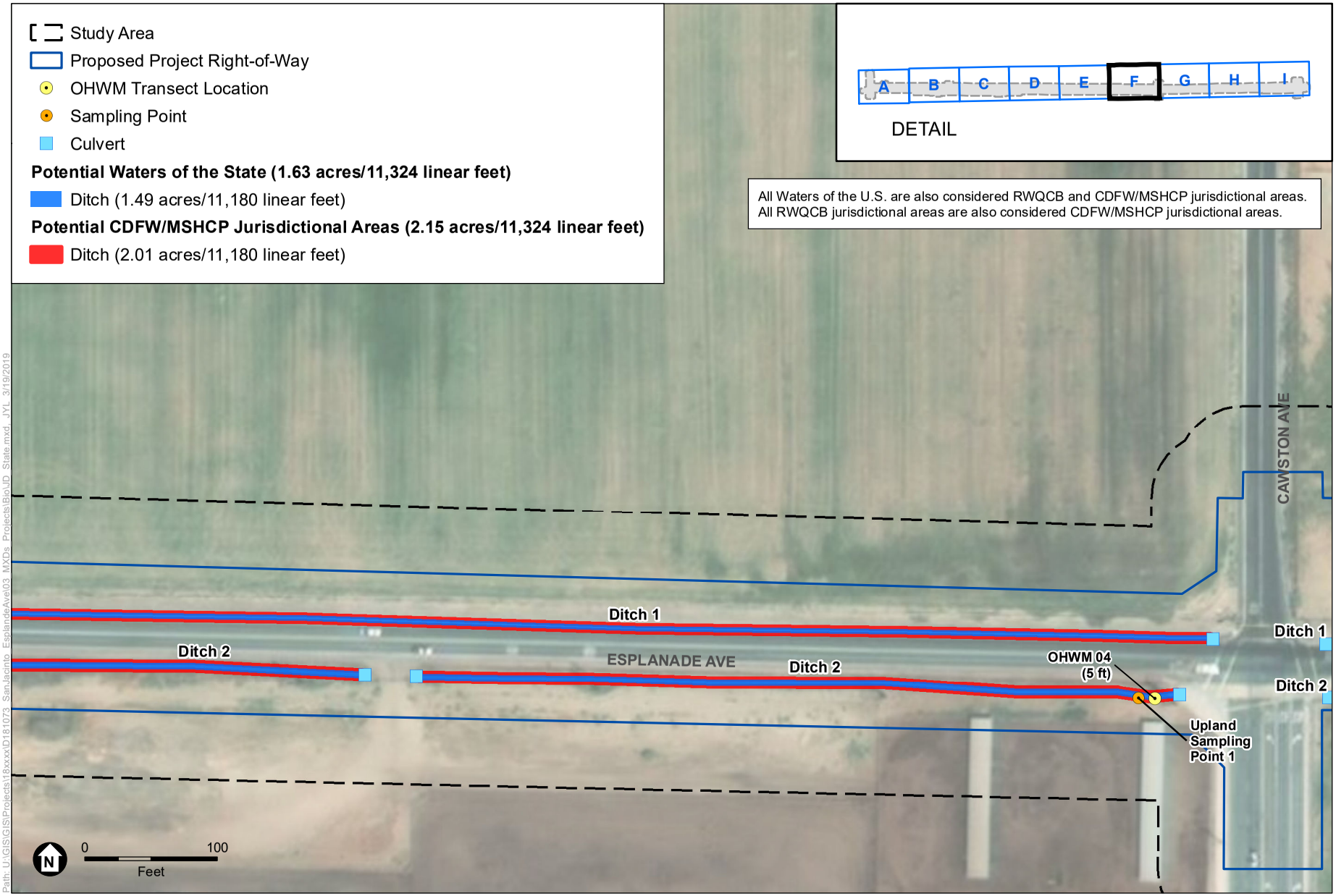
SOURCE: ESRI 2017

San Jacinto Esplanade Avenue

Figure 5E

Potential Waters of the State and CDFW/MSHCP Jurisdictional Areas

ESA



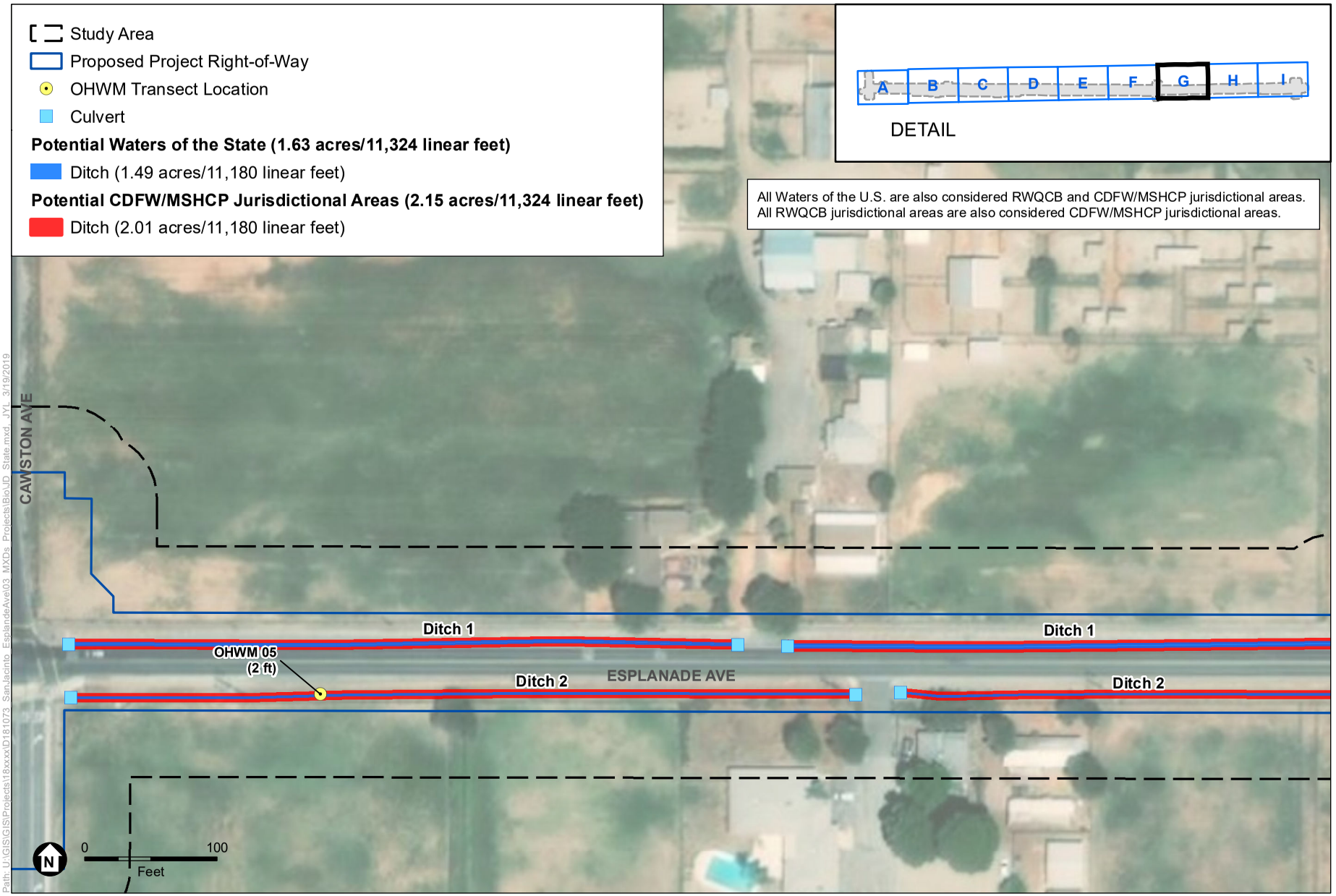
SOURCE: ESRI 2017

San Jacinto Esplanade Avenue

Figure 5F

Potential Waters of the State and CDFW/MSHCP Jurisdictional Areas

ESA



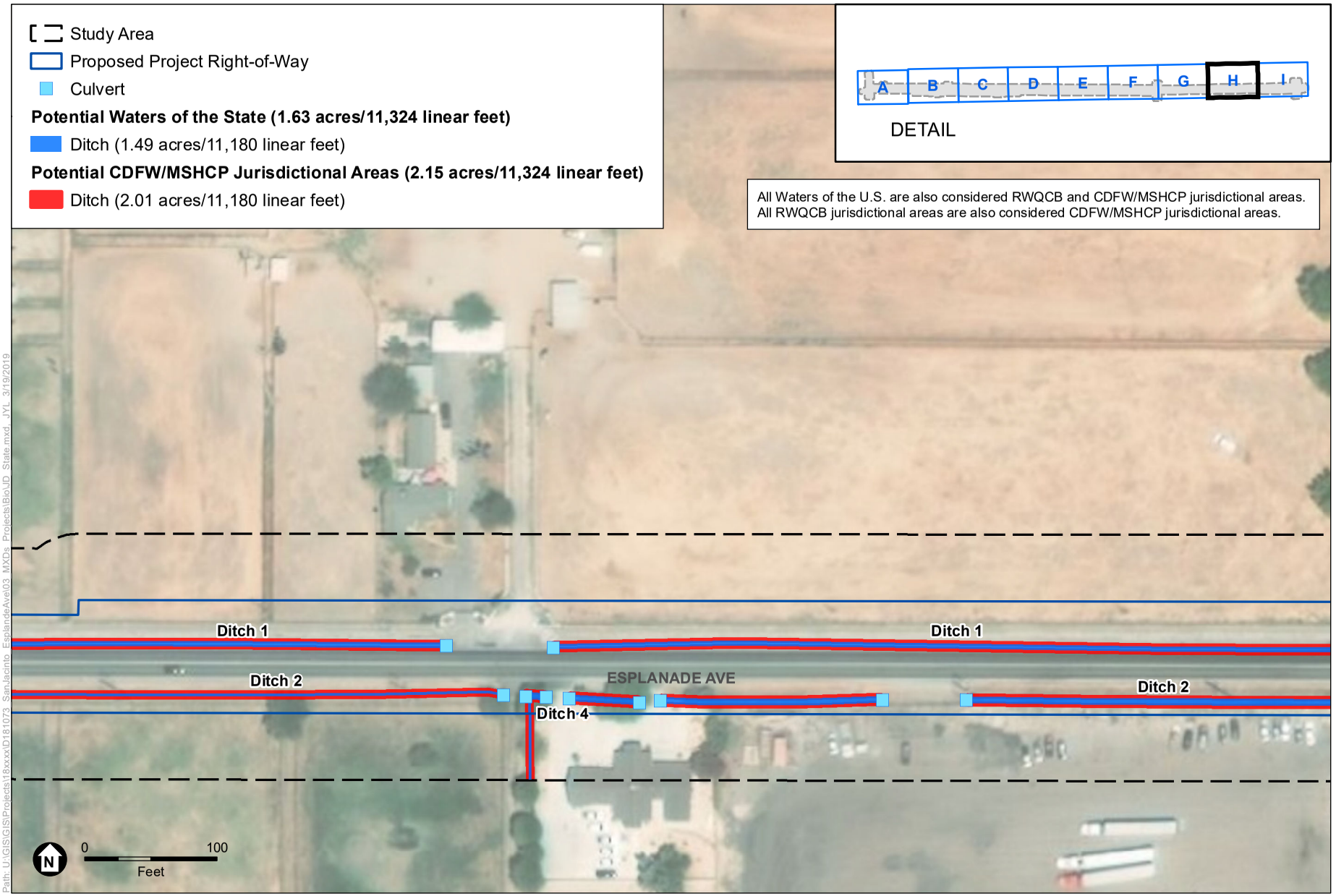
SOURCE: ESRI 2017

San Jacinto Esplanade Avenue

Figure 5G

Potential Waters of the State and CDFW/MSHCP Jurisdictional Areas

ESA



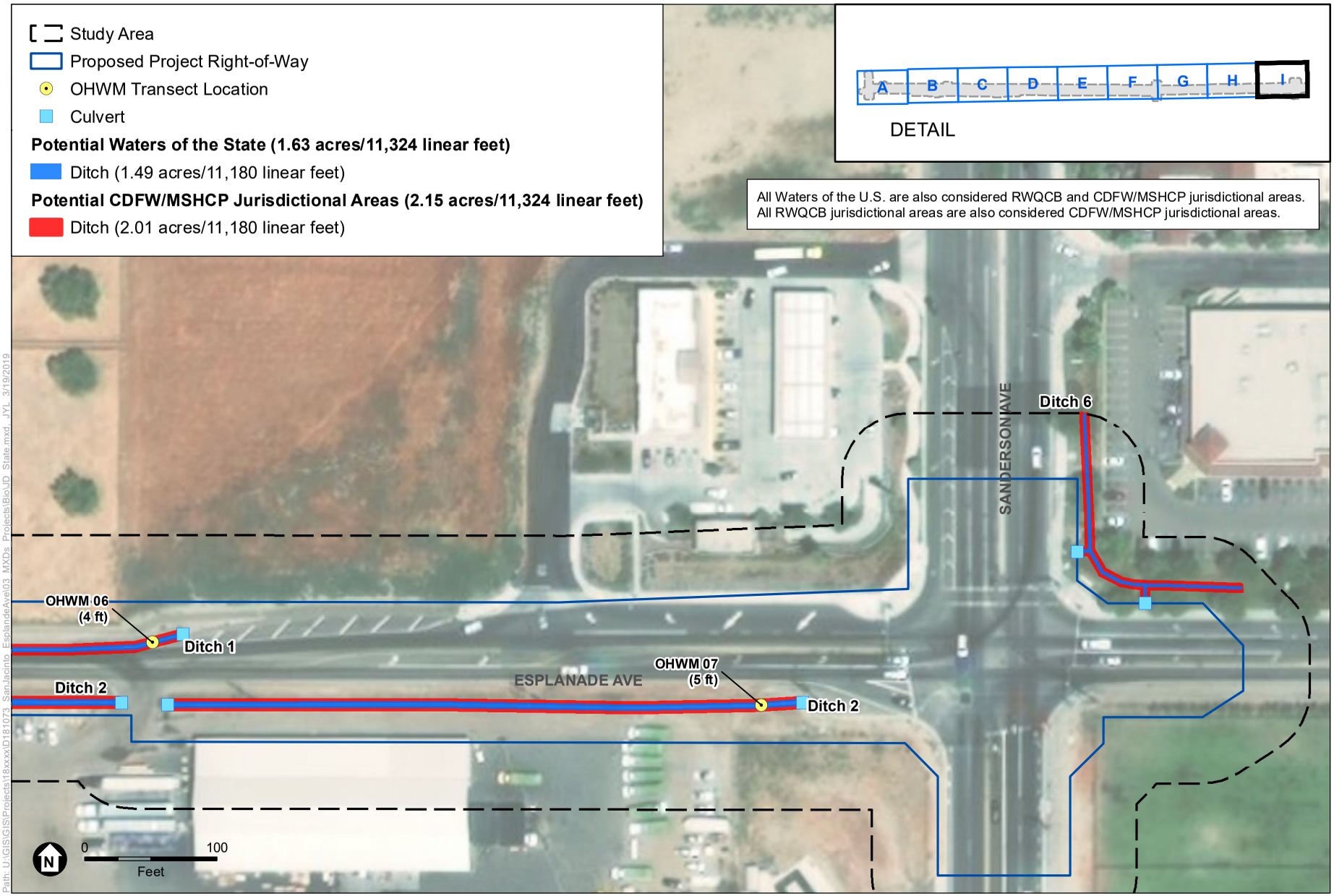
SOURCE: ESRI 2017

San Jacinto Esplanade Avenue

Figure 5H

Potential Waters of the State and CDFW/MSHCP Jurisdictional Areas

ESA



SOURCE: ESRI 2017

San Jacinto Esplanade Avenue

Figure 5I

Potential Waters of the State and CDFW/MSHCP Jurisdictional Areas

ESA

Local Ordinance

The Proposed Project is located within the Cities of San Jacinto and Hemet which have very similar public tree planting and removal ordinances that prohibit the removal and planting of trees or shrubs from public parks, public grounds, public streets, alleys, ways and parking place unless obtaining permission from the City's director. Although trees occur within the study area including liquidambar and eucalyptus, they will either not be impacted by project activities or occur within the boundaries of private residences and therefore not subject to the Cities of San Jacinto and Hemet tree ordinances. The Proposed Project does not fall within an area under the influence of an additional local policy or ordinance protecting biological resources.

Habitat Conservation Plan

The Project site is located within the Western Riverside County MSHCP. The Project site is located within the MSHCP's burrowing owl survey area and portions of the Project site are within the MSHCP's Narrow Endemic Plant Species survey area, as well as Subunit 4: Hemet Vernal Pool Areas. Narrow endemic plant species include Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*) and Wrights's trichocoronis (*Trichocoronis wrightii* var. *wrightii*). Narrow endemic plants are likely to occur within disturbed areas and sprangletop grass patches within the ditches and catch basins as well as disturbed areas outside the ditches and catch basins.

Rare plant surveys will be required to address the potential for Narrow Endemic Plants to be present and potentially affected by the Project. The Project is required to demonstrate Project consistency, through the preparation of a consistency analysis, with the goals and provisions of the MSHCP as they pertain to biological resources. A such, an MSHCP Consistency Analysis Report will be required. In addition, since impacts to potentially jurisdictional riverine/riparian features are unavoidable, a Determination of Biologically Equivalent or Superior Preservation (DBESP) Report will also be required which must be supported by relevant species surveys, and needs to include a discussion of why avoidance is not feasible, including minimization measures for addressing potential indirect impacts, mitigation that will offset the Project's impacts, and a determination that mitigation proposed is biologically equivalent or superior. Although located in Subunit 4: Hemet Vernal Pool Areas, vernal pools do not occur within the Project site and will be discussed in the DBESP.

The Proposed Project is also located within the Stephens Kangaroo Rat Habitat Conservation Plan (SKR HCP). However, the City of San Jacinto is not a listed member in the SKR HCP and is not required to demonstrate Project consistency with the goals and provisions of the SKR HCP. The Proposed Project area does not occur within another habitat conservation plan, natural community conservation plan or other approved local, regional, or State HCP.

Wildlife Movement Corridors

The study area is located within an urbanized area of the City of San Jacinto that is surrounded by development and agricultural land. There are two disturbed areas along Esplanade Avenue that previously contained agricultural lands or developed areas and have not been recently maintained. Additionally, maintained, narrow roadside ditches occur along Esplanade Avenue. However, disturbed areas and roadside ditches are not contiguous and do not function as a corridor between two larger stands of habitat or open space that could constitute a wildlife corridor. In short, the study area does not provide a suitable corridor for wildlife species to move from one area of habitat to another.

Recommended Minimization and Avoidance Measures

Special-status Wildlife and Plants

Per the MSHCP requirements, focused protocol and preconstruction surveys for burrowing owl must be conducted prior to initiation of the Project in areas that are located within a burrowing owl survey area and contain suitable habitat for the species. This includes disturbed areas located at the southeast corner of Esplanade Ave and Warren Road as well as disturbed areas near the northwestern corner of Esplanade Ave and Sanderson Ave. The focused protocol surveys should be conducted by a qualified biologist following protocol outlined in the CDFW Staff Report on Burrowing Owl Mitigation (CDFW, 2012). If burrowing owl or sign of burrowing owl presence is observed during the focused surveys and found to be potentially impacted by the Project, additional avoidance and mitigation measures will be required. Avoidance measures may include constructing Project facilities outside the breeding season, establishing a suitable buffer around an active burrow, restricting activities around certain times of year, and excluding and relocating owls. A Burrow Exclusion Plan approved by CDFW will be required to implement exclusion and relocation. Permanent impacts to land that previously contained burrowing owls may also require conservation of mitigation lands to offset the impact to burrowing owl and its habitat. The conservation of mitigation lands will be determined through consultation with CDFW.

Per the MSHCP requirements, focused protocol surveys for sensitive/rare plants must be conducted prior to the initiation of the Project in areas that are located within a narrow endemic species survey area. Surveys for the Narrow Endemic Species will be conducted as part of the Project review process for public and private projects within the Narrow Endemic Plant Species survey area where suitable habitat is present. Focused surveys for Narrow Endemic Species will be conducted during the blooming period for these species, which occurs from March to May for Munz's onion, April through October for San Diego ambrosia, April through July for many-stemmed dudleya, April through June for spreading navarretia, April through August for California orcutt grass and May through September for Wright's trichocoronis. The focused protocol survey shall be conducted by a knowledgeable biologist following protocol outlined in the CNPS Botanical Survey Guidelines (CNPS 2001), General Rare Plant Survey Guidelines (USFWS 2002) and Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities (CDFW 2009). The results of the survey will be included in the MSHCP consistency analysis and Determination of Biologically Equivalent or Superior Preservation (DBESP) as required. If an endemic species is identified, it must be conserved in accordance with procedures described within Section 6.1.3 of the MSHCP.

To minimize the Project's potential impact to this species, preconstruction surveys should be conducted to determine if the species is present within the Project impact areas. If the species is present, Best Management Practices (BMPs) should be implemented to avoid impacts to individuals and a Worker Environmental Awareness Program (WEAP) training should be implemented for all onsite construction personnel. Example BMPs that may be implemented during construction include limiting vehicle speed onsite to 15 miles per hour, covering trenches and open pits, if trenches are left open adding wooden ramps in the trench to allow small wildlife to escape, temporarily fencing work areas using silt fencing, and cleaning up all trash and debris daily. Additional avoidance measures may include establishing a buffer around the species with and onsite monitoring to ensure avoidance. Additionally, the WEAP training should be facilitated by a knowledgeable biologist or an informational WEAP brochure should be provided to all construction personnel with signed verification that they agree to the avoidance measures and legal status of special-status species that could be present. Specifically, the WEAP should provide construction personnel with instructions on how to avoid directly harming wildlife and

procedural actions to avoid impacts, such as halting or minimizing activities until the species can move to offsite areas on its own accord or with the assistance of a qualified biologist.

Nesting Birds

To avoid potential impacts to nesting birds, it is recommended that any vegetation removal and/or ground disturbance be timed to occur between September 1 and January 31, which is outside of the typical nesting season for birds in the region. If vegetation removal and/or ground disturbances must occur during the typical nesting season (February 1 – August 31), it is recommended that a qualified biologist conduct a preconstruction survey for active nests within areas that will be subject to vegetation removal and/or ground disturbances, including an approximate 100-300-foot buffer, to identify any active nests. Buffer distances should be adjusted at the discretion of the biologist based on the location of the nest, species, and surrounding land uses. If no sign of nesting activity is observed, construction may proceed without potential impacts to nesting birds.

If an active nest is observed during the pre-construction clearance survey, an adequate buffer should be established around the active nest depending on sensitivity of the species and proximity to Proposed Project impact areas. Onsite construction monitoring may also be required to ensure that no direct or indirect impacts occur to the active nest. Proposed Project activities should be avoided within the buffer, unless otherwise approved by the monitoring biologist. The buffer should be delineated with exclusionary fencing or flagging to prevent the nest from being inadvertently impacted, and should remain in place until the nest is no longer active as determined by the monitoring biologist.

Jurisdictional Waters

As a result of Project design, potential jurisdictional waters identified in Figures 4a and 4b cannot be avoided and impacts to potential jurisdictional waters are anticipated. Therefore, permits including those issued by the RWQCB under Section 404 of the CWA or the California Water Code or those issued by CDFW under Section 1600 of the California Fish and Game Code will be necessary. Refer to the Project's Jurisdictional Delineation Report for information related to jurisdictional waters.

Local Ordinances

Minimization and avoidance measures to account for local ordinances protecting biological resources, including the Cities of San Jacinto and Hemet tree removal ordinances, are not required as protected trees and shrubs will not be impacted and the Project does not fall under the influence of an additional local policy or ordinance protecting biological resources.

Habitat Conservation Plan

Recommended minimization and avoidance measures described above will be sufficient to protect biological resources. The City of San Jacinto is within the MSCHP; therefore, the Project is required to demonstrate consistency with the goals and provisions of the MSHCP as they pertain to biological resources. Additionally, further focused rare plant and burrowing owl surveys are required along with a DBESP report to address impacts to riverine/riparian areas that are unavoidable.

Wildlife Movement Corridors

Minimization and avoidance measures to account for wildlife movement corridors are not required as wildlife movement corridors are absent from the Project site.

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On behalf of ESA, it has been a pleasure preparing this information for you. Please do not hesitate to contact Greg Ainsworth or Ryan Villanueva at (213) 599-4300 if you have any questions or comments regarding this report.

Sincerely,

Lily Sam
Senior Associate Biologist

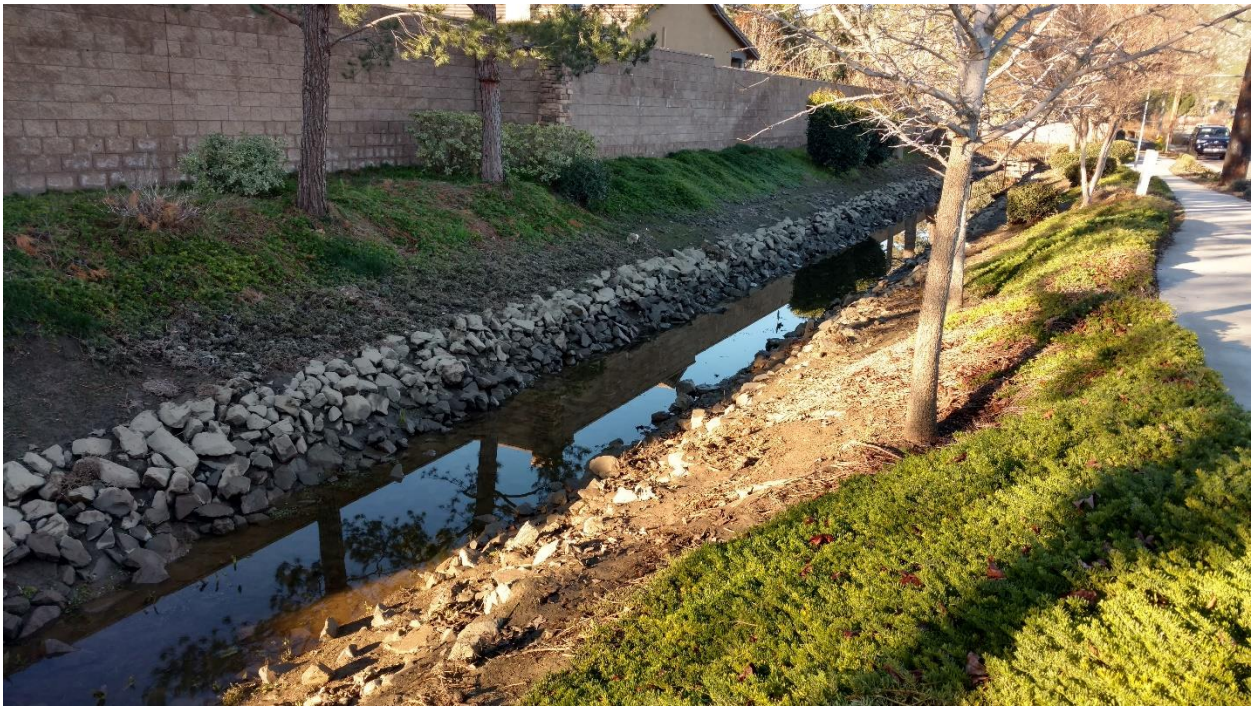
Greg Ainsworth
Director, Biological Resources

Attachments: Attachment A – Representative Site Photographs
Attachment B – CNDDB and CNPS Database Search Results

Attachment A
Representative Site Photographs

Photograph 1 – Ditch south of Esplanade Avenue and west of Cawston Avenue, facing west.

Photograph 2 – Ditch south of Esplanade Avenue, facing west near Warren Road. Disturbed area to the south (left) of ditch.



Photograph 3 – Ditch south of Esplanade Avenue just west of Alabaster Avenue, facing west. Developed area (residential) to the south (left) of the ditch.

Photograph 4 – Ditch north of Esplanade Avenue and west of Sanderson Avenue, facing west. Developed area (industrial) to the south (left) of Esplanade Avenue.

Photograph 5 – Ditch north of Esplanade Avenue and west of Cawston Avenue, facing west. Agricultural lands to the north (right).

Photograph 6 – Ditch south of Esplanade Avenue and west of Sanderson Avenue, facing east.

Attachment B

CNDDB and CNPS Database Search Results

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Lakeview (3311771) OR San Jacinto (3311678) OR Hemet (3311668) OR Winchester (3311761) OR Romoland (3311762) OR Perris (3311772) OR Sunnymead (3311782) OR El Casco (3311781) OR Beaumont (3311688))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Abronia villosa var. aurita chaparral sand-verbena	PDNYC010P1	None	None	G5T2?	S2	1B.1
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Candidate Endangered	G2G3	S1S2	SSC
Aimophila ruficeps canescens southern California rufous-crowned sparrow	ABPBX91091	None	None	G5T3	S3	WL
Allium marvinii Yucaipa onion	PMLIL02330	None	None	G1	S1	1B.2
Allium munzii Munz's onion	PMLIL022Z0	Endangered	Threatened	G1	S1	1B.1
Anniella stebbinsi southern California legless lizard	ARACC01060	None	None	G3	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Arizona elegans occidentalis California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
Artemisiospiza belli belli Bell's sage sparrow	ABPBX97021	None	None	G5T2T3	S3	WL
Aspidoscelis hyperythra orange-throated whiptail	ARACJ02060	None	None	G5	S2S3	WL
Aspidoscelis tigris stejnegeri coastal whiptail	ARACJ02143	None	None	G5T5	S3	SSC
Astragalus lentiginosus var. coachellae Coachella Valley milk-vetch	PDFAB0FB97	Endangered	None	G5T1	S1	1B.2
Astragalus pachypus var. jaegeri Jaeger's milk-vetch	PDFAB0F6G1	None	None	G4T1	S1	1B.1
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Atriplex coronata var. notatior San Jacinto Valley crownscale	PDCHE040C2	Endangered	None	G4T1	S1	1B.1
Atriplex parishii Parish's brittlescale	PDCHE041D0	None	None	G1G2	S1	1B.1
Atriplex serenana var. davidsonii Davidson's saltscale	PDCHE041T1	None	None	G5T1	S1	1B.2
Bombus crotchii Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Brodiaea filifolia thread-leaved brodiaea	PMLIL0C050	Threatened	Endangered	G2	S2	1B.1
Buteo regalis ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
Calochortus palmeri var. palmeri Palmer's mariposa-lily	PMLIL0D122	None	None	G3T2	S2	1B.2
Calochortus plummerae Plummer's mariposa-lily	PMLIL0D150	None	None	G4	S4	4.2
Calochortus weedii var. intermedius intermediate mariposa-lily	PMLIL0D1J1	None	None	G3G4T2	S2	1B.2
Campylorhynchus brunneicapillus sandiegensis coastal cactus wren	ABPBG02095	None	None	G5T3Q	S3	SSC
Caulanthus simulans Payson's jewelflower	PDBRA0M0H0	None	None	G4	S4	4.2
Centromadia pungens ssp. laevis smooth tarplant	PDAST4R0R4	None	None	G3G4T2	S2	1B.1
Chaetodipus californicus femoralis Dulzura pocket mouse	AMAFD05021	None	None	G5T3	S3	SSC
Chaetodipus fallax fallax northwestern San Diego pocket mouse	AMAFD05031	None	None	G5T3T4	S3S4	SSC
Chorizanthe parryi var. parryi Parry's spineflower	PDPGN040J2	None	None	G3T2	S2	1B.1
Chorizanthe polygonoides var. longispina long-spined spineflower	PDPGN040K1	None	None	G5T3	S3	1B.2
Circus hudsonius northern harrier	ABNKC11011	None	None	G5	S3	SSC
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Coleonyx variegatus abbotti San Diego banded gecko	ARACD01031	None	None	G5T3T4	S1S2	SSC
Corynorhinus townsendii Townsend's big-eared bat	AMACC08010	None	None	G3G4	S2	SSC
Crotalus ruber red-diamond rattlesnake	ARADE02090	None	None	G4	S3	SSC
Deinandra mohavensis Mojave tarplant	PDAST4R0K0	None	Endangered	G2	S2	1B.3
Desert Fan Palm Oasis Woodland Desert Fan Palm Oasis Woodland	CTT62300CA	None	None	G3	S3.2	
Dipodomys merriami parvus San Bernardino kangaroo rat	AMAFD03143	Endangered	None	G5T1	S1	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Dipodomys stephensi Stephens' kangaroo rat	AMAFD03100	Endangered	Threatened	G2	S2	
Dodecahema leptoceras slender-horned spineflower	PDPGN0V010	Endangered	Endangered	G1	S1	1B.1
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Empidonax traillii extimus southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T2	S1	
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eremophila alpestris actia California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
Euphydryas editha quino quino checkerspot butterfly	IILEPK405L	Endangered	None	G5T1T2	S1S2	
Harpagonella palmeri Palmer's grapplinghook	PDBOR0H010	None	None	G4	S3	4.2
Horkelia cuneata var. puberula mesa horkelia	PDROS0W045	None	None	G4T1	S1	1B.1
Icteria virens yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
Imperata brevifolia California satintail	PMPOA3D020	None	None	G4	S3	2B.1
Lanius ludovicianus loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
Lasiurus xanthinus western yellow bat	AMACC05070	None	None	G5	S3	SSC
Lasthenia glabrata ssp. coulteri Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
Lepidium virginicum var. robinsonii Robinson's pepper-grass	PDBRA1M114	None	None	G5T3	S3	4.3
Lepus californicus bennettii San Diego black-tailed jackrabbit	AMAEB03051	None	None	G5T3T4	S3S4	SSC
Mentzelia tricuspis spiny-hair blazing star	PDLOA031T0	None	None	G4	S2	2B.1
Myosurus minimus ssp. apus little mousetail	PDRAN0H031	None	None	G5T2Q	S2	3.1
Nama stenocarpa mud nama	PDHYD0A0H0	None	None	G4G5	S1S2	2B.2
Navarretia fossalis spreading navarretia	PDPLM0C080	Threatened	None	G2	S2	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Neotoma lepida intermedia San Diego desert woodrat	AMAFF08041	None	None	G5T3T4	S3S4	SSC
Onychomys torridus ramona southern grasshopper mouse	AMAFF06022	None	None	G5T3	S3	SSC
Orcuttia californica California Orcutt grass	PMPOA4G010	Endangered	Endangered	G1	S1	1B.1
Perognathus longimembris brevinasus Los Angeles pocket mouse	AMAFD01041	None	None	G5T1T2	S1S2	SSC
Petalonyx linearis narrow-leaf sandpaper-plant	PDLOA04010	None	None	G4	S3?	2B.3
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Plegadis chihi white-faced ibis	ABNGE02020	None	None	G5	S3S4	WL
Polioptila californica californica coastal California gnatcatcher	ABPBJ08081	Threatened	None	G4G5T2Q	S2	SSC
Progne subis purple martin	ABPAU01010	None	None	G5	S3	SSC
Pseudognaphalium leucocephalum white rabbit-tobacco	PDAST440C0	None	None	G4	S2	2B.2
Salvadora hexalepis virgultea coast patch-nosed snake	ARADB30033	None	None	G5T4	S2S3	SSC
Setophaga petechia yellow warbler	ABPBX03010	None	None	G5	S3S4	SSC
Sidalcea neomexicana salt spring checkerbloom	PDMAL110J0	None	None	G4	S2	2B.2
Socalchemmis icenoglei Icenogle's socalchemmis spider	ILARAU7020	None	None	G1	S1	
Southern Coast Live Oak Riparian Forest Southern Coast Live Oak Riparian Forest	CTT61310CA	None	None	G4	S4	
Southern Cottonwood Willow Riparian Forest Southern Cottonwood Willow Riparian Forest	CTT61330CA	None	None	G3	S3.2	
Southern Mixed Riparian Forest Southern Mixed Riparian Forest	CTT61340CA	None	None	G2	S2.1	
Southern Riparian Scrub Southern Riparian Scrub	CTT63300CA	None	None	G3	S3.2	
Southern Sycamore Alder Riparian Woodland Southern Sycamore Alder Riparian Woodland	CTT62400CA	None	None	G4	S4	
Spea hammondii western spadefoot	AAABF02020	None	None	G3	S3	SSC
Spinus lawrencei Lawrence's goldfinch	ABPBY06100	None	None	G3G4	S3S4	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Streptocephalus woottoni Riverside fairy shrimp	ICBRA07010	Endangered	None	G1G2	S1S2	
Symphyotrichum defoliatum San Bernardino aster	PDASTE80C0	None	None	G2	S2	1B.2
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Tortula californica California screw moss	NBMUS7L090	None	None	G2G3	S2S3	1B.2
Trichocoronis wrightii var. wrightii Wright's trichocoronis	PDAST9F031	None	None	G4T3	S1	2B.1
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
Xanthocephalus xanthocephalus yellow-headed blackbird	ABPBXB3010	None	None	G5	S3	SSC

Record Count: 89

CNPS California Native Plant Society

Plant List

Inventory of Rare and Endangered Plants

53 matches found. *Click on scientific name for details*

Search Criteria

Found in Quads 3311782, 3311781, 3311688, 3311772, 3311771, 3311678, 3311762 3311761 and 3311668;

Modify Search Criteria | Export to Excel | Modify Columns | Modify Sort | Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Abronia villosa var. aurita	chaparral sand-verbena	Nyctaginaceae	annual herb	(Jan)Mar-Sep	1B.1	S2	G5T2?
Allium marvinii	Yucaipa onion	Alliaceae	perennial bulbiferous herb	Apr-May	1B.2	S1	G1
Allium munzii	Munz's onion	Alliaceae	perennial bulbiferous herb	Mar-May	1B.1	S1	G1
Artemisia palmeri	San Diego sagewort	Asteraceae	perennial deciduous shrub	(Feb)May-Sep	4.2	S3?	G3?
Astragalus lentiginosus var. borreganus	Borrego milk-vetch	Fabaceae	annual herb	Feb-May	4.3	S4	G5T5?
Astragalus lentiginosus var. coachellae	Coachella Valley milk-vetch	Fabaceae	annual / perennial herb	Feb-May	1B.2	S1	G5T1
Astragalus pachypus var. jaegeri	Jaeger's bush milk-vetch	Fabaceae	perennial shrub	Dec-Jun	1B.1	S1	G4T1
Atriplex coronata var. notatior	San Jacinto Valley crownscale	Chenopodiaceae	annual herb	Apr-Aug	1B.1	S1	G4T1
Atriplex pacifica	South Coast saltscale	Chenopodiaceae	annual herb	Mar-Oct	1B.2	S2	G4
Atriplex parishii	Parish's brittlescale	Chenopodiaceae	annual herb	Jun-Oct	1B.1	S1	G1G2
Atriplex serenana var. davidsonii	Davidson's saltscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S1	G5T1
Berberis nevinii	Nevin's barberry	Berberidaceae	perennial evergreen shrub	(Feb)Mar-Jun	1B.1	S1	G1
Brodiaea filifolia	thread-leaved brodiaea	Themidaceae	perennial bulbiferous herb	Mar-Jun	1B.1	S2	G2
Calochortus palmeri var. palmeri	Palmer's mariposa lily	Liliaceae	perennial bulbiferous herb	Apr-Jul	1B.2	S2	G3T2
Calochortus plummerae	Plummer's mariposa lily	Liliaceae	perennial bulbiferous herb	May-Jul	4.2	S4	G4
Calochortus weedii var. intermedius	intermediate mariposa lily	Liliaceae	perennial bulbiferous	May-Jul	1B.2	S2	G3G4T2

			herb				
Caulanthus simulans	Payson's jewelflower	Brassicaceae	annual herb	(Feb)Mar-May(Jun)	4.2	S4	G4
Centromadia pungens ssp. laevis	smooth tarplant	Asteraceae	annual herb	Apr-Sep	1B.1	S2	G3G4T2
Chorizanthe leptotheca	Peninsular spineflower	Polygonaceae	annual herb	May-Aug	4.2	S3	G3
Chorizanthe parryi var. parryi	Parry's spineflower	Polygonaceae	annual herb	Apr-Jun	1B.1	S2	G3T2
Chorizanthe polygonoides var. longispina	long-spined spineflower	Polygonaceae	annual herb	Apr-Jul	1B.2	S3	G5T3
Clinopodium chandleri	San Miguel savory	Lamiaceae	perennial shrub	Mar-Jul	1B.2	S2	G3
Convolvulus simulans	small-flowered morning-glory	Convolvulaceae	annual herb	Mar-Jul	4.2	S4	G4
Deinandra mohavensis	Mojave tarplant	Asteraceae	annual herb	(May)Jun-Oct(Jan)	1B.3	S2	G2
Deinandra paniculata	paniculate tarplant	Asteraceae	annual herb	(Mar)Apr-Nov(Dec)	4.2	S4	G4
Delphinium parishii ssp. subglobosum	Colorado Desert larkspur	Ranunculaceae	perennial herb	Mar-Jun	4.3	S4	G4T4
Delphinium parryi ssp. purpureum	Mt. Pinos larkspur	Ranunculaceae	perennial herb	May-Jun	4.3	S4	G4T4
Dodecahema leptoceras	slender-horned spineflower	Polygonaceae	annual herb	Apr-Jun	1B.1	S1	G1
Erythranthe diffusa	Palomar monkeyflower	Phrymaceae	annual herb	Apr-Jun	4.3	S3	G4
Erythranthe purpurea	little purple monkeyflower	Phrymaceae	annual herb	May-Jun	1B.2	S2	G2
Galium angustifolium ssp. jacinticum	San Jacinto Mountains bedstraw	Rubiaceae	perennial herb	Jun-Aug	1B.3	S2?	G5T2?
Harpagonella palmeri	Palmer's grapplinghook	Boraginaceae	annual herb	Mar-May	4.2	S3	G4
Holocarpha virgata ssp. elongata	graceful tarplant	Asteraceae	annual herb	May-Nov	4.2	S3	G5T3
Hordeum intercedens	vernal barley	Poaceae	annual herb	Mar-Jun	3.2	S3S4	G3G4
Horkelia cuneata var. puberula	mesa horkelia	Rosaceae	perennial herb	Feb-Jul(Sep)	1B.1	S1	G4T1
Imperata brevifolia	California satintail	Poaceae	perennial rhizomatous herb	Sep-May	2B.1	S3	G4
Juglans californica	Southern California black walnut	Juglandaceae	perennial deciduous tree	Mar-Aug	4.2	S4	G4
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	1B.1	S2	G4T2
Lepechinia cardiophylla	heart-leaved pitcher sage	Lamiaceae	perennial shrub	Apr-Jul	1B.2	S2S3	G3
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	Brassicaceae	annual herb	Jan-Jul	4.3	S3	G5T3
Lilium parryi	lemon lily	Liliaceae	perennial bulbiferous herb	Jul-Aug	1B.2	S3	G3

Lycium torreyi	Torrey's box-thorn	Solanaceae	perennial shrub	(Jan-Feb)Mar-Jun(Sep-Nov)	4.2	S3	G4G5
Mentzelia tricuspis	spiny-hair blazing star	Loasaceae	annual herb	Mar-May	2B.1	S2	G4
Microseris douglasii ssp. platycarpha	small-flowered microseris	Asteraceae	annual herb	Mar-May	4.2	S4	G4T4
Myosurus minimus ssp. apus	little mousetail	Ranunculaceae	annual herb	Mar-Jun	3.1	S2	G5T2Q
Nama stenocarpa	mud nama	Namaceae	annual / perennial herb	Jan-Jul	2B.2	S1S2	G4G5
Navarretia fossalis	spreading navarretia	Polemoniaceae	annual herb	Apr-Jun	1B.1	S2	G2
Orcuttia californica	California Orcutt grass	Poaceae	annual herb	Apr-Aug	1B.1	S1	G1
Pseudognaphalium leucocephalum	white rabbit-tobacco	Asteraceae	perennial herb	(Jul)Aug-Nov(Dec)	2B.2	S2	G4
Sidalcea neomexicana	salt spring checkerbloom	Malvaceae	perennial herb	Mar-Jun	2B.2	S2	G4
Symphyotrichum defoliatum	San Bernardino aster	Asteraceae	perennial rhizomatous herb	Jul-Nov(Dec)	1B.2	S2	G2
Tortula californica	California screw-moss	Pottiaceae	moss		1B.2	S2S3	G2G3
Trichocoronis wrightii var. wrightii	Wright's trichocoronis	Asteraceae	annual herb	May-Sep	2B.1	S1	G4T3

Suggested Citation

California Native Plant Society, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website http://www.rareplants.cnps.org [accessed 19 February 2019].

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National Wetlands Inventory

San Jacinto Esplanade Widening

February 19, 2019

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.

626 Wilshire Boulevard
Suite 1100
Los Angeles, CA 90017
213.599.4300 phone
213.599.4301 fax

esassoc.com

October 8, 2019

Stuart McKibbin, City Engineer
City of San Jacinto
166 E. Main St., Ste. 2
San Jacinto, CA 92583

Subject: Results of the Focused Burrowing Owl Surveys for the City of San Jacinto Esplanade Widening Phase I Project, Riverside County, California

Dear Ms. Alvarez:

This letter report summarizes the methodology and findings of focused burrowing owl (*Athene cunicularia*, BUOW) surveys conducted by ESA for the Esplanade Widening Phase I Project (Project) located in the Cities of San Jacinto and Hemet, Riverside County, California. The surveys were conducted within all potentially suitable habitat of the Project site and within a 500-foot survey buffer surrounding the perimeter of the Project site (collectively, the "study area"). Burrowing owl is a covered species under the MSHCP and is also a California Species of Special Concern as determined by California Department of Fish and Game (CDFW). As such, both the Western Riverside County Regional Conservation Authority (RCA) and CDFW will be consulted regarding potential impacts to the species should they occur and relocation efforts should they be required.

Study Area Description

The study area is located in the Cities of San Jacinto and Hemet, Riverside County, California, along Esplanade Avenue, between Warren Road on the west and Sanderson Avenue on the east, as shown in **Figure 1**, *Regional Map* (attached). The study area is depicted on the U.S. Geological Survey (USGS) 7.5' Lakeview[1] topographic quadrangle map between Sections 31 and 32, Township 4 South, Range 1 West, and Sections 5 and 6, Township 5 South, Range 1 West, as shown in **Figure 2**, *Vicinity Map* (attached). The study area is located entirely within a Burrowing Owl Survey Area as identified by the MSHCP.

The topography of the study area consists of flat areas with very little topographic changes. Elevations range from approximately 1,504 feet above mean sea level (MSL) in the western portion of the study area to 1,521 feet above MSL in the eastern portion. Surrounding land uses include a mix of residential uses in the southwest and agricultural fields along the northern survey area and to the southeast.

Plant Communities

Land Cover Vegetation Communities

[1] United States Geological Survey (USGS). 2018. *Lakeview*, California. Topographic quadrangle map.

As shown in **Figure 3**, *Plant Community/Land Cover Map*, the study area is primarily comprised of agricultural lands, developed areas and disturbed areas that are devoid of vegetation, with minor areas that support sprangletop grass patches and open water. A description of these plant communities/land covers is included below.

Agricultural Lands

The agricultural lands within the Project area are characterized by the presence of crops, primarily alfalfa, and dairy farming/grazing lands, in which highly disturbed open fields are dominant. Percent cover ranged from 0% within the dairy farm to 100% in areas containing low growing grasses meant for grazing. Agricultural lands are located throughout the study area.

Developed and Disturbed Areas

Developed areas are characterized by the presence of paved roads, residences, commercial facilities and associated landscaped areas containing non-native ornamental plants. Developed areas are located throughout the study area.

Disturbed areas are characterized by signs of recent disturbance, typically in the form of disking for agricultural purposes or roadside maintenance, and the presence of non-native plants such as red brome (*Bromus madritensis* ssp. *rubens*), whitestem filaree (*Erodium moschatum*), foxtail barley (*Hordeum murinum* ssp. *leporinum*), cheeseweed (*Malva parvifolia*), Russian thistle (*Salsola tragus*), London rocket (*Sisymbrium irio*), and a number of other non-native plants. Native plants observed within disturbed areas included annual sunflower (*Helianthus annuus*) and Menzies' fiddeneck (*Amsinckia menziesii*). Percent cover ranged from 0% within newly disked areas to 100% in areas containing fallow fields or previously developed lands. Disturbed areas are located throughout the study area.

A variety of planted trees on the Project site occur along roadways and residential areas. These include red iron bark (*Eucalyptus sideroxylon*), liquidambar (*Liquidambar styraciflua*), olive (*Olea europaea*), prickly pear (*Opuntia* sp.), palo verde (*Parkinsonia aculeata*), pine trees (*Pinus* sp.), cottonwood (*Populus* sp.), Peruvian pepper tree (*Schinus molle*), and Mexican fan palm (*Washingtonia robusta*).

Bare ground is used to characterize habitats that have hard, compacted soils and are devoid of vegetation, which occurs at the western end of the Project site and along Sanderson Avenue. Percent cover is 0% within bare ground areas.

Sprangletop Grass Patches

Patches of sprangletop grass (*Leptochloa fusca*) are located at the northeastern and southeastern corners of Esplanade Avenue and Warren Road. This native community consists of saturated soils and hydrophytic vegetation. This community has sprangletop grass as the dominant species and some areas also contain small amounts of tubered bulrush (*Bolboschoenus glaucus*), northern willow herb (*Epilobium ciliatum*), scarlet pimpernel (*Lysimachia arvensis*), white sweetclover (*Melilotus albus*), and annual beard grass (*Polypogon monspeliensis*). Percent cover ranged from 50% to 70% within this community.

Open Water

Open water occurred within a roadside ditch located at the northeast corner of Esplanade Avenue and Warren Road. Sprangletop grass patches occur along the margins of the ditch. Percent cover ranged was 0% within this community. As shown on Figure 2, the San Diego Canal and an agricultural pond located to the south of Esplanade Avenue and west of Cawston Avenue are also present in the vicinity, both of which and contain open water.

Methodology

Since the study area is within a Burrowing Owl Survey Area identified in the MSHCP and it contains suitable habitat for the species, Step I and Step II burrowing owl surveys are required. Surveys were conducted in accordance with the County of Riverside's 2006 *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area*.[2]

Step I - Habitat Assessment

The Step I habitat assessment was conducted within the study area, which comprised the Project area and a 150-meter (approximately 500-foot) buffer zone around the perimeter of the Project area. To determine presence/absence of suitable habitat for BUOW, the Project area was thoroughly searched for areas containing suitable habitat indicators. Key indicators include the presence of low-growing vegetation within grassland, desert, and scrublands; small fossorial mammals and mammal burrows; and isolated, man-made features (e.g., cement culverts; cement, asphalt, or wood debris piles; or openings beneath cement or asphalt pavement). The Step I habitat assessment was conducted on February 8, 2019 prior to performing the first Step II focused survey.

Step II – Locating Burrows and Burrowing Owls

Step II surveys were conducted within the study area and focused on the detection of BUOW individuals, small fossorial mammal burrows potentially suitable for BUOW, and BUOW diagnostic sign (e.g., molted feathers, cast pellets, prey remains, eggshell fragments, or excrement at or near a burrow entrance). Areas within the off-site 500-foot survey buffer were surveyed by foot where accessible, or with the use of binoculars in areas that were inaccessible.

Focused surveys were conducted on June 28, July 12, July 24 and August 9, 2019 by a combination of ESA Biologists including Lily Sam, Daryl Koutnik, Karl Fairchild, and Ryan Villanueva. Surveys were conducted between one hour prior to and two hours after sunrise during suitable weather conditions. Transects were not utilized as access to private property was not granted during the survey effort and because the study area is mostly a linear transportation corridor. However, all suitable areas were scanned with binoculars from road shoulders within the study area. Weather conditions consisted of clear to partially cloudy skies with winds between 0 and 5 miles per hour (mph) and air temperatures ranging from 55° to 80° Fahrenheit. Survey data is presented in **Table 1**, *Survey Data*, below.

[2] County of Riverside. 2006. *Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area*. March 2006.

TABLE 1
SURVEY DATA

Date	Time Start-End	Wind (mph) Start-End	Temperature (°F) Start-End	Cloud Cover (%) Start-End	Results	Surveyor
6/28/2019	06:00 – 09:00	0-5 / 0-5	55 - 78	0 - 0	No BUOW or BUOW sign	L. Sam D. Koutnik
7/12/2019	06:25 – 07:41	0 / 0-1	74 - 80	0 - 0	No BUOW or BUOW sign	K. Fairchild
7/24/2019	05:42 – 07:00	0 / 0	76 - 78	10 - 15	No BUOW or BUOW sign	K. Fairchild R. Villanueva
8/9/2019	05:50 – 07:56	0 / 0	62 – 72	0 – 0	No BUOW or BUOW sign	L. Sam R. Villanueva

SOURCE: ESA, 2019

Results

BUOW or diagnostic BUOW sign was not observed within the study area during the habitat assessment or four focused surveys. The following sections present the findings of the Step I Habitat Assessment and Step II Locating Burrows and Burrowing Owls focused surveys.

Step I - Habitat Assessment

Results of the Step I Habitat Assessment concluded that the study area exhibited suitable BUOW habitat consisting of disturbed, low-growing vegetation and bare ground. This was limited to areas containing disturbed land cover, unplanted agricultural lands and grazing lands. Suitable burrows were observed within the study area and are discussed in detail below in the results for Step II surveys.

Step II – Locating Burrows and Burrowing Owls

As shown in Table 1, no individual BUOW, active BUOW burrows, or BUOW sign were observed within the study area during the four focused surveys. Several different suitable burrow types were observed within the study area and included fossorial mammal burrows most likely created by California ground squirrel (*Otospermophilus beecheyi*) with entrances approximately 4 to 6 inches wide, culverts and debris piles, as depicted in **Figure 4**, *Burrowing Owl Survey Results*. A majority of the fossorial mammal burrows and all of the debris piles were observed in the eastern portion of the study area near the intersection of Esplanade Avenue and Sanderson Avenue. Several California ground squirrels were observed in various locations throughout the study area. As such, additional suitable burrows for BUOW could be created prior to the start of project activities.

The culverts were a minimum of 10 inches in diameter and were scattered along Esplanade Avenue within ditches that occur to both the north and south of and run parallel to Esplanade Avenue. The culverts generally only convey water during and shortly after rain events as evidenced by the lack of water in all but the westernmost two culverts during the June, July and August surveys and the presence of water in all culverts south of Esplanade Avenue during the February habitat assessment. The westernmost culverts located at the southeastern and northeastern corners of the Esplanade Avenue-Warren Road intersection contained water during all visits to the site and are therefore not suitable for burrowing owls as they convey perennial flows.

A complete list of all avian species observed within the study area is included in **Appendix A**, *Avian Compendium*, attached.

Recommended Minimization and Avoidance Measures

Due to the presence of potentially suitable habitat, a pre-construction survey for burrowing owl within 30 days of Project activities is required pursuant to the MSHCP. If the survey finds burrowing owls on the site, the results should be conveyed to the Wildlife Agencies within three business days of discovering the owls, and a Burrowing Owl Protection and Relocation Plan the Project would need to be prepared in consultation with the RCA. If burrowing owls are determined present during the 30-day pre-construction survey, occupied burrows shall be avoided to the greatest extent feasible. If occupied burrows cannot be avoided, the Burrowing Owl Protection and Relocation Plan will describe methodology for exclusion, including the potential for active relocation. The Burrowing Owl Exclusion Plan will be prepared in accordance with the MSHCP and CDFW guidelines.

In accordance with the MSHCP, take of active nests is not allowed. Passive relocation (i.e., the exclusion of burrowing owl from burrows followed by collapsing burrows free of BUOW) will occur when owls are present outside the nesting season. The Wildlife Agencies may require active relocation for the burrowing owl to create burrows in the MSHCP reserve for the establishment of new colonies. Translocation sites, if required, will be identified in consultation with CDFW and RCA taking into consideration unoccupied habitat areas, presence of burrowing mammals, existing colonies, and effects to other MSHCP Covered Species.

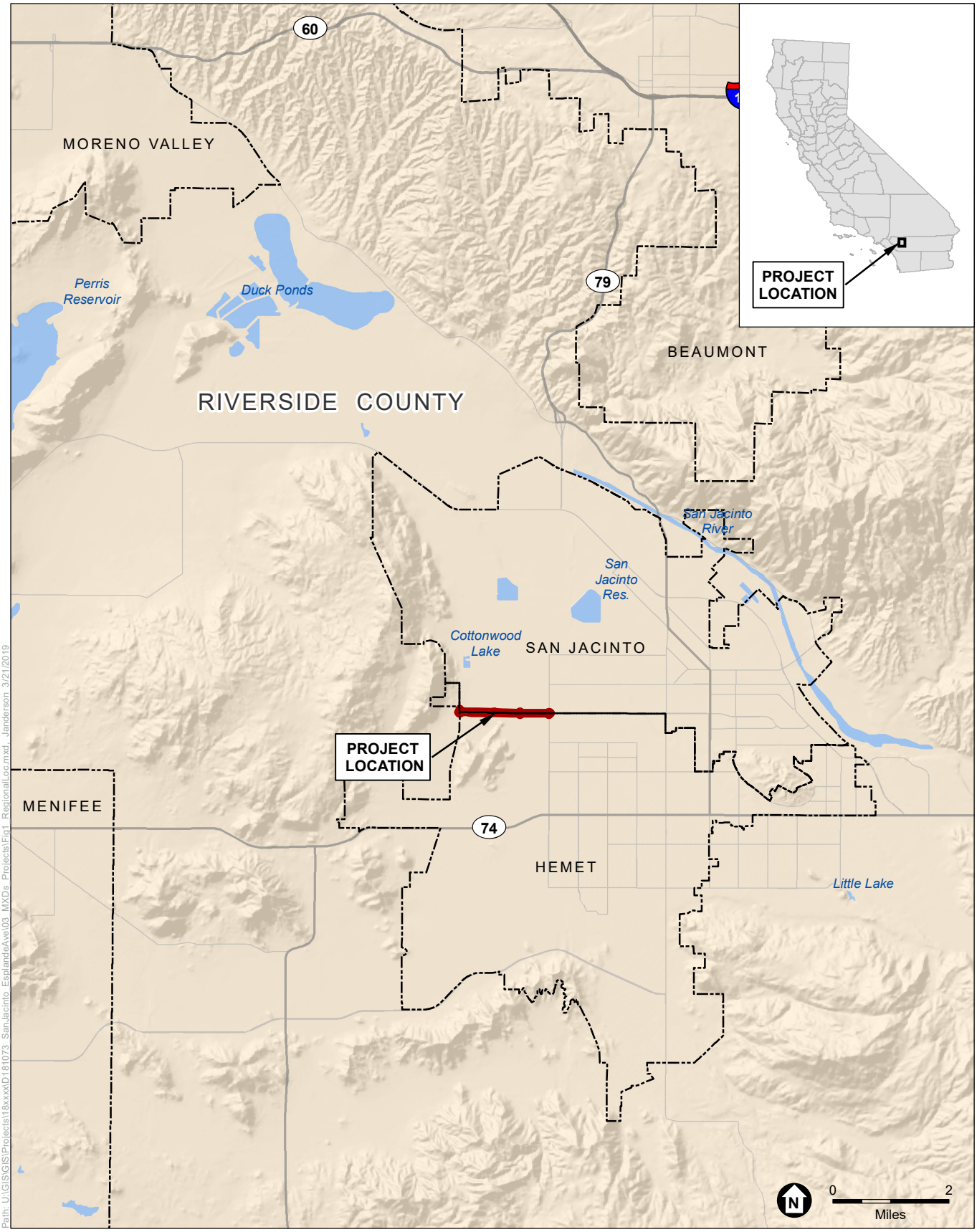
On behalf of ESA, it has been a pleasure preparing this information for you. Please do not hesitate to contact Daryl Koutnik at (949) 753-7001 or Ryan Villanueva at (213) 599-4300 if you have any questions or comments regarding this report.

Sincerely,

Ryan Villanueva
Senior Biologist

Daryl Koutnik
Principal Associate, Biological Resources

Attachments
Figure 1: Regional Map
Figure 2: Vicinity Map
Figure 3: Plant Communities/Land Cover Map
Figure 4: Burrowing Owl Survey Results
Appendix A: Avian Compendium

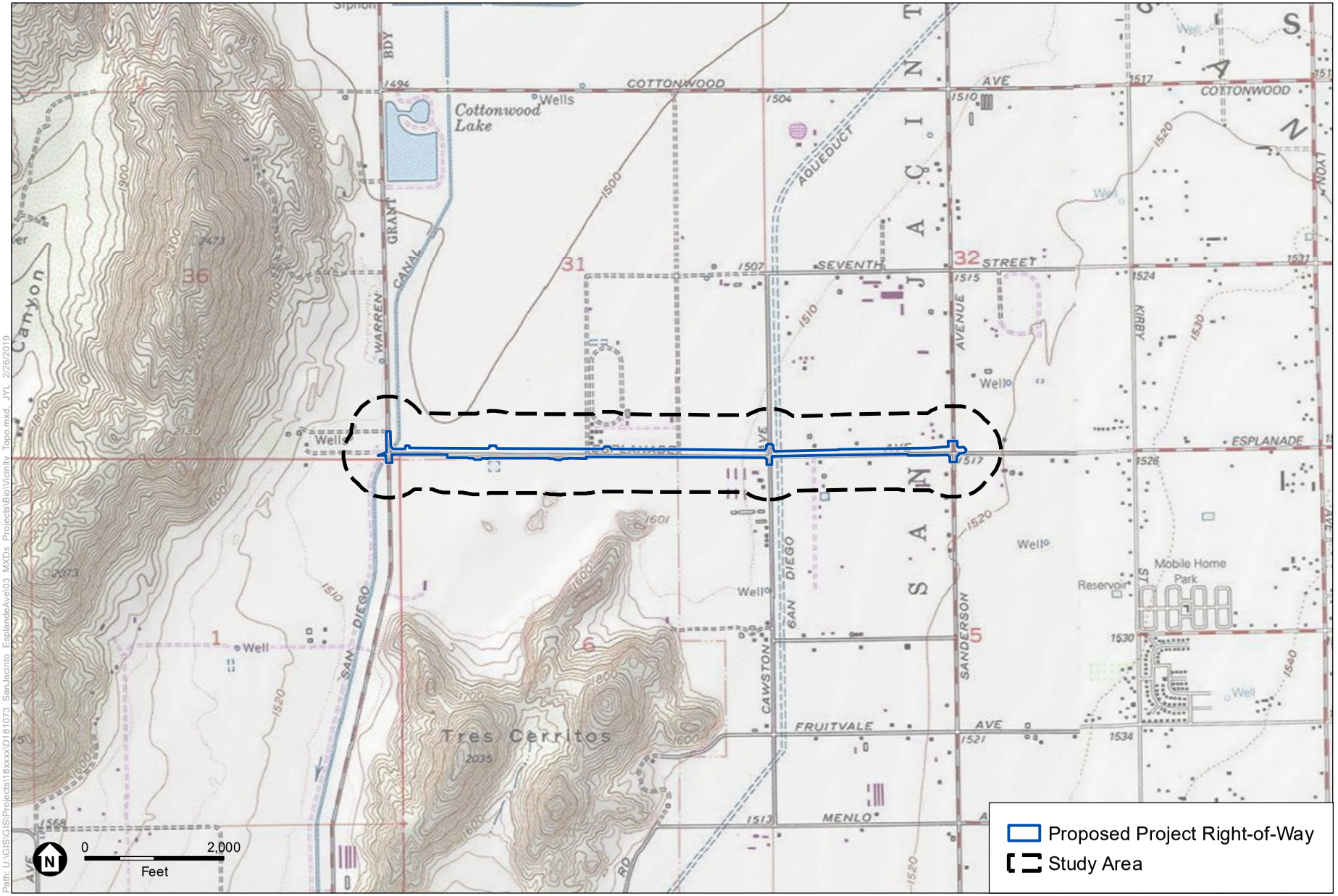


SOURCE: ESRI

San Jacinto Esplanade Avenue

Figure 1
Regional Map

ESA

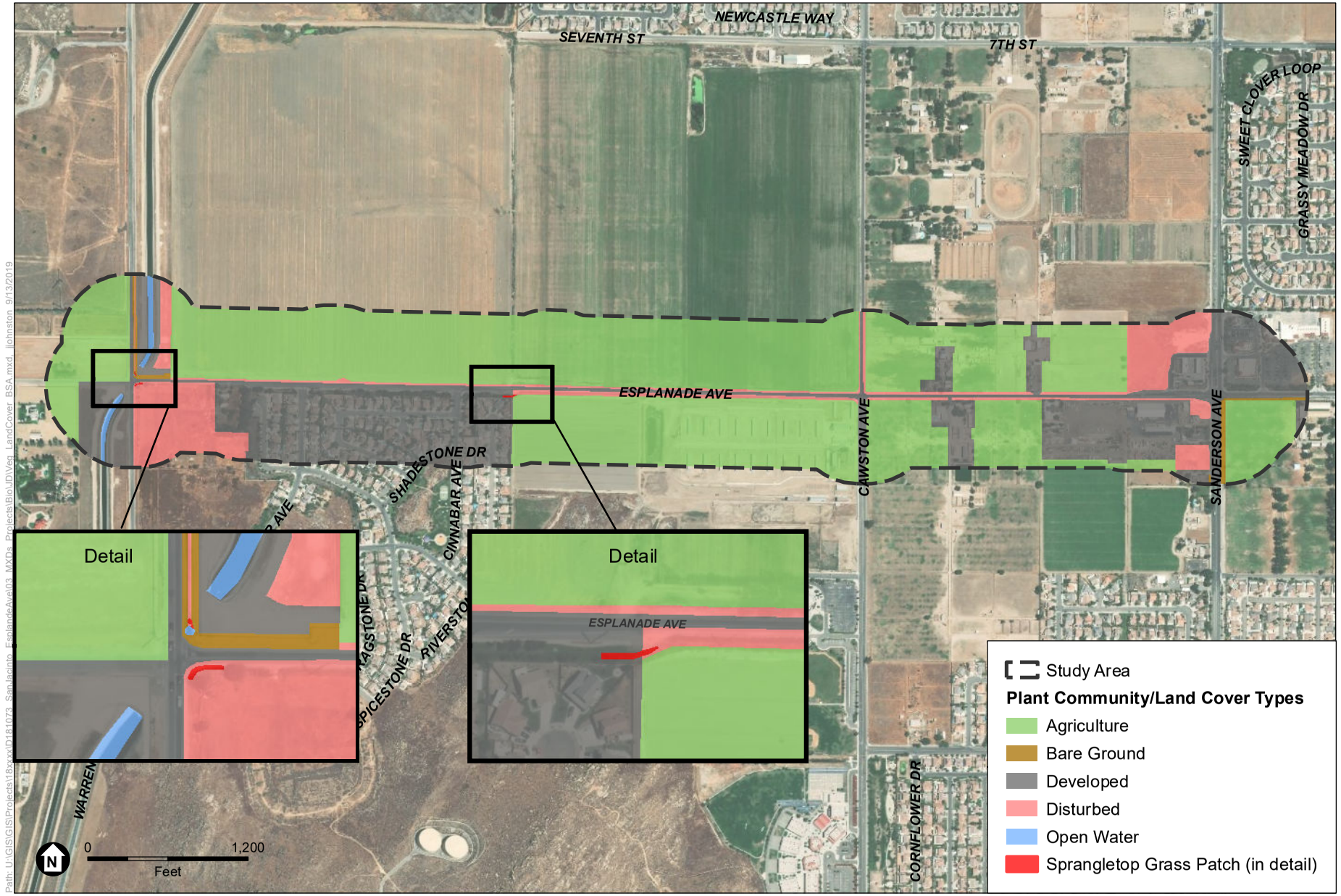


SOURCE: USGS 7.5' Topo Quad Lakeview 1976, 1980; San Jacinto 1978, 1980

San Jacinto Esplanade Avenue

Figure 2
Vicinity Map

ESA



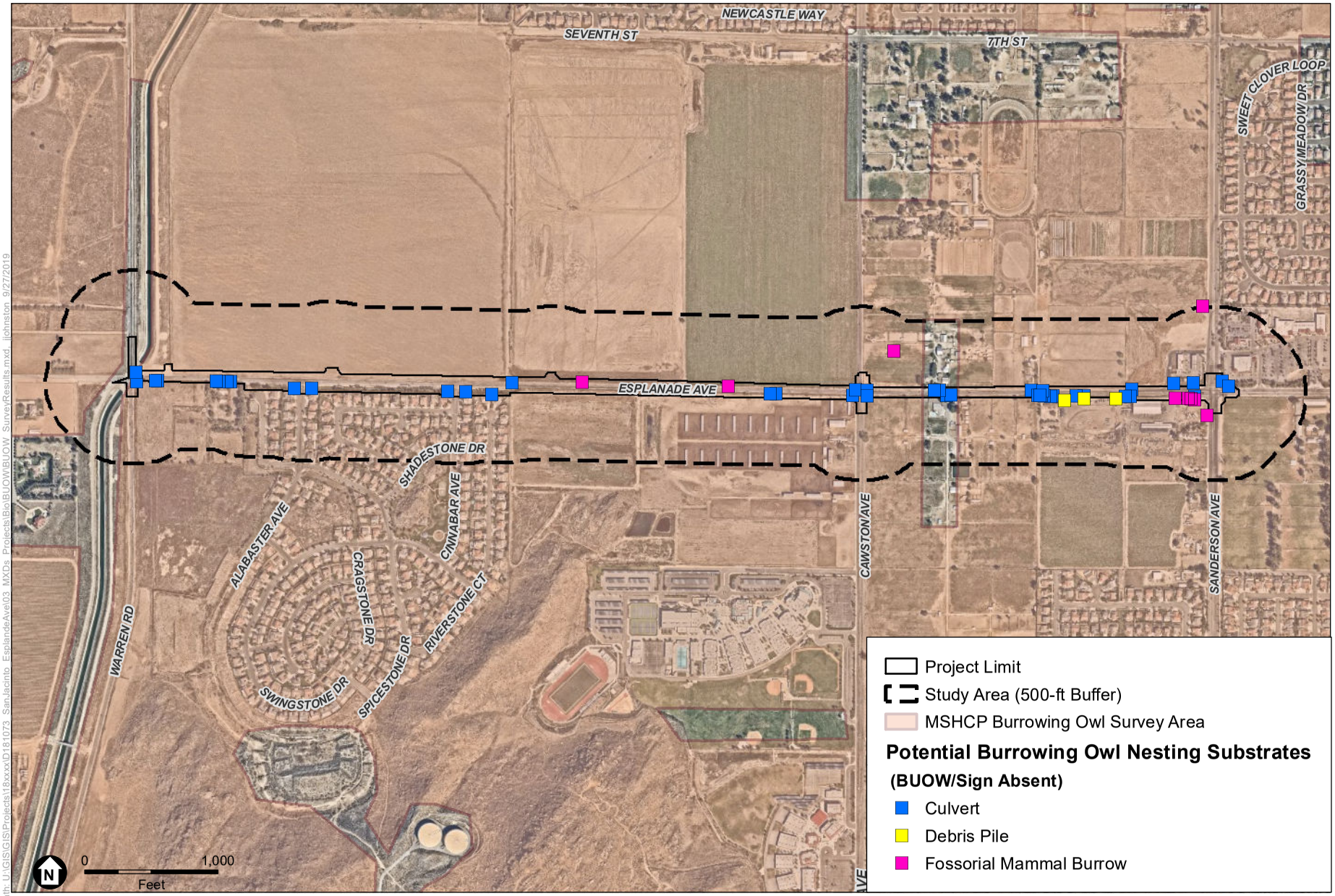
SOURCE: ESRI

San Jacinto Esplanade Avenue

Figure 3

Plant Community/Land Cover Map

ESA



Path: U:\GIS\GIS\Projects\18xxxx\D181073_SanJacinto_EsplanadeAve\03_MXDs_Projects\Bio\BUOW\BUOW_SurveyResults.mxd jjohnston 9/27/2019

SOURCE: ESRI 2018; County of Riverside 2019

San Jacinto Esplanade Avenue

Figure 4

Burrowing Owl Survey Results

ESA

Attachment A
Avian Compendium

APPENDIX A – AVIAN COMPENDIUM

Scientific Name	Common Name
Anatidae	**Ducks, Geese, and Waterfowl**
Anas platyrhynchos	mallard
Recurvirostridae	**Stilts and Avocets**
Himantopus mexicanus	black-necked stilt
Charadriidae	**Plovers and Lapwings**
Charadrius vociferus	killdeer
Phalacrocoracidae	**Comorants and Shags**
Phalacrocorax auritus	double-crested cormorant
Ardeidae	**Herons**
Ardea alba	great egret
Bubulcus ibis	cattle heron
Egretta thula	snowy egret
Threskiornithidae	**Ibises and Spoonbills**
Plegadis chihi	white-faced ibis
Cathartidae	**New World Vultures**
Cathartes aura	turkey vulture
Accipitridae	**Hawks**
Accipiter cooperii	Cooper's hawk
Buteo jamaicensis	red-tailed hawk
Circus hudsonius	northern harrier
Falconidae	**Falcons**
Falco sparverius	American kestrel
Columbidae	**Pigeons and Doves**
* *Columba livia*	rock pigeon
* *Streptopelia decaocto*	Eurasian collared-dove
Zenaida macroura	mourning dove
Trochilidae	**Hummingbirds**
Calypte anna	Anna's hummingbird
Tyrannidae	**Tyrant Flycatchers**
Sayornis nigricans	black phoebe
Sayornis saya	Say's phoebe
Tyrannus verticalis	western kingbird
Tyrannus vociferans	Cassin's kingbird
Corvidae	**Jays and Crows**
Corvus brachyrhynchos	American crow
Corvus corax	common raven
Hirundinidae	**Swallows**
Hirundo rustica	barn swallow
Petrochelidon pyrrhonota	cliff swallow

Scientific Name	Common Name
Stelgidopteryx serripennis	northern rough-winged swallow
Troglodytidae	**Wrens**
Thryomanes bewickii	Bewick's wren
Mimidae	**Thrashers**
Mimus polyglottos	northern mockingbird
Sturnidae	**Starlings**
* *Sturnus vulgaris*	European starling
Emberizidae	**Emberizine Sparrows and Allies**
Melozone crissalis	California towhee
Melospiza melodia	song sparrow
Cardinalidae	**Buntings, Grosbeaks, and Tanagers**
Passerina caerulea	blue grosbeak
Icteridae	**Blackbirds**
Agelaius phoeniceus	red-winged blackbird
Euphagus cyanocephalus	Brewer’s blackbird
Icterus cucullatus	hooded oriole
Quiscalus mexicanus	great-tailed grackle
Sturnella neglecta	western meadowlark
Fringillidae	**Finches**
Haemorhous mexicanus	house finch
Spinus psaltria	lesser goldfinch
Passeridae	**New World Sparrows**
Passer domesticus	house sparrow

626 Wilshire Boulevard
Suite 1100
Los Angeles, CA 90017
213.599.4300 phone
213.599.4301 fax

esassoc.com

October 8, 2019

Stuart McKibbin, City Engineer
City of San Jacinto
166 E. Main St., Ste. 2
San Jacinto, CA 92583

Subject: Results of the Focused Special-Status Plant Survey for the City of San Jacinto Esplanade Widening Phase I Project, Riverside County, California

Dear Ms. Alvarez:

This letter report summarizes the methodology and findings of a focused special-status plant survey, including Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) narrow endemic plant species, conducted by ESA for the Esplanade Widening Phase I Project (Project) located in the Cities of San Jacinto and Hemet, Riverside County, California. The survey was conducted within all potentially suitable habitat of the Project site and within a 500-foot survey buffer surrounding the perimeter of the Project site (collectively, the "study area").

The survey was conducted to ensure compliance with the MSHCP general survey requirements and Narrow Endemic Plant Species (NEPS) *Additional Survey Needs and Procedures*, which include protection for several native plant species found within the MSHCP area. Portions of the Project site are within the MSHCP's NEPS survey area, as well as Subunit 4: Hemet Vernal Pool Areas. The following NEPS species are protected under the MSHCP and required surveys: Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*) and Wrights's trichocoronis (*Trichocoronis wrightii* var. *wrightii*).

The study area is located within both a MSHCP Criteria Cell and a Cell Group. A Criteria Cell is defined as a unit within the Criteria Area generally 160 acres in size, approximating one quarter section. A MSHCP Cell Group is defined as an identified grouping of Criteria Cells within the Criteria Area. In addition, the Criteria Cell that overlaps with the study area requires the assembly of a Non-contiguous Habitat Block, which is defined as a block of habitat not connected to other habitat areas.

Study Area Description

The study area is located in the Cities of San Jacinto and Hemet, Riverside County, California, along Esplanade Avenue, between Warren Road on the west and Sanderson Avenue on the east, as shown in **Figure 1**, *Regional Map* (attached). The study area is depicted on the U.S. Geological Survey (USGS) 7.5' Lakeview[1] topographic

[1] United States Geological Survey (USGS). 2018. Lakeview, California, 7.5-minute topographic quadrangle map.

quadrangle map between Sections 31 and 32, Township 4 South, Range 1 West, and Sections 5 and 6, Township 5 South, Range 1 West, as shown in **Figure 2**, *Vicinity Map* (attached). The study area is located entirely within a Burrowing Owl Survey Area as identified by the MSHCP in addition to the NEPS Survey Area.

The topography of the study area consists of flat areas with very little topographic changes. Elevations range from approximately 1,504 feet above mean sea level (MSL) in the western portion of the study area to 1,521 feet above MSL in the eastern portion. Surrounding land uses include a mix of residential uses in the southwest and agricultural fields along the northern study area and to the southeast.

The study area includes a portion of MSHCP Criteria Cell 3291 located south of Esplanade Avenue and east of Warren Road. Although no Project components are anticipated to occur within Criteria Cell, reserve assembly for Criteria Cell 3291 includes the contribution to the assembly of Proposed Non-contiguous Habitat Block 7 and will focus on grassland on approximately 5% of the Cell Group area focusing in the western portion of the Cell Group.

Plant Communities

Land Cover Vegetation Communities

As shown in **Figure 3**, *Plant Community/Land Cover Map*, the study area is primarily comprised of agricultural lands, developed areas and disturbed areas that are devoid of vegetation, with minor areas that support sprangletop grass patches and open water. A description of these plant communities/land covers is included below.

Agricultural Lands

The agricultural lands within the Project area are characterized by the presence of crops, primarily alfalfa, and dairy farming/grazing lands, in which highly disturbed open fields are dominant. Agricultural lands are located throughout the study area.

Developed and Disturbed Areas

Developed areas are characterized by the presence of paved roads, residences, commercial facilities and associated landscaped areas containing non-native ornamental plants. Developed areas are located throughout the study area.

Disturbed areas are characterized by signs of recent disturbance, typically in the form of disking for agricultural purposes or roadside maintenance, and the presence of non-native plants such as red brome (*Bromus madritensis* ssp. *rubens*), whitestem filaree (*Erodium moschatum*), prickly lettuce (*Lactuca serriola*), foxtail barley (*Hordeum murinum* ssp. *leporinum*), cheeseweed (*Malva parvifolia*), Russian thistle (*Salsola tragus*), London rocket (*Sisymbrium irio*), and a number of other non-native plants. Native plants observed within disturbed areas included annual sunflower (*Helianthus annuus*) and Menzies' fiddeneck (*Amsinckia menziesii*). Disturbed areas are located throughout the study area.

A variety of planted trees on the Project site occur along roadways and residential areas. These include red iron bark (*Eucalyptus sideroxylon*), liquidambar (*Liquidambar styraciflua*), olive (*Olea europaea*), palo verde (*Parkinsonia aculeata*), pine trees (*Pinus* sp.), cottonwood (*Populus* sp.), Peruvian pepper tree (*Schinus molle*), and Mexican fan palm (*Washingtonia robusta*).

Bare ground is used to characterize habitats that have hard, compacted soils and are devoid of vegetation, which occurs at the western end of the Project site and along Sanderson Avenue.

Sprangletop Grass Patches

Patches of sprangletop grass (*Leptochloa fusca*) are located at the northeastern and southeastern corners of Esplanade Avenue and Warren Road. This native community consists of saturated soils and hydrophytic vegetation. This community has sprangletop grass as the dominant species and some areas also contain small amounts of tubered bulrush (*Bolboschoenus glaucus*), northern willow herb (*Epilobium ciliatum*), scarlet pimpernel (*Lysimachia arvensis*), white sweetclover (*Melilotus albus*), and annual beard grass (*Polypogon monspeliensis*).

Open Water

Open water occurred within a roadside ditch located at the northeast corner of Esplanade Avenue and Warren Road. Sprangletop grass patches occur along the margins of the ditch. As shown on Figure 2, the San Diego Canal and an agricultural pond located to the south of Esplanade Avenue and west of Cawston Avenue are also present in the vicinity, both of which and contain open water.

Methodology

The study area is within a MSHCP NEPS survey area and therefore a NEPS survey is required. Surveys were conducted in accordance with the MSHCP protocol, including the 2001 CNPS Botanical Survey Guidelines, 2002 USFWS General Rare Plant Survey Guidelines and 2009 CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities.[2,3,4] NEPS for this location included Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*) and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*).

Prior to conducting the survey, a database search of the CDFW California Natural Diversity Data Base (CNDDB) (CDFW 2019), was conducted to query NEPS and other special-status plants species that have been recorded within or in close proximity to the study area[5].

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[2] California Native Plant Society (CNPS). 2001. Botanical Survey Guidelines.

[3] U.S. Fish and Wildlife Service (USFWS). 2002. General Rare Plant Survey Guidelines..

[4] California Department of Fish and Wildlife (CDFW). 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities.

[5] CDFW. 2019. California Natural Diversity Database (CNDDB) Commercial version, Information dated February 8, 2018. Rarefind 5 query results for study area.

Surveys for special-status plants were conducted by ESA biologists Lily Sam and Daryl Koutnik on June 28, 2019. The survey date collectively encompassed the flowering periods of all NEPS plants potentially occurring within the study area with the exception of Munz's onion, whose flowering period ends in May. Munz's onion occurs in seasonally moist clay soils in grassy openings within coastal sage scrub, chaparral, juniper woodland, and valley and foothill grasslands, such habitats of which are not present.

Meandering transects were walked across all accessible portions of the study area and biological resources, including vegetation and special-status plants (if observed), were mapped on a 1" = 300' scale aerial photograph and recorded using Geographic Information Systems (GIS) technology. Plant species observed were recorded and a list of all plant species found was compiled (Appendix A, *Floral Compendium*, attached). Plant species nomenclature follows that of Baldwin et al.[6]

Results

Based on the CNDDB query, no NEPS occurrences were located within or adjacent to the study area. However, occurrences for the Criteria Area Species smooth tarplant (*Centromadia pungens* ssp. *laevis*, 2010) and salt spring checkerbloom (*Sidalcea neomexicana*, 1966) were located within the study area. In addition, occurrences for San Jacinto crownscale (*Atriplex coronata* var. *notatior*, 2005) and Davidson's saltscale (*Atriplex serenana* var. *davidsonii*, 2005) were located approximately 0.2 mile south and 0.1-mile south of the study area respectively.

Special-status plant species surveyed for included NEPS and MSHCP-covered plant species with known occurrences within or adjacent to the study area; and are provided in Table 1, *Special-Status Plant Species*, below , along with their sensitivity rankings. In addition, the survey noted all remaining plant species covered by the MSHCP, if observed. Smooth tarplant was the only special-status or MSHCP-covered species observed within the study area. NEPS species were not observed within the study area and are not anticipated to occur within the study area due to the species being absent during the 2019 survey, an absence of suitable habitat and the lack of historical occurrences in the area.[7]

Smooth tarplant, while not a NEPS species, is a Criteria Area Species and a California Rare Plant Rank (CRPR) 1B.1 species. The species was observed within the study area during focused surveys (Figure 4, *Special-status Plant Species Survey Results*, attached). This included approximately 6 individuals within the project site which are anticipated to be impacted as part of project activities. Of these 6 individuals 2 occur at the northwestern corner of Esplanade Avenue and Warren Road and 4 occur at the southwestern corner of Esplanade Avenue and Warren Road. An additional approximately 92 individuals were observed within the study area of which 39 individuals from four different patches will likely require flagging for avoidance. Patches of smooth tarplant anticipated to be flagged occur in the southeastern, southwestern and northeastern corners of Esplanade Avenue and Warren Road.

Smooth tarplant observations were mostly limited to the westernmost portion of the study area centered around the intersection of Esplanade Avenue and Warren Road. An additional 1,000 individuals were observed outside of

6 Baldwin, B.G., et al. 2012. The Jepson Manual: Vascular Plants of California, Second Edition. University of California Press, Berkeley.

7 California Department of Fish and Wildlife (CDFW). 2019. California Natural Diversity Database (CNDDB) Commercial version. Retrieved August 26, 2019. Rarefind 5 query results for Lakeview and surrounding USGS 7.5-minute quadrangles.

the study area in areas located just east of the San Diego Canal and north of Esplanade Avenue as well as areas south of Esplanade Avenue both east and west of Warren Road.

Table 1: Special-status Plant Species

VASCULAR PLANTS								
Scientific Name	**Common Name**	**Flowering Period**	**Federal**	**State**	**CNPS List**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
ANGIOSPERMS (DICOTYLEDONS)								
Alliaceae	**Onion Family**							
Allium munzii	Munz's onion	Mar.-May	NONE	NONE	1B.1	Chaparral, Cismontane woodland, Coastal scrub, Pinyon and juniper woodland, Valley and foothill grassland.	Riverside County.	Not encountered
Comments: This species is not expected to occur due to the negative results of a focused survey conducted for this species.								
Asteraceae	**Aster Family**							
Ambrosia pumila	San Diego ambrosia	Apr.-Oct.	NONE	NONE	1B.1	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools/sandy loam or clay, often in disturbed areas, sometimes alkaline.	Riverside, San Diego Counties, and Baja California.	Not encountered
Comments: This species is not expected to occur due to the negative results of a focused survey conducted for this species.								
Centromadia (Hemizonia) pungens ssp. *laevis*	smooth tarplant	Apr.-Sept.	NONE	NONE	1B.1	Valley & foothill grasslands with poorly drained alkaline soil conditions at low elevations.	Kern, Los Angeles, Orange, Riverside, Santa Barbara, San Bernardino, and San Diego Counties.	Observed
Comments: This species is expected to occur due to positive results of a focused survey conducted for this species. Approximately 98 individuals were observed within the study area during the survey.								
Trichocoronis wrightii var. wrightii	Wright's trichocoronis	May-Sept.	None	None	2B.1	Vernal Pools, marshes & swamps, riparian forests, meadows and seeps.	Colusa, Merced, Riverside, San Joaquin, Sutter Counties, Baja California, Texas.	Not encountered
Comment: This species is not expected to occur due to the negative results of a focused survey conducted for this species.								
Chenopodiaceae	**Goosefoot Family**							
Atriplex coronata var. *notatior*	San Jacinto Valley crownscale	April-August	FE	NONE	1B.1	Alkali Sink, Freshwater Wetlands, wetland-riparian; playas, vernal-pools; below 1,500 ft.	Kern, Riverside and San Diego Counties.	Not encountered

VASCULAR PLANTS								
Scientific Name	**Common Name**	**Flowering Period**	**Federal**	**State**	**CNPS List**	**Preferred Habitat**	**Distribution**	**Occurrence On-site**
Comment: This species is not expected to occur due to the negative results of a focused survey conducted for this species.								
Atriplex serenana var. *davidsonii*	Davidson's salt-scale	April-October	NONE	NONE	1B.2	Coastal Sage Scrub, wetland-riparian; below 1,600 ft.	Los Angeles, Orange, Riverside, Santa Barbra and Ventura Counties.	Not encountered
Comment: This species is not expected to occur due to the negative results of a focused survey conducted for this species.								
Crassulaceae	**Stonecrop Family**							
Dudleya multicaulis	many-stemmed dudleya	May-Jul.	NONE	NONE	1B.2	Sage scrub, valley & foothill grassland; heavy clay soils or rock outcrops; below 2,000 ft.	Los Angeles County to San Onofre Mountain, San Diego County.	Not encountered
Comment: This species is not expected to occur due to the negative results of a focused survey conducted for this species.								
Malvaceae	**Mallow Family**							
Sidalcea neomexicana	Salt spring checkerbloom	May-June	NONE	NONE	2B.2	Creosote Bush Scrub, Chaparral, Yellow Pine Forest, Coastal Sage Scrub, Alkali Sink, wetland-riparian; playas; below 7,800 ft.	Alameda, Los Angeles, Monterey, Orange, Riverside, San Bernardino, San Diego and Ventura Counties.	Not encountered
Comment: This species is not expected to occur due to the negative results of a focused survey conducted for this species.								
Poaceae	**Grass Family**							
Orcuttia californica	California orcutt grass	Apr.-Jun.	FE	SE	1B.1	Vernal pools.	Los Angeles, Riverside, San Diego, San Luis Obispo Counties., and Baja California.	Not encountered
Comments: This species is not expected to occur due to the negative results of a focused survey conducted for this species.								
Polemoniaceae	**Phlox Family**							
Navarretia fossalis	spreading navarretia	Apr.-Jun.	None	None	1B.1	Chenopod scrub, Marshes and swamps, Playas, and Vernal pools.	Los Angeles, Riverside, San Diego, San Luis Obispo Counties, and Baja California.	Not encountered
Comment: This species is not expected to occur due to the negative results of a focused survey conducted for this species.								

VASCULAR PLANTS

Scientific Name	Common Name	Flowering Period	Federal	State	CNPS List	Preferred Habitat	Distribution	Occurrence On-site

Key to Species Listing Status Codes

FE	*Federally Listed as Endangered*	*SE*	*State Listed as Endangered*
FT	*Federally Listed as Threatened*	*ST*	*State Listed as Threatened*
FPE	*Federally Proposed as Endangered*	*SCE*	*State Candidate for Endangered*
FPT	*Federally Proposed as Threatened*	*SCT*	*State Candidate for Threatened*
FPD	*Federally Proposed for Delisting*	*SR*	*State Rare*
FC	*Federal Candidate Species*	*SFP*	*State Fully Protected*

California Native Plant Society (CNPS)

Rank 1A: Presumed extirpated in California and either rare or extinct elsewhere.
Rank 1B: Rare, threatened, or endangered in California and elsewhere.
Rank 2A: Presumed extirpated in California but common elsewhere.
Rank 2B: Rare, threatened, or endangered in California but more common elsewhere.
Rank 3: Plant species for which additional information is needed before rarity can be determined.
Rank 4: Species of limited distribution in California (i.e., naturally rare in the wild), but whose existence does not appear to be susceptible to threat.

CNPS Threat Ranks

.1: Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat)
.2: Moderately threatened in California (20-80% occurrences threatened/moderate degree and immediacy of threat).
.3: Not very threatened in California (<20% of occurrences threatened/low degree and immediacy of threat or no current threats known).

Source: ESA, 2019.

Recommended Minimization and Avoidance Measures

Since the study area contains a number of smooth tarplant individuals and six individuals are anticipated to be impacted, measures taken to avoid or mitigate potential impacts to the species are recommended for implementation during Project activities.

Smooth tarplant populations within 50 feet of the construction work area shall be flagged by a qualified biologist/botanist prior to the start of vegetation or ground-disturbing activities, and shall be avoided to the extent feasible. Prior to any vegetation or ground disturbance, a qualified biologist/botanist shall locate and flag any smooth tarplant individuals established within the construction work area. Because smooth tarplant is an annual plant and relocation of annual plants is generally not successful, seed will be collected from the flagged individuals that cannot be avoided. Smooth tarplant seed shall be collected prior to removal during the appropriate time of year, either from impacted individuals or from individuals in the adjacent vicinity. Seeds shall be directly sown in areas just outside the project site but within the study area in areas where smooth tarplant was previously observed. Seeds are anticipated to thrive given the number of individuals observed in the study area. A small portion of seed (no more than 20%) will be held in reserve in the event that the initial re-sowing does not provide a stable self-propagating population.

Since smooth tarplant is a MSHCP covered species and is anticipated to be impacted by project activities, a Determination of Biologically Equivalent or Superior Preservation (DBESP) will be required to be prepared for the project. The DBESP will follow the current template provided by the Resource Conservation Authority (RCA).

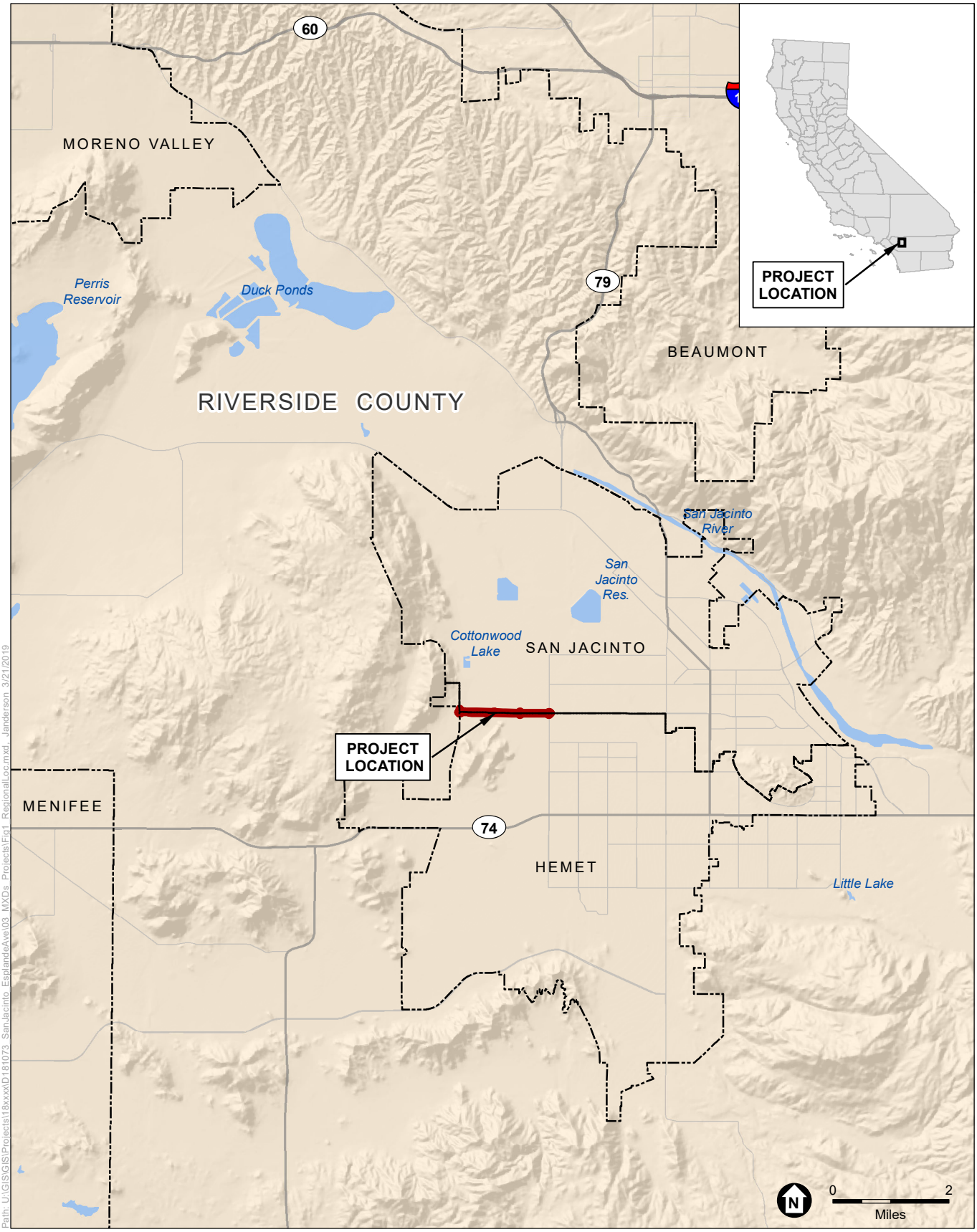
On behalf of ESA, it has been a pleasure preparing this information for you. Please do not hesitate to contact Daryl Koutnik at (949) 753-7001 or Ryan Villanueva at (213) 599-4300 if you have any questions or comments regarding this report.

Sincerely,

Ryan Villanueva
Senior Biologist

Daryl Koutnik
Principal Associate, Biological Resources

Attachments
Figure 1: Regional Map
Figure 2: Vicinity Map
Figure 3: Plant Community/Land Cover Map
Figure 4: Special-status Plant Species Locations
Appendix A: Floral Compendium

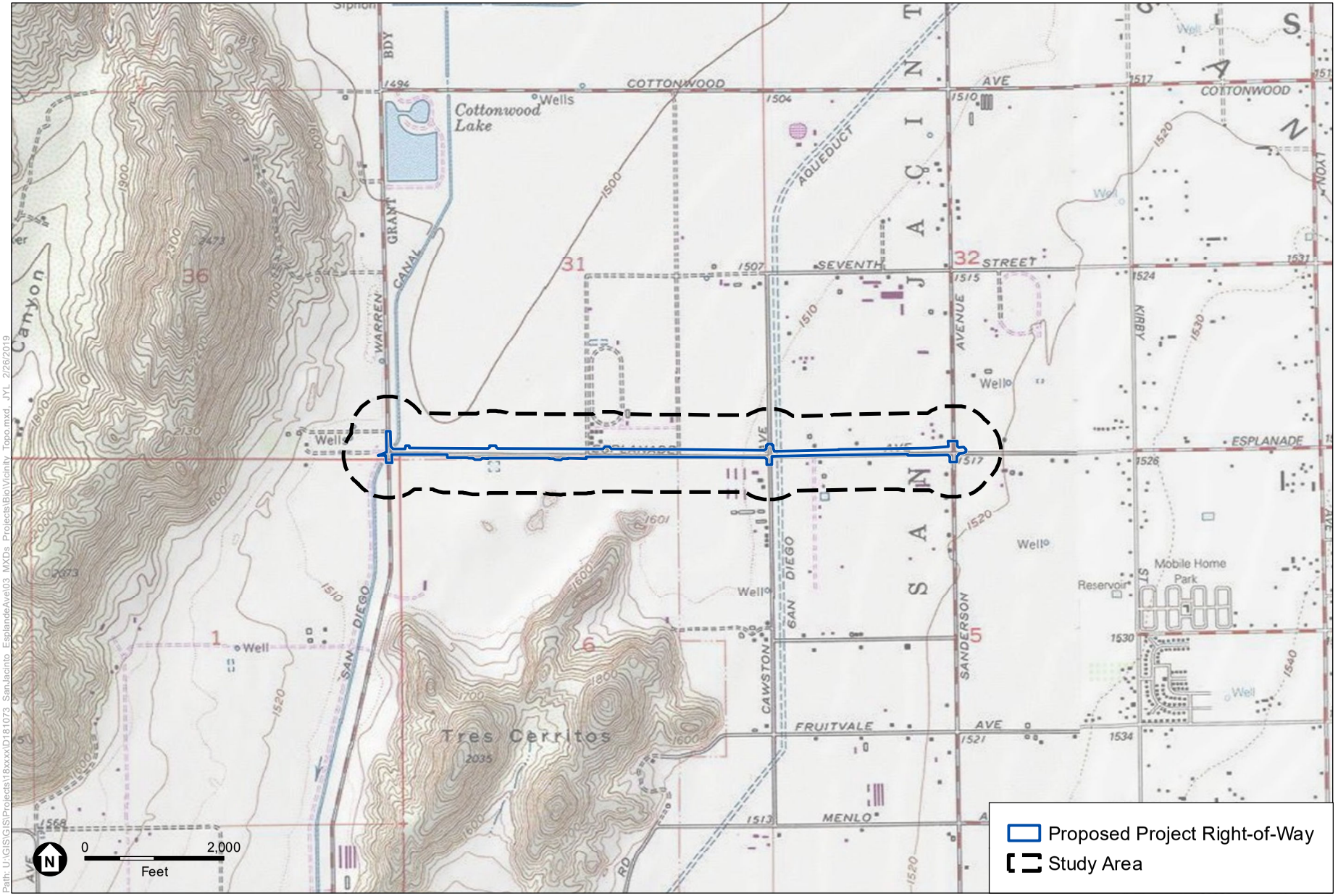


SOURCE: ESRI

San Jacinto Esplanade Avenue

Figure 1
Regional Map

ESA

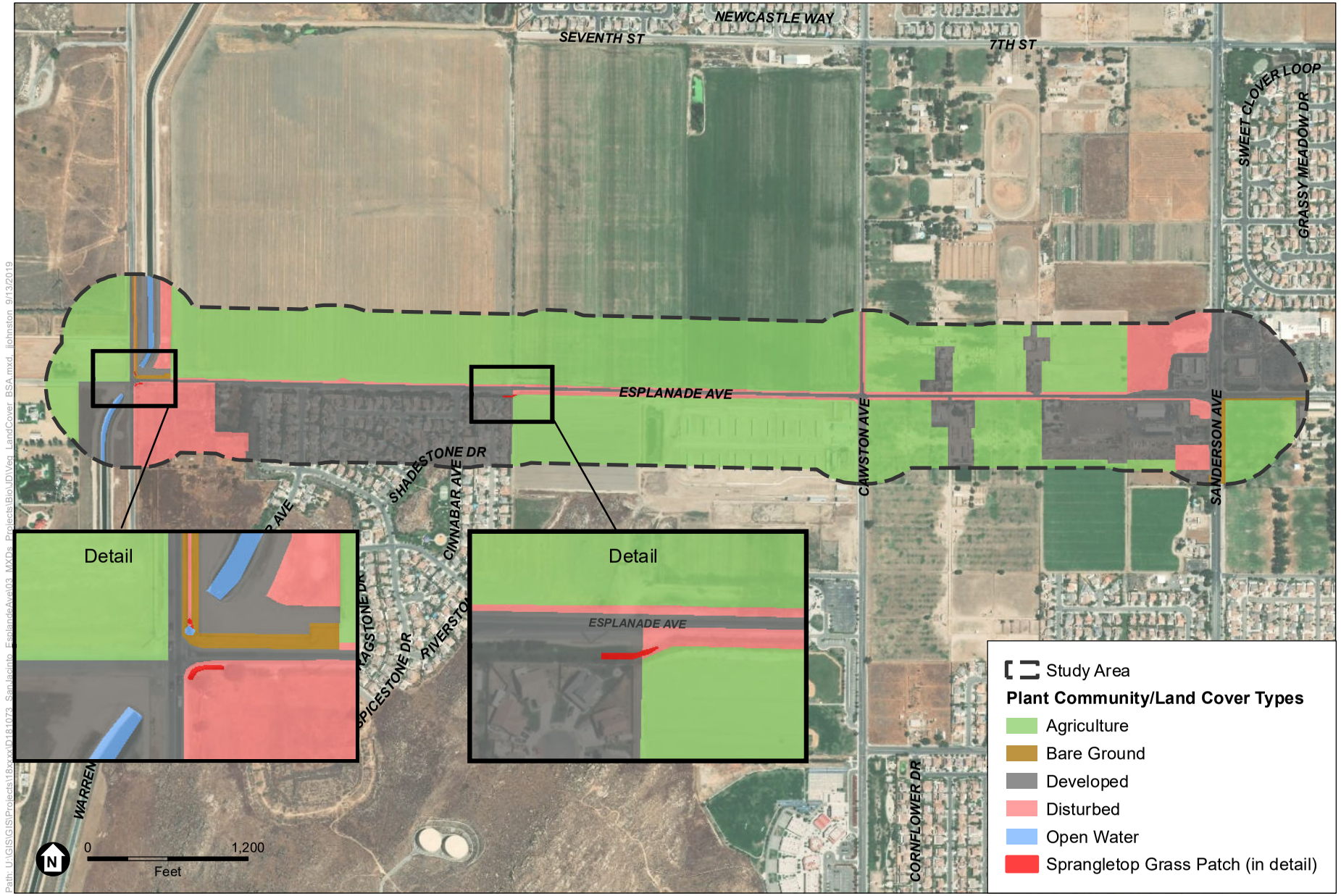


SOURCE: USGS 7.5' Topo Quad Lakeview 1976, 1980; San Jacinto 1978, 1980

San Jacinto Esplanade Avenue

Figure 2
Vicinity Map

ESA



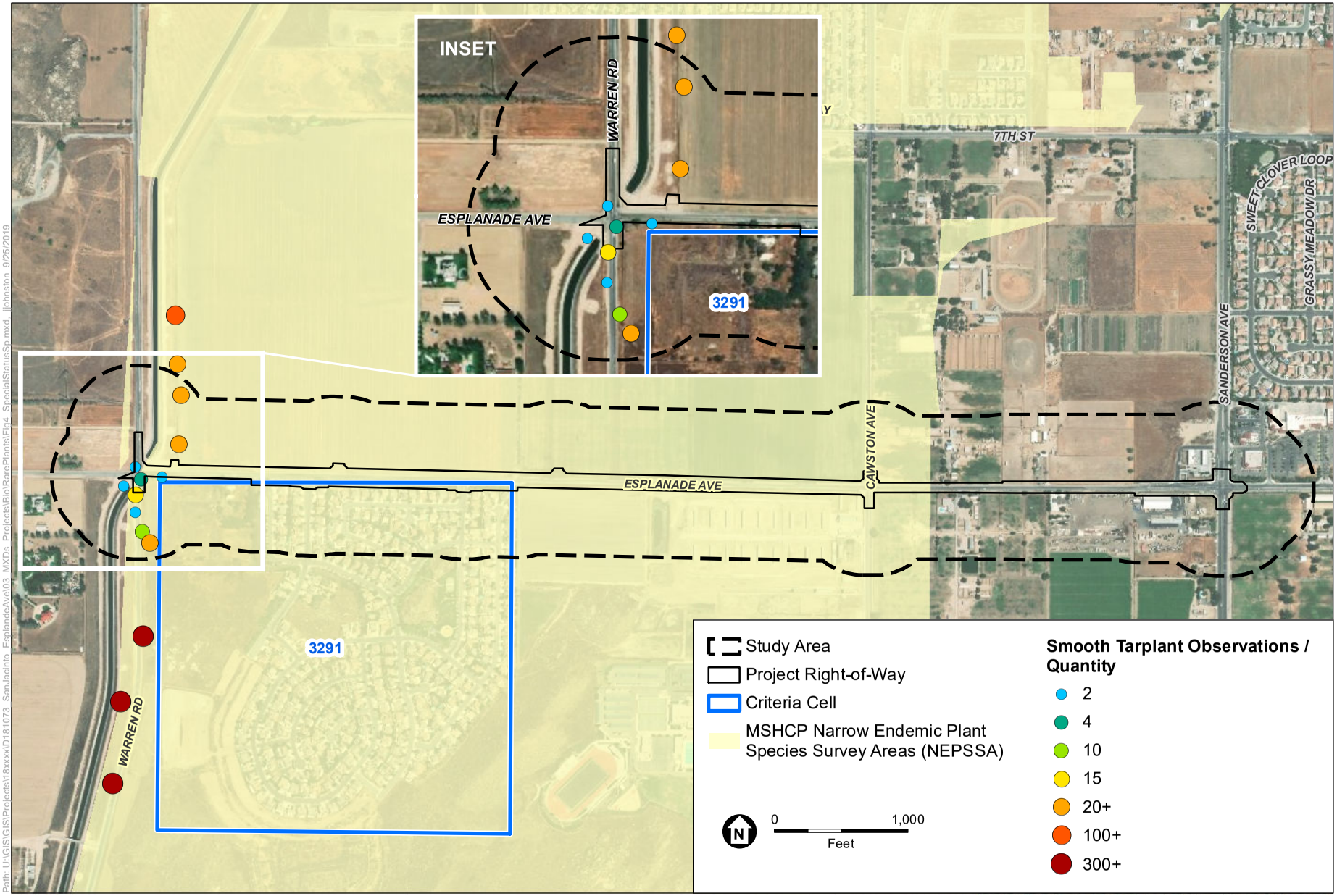
SOURCE: ESRI

San Jacinto Esplanade Avenue

Figure 3

Plant Community/Land Cover Map

ESA



SOURCE: ESRI; County of Riverside 2019

San Jacinto Esplanade Avenue

Figure 4

Special-Status Plant Species Locations

ESA

Appendix A
Floral Compendium

Appendix A – Floral Compendium

ANGIOSPERMS (DICOTYLEDONS)

EUDICOTS

	Scientific Name	Common Name
	Amaranthaceae	**Amaranth Family**
*	*Amaranthus albus*	tumbling pigweed
*	*Amaranthus retroflexus*	rough pigweed
	Anacardiaceae	**Sumac Family**
*	*Schinus molle*	Peruvian peppertree
	Asteraceae	**Aster Family**
	Centromadia pungens ssp. *laevis*	smooth tarweed
*	*Cirsium vulgare*	Bull thistle
	Erigeron canadensis	Canadian horseweed
	Helianthus annuus	sunflower
	Heterotheca grandiflora	telegraphweed
*	*Lactuca serriola*	prickly lettuce
*	*Oncosiphon piluliferum*	stinknet
*	*Senecio vulgaris*	common groundsel
*	*Sonchus oleraceus*	common sowthistle
	Boraginaceae	**Borage Family**
	Amsinckia menziesii	Menzies' fiddleneck
	Brassicaceae	**Mustard Family**
*	*Hirschfeldia incana*	shortpod mustard
*	*Lepidium nitidum*	shining pepper grass
	Lepidium lasiocarpum	shaggyfruit pepperweed
*	*Raphanus sativus*	wild radish
*	*Sisymbrium irio*	London rocket
	Caryophyllaceae	**Pink Family**
*	*Spergularia rubra*	purple sand spurry
	Chenopodiaceae	**Goosefoot Family**
	Atriplex serenana var. *serenana*	bractscale
*	*Bassia hyssopifolia*	five horn bassia
*	*Chenopodium album*	lamb's quarters
*	*Salsola tragus*	prickly Russian thistle

Convolvulaceae		**Morning-Glory Family**
*	*Convolulus arvensis*	field bindweed
	Cressa truxillensis	alkali weed
Euphorbiaceae		**Spurge Family**
*	*Euphorbia serpens*	matted sandmat
Fabaceae		**Legume Family**
*	*Medicago sativa*	alfalfa
*	*Melilotus albus*	white sweetclover
*	*Melilotus indicus*	sourclover
Frankeniaceae		**Frankenia Family**
	Frankenia salina	alkali heath
Geraniaceae		**Geranium Family**
*	*Erodium moschatum*	whitestem filaree
Lythraceae		**Loosestrife Family**
*	*Lythrum hyssopifolia*	hyssop loosestrife
Malvaceae		**Mallow Family**
*	*Malva parviflora*	cheeseweed
Meliaceae		**Mahogany Family**
*	*Melia azedarach*	China berry tree
Moraceae		**Mulberry Family**
*	*Morus alba*	mulberry
Myrtaceae		**Myrtle Family**
*	*Eucalyptus sideroxylon*	red iron bark
Plantaginaceae		**Plantago Family**
*	*Veronica anagallis-aquatica*	water speedwell
Polygonaceae		**Buckwheat Family**
	Persicaria lapathifolia	common knotweed
*	*Polygonum aviculare*	prostrate knotweed
*	*Rumex crispus*	curly dock
*	*Rumex pulcher*	fiddleleaf dock
Portulacaceae		**Purslane Family**
*	*Portulaca oleracea*	common purslane
	Trianthema portulacastrum	horse purslane
Ranunculaceae		**Ranuculus Family**
	Ranunculus sceleratus	cursed buttercup
Solanaceae		**Nightshade Family**
*	*Nicotiana glauca*	tree tobacco
Ulmaceae		**Elm Family**
*	*Ulmus pumila*	Siberian elm
Zygophyllaceae		**Elm Family**
*	*Tribulus terrestris*	puncture vine

ANGIOSPERMS (MONOCOTYLEDONS)

	Scientific Name	Common Name
Cyperaceae		**Sedge Family**
	Bolboschoenus glaucus	tubered bulrush
	Cyperus eragrostis	tall cyperus
Poaceae		**Grass Family**
*	*Avena fatua*	wild oat
*	*Bromus madritensis ssp. rubens*	foxtail chess
*	*Cynodon dactylon*	Bermuda grass
*	*Festuca perennis*	soft chess
*	*Hordeum murinum ssp. leporinum*	Italian rye grass
*	*Leptochloa fusca*	sprangletop
*	*Phalaris minor*	littleseed canary grass
*	*Polypogon monspeliensis*	annual beard grass
*	*Sorghum halepense*	Johnson grass
*	*Triticum aestivum*	common wheat