Harris & Associates

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Subject: Biological Resources Letter Report for the Vista II Residential Project (PDS2022-MPA-22-008)

Summary

At the request of Warmington Residential (Applicant), Harris & Associates (Harris) has completed a biological resources letter report for the proposed Vista II Residential Project (project) on an approximately 9.4-acre property (project site) in northern San Diego County, California (Attachment 1, Figures; Figures 1, Regional Location, and 2, Project Location). The project includes the development of 37 dwelling units. The units would be three- or four-bedroom, two-story, and detached. The project would include parking, common open space, and landscaping. Primary access would be off Hannalei Drive with a secondary emergency only access in the northwestern area of the site connecting to an adjacent Stonebrooke Church property to the west. The project has been designed to avoid the concrete-lined and earthen-bottom channel (Channel 1 in the Results section) that occurs along the eastern and northeastern edge of the project site. Project design features for avoidance of these sensitive resources would include temporary fencing during construction and permanent signage for operation of the project.

The project site currently includes the Stonebrooke Church, a parking lot, three baseball fields, a snack shack, and covered seating for the baseball field. The project site also contains native and non-native trees and a concrete and earthen drainage that runs along the northeastern site boundary. The project site currently consists of developed and undeveloped lands (Figure 2). The project site is not within an adopted HCP or within the County of San Diego Multiple Species Conservation Program (MSCP) boundary and, therefore, is not subject to the NCCP program or County of San Diego MSCP Plan.

Three vegetation communities and land cover types were observed on the project site, and include non-vegetated channel, disturbed habitat, and urban/developed land. Of the three vegetation communities and land cover types, non-vegetated channel is designated as a sensitive vegetation community. The non-vegetated channel, Channel 1, is also a potentially jurisdictional aquatic resource that could be subject to the regulatory jurisdiction of the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), and California Department of Fish and Wildlife (CDFW).

A total of 48 plant species were observed on the project site, with one sensitive plant species, San Diego County viguiera (*Bahiopsis laciniata)*, observed during the 2021 biological resources survey. No sensitive plant species were determined to have a high potential to occur on the project site.

A total of 22 wildlife species were observed on the project site, with two sensitive wildlife species, monarch butterfly (*Danaus plexippus*) and red-shouldered hawk (*Buteo lineatus*), observed during the 2021 biological resources survey. No sensitive wildlife species were determined to have a high potential to occur on the project site. One Cassin's kingbird (*Tyrannus vociferans*) nest was observed in a pine tree in the central portion of the project site. No critical habitat for sensitive plant or wildlife species occurs on the project site. While the mature trees on and surrounding the project site have the potential to provide habitat for nesting birds or for migration connectivity both locally and regionally, the project site is unlikely to provide movement and suitable dispersal areas for wildlife species or significant connections to open space areas outside the project site. Nesting and foraging opportunities within the site are limited. The presence of the urban development surrounding the project site limits large-scale east-west and north-south wildlife movement in the surrounding area.

The project has been designed to avoid impacts to sensitive biological resources on the project site, including the sensitive vegetation community and potentially jurisdictional non-vegetated Channel 1 and the sensitive San Diego County viguiera individuals that occur along the banks of the channel. Project design features for avoidance of these sensitive resources would include temporary fencing during construction and permanent signage for operation of the project. No direct impacts to sensitive vegetation communities or potentially jurisdictional aquatic resources would result. Removal of suitable nesting habitat for red-shouldered hawk and suitable overwintering habitat for monarch butterfly would result in significant impacts to sensitive wildlife species and requires mitigation. Implementation of standard construction best management practices (BMPs), including dust suppression measures, erosion and sediment control measures (sand and gravel bags, fiber rolls, and silt fencing), use of weed-free erosion control products, noise suppression measures, trash containment methods, and preparation and implementation of a Stormwater Pollution Prevention Plan, would prevent potential indirect impacts to sensitive plant and wildlife species, sensitive vegetation communities, and potentially jurisdictional aquatic resources, and no mitigation would be required.

Permanent direct impacts to live-in, nesting, and foraging habitat that supports the sensitive nesting raptor and bird species on the project site could occur from grading and vegetation removal during construction of the project and requires mitigation. If construction is conducted during the raptor and bird breeding season (January 15 through August 31), temporary direct impacts from disturbance and displacement of sensitive nesting raptors and birds during vegetation removal could result in significant direct impacts to sensitive wildlife species and raptor and bird species protected under the Migratory Bird Treaty Act (MBTA).

The project site does not support regional wildlife corridors or linkages and implementation of the project would not result in significant impacts to wildlife corridors or nursery sites, and no mitigation would be required.

The project would not conflict with local policies or ordinances protecting biological resources and is not subject to local conservation plans. No impacts would result and no mitigation would be required.

Mitigation measures related to the following topics are proposed by the project to fully mitigate potential impacts from implementation of the project: general nest surveys and pre-construction overwintering monarch butterfly survey. Successful implementation of these mitigation measures would mitigate potential project and cumulative impacts to less than significant.

Introduction, Project Description, and Location

The purpose of this letter report is to document the biological resources identified as present or potentially present on the project site and within the vicinity during the biological resources and aquatic resources delineation surveys; identify potential biological resources impacts resulting from the project; and recommend measures to avoid, minimize, and/or mitigate significant impacts consistent with federal, state, and local rules and regulations, including the California Environmental Quality Act (CEQA).

The proposed Vista II Residential Project (project) is located at 145 Hannalei Drive (Assessor's Parcel Number 183-060-84-00) in northern San Diego County, California (Attachment 1, Figures, Figure 1, Regional Location, and Figure 2, Project Location). The project site is north of Hannalei Drive, west of South Santa Fe Avenue and the North County Transit District SPRINTER railroad tracks, east of the existing Stonebrooke Church, and south of undeveloped land. The project is a Tentative Map and Major Use Permit to subdivide an 8.93-acre site into three lots. Lot 1 would contain an existing church and driveway that would be improved as a secondary access for Lot 2. Lot 2, which would be 5.33 acres, would be improved with 37 multi-family condominium units with associated parking and 14,800 square feet of private usable open space. The third lot, Lot A, which has not been approved for future development, would consist of an existing cellular facility. Access to the project site would be from Hannalei Drive, with secondary emergency access in the northwestern area of the site connecting to the adjacent church property to the west (on Lot 1). The project would be part of the North County Metro Community Planning Area. The Vista Fire Protection District would provide fire service, the Buena Sanitation District would provide sewer service, and the Vista Irrigation District would provide water to the project site. The site is subject to General Plan Designation VR-7.3. Zoning for the site is RS. In total, the project would include 111 parking spaces and 61,462 square feet of

open space. Earthwork would consist of 10,700 cubic yards of cut, 22,500 cubic yards of fill, and 11,800 cubic yards of imported material. Currently, the project site contains a stockpile of approximately 3,500 cubic yards of soil spread over a 1-acre area, which violates the County's Grading Ordinance. The stockpile would remain on site and be considered part of the project. Final mapping for the project would occur in phases. The first unit would create Lots 1 and 2 and Lot A for finance and conveyance purposes only, not for development. Once the first unit is recorded, Lot 2 would be transferred to the future developer. Lot 2 would then be developed per the conditions of approval for Tentative Tract Map 5647.

Setting

The following subsections serve to describe the existing conditions on the project site.

Land Use

Existing development on the project site includes the Stonebrooke Church, a parking lot, three baseball fields, a snack shack, and covered seating for the baseball field. The project site also contains native and non-native trees and a concrete and earthen drainage that runs along the northeastern site boundary. The project site currently consists of developed and undeveloped lands (Figure 2).

The project site is in a residential area surrounded by single-family residential neighborhoods to the west and south, undeveloped land to the north, and the North County Transit District SPRINTER railroad tracks to the east (Figure 2). The project site consists of non-sensitive disturbed habitats, one unnamed concrete and earthen channel (Channel 1), and urban/developed areas (the church and baseball field facilities). The majority of the project site is developed, and the northwestern undeveloped portion of the property has historically been disturbed with mowing and other mechanical disturbances.

Topography and Soils

The project site is made up of two relatively flat terraces, with the western half of the project site higher in elevation and decreasing in elevation moving east across the project site. The on-site elevation ranges from approximately 145 feet to 165 feet above mean sea level. The topographical lines presented on Figure 3, USGS Topographic Map, represent the project elevations.

The project site is underlain by Bonsall sandy loam, Fallbrook sandy loam, and Salinas clay loam. The soil units on the project site are presented on Figure 4, Soils. Bonsall sandy loam (nine to 15 percent slopes) occurs across the majority of the project site. Fallbrook sandy loam (nine to 15 percent slopes) occurs on the northern and western portions of the project site. Salinas clay loam (zero to two percent slopes) occurs on the western portion of the project site. These three soils are defined as well-drained and are not classified as hydric (wetland) soils (USDA 2019, USDA 2023).

Hydrology

The project site is in the Carlsbad Watershed (Hydrologic Unit 904) (Project Clean Water 2023). The Carlsbad Watershed encompasses a land area of 211 square miles. It lies in the northern portion of San Diego County and neighbors the San Luis Rey Watershed to the north and the San Dieguito Watershed to the south.

The National Wetlands Inventory (NWI) shows an unnamed riverine feature running through the eastern portion of the project site (Figure 5, National Wetlands Inventory Results). The unnamed riverine feature identified on the NWI mapping results was observed on the project site and identified as Channel 1. The flow path of the riverine feature shown on the NWI mapping results (NWI flow path) was not observed during the aquatic resources delineation investigation on the project site. The NWI flow path is west of what was observed on the project site during the survey but could have occurred historically on the project site before development of the baseball fields, surrounding residential community, and train transportation corridor to the east. The concrete channelization and shifting of portions of Channel 1 to the east likely occurred as a result of the baseball fields. No other aquatic resources were identified in the NWI mapping results or observed on the project site.

Based on a review of the U.S. Geological Survey (USGS) National Hydrography Dataset (NHD), Channel 1, which runs through the project site, is connected to Buena Creek, which is a tributary to Agua Hedionda Creek, a traditionally navigable water (TNW) as defined by the USACE (USGS 2023; USACE 2023). Channel 1, which runs along the eastern edge of the project site, is discussed in detail in the Jurisdictional Aquatic Resources Section in the Results Section and in Attachment 2, Aquatic Resources Delineation Report.

Drainage patterns on the project site show evidence of alteration, with on-site mechanical disturbances associated with the construction and maintenance of the baseball park facility in the eastern portion of the project site. While Channel 1 has been channelized and stormwater flows across the project site have been disturbed, the drainage patterns through the eastern portion of the project site appear to be natural.

Climate

On a regional level, San Diego County has a Mediterranean climate, which is characterized by wet winters and dry summers. This is largely because of a semi-permanent high-pressure zone that sits over the Pacific Ocean during much of the year and forms a fog belt (marine layer). The project site is generally within the Peninsular Range of Southern California. Generalized climate in the region is regarded as dry, subhumid mesothermal, with warm dry summers and cold moist winters, which pushes the growing season to the wet months of the year (late winter to early spring). Vegetation often goes dormant (senescent) during the later summer months until initial rains start in the fall. The rainy season in San Diego County typically lasts from October through March.

Meteorological data for the project site are gathered at the Vista National Oceanic and Atmospheric Administration weather station (EW3055) approximately three miles northwest of the project site (NOAA 2023). Between 2002 and 2021, the average maximum temperature was 73 degrees Fahrenheit (°F), and the average minimum temperature was 46°F (NRCS 2023). The annual precipitation between 2002 and 2021 was approximately 12.5 inches (NRCS 2023). In July 2021, when the biological resources and aquatic resources delineation surveys were conducted, the total annual rainfall was 6.4 inches, approximately 7.1 inches less than the annual precipitation up to July in 2020 (NRCS 2023).

Regional Context

Natural Community Conservation Planning Act of 1991

The primary objective of the Natural Community Conservation Planning (NCCP) program is to conserve natural communities at the ecosystem level while accommodating compatible land use. The program seeks to anticipate and prevent the controversies and gridlock caused by species' listing by focusing on the long-term suitability of wildlife and plant communities and including key interests in the process. The project site is not within an adopted HCP and is, therefore, not subject to the NCCP program.

County of San Diego Multiple Species Conservation Program

The project site is not within the County of San Diego Multiple Species Conservation Program (MSCP) boundary and, therefore, is not subject to the County of San Diego MSCP Plan.

The MSCP is a long-term, regional habitat conservation program focused on balancing two unique aspects of the county: high biological diversity and rapid urban growth. Under this program, large blocks of inter-connected habitat will be conserved through acquisition of land by private and public entities and mitigation from development. The County of San Diego MSCP is composed of three separate planning areas covering unincorporated regions of San Diego in the South County, North County, and East County. The MSCP Plans associated with each of the planning areas are the County Subarea Plan (South County Plan), Draft North County Plan, and East County Plan, respectively. Each MSCP Plan Area's unique geography requires that each MSCP Plan is tailored to meet the needs of the unique habitats and species in its respective area.

County of San Diego Resource Protection Ordinance

San Diego County Code of Regulatory Ordinances Chapter 6, Resource Protection Ordinance (RPO), aims to preserve the unique topography, ecosystems, and natural characteristics of the county and other natural irreplaceable resources that are vital to the general welfare of all residents (County of San Diego 2012). The RPO establishes special controls on development to protect the county's wetlands, floodplains, steep slopes, sensitive biological habitats, and prehistoric and historic sites and presents methods adopted by the County to guarantee the preservation of these sensitive lands. The purpose of the RPO is to protect sensitive lands and prevent their degradation and loss by requiring a Resource Protection Study for certain discretionary projects. The RPO preserves the ability of affected property owners to make reasonable use of their land subject to the established conditions. It is the intent of the RPO to increase the preservation and protection of the County's unique topography, natural beauty, diversity, and natural resources and a high quality of life for current and future residents of the county. The RPO does not reduce any requirements to protect environmentally sensitive lands contained in any other County plan, ordinance, policy, or regulation. It is not the intent of the RPO to prohibit all development on steep slopes but only to limit the amount of disturbance consistent with the encroachment allowances.

The RPO provides a definition for what is considered a wetland in the county, which varies from the USACE definition (described in the Federal and State Jurisdictional Aquatic Resources section) of federally jurisdictional wetlands (County of San Diego 2012). Wetlands as defined by the RPO include the following:

(1) Lands having one or more of the following attributes:
   a. At least periodically, the land supports a predominance of hydrophytes (plants whose habitat is water or very wet places);
   b. The substratum is predominantly undrained hydric soil; or
   c. An ephemeral or perennial stream is present, whose substratum is predominantly non-soil and such lands contribute substantially to the biological functions or values of wetlands in the drainage system.

(2) Notwithstanding paragraph (1), the following shall not be considered "Wetlands":
   a. Lands which have attribute(s) specified in paragraph (1) solely due to man-made structures (e.g., culverts, ditches, road crossings, or agricultural ponds), provided that the Director of Planning and Development Services determines that they:
      i. Have negligible biological function or value as wetlands;
      ii. Are small and geographically isolated from other wetland systems;
      iii. Are not vernal pools; and,
      iv. Do not have substantial or locally important populations of wetland dependent sensitive species.
   b. Lands that have been degraded by past legal land disturbance activities, to the point that they meet the following criteria as determined by the Director of Planning and Development Services:
      i. Have negligible biological function or value as wetlands even if restored to the extent feasible; and,
      ii. Do not have substantial or locally important populations of wetland dependent sensitive species.

County of San Diego General Plan

The Conservation and Open Space Element of the County of San Diego General Plan (County of San Diego 2011a) provides the following goals and policies that apply to vegetation and wildlife habitat:

- **Goal COS-1: Inter-Connected Preserve System.** A regionally managed, inter-connected preserve system that embodies the regional biological diversity of San Diego County.

  - **Policy COS-1.1: Coordinated Preserve System.** Identify and develop a coordinated biological preserve system that includes Pre-Approved Mitigation Areas, Biological Resource Core Areas, wildlife corridors, and linkages to allow wildlife to travel throughout their habitat ranges.

  - **Policy COS-1.2: Minimize Impacts.** Prohibit private development within established preserves. Minimize impacts within established preserves when the construction of public infrastructure is unavoidable.

- **Policy COS-1.3: Management.** Monitor, manage, and maintain the regional preserve system facilitating the survival of native species and the preservation of healthy populations of rare, threatened, or endangered species.

- **Policy COS-1.6: Assemblage of Preserve Systems.** Support the proactive assemblage of biological preserve systems to protect biological resources and to facilitate development through mitigation banking opportunities.

- **Policy COS-1.8: Multiple-Resource Preservation Areas.** Support the acquisition of large tracts of land that have multiple resource preservation benefits, such as biology, hydrology, cultural, aesthetics, and community character. Establish funding mechanisms to serve as an alternative when mitigation requirements would not result in the acquisition of large tracts of land.

- **Policy COS-1.9: Invasive Species.** Require new development adjacent to biological preserves to use non-invasive plants in landscaping. Encourage the removal of invasive plants within preserves.

- **Goal COS-2: Sustainability of the Natural Environment.** Sustainable ecosystems with long-term viability to maintain natural processes, sensitive lands, and sensitive as well as common species, coupled with sustainable growth and development.

  - **Policy COS-2.1: Protection, Restoration and Enhancement.** Protect and enhance natural wildlife habitat outside of preserves as development occurs according to the underlying land use designation. Limit the degradation of regionally important natural habitats within the Semi-Rural and Rural Lands regional categories, as well as within Village lands where appropriate.

  - **Policy COS-2.2: Habitat Protection through Site Design.** Require development to be sited in the least biologically sensitive areas and minimize the loss of natural habitat through site design.

- **Goal COS-3: Protection and Enhancement of Wetlands.** Wetlands that are restored and enhanced and protected from adverse impacts.

  - **Policy COS-3.1: Wetland Protection.** Require development to preserve existing natural wetland areas and associated transitional riparian and upland buffers and retain opportunities for enhancement.

  - **Policy COS-3.2: Minimize Impacts of Development.** Require development projects to:
    - Mitigate any unavoidable losses of wetlands, including its habitat functions and values; and
    - Protect wetlands, including vernal pools, from a variety of discharges and activities, such as dredging or adding fill material, exposure to pollutants such as nutrients, hydromodification, land and vegetation clearing, and the introduction of invasive species.

Federal and State Jurisdictional Aquatic Resources

Clean Water Act (CWA), Section 401 (40 CFR 121). Section 401 of the CWA gives the state authority to grant, deny, or waive certification of proposed federally licensed or permitted activities resulting in discharge to waters of the United States. Aquatic resources that are under state jurisdiction occur on the project site and would be subject to Section 401 of the CWA.

The State Water Resources Control Board (State Water Board) directly regulates multi-regional projects and supports the Section 401 certification and wetlands program statewide. The RWQCB regulates activities pursuant to Section 401(a)(1) of the federal CWA, which specifies that certification from the State is required for any applicant requesting a federal license or permit to conduct any activity including, but not limited to the construction or operation of facilities that may result in any discharge into navigable waters. The certification shall originate from the State or appropriate interstate water pollution control agency in/where the discharge originates or will originate. Any such discharge will comply with the applicable provisions of Sections 301, 302, 303, 306, and 307 of the CWA.

CWA, Section 404 (33 CFR 328.3[a]). These provisions regulate the discharge of dredged or fill material in waters of the United States, including wetlands. Activities that discharge dredge or fill material into waters of the United States can be authorized by the USACE. Aquatic resources that are under federal jurisdiction occur on the project site and would be subject to Section 404 of the CWA.

The USACE and the U.S. Environmental Protection Agency (USEPA) have issued a set of guidance documents detailing the process for determining CWA jurisdiction over waters of the United States following the 2008 Rapanos decision. The USEPA and USACE issued a summary memorandum of the guidance for implementing the Supreme Court's decision in Rapanos that addresses the jurisdiction over waters of the United States under the CWA. The complete set of guidance documents, summarized as key points below, were used to collect relevant data for evaluation by the USEPA and the USACE to determine CWA jurisdiction over the project and to complete the "significant nexus test" as detailed in the guidelines.

The significant nexus test includes consideration of hydrologic and ecologic factors. For circumstances such as those described in point 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 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 USEPA will apply the significant nexus standard to assess the flow characteristics and functions of the tributary drainage 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 United States 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 (USACE 1987).

Rapanos Guidance Key Points Summary

A. The USACE and USEPA will assert jurisdiction over the following waters:
   - TNWs
   - Wetlands adjacent to TNWs
   - Non-navigable tributaries of TNWs that are relatively permanent (flows 3 months or longer)
     - Wetlands that abut such tributaries

B. The USACE and USEPA will decide jurisdiction over the following waters based on whether they have a significant nexus with a TNW:
   - Non-navigable tributaries that are not relatively permanent
   - Wetlands adjacent to non-navigable tributaries that are not relatively permanent
   - Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary

C. The USACE and USEPA will not assert jurisdiction over the following waters:
   - Swales or erosional features (gullies, small washes characterized by low volume, infrequent, or short-duration flow)
   - Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water

The Navigable Waters Protection Rule, published by the USACE and USEPA on April 21, 2020, was vacated during a federal court ruling in Arizona (Pascua Yaqui Tribe v. U.S. Environmental Protection Agency) on August 30, 2021. With this ruling, the regulatory agencies have halted implementation of the Navigable Waters Protection Rule and are interpreting "waters of the United States" consistent with the pre-2015 regulatory regime (Rapanos Guidance).

Porter-Cologne Water Quality Control Act. Regulated by the RWQCB for impacts to waters of the state. The RWQCB is the regional agency responsible for protecting water quality in California. The jurisdiction of this agency

includes all waters of the state and all waters of the United States, as mandated by Section 401 in the CWA and the California Porter-Cologne Water Quality Control Act (Porter-Cologne). Although water quality issues related to impacts to waterways are normally addressed during 401 Water Quality Certification, should a water of the State of California be determined by the USACE not to have CWA jurisdiction, Porter-Cologne would be addressed under a Construction General Permit, State General Waste Discharge Order, or Waste Discharge Requirements, depending on the level of impact and the properties of the waterway.

Lake and Streambed Alteration Agreement (California Fish and Game Code, Section 1600). The California Fish and Game Code (CFGC) requires any person who proposes a project that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake, or their tributaries, or use materials from a streambed, to submit a notification for a Lake and Streambed Alteration Agreement (LSAA) to the CDFW. The aquatic resources and riparian habitats that occur on the project site are subject to CFGC Section 1600.

Methods

This biological resources analysis includes the results of a database review, biological resources survey, and aquatic resources delineation, which serve to document the existing biological conditions of the project site. The results of this review provide information on the potential constraints (or lack thereof) to project development due to the presence (or lack thereof) of sensitive biological resources.

Database Review

Review of online databases including the CDFW California Natural Diversity Database (CNDDB) (CDFW 2023a), CDFW Biogeographic Information and Observation System (BIOS) (CDFW 2023b), County of San Diego SanBIOS database, USFWS Information for Planning and Consultation (IPaC) (USFWS 2023a), USFWS NWI Wetlands Mapper (USFWS 2023b), Consortium of California Herbaria database (CCH 2023), Calflora database (Calflora 2023), and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CNPS 2023) was conducted for the project and within a 1-mile radius of the project site.

Field Reconnaissance Survey

A biological resources survey of the project site was conducted by Harris & Associates (Harris) biologists Emily Mastrelli and Katie Laybourn on July 19, 2021. The survey was conducted by walking meandering transects throughout the project site and mapping vegetation communities, documenting plant and wildlife species, and evaluating the potential for occurrence of sensitive plant and wildlife species (Attachment 3, Species Observed). The results of the vegetation mapping are presented in Table 1, Vegetation Communities and Land Cover Types on the Project Site, in the Results section. The potential for sensitive plant and wildlife species to occur on the project site is presented in Table 2, Sensitive Plant and Wildlife Species Potential to Occur on the Project Site, in the Results section.

Aquatic Resources Delineation

Aquatic resources delineation fieldwork was conducted by a Harris aquatic resources specialist on July 19, 2021. The results of the aquatic resources delineation are presented in the Results section and Attachment 2.

Results

The results presented below provide data from the biological resources survey conducted on the project site.

Vegetation Communities and Land Cover Types

The project site is within the southwestern California region of the California Floristic Province (Jepson Online 2023). Three vegetation communities and land use types were observed on the project site and include non-vegetated channel, disturbed habitat, and urban/developed land (Baldwin et al. 2012; Oberbauer et al. 2008; Holland 1986). Table 1 presents the acreages of the vegetation communities and land cover types that occur on the project site. Figure 6, Vegetation Communities and Land Cover Types, presents the vegetation community and land cover type boundaries.

Table 1. Vegetation Communities and Land Cover Types on the Project Site

Vegetation Community and Land Cover Type	Project Site (acres)[1]
Riparian	
Non-vegetated channel	0.03
Subtotal	*0.03*
Disturbed/Developed	
Disturbed habitat	3.50
Urban/developed land	5.90
Subtotal	*9.40*
Total	**9.43**

Sources: Baldwin et al. 2012; Holland 1986; Oberbauer et al. 2008.

Notes:

[1] Acreages rounded up to one-hundredth

The vegetation communities observed on the project site are described in the following subsections.

Non-Vegetated Channel

Non-vegetated channel consists of predominantly sandy, gravelly, or rocky channels lacking or with reduced vegetation. Variable water lines inhibit the growth of vegetation, although some weedy species of grasses may grow along the outer edges of the channel. Vegetation may exist here but is usually less than 10 percent of the total cover (Oberbauer et al. 2008).

Approximately 0.03 acre of non-vegetated channel (Channel 1) occurs along the eastern and northeastern edge of the project site (Figure 6). Two portions of Channel 1 are lined with concrete, accounting for approximately 0.01 acre (144 linear feet) of the channel. The earthen-bottom portions of Channel 1 are approximately 0.02 acre (696 linear feet).

Disturbed Habitat

Disturbed habitat consists of previously disturbed areas that either are devoid of vegetation (dirt roads/trails) or support scattered non-native plant species, such as ornamentals or ruderal exotic species, that take advantage of disturbance, such as black mustard (*Brassica nigra*), short-pod mustard (*Hirschfeldia incana*), and *Erodium* species. These species are non-native and typically found in disturbed habitats, particularly in areas that have been graded, repeatedly cleared for fuel management purposes, and/or experienced repeated use that prevents natural revegetation (Oberbauer et al. 2008).

Disturbed habitat comprises approximately 3.50 acres on the project site, primarily in the northwestern portion and along the western, eastern, and southern edges of the project site (Figure 6). Disturbed habitat on the project site is dominated by bare ground and species of mustard and other non-native grass and weed species. A small number of cottonwood (*Populus* sp.), eucalyptus (*Eucalyptus* sp.), palm (*Arecaceae* sp.), and pine (*Pinus* sp.) trees with bare ground or ornamental understories are present in the disturbed habitat in the northwestern, western, and southeastern portions of the project site. The disturbed habitat on the project site appears to be mowed periodically, likely in association with other maintenance activities conducted for the church and baseball field facilities.

Urban/Developed Land

Urban/developed represents areas that have been constructed on or otherwise physically altered to an extent that native vegetation communities are not supported (Oberbauer et al. 2008). This land cover type generally consists of semi-permanent structures, homes, parking lots, pavement or hardscape, and landscaped areas that require maintenance and irrigation (e.g., ornamental greenbelts). Typically, this land cover type is unvegetated due to the lack of open available soil or supports a variety of ornamental plants and landscaping or turf.

Urban/developed land on the project site comprises approximately 5.90 acres and consists of the church building, parking lots, and baseball fields in the central and northeastern portions of the project site (Figure 6). A small number of cottonwood, eucalyptus, palm, and pine trees with bare ground or ornamental understories are present in the urban developed areas in the central portion of the project site. The urban developed areas also contain ornamental and landscaping areas, primarily between the church and the baseball fields.

Sensitive Species

Sensitive species are those recognized by federal, state, or local agencies as being potentially vulnerable to impacts because of rarity, local or regional reductions in population numbers, isolation/restricted genetic flow, or other factors. Special-status plants include those listed as threatened or endangered, proposed for listing, or candidates for listing by the USFWS and CDFW; those considered sensitive by the CDFW; and those species included in the California Rare Plant Rank (CRPR) inventory maintained by the CNPS. Sensitive wildlife species include those listed as threatened or endangered, proposed for listing, or candidates for listing by the USFWS and CDFW or those considered sensitive by the CDFW.

As described in the Methods section, distributions of historical sensitive species observations within the project vicinity were reviewed in preparation of this letter report. For the purposes of this biological resources assessment, those species that are either known to occur or have some potential to occur within a one-mile radius of the project site are addressed in this section. The list of potentially occurring sensitive plant and wildlife species is provided below in Table 2 along with an assessment of their potential for occurrence on the project site. Figure 9, Plant and Wildlife Species with Potential to Occur, shows the sensitive species documented within a one-mile radius of the project site.

Table 2. Sensitive Plant and Wildlife Species Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Plants				
Bahiopsis laciniata	**San Diego County viguiera**	**None/None/4.3/County List D**	**Occurs in chaparral and coastal scrub vegetation communities at elevations between 195 to 2,460 feet amsl. Blooms February through August.**	**Present. Observed surrounding the concrete and earthen portions of Channel 1 the northeastern corner of the project site (Figure 8). No suitable chaparral or coastal scrub habitats occur on the project site.**
Brodiaea orcuttii	Orcutt's brodiaea	None/None/1B.1/County List A	Occurs in chaparral, closed-cone coniferous forest, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools at elevations between 100 to 5,550 feet amsl. Blooms May through June.	**Not Expected**. No suitable chaparral, forest, woodland, meadow, or vernal pool habitats occur. Project site is developed with hardscape and landscape and contains highly disturbed areas. Historical locations exist approximately 0.75 mile south of the project site but not within (Figure 9) (CDFW 2023a; CNPS 2023).
Ceanothus verrucosus	Wart-stemmed ceanothus	None/None/2B.2/County List B	Occurs in chaparral at elevations between 5 to 1,245 feet amsl. Blooms December through May.	**Not Expected**. No suitable chaparral habitat occurs. Project site is developed with hardscape and landscape and contains highly disturbed areas. Historical locations exist approximately 0.75 mile north of the project site but not within (Figure 9) (CDFW 2023a; CNPS 2023).

Table 2. Sensitive Plant and Wildlife Species Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Wildlife				
Invertebrates				
Danaus plexippus	**Monarch butterfly[1] (California overwintering population)**	**None/ST/None/County Group 2**	**Occurs in a variety of habitats where patches of milkweed (*Asclepias* sp.), the monarch caterpillar host plant, are present. Overwinter in groves of eucalyptus, cypress, and pine along the California coast and high-elevation forests in Mexico.**	**Present. Observed flying through the project site during the 2021 surveys. Suitable nectar sources for foraging are present. No milkweed patches occur on the project site suitable as host plants for caterpillars to occupy. A small number of eucalyptus and pine trees suitable for overwintering occur. Historical locations occur within 0.5 mile surrounding the project site but not within (CDFW 2023a).**
Euphydryas editha quino	Quino checkerspot butterfly	FE/None/None/County Group 1	Occurs in chaparral and coastal sage shrublands. Requires dot-seed plantain (*Plantago erecta*) or owl's clover (*Castilleja exserta*) as a host plant.	**Not Expected**. No suitable nectar sources for foraging occur on the project site. No dot-seed plantain occur on the project site that would be suitable host plants for caterpillars to occupy. Historical locations exist approximately 0.25 mile northwest of the project site but not within (Figure 9) (CDFW 2023a).
Reptiles				
Eumeces skiltonianus interparietalis	Coronado skink	None/SSC/None/County Group 2	Occurs in open areas, sparse brush, and oak woodlands and is usually under rocks, leaf litter, logs, debris, or in the shallow burrows it digs.	**Not Expected**. No suitable brush or oak woodlands occur on the project site. Project site is developed with hardscape and landscape and contains highly disturbed areas. Historical locations exist approximately 0.5 mile southwest of the project site but not within (Figure 9) (CDFW 2023a).
Phrynosoma blainvillei	Blainville's horned lizard	None/SSC/None/County Group 2	Occurs in coastal sage scrub, chaparral, and grasslands in primarily loose soils. Forages primarily on harvester ants.	**Not Expected**. No suitable scrub or chaparral habitat occurs on the project. Project site is developed with hardscape and landscape and contains highly disturbed areas. Historical locations exist approximately 0.75 mile north of the project site but not within (Figure 9) (CDFW 2023a).

Table 2. Sensitive Plant and Wildlife Species Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
Birds				
Buteo lineatus	**Red-shouldered hawk**	**None/None/None/County Group 1**	**Occurs year-round in low elevation riparian woodlands. Nests in dense riparian habitats and forages in open spaces and on the edges of mesic habitats.**	**Present. Red-shouldered hawks were observed flying over the project site during the 2021 biological surveys, primarily over the southern portion of the project site. Suitable nesting and foraging habitat occurs throughout the project site.**
Polioptila californica californica	Coastal California gnatcatcher	FT/SSC/None/County Group 1	Obligate, permanent resident of coastal sage scrub below 2,500 feet in Southern California.	**Not Expected Nesting**. **Not Expected Foraging**. No Diegan coastal sage scrub suitable for nesting or foraging occurs on or surrounding the project site. Historical locations exist approximately 1 mile southwest of the project site but not within (Figure 9) (CDFW 2023a).
Mammals				
Lasiurus cinereus	Hoary bat	None/SSC/None/None/ WBWG: M	Migratory species of bat, typically found during fall, winter, and spring in San Diego County. Roosts exclusively in foliage, typically riparian or coniferous trees, but also uses ornamental vegetation, large shrubs, and orchard trees near open water. Widely distributed in the county from the coast through foothills and mountains preferring riparian areas and other broadleaf tree areas. May temporarily roost in locations other than riparian and heavy-tree areas during migration. Highly unlikely to be in San Diego County at elevations lower than 3,280 feet between June 1 and September 1.	**Moderate Roosting**. **Moderate Foraging**. A small number of cottonwood, eucalyptus, palm, and pine trees suitable for roosting habitat present, but no open water areas for foraging occur. Stadium lights that attract moths and other flying insects could provide suitable food source. Historical locations exist approximately 0.75 mile north of the project site but not within (Figure 9) (CDFW 2023a).
Lasiurus xanthinus	Western yellow bat	None/SSC/None/None/ WBWG: H	Usually found in urban or suburban environments where non-native trees and artificial water sources are found. Roosts primarily in the dead fronds ("skirts") of native and non-native fan palms. Also roosts in cottonwood trees and yuccas. Strongly associated with native	**Moderate Roosting**. **Moderate Foraging**. A small number of cottonwood, eucalyptus, palm, and pine trees suitable for roosting habitat present. No open water areas for foraging occur. Stadium lights that attract moths and other flying insects could provide suitable food source. Historical locations exist approximately 0.75 mile north of

Table 2. Sensitive Plant and Wildlife Species Potential to Occur on the Project Site

Scientific Name	Common Name	Status Federal/State/ CRPR/Regional	Habitat	Potential to Occur
			groves of California fan palm (where there is open surface, spring-fed water sources). Also occurs in desert riparian areas.	the project site but not within (Figure 9) (CDFW 2023a).
Myotis yumanensis	Yuma myotis	None/SSC/None/County Group 2/WBWG: L	Inhabits open woodlands adjacent to water for foraging. Occurs throughout California but is uncommon in the deserts and elevations above 8,000 feet amsl. Nocturnal insectivore that roosts in crevices, caves, mines, and underneath bridges.	**Low Roosting. Low Foraging**. No caves, mines, or bridges suitable for roosting habitat occur. No open water areas suitable for foraging occurs. Historical locations exist approximately 1 mile west of the project site but not within (Figure 9) (CDFW 2023a).

Notes: amsl = above mean sea level; None = No status indicated for species
Federal Status
FE = federally endangered; FT = federally threatened
State Status
SSC = state species of special concern; ST = state threatened;
County of San Diego
County of San Diego Sensitive Animals List: Group 1 = very high level of sensitivity, either because the species is listed as threatened or endangered or because it has very specific natural history requirements that must be met; Group 2 = less common but not yet so rare that extirpation or extinction is imminent without immediate action
County of San Diego Sensitive Plants List: A = rare, threatened, or endangered in California and elsewhere; B = rare, threatened, or endangered in California but more common elsewhere; D = limited distribution and are uncommon, but not presently rare or endangered
Western Bat Working Group (WBWG) Status
H = High; M = Medium; L = Low
CNPS Rare Plant Ranking
1B = rare, threatened, or endangered in California and elsewhere; 2B = rare, threatened, or endangered in California but more common elsewhere; 4 = a watch list of species of limited distribution
Threat Ranks: .1 = seriously threatened; .2 = moderately threatened; .3 = not very threatened
Bold = present on the project site

Sensitive Plant Species

Sensitive plant species observed on the project site are described in detail in the following subsection. No sensitive plant species were determined to have a high potential to occur on the project site (Table 2).

Sensitive Plant Species Observed on the Project Site

One sensitive plant species, San Diego County viguiera (*Bahiopsis laciniata)*, was observed on the project site and is described in the following subsection.

San Diego County Viguiera

San Diego County viguiera is a CRPR 4.3 and County of San Diego Sensitive Plant List D species. San Diego County viguiera is a perennial shrub in the sunflower family and occurs in chaparral and coastal scrub vegetation communities at elevations between 195 and 2,460 feet amsl (Calflora 2023). This species is threatened primarily by urbanization and development (CNPS 2023).

Approximately 13 San Diego County viguiera individuals (approximately 0.0008 acre) were observed in two patches on the eastern and northern edges of Channel 1 in the northeastern corner of the project site (Figure 8).

Sensitive Wildlife Species

Sensitive wildlife species observed on the project site are described in detail in the following subsection. No sensitive wildlife species were determined to have a high potential to occur on the project site (Table 2).

Sensitive Wildlife Species Observed on the Project Site

Two sensitive wildlife species, monarch butterfly and red-shouldered hawk, were observed on the project site and are described in the following subsections.

Monarch Butterfly

Monarch butterfly is a County of San Diego Group 2 species and is under review for protection under the federal Endangered Species Act as of March 2020 (USFWS 2023c). Monarch butterfly occurs in patches of milkweed (*Asclepias* sp.), the monarch caterpillar host plant. Monarch butterflies are found across North America wherever suitable feeding, breeding, and overwintering habitat exists. Monarchs overwinter in groves of eucalyptus, cypress, and pine along the California coast and high-elevation forests in Mexico (Xerces Society 2017). Threats to this species include habitat loss, climate change, and agriculture.

Adult monarch butterflies were observed flying through the project site during the 2021 surveys. No milkweed patches occur on the project site that would be suitable for monarch butterfly caterpillars to occupy. A small number of cottonwood, eucalyptus, palm, and pine trees suitable for overwintering occur on the project site.

Red-Shouldered Hawk

Red-shouldered hawk is a County of San Diego Group 1 species. Red-shouldered hawk is a medium-sized hawk with rounded wings and medium-length fan-shaped tails. Adults have a reddish barring on their breasts with white and dark checkered wings and a thickly barred tail. Red-shouldered hawk is widespread over San Diego County's coastal slope and absent only from areas, such as Otay Mountain, that are devoid of tall trees. The inland valleys of northern San Diego County have the most concentrated population, with suitable riparian woodland, scattered rural residences, orchards, and eucalyptus grove habitats (Unitt 2004). It hunts by gliding below the canopy and feeds on a variety of prey, including small mammals, reptiles, amphibians, young or small birds, and large insects. Adults construct large stick nests about halfway up a large tree, next to main tree trunk or on top of old squirrel, hawk, or raven nests.

Red-shouldered hawks were observed perched on the baseball field fences and flying over the project site during the 2021 biological survey, primarily over the southern portion of the project site. Suitable nesting and foraging habitat occurs throughout the project site.

Nesting Birds

The project site provides nesting habitat for several bird species, including raptors, which are protected under the California Fish and Game Code and the MBTA.

One Cassin's kingbird (*Tyrannus vociferans*) nest was observed in a pine tree in the central portion of the project site.

As previously discussed, adult red-shouldered hawks were observed perched on the baseball field fences and flying over the project site, potentially nesting in mature trees on or surrounding of the project site.

A small number of cottonwood, eucalyptus, palm, and pine trees are present in the central, northern, and southeastern portions of the project site that could provide nesting habitat for many bird species.

Critical Habitat

The potential presence of critical habitat on the project site was also analyzed. No critical habitat for sensitive plant or wildlife species occurs on the project site. Critical habitat for sensitive plant species thread-leaved Brodiaea (*Brodiaea filifolia*) occurs south and southeast of the project site. Critical habitat for the sensitive wildlife species coastal California gnatcatcher (*Polioptila californica californica*) and southwest willow flycatcher (*Empidonax traillii extimus*) occurs southwest of the project site. Critical habitat for these species is displayed on Figure 10, Critical Habitat.

Jurisdictional Aquatic Resources

One approximately 0.03-acre (840 linear feet) aquatic resource, Channel 1, was observed running along the eastern and northeastern edge of the project site (Figure 7, Aquatic Resources). Two portions of Channel 1 are lined with concrete, accounting for approximately 0.01 acre (144 linear feet) of the channel. The earthen-bottom portions of Channel 1 are approximately 0.02 acre (696 linear feet). Channel 1 was determined to be an ephemeral non-wetland water based on the USACE and County of San Diego RPO definitions described in the Regional Context section (USACE 1987; County of San Diego 2012). Channel 1 does not meet the USACE three-parameter wetland definition because it is unvegetated, lacks hydrophytic vegetation growing in hydric (wetland) soils, and meets only one of the hydrologic indicators of a defined bed and bank. Similarly, Channel 1 does not meet the RPO definition of a wetland because it does not support hydrophytic vegetation, the substrate is not undrained hydric soil, and it does not contribute to values and functions of wetlands in the drainage system.

Based on NWI and NHD database results, Channel 1 is connected to Buena Creek, which is a tributary to Agua Hedionda Creek, a TNW as defined by the USACE. Therefore, Channel 1 is likely under the jurisdiction of the USACE, RWQCB, and CDFW pursuant to Sections 404 and 401 of the CWA and Section 1600 of the California Fish and Game Code (USGS 2023; USACE 2023).

The NWI shows an unnamed riverine feature running through the eastern portion of the project site (Figure 5). The unnamed riverine feature identified on the NWI mapping results was observed on the project site as Channel 1. The flow path of the riverine feature shown on the NWI mapping results was not observed during the aquatic resources delineation investigation on the project site. This flow path could have occurred historically on the project site before the development of the baseball fields, surrounding residential community, and train transportation corridor to the east. The concrete channelization of portions of Channel 1 likely occurred as a result of the baseball fields. No other aquatic resources were identified on the NWI mapping results or observed on the project site.

A detailed discussion of the aquatic resources delineation and results are included in Attachment 2.

Other Unique Features

Plant Species

Attachment 3 lists all vascular plant species observed on the project site during the 2021 biological resources survey. A total of 48 plant species were observed on the project site, 18 (37 percent) of which were native and 30 (63 percent) of which were non-native. Of the 48 plants observed on the project site, one sensitive plant species, San Diego County viguiera (*Bahiopsis laciniata)*, occurs on the project site (Figure 8, Sensitive Plant Species Observations). The sensitive plant species, San Diego County viguiera, observed on the project site is described in the Sensitive Species section.

Wildlife Species

Attachment 3 lists all wildlife species observed on the project site during the 2021 biological resource survey. A total of 22 wildlife species were observed on the project site, 20 (91 percent) of which were native and two (9 percent) of which were non-native. In total, one reptile, three invertebrates, 14 birds, and four mammals were observed on the project site. Two of the 22 wildlife species observed on the project site are considered sensitive: monarch butterfly (*Danaus plexippus*) and red-shouldered hawk (*Buteo lineatus*). These two observed sensitive wildlife species are described in the Sensitive Species section.

Common bird species on the project site included Anna's hummingbird (*Calypte anna*), California towhee (*Melozone crissalis*), house finch (*Haemorhous mexicanus*), Cassin's kingbird (*Tyrannus vociferans*), and mourning dove (*Zenaida macroura*).

Wildlife Corridors and Linkages

Wildlife corridors provide routes for local movement and also regional linkages and corridors, often following linear topographical, vegetation, or water features. These corridors can be continuous habitats, features, or "stepping stone" areas, providing critical rest and foraging areas for, for example, birds traveling along migratory routes. Local routes of movement provide constant connections to resources that include sources of water, home/cover sites, and foraging areas. Regional linkages and movement corridors provide larger patches of open space to allow relatively free movement of wildlife species along multiple paths between important resources. These areas allow for not only long-term genetic flow between subpopulations but also critical pathways of seasonal/migratory movements. Larger predatory mammals often use regional corridors for hunting and reproduction needs. Potential wildlife corridors can include streams, riparian areas, and culverts under roadways. Habitat characteristics considered included topography, habitat quality, and adjacent land uses.

The project site is completely surrounded by urban development, with single-family residential neighborhoods to the west and south, a small area of undeveloped land to the north, and the North County Transit District SPRINTER railroad tracks to the east and northeast (Figure 2). The project site is unlikely to provide movement and suitable dispersal areas for wildlife species or significant connections to open space areas outside the project site. Nesting and foraging opportunities within the site are limited. The presence of the urban development surrounding the project site limits large-scale east–west and north–south wildlife movement in the surrounding area. However, the mature trees on and surrounding the project site have the potential to provide habitat for nesting birds or for migration connectivity both locally and regionally.

Significance of Project Impacts and Proposed Mitigation

Significance Criteria

Direct impacts occur when biological resources are altered or destroyed during the course of or as a result of project implementation. Examples of such impacts include removing or grading vegetation, filling wetland habitats, or severing or physically restricting the width of wildlife corridors. Other direct impacts may include loss of foraging or nesting habitat and loss of individual species as a result of habitat clearing. Indirect impacts may include elevated levels of noise or lighting, change in surface water hydrology within a floodplain, and increased erosion or sedimentation. These types of indirect impacts can affect vegetation communities or their potential use by sensitive species. Permanent impacts may result in irreversible damage to biological resources. Temporary impacts are interim changes in the local environment due to construction and would not extend beyond project-associated construction, including revegetation of temporarily disturbed areas adjacent to native habitats.

The County Guidelines for Determining Significance (County of San Diego 2010) and Appendix G of the CEQA Guidelines (14 CCR 15000 et seq.) define "significant effect on the environment" as a "substantial, or potentially substantial adverse change in the environment." The County Guidelines for Determining Significance and Appendix G of the CEQA Guidelines further indicate that there may be a significant effect on biological resources if the project would:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game[1] or U.S. Fish and Wildlife Service.

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

[1] As of January 1, 2012, the California Department of Fish and Game became the California Department of Fish and Wildlife.

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Threshold A

Guidelines for Determination of Significance

A significant impact would result if the project would have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or sensitive species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

This guideline for significance is taken directly from the CEQA Guidelines, Appendix G, and is based on the CEQA Guidelines definition of mandatory findings of significance (Section 15065) and of endangered, rare, or threatened species (Section 15380).

Analysis

Potential impacts to sensitive plant and wildlife species are discussed in the following subsections.

Sensitive Plant Species

As discussed in the Results section, one sensitive plant species, San Diego County viguiera, was observed on the project site. No other sensitive plant species were observed on the project site, and no sensitive plant species were determined to have a high potential to occur on the project site (Table 2). Potential direct and indirect impacts to sensitive plant species are discussed in the following subsections.

Direct Impacts

Approximately 13 San Diego County viguiera individuals (approximately 0.0008 acre) were observed surrounding the concrete and earthen portions of Channel 1 in the northeastern corner of the project site (Figure 8). As discussed in the Project Description and Location section, the project is designed to avoid impacts to Channel 1. Avoidance of Channel 1 includes the banks of the channel where the approximately 13 San Diego County viguiera individuals occur. Project design features for avoidance of these sensitive resources would include temporary fencing during construction and permanent signage for operation of the project. Therefore, no direct impacts to San Diego County viguiera would occur and no mitigation is required.

No other sensitive plant species were observed on the project site, and the two sensitive plant species reviewed for their potential to occur on the project site were deemed not expected to occur. These sensitive plant species were not observed on the project site during the 2021 survey, which was conducted during the plant species' blooming periods. Further, no sensitive or native vegetation communities that could support sensitive plant species were observed on the project site, and the disturbed habitat on the project site is unlikely to support sensitive plant species (Table 2). The majority of the project site is urban/developed land, and the open (undeveloped) areas are extremely disturbed by mechanical means, with thick non-native and invasive plant cover. As a result, the site is unlikely to support sensitive plant species or contain a sensitive/native plant species seed bank any longer. Therefore, project implementation would not result in impacts to sensitive plant species. Impacts to sensitive plant species would be less than significant, and no mitigation is required.

Indirect Impacts

Indirect impacts to sensitive plants would primarily result from adverse edge effects during construction of the project. Edge effects could include trampling; dust, which could disrupt plant vitality in the short term;

construction-related pollutant discharges; soil erosion; and runoff. Standard BMPs, including dust suppression measures, weeds and invasive species control measures, equipment maintenance and cleaning protocols, erosion and sediment control measures (sand and gravel bags, fiber rolls, and silt fencing), use of weed-free erosion control products, and preparation and implementation of a Stormwater Pollution Prevention Plan, would be required of the construction contractor. The Stormwater Pollution Prevention Plan would be prepared pursuant to the National Pollution Discharge Elimination System General Construction Permit (Water Quality Order 99-08-DWQ). The Stormwater Pollution Prevention Plan would address the potential sources and locations of stormwater contamination characteristics, impacts of specific contaminants, and temporary and permanent erosion-control practices and would include water sampling data, construction practices that minimize stormwater contamination, coordination of BMPs with planned construction activities, and compliance with County, state, and federal regulations. With the implementation of construction BMPs, temporary indirect impacts to San Diego County viguiera, the only sensitive plant species observed on the project site, would be less than significant, and no mitigation would be required.

Sensitive Wildlife Species

The project has the potential to result in direct and indirect impacts to sensitive wildlife species. Two sensitive wildlife species, monarch butterfly and red-shouldered hawk, were observed on the project site during the 2021 survey.

No other sensitive wildlife species were observed on the project site, and no sensitive wildlife species were determined to have a high potential to occur on the project site (Table 2). The sensitive wildlife species with moderate and low potential to occur were not observed on the project site during the 2021 survey.

Direct Impacts

No sensitive or native vegetation communities that could support sensitive wildlife species were observed on the project site, and the disturbed habitat on the project site is unlikely to support sensitive wildlife species (Table 2). However, the small number of cottonwood, eucalyptus, palm, and pine trees in the disturbed habitat and urban/developed land on the project site provide suitable nesting habitat for red-shouldered hawk and suitable overwintering habitat for monarch butterfly.

Table 3, Impacts to Vegetation Communities and Land Cover Types on the Project Site, presents the total vegetation communities and land cover types acreages on the project site and the permanent impacts from implementation of the project.

Table 3. Impacts to Vegetation Communities and Land Cover Types on the Project Site

Vegetation Community and Land Cover Type	Project Site (acres)[1]	Permanent Impacts[1]
Riparian		
Non-vegetated channel	0.03	0.00
Subtotal	*0.03*	*0.00*
Disturbed/Developed		
Disturbed habitat	3.50	0.83
Urban/developed land	5.90	3.54
Subtotal	*9.40*	*4.37*
Total	**9.44**	**4.37**

Sources: Holland 1986; Oberbauer et al. 2008.

Notes:

[1] Acreages rounded up to one-hundredth

Permanent impacts to approximately 0.83 acre of disturbed habitat and approximately 3.54 acres of urban/developed land would occur during project implementation (Figure 11, Impacts to Biological Resources). The small area of disturbed habitat on the project site is mowed non-native grasses and other non-native annuals

that provide marginal foraging habitat for sensitive mammals, raptors, and other sensitive bird species. The mature shrubs and trees in the central portion and around the edges of the project site provide nesting habitat for sensitive birds and raptors, including red-shouldered hawk, which was observed on and surrounding the project site during the 2021 survey. Removal of the potential nesting habitat would result in significant impacts to sensitive birds and raptors, and mitigation would be required.

Adult monarch butterflies were observed flying through the project site during the 2021 survey. No milkweed that would support monarch butterfly reproduction occurs on the project site. However, a small number of eucalyptus and pine trees that could be suitable for overwintering monarch butterflies occur on the project site. Removal of the potential overwintering habitat would result in significant impacts to sensitive monarch butterflies, and mitigation would be required.

Indirect Impacts

Indirect impacts to sensitive wildlife species during project construction could include noise, dust deposition, increased soil erosion, increased human activity, introduction of non-native species, increased presence of predators (coyotes, ravens, and other mesocarnivores) from trash, and increased potential of exotic species invasion due to human activity and soil disturbance. Implementation of the project has the potential to drive sensitive wildlife species from the construction area because of noise, equipment operation, and human activity. Disturbance of this potential nesting and overwintering habitat would result in potentially significant impacts to sensitive wildlife species. As previously discussed in the Sensitive Plant Species Indirect Impacts discussion, standard construction BMPs, including dust suppression measures, weeds and invasive species control measures, equipment maintenance and cleaning protocols, erosion and sediment control measures (sand and gravel bags, fiber rolls, and silt fencing), use of weed-free erosion control products, and preparation and implementation of a Stormwater Pollution Prevention Plan, would be required of the construction contractor during construction. Additional BMPs that would be required during construction include noise suppression measures and trash containment methods. With the implementation of construction BMPs, indirect impacts to sensitive wildlife species during construction would be less than significant, and no mitigation would be required.

Indirect impacts from project operation, including noise, human activity, and predation by domestic animals, have the potential to disturb sensitive wildlife species. However, as previously discussed in the Land Use section, the project site is currently developed and surrounded by urban development. Operation of the project, which includes residential land uses, would not result in a significant increase to the current level of noise and human activity in the area. Therefore, potential indirect impacts to sensitive wildlife species during operation would be less than significant, and no mitigation would be required.

<u>Nesting Birds</u>

Project implementation has the potential to impact bird and raptor species that are protected under the MBTA and California Fish and Game Code, Section 3504. As discussed in the Results section, adult red-shouldered hawks were observed perched on the baseball field fences and flying over the project site during the 2021 survey, potentially nesting in mature trees on or surrounding the project site. One Cassin's kingbird nest was observed in a cottonwood tree in the central portion of the project site. Large cottonwood trees throughout the project site, primarily in the central, northern, and southeastern portions of the project site, provide nesting habitat for many bird species. If construction is conducted during the general bird breeding season (January 15 through August 31), temporary direct impacts from disturbance and displacement of nesting birds during vegetation removal could result in significant direct impacts to bird species protected under the MBTA, and mitigation would be required. Indirect impacts from construction noise and vibration during clearing, grubbing, and trenching activities, if conducted during the bird breeding season, could result in significant indirect impacts to bird species protected under the MBTA, and mitigation would be required.

Threshold B

Guidelines for Determination of Significance

A significant impact would result if the project would have a substantial adverse effect to any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or USFWS.

Analysis

Direct and Indirect Impacts

As previously discussed under Threshold A, no sensitive vegetation communities occur on the project site, and the project is designed to avoid impacts to sensitive non-wetland Channel 1. Project design features for avoidance of sensitive non-wetland Channel 1 would include temporary fencing during construction and permanent signage for operation of the project.

Direct permanent impacts would occur to two non-sensitive vegetation communities and land cover types, including approximately 0.83 acre of disturbed habitat and approximately 3.54 acres of urban/developed land (Table 3). Therefore, permanent direct or indirect impacts to sensitive vegetation communities from implementation of the project would be less than significant, and mitigation would not be required.

Threshold C

Guidelines for Determination of Significance

A significant impact would result if the project would have a substantial adverse impact on federally protected wetlands as defined by Section 404 of the CWA (including but not limited to marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means. Impacts to state or federally jurisdictional aquatic resources would be significant and would require permits from the USACE and RWQCB. Aquatic resources delineations would be required for any impacts to potentially jurisdictional aquatic resources.

Analysis

As discussed in the Results section, one approximately 0.03-acre (840-linear-foot) aquatic resource, Channel 1, was observed on the project site (Figure 7). Channel 1 was determined to be an ephemeral non-wetland water that does not meet the USACE and County definitions of what constitutes a wetland (USACE 1987; County of San Diego 2012). Based on the NWI and NHD results, Channel 1 is connected to Buena Creek, which is a tributary to Agua Hedionda Creek, a TNW as defined by the USACE. Based on the direct connectivity to a TNW, Channel 1 is likely under the jurisdiction of the USACE, RWQCB, and CDFW pursuant to Sections 404 and 401 of the CWA and Section 1600 of the California Fish and Game Code.

Direct Impacts

As discussed under Thresholds A and B, the project is designed to avoid impacts to Channel 1 (Figure 12, Avoidance of Aquatic Resources). Project design features for avoidance of sensitive non-wetland Channel 1 would include temporary fencing during construction and permanent signage for operation of the project. Therefore, permanent direct impacts to state or federally jurisdictional aquatic resources would be less than significant, and no mitigation would be required.

Indirect Impacts

Most of the indirect impacts to sensitive plant species and sensitive vegetation communities described under Thresholds A and B would also result in potentially significant indirect impacts to potentially jurisdictional aquatic resource, Channel 1, on the project site. Indirect impacts to potentially jurisdictional aquatic resources can result from generation of fugitive dust, changes in hydrology resulting from construction (including sedimentation and erosion), and exposure to construction-related pollutant discharges. As previously discussed in Thresholds A and B, standard construction BMPs, including dust suppression measures, weeds and invasive species control measures, equipment maintenance and cleaning protocols, erosion and sediment control measures (sand and

gravel bags, fiber rolls, and silt fencing), use of weed-free erosion control products, and preparation and implementation of a Stormwater Pollution Prevention Plan, would be required of the construction contractor. With the implementation of construction BMPs, indirect impacts to the potentially jurisdictional aquatic resource on the project site would be less than significant, and no mitigation would be required.

Threshold D

Guidelines for Determination of Significance

The project would have a significant impact on wildlife movement and nursery sites if its development interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impede the use of native wildlife nursery sites.

Analysis

The project site is completely surrounded by urban development, with single-family residential neighborhoods directly to the west and south, a small area of undeveloped land to the north, and the North County Transit District SPRINTER railroad tracks to the east and northeast (Figure 2). Due to the presence of the surrounding urban development, the project site is unlikely to provide movement and dispersal areas of wildlife species and connections to open space areas outside the project site. However, as discussed under Threshold A, the small number of trees on the project site have the potential to provide habitat for birds, invertebrates, and mammals for migration connectivity both locally and regionally.

Although the disturbed habitats and mature trees on the project site have the potential to provide live-in habitat for both sensitive and common reptile, bird, invertebrate, and mammal species, the project site does not support regional wildlife corridors or linkages. Therefore, implementation of the project would not result in significant impacts to wildlife corridors or nursery sites, and no mitigation would be required.

Threshold E

Guidelines for Determination of Significance

A significant impact would result if the project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

Analysis

The project would comply with the local policies or ordinances protecting biological resources identified in the County of San Diego General Plan. Therefore, no impacts would occur to local policies or ordinances from implementation of the project, and no mitigation would be required.

Threshold F

Guidelines for Determination of Significance

A significant impact would result if the project would conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan.

Analysis

The project site is not within the County of San Diego MSCP boundary and is not subject to the County of San Diego MSCP requirements. Therefore, no impacts to local conservation plans would occur from implementation of the project, and no mitigation would be required.

Proposed Mitigation

The following biological resources mitigation measures would be implemented during construction of the project.

Direct Impacts

Sensitive Wildlife

BIO-1: **General Nest Surveys.** No grubbing, trimming, or clearing of vegetation from the project site shall occur during the general bird breeding season (January 15 through August 31). If grubbing, trimming, or clearing of vegetation cannot feasibly occur outside of the general bird breeding season, a qualified biologist, as approved by the County of San Diego, shall perform a pre-construction nesting bird survey no more than 72 hours before the start of vegetation grubbing, trimming, or clearing to determine if active bird nests are present in the affected areas. If one or more active nests are found during the pre-construction survey, a 300-foot buffer (500-foot buffer for raptors or listed species) around the nest shall be established, and no disturbance shall be allowed within the buffer until a qualified biologist determines that the nest is no longer active. If there are no nesting birds (including nest building or other breeding or nesting behavior) on the project site, grubbing, trimming, or clearing shall proceed.

When construction occurs during the bird breeding season, a qualified biologist shall conduct weekly nest surveys of the area within 100 feet of construction to survey for nesting migratory birds and raptors.

BIO-2: **Pre-Construction Overwintering Monarch Butterfly Survey.** If grubbing, trimming, or clearing of vegetation occurs during the winter (November 1 through February 28), a qualified biologist, as approved by the County of San Diego, shall perform a pre-construction overwintering monarch butterfly survey no more than 48 hours before the start of vegetation grubbing, trimming, or clearing to confirm there are no overwintering monarch butterflies occupying vegetation on the project site. If overwintering monarch butterflies are found during the pre-construction survey, a 50-foot buffer around the occupied vegetation shall be established, and no disturbance shall be allowed within the buffer until a qualified biologist determines that monarch butterflies are no longer occupying the vegetation. If there are no overwintering monarch butterflies on the project site, grubbing, trimming, or clearing shall proceed.

Level of Significance After Mitigation

As discussed in Threshold A, with the incorporation of project design features for sensitive resource avoidance, project construction and operation would not result in significant direct impacts to sensitive plant species, and no mitigation would be required. Implementation of standard construction BMPs, including dust suppression measures, erosion and sediment control measures (sand and gravel bags, fiber rolls, and silt fencing), use of weed-free erosion control products, and preparation and implementation of a Stormwater Pollution Prevention Plan, would prevent potential indirect impacts to sensitive plant species.

As discussed in Threshold A, project construction and operation would result in potentially significant temporary and permanent direct and indirect impacts to sensitive nesting birds and raptors. With implementation of Mitigation Measure BIO-1, temporary and permanent direct and indirect impacts to sensitive nesting birds and raptors from project construction would be reduced to a less than significant level.

As discussed in Threshold A, project construction would result in potentially significant permanent direct and indirect impacts to sensitive overwintering monarch butterflies. With implementation of Mitigation Measure BIO-2, permanent direct impacts to sensitive overwintering monarch butterflies from project construction would be reduced to a less than significant level.

Implementation of standard construction BMPs, including dust suppression measures, erosion and sediment control measures, use of weed-free erosion control products, noise suppression measures, trash containment methods, and preparation and implementation of a Stormwater Pollution Prevention Plan, would prevent potential indirect impacts to sensitive wildlife species.

As discussed in Threshold B, with the incorporation of project design features for sensitive resource avoidance, project construction and operation would not result in significant direct or indirect impacts to sensitive vegetation communities, and no mitigation would be required.

As discussed in Threshold C, with the incorporation of project design features for sensitive resource avoidance, project construction and operation would not result in significant direct impacts to the state- and federally protected non-wetland water Channel 1. However, project construction could result in potentially significant indirect impacts to Channel 1. Implementation of standard construction BMPs, including dust suppression measures, erosion and sediment control measures, use of weed-free erosion control products, and preparation and implementation of a Stormwater Pollution Prevention Plan, would prevent potential indirect impacts to potentially jurisdictional aquatic resources.

As discussed in Thresholds D through F, the project would not result in significant impacts to wildlife corridors and linkages, conflicts with local policies and ordinances, or regional conservation planning, and no mitigation would be required.

Cumulative Impacts

Implementation of the project would not contribute to the cumulative loss of biological resources in the county. In addition, the potential direct and indirect impacts to nesting birds and raptors, potential direct impacts to overwintering monarch butterflies, and indirect impacts to potentially jurisdictional aquatic resources that may contribute to a cumulatively significant impact when combined with nearby projects have been mitigated to a less than significant level with implementation of Mitigation Measures BIO-1 and BIO-2 and standard construction BMPs, as detailed in the Proposed Mitigation and Level of Significance After Mitigation sections. Therefore, cumulative impacts would be less than significant.

Preparers

Harris & Associates

Emily Mastrelli, Principal Biologist

Katie Laybourn, Biologist

If you have any questions regarding this letter report, please do not hesitate to contact Emily Mastrelli at Emily.Mastrelli@WeAreHarris.com or (619) 510-5372.

Sincerely,

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Katie Laybourn (Author/Analyst)
Biologist/Aquatic Resources Specialist

Attachments

1, Figures
2, Aquatic Resources Delineation Report
3, Species Observed

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Attachment 1. Figures

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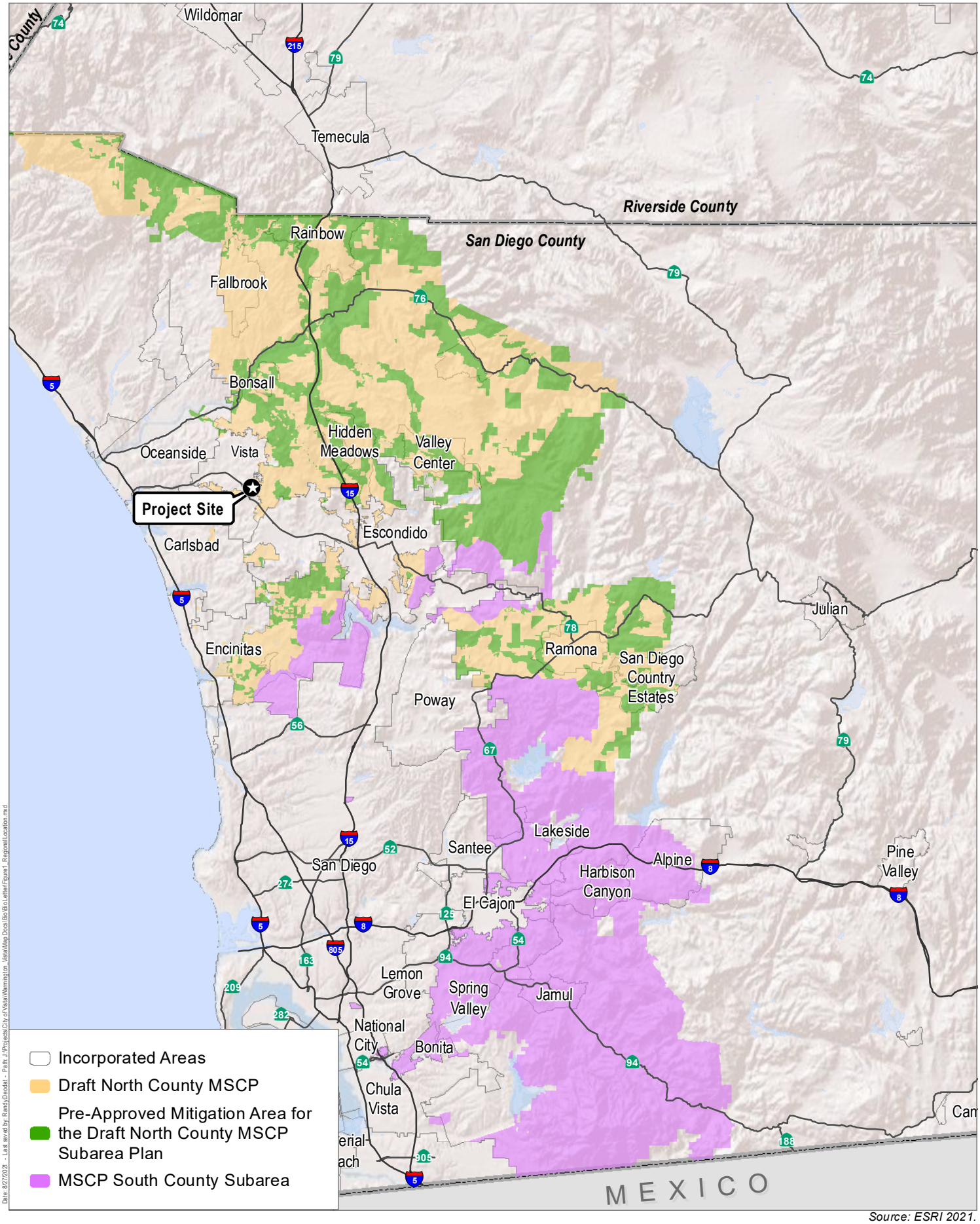

Source: ESRI 2021.

Harris & Associates

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Figure 1

Regional Location

Vista II Residential Project

Source: SanGIS Imagery 2017.

Harris & Associates

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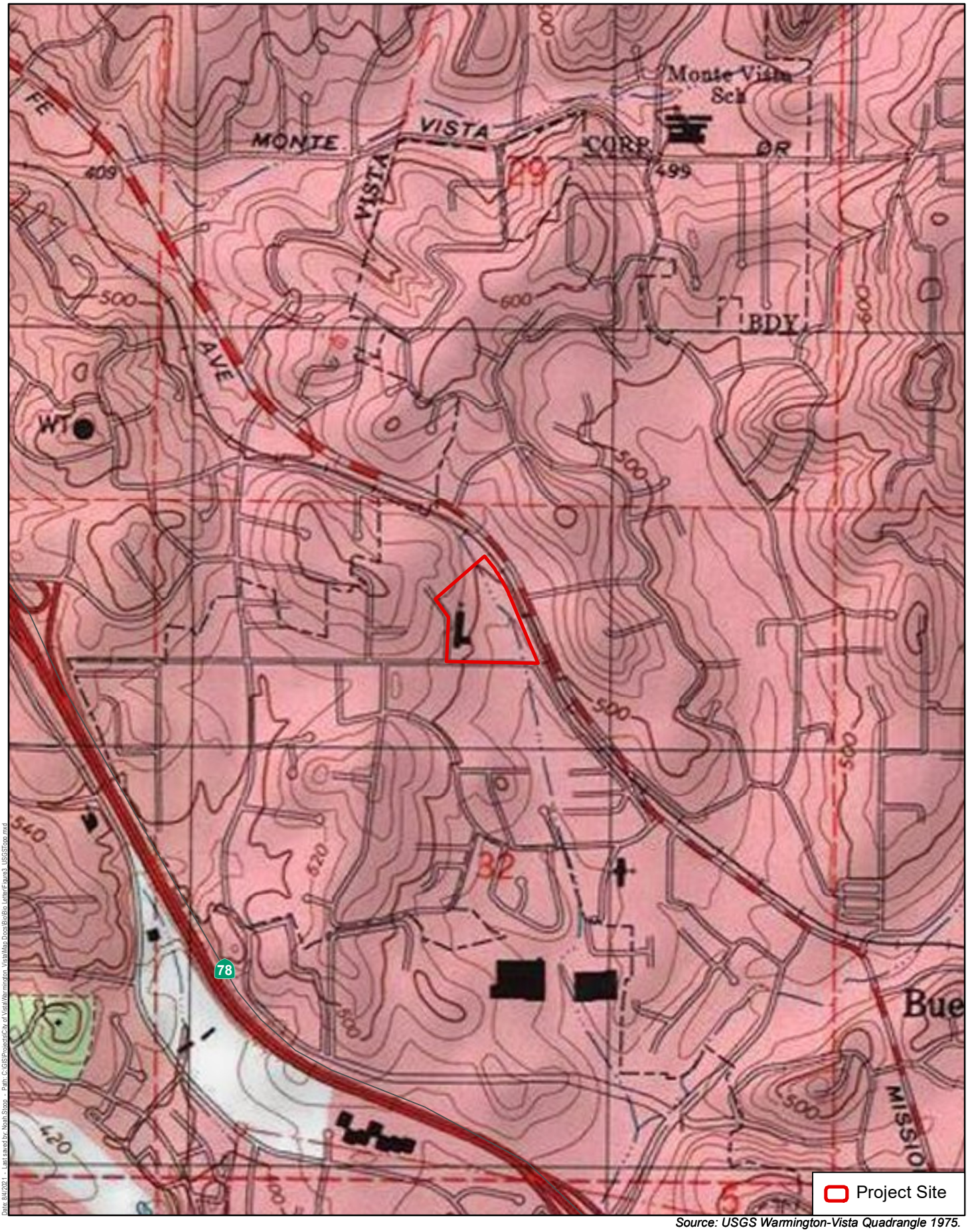
Figure 2

Project Location

Vista II Residential Project



Source: USGS Warmington-Vista Quadrangle 1975.

Harris & Associates

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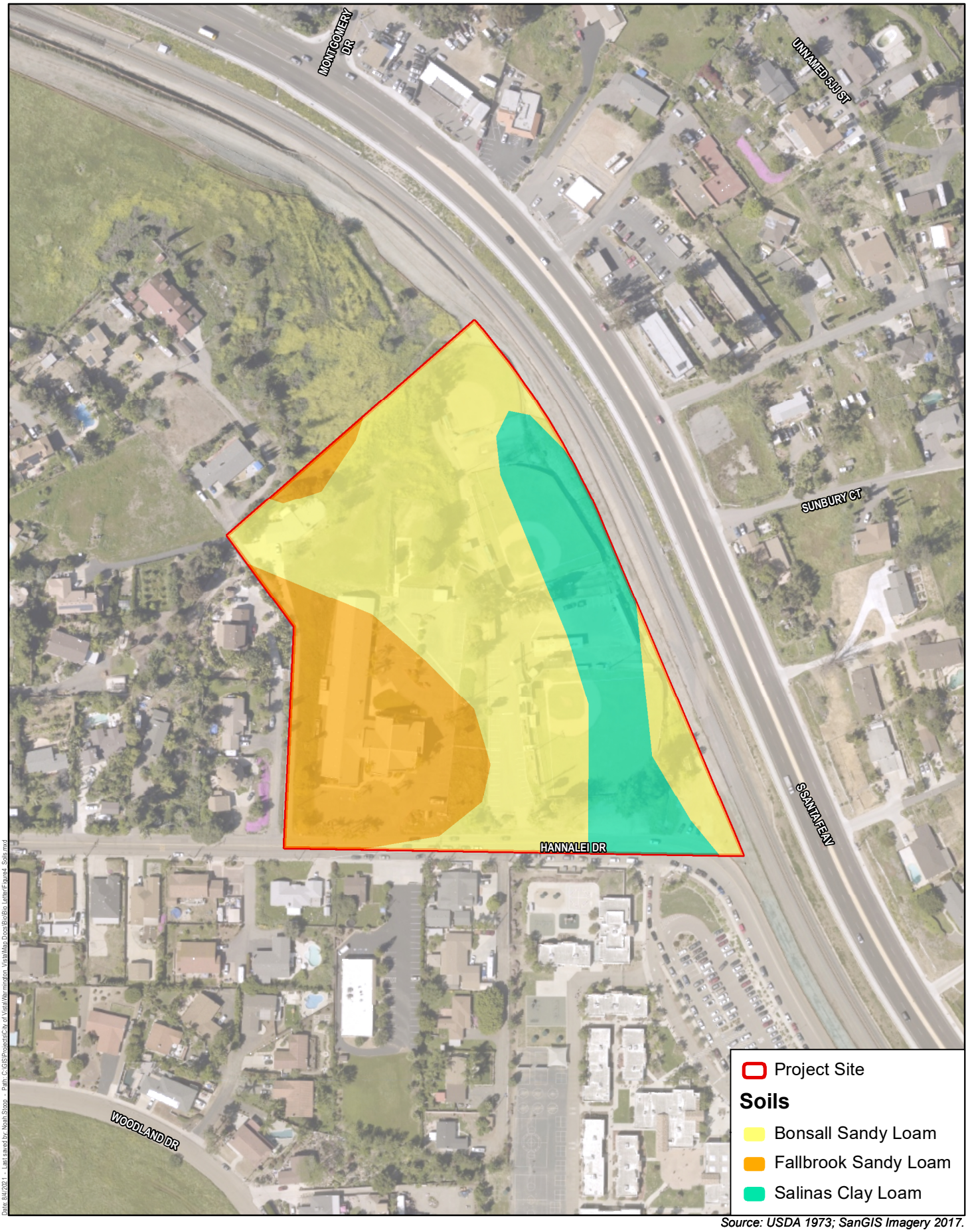
Figure 3

USGS Topographic Map

Vista II Residential Project



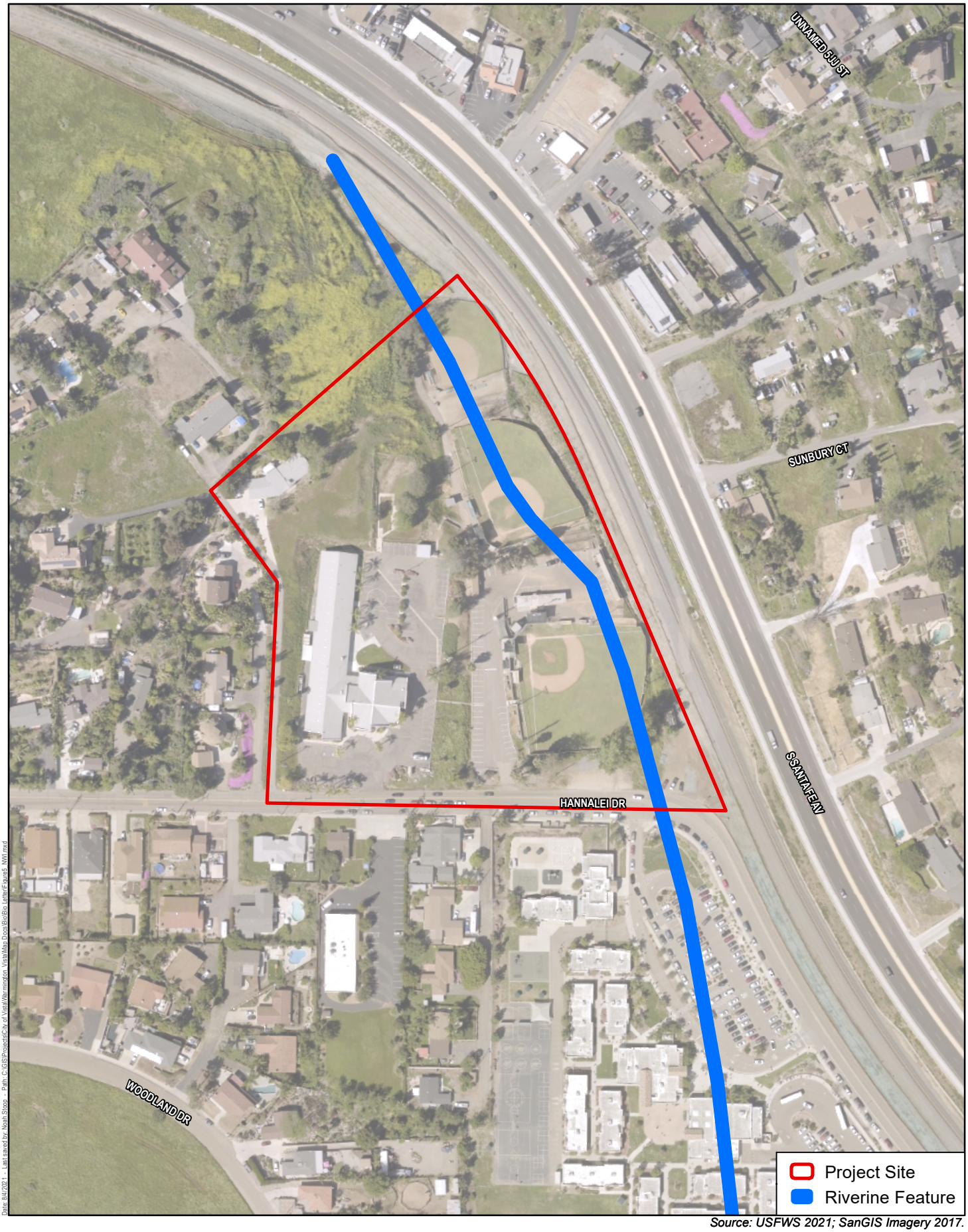
Source: USDA 1973; SanGIS Imagery 2017.

Harris & Associates

Figure 4

Soils

Vista II Residential Project



Source: USFWS 2021; SanGIS Imagery 2017.

Harris & Associates

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Figure 5

National Wetlands Inventory Results

Vista II Residential Project

Source: SanGIS Imagery 2017.

Harris & Associates

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Figure 6

Vegetation Communities and Land Cover Types

Vista II Residential Project

Source: Latitude 33 2019; SanGIS Imagery 2017.

Harris & Associates

Figure 7

Aquatic Resources

Vista II Residential Project

Source: SanGIS Imagery 2017.

Harris & Associates

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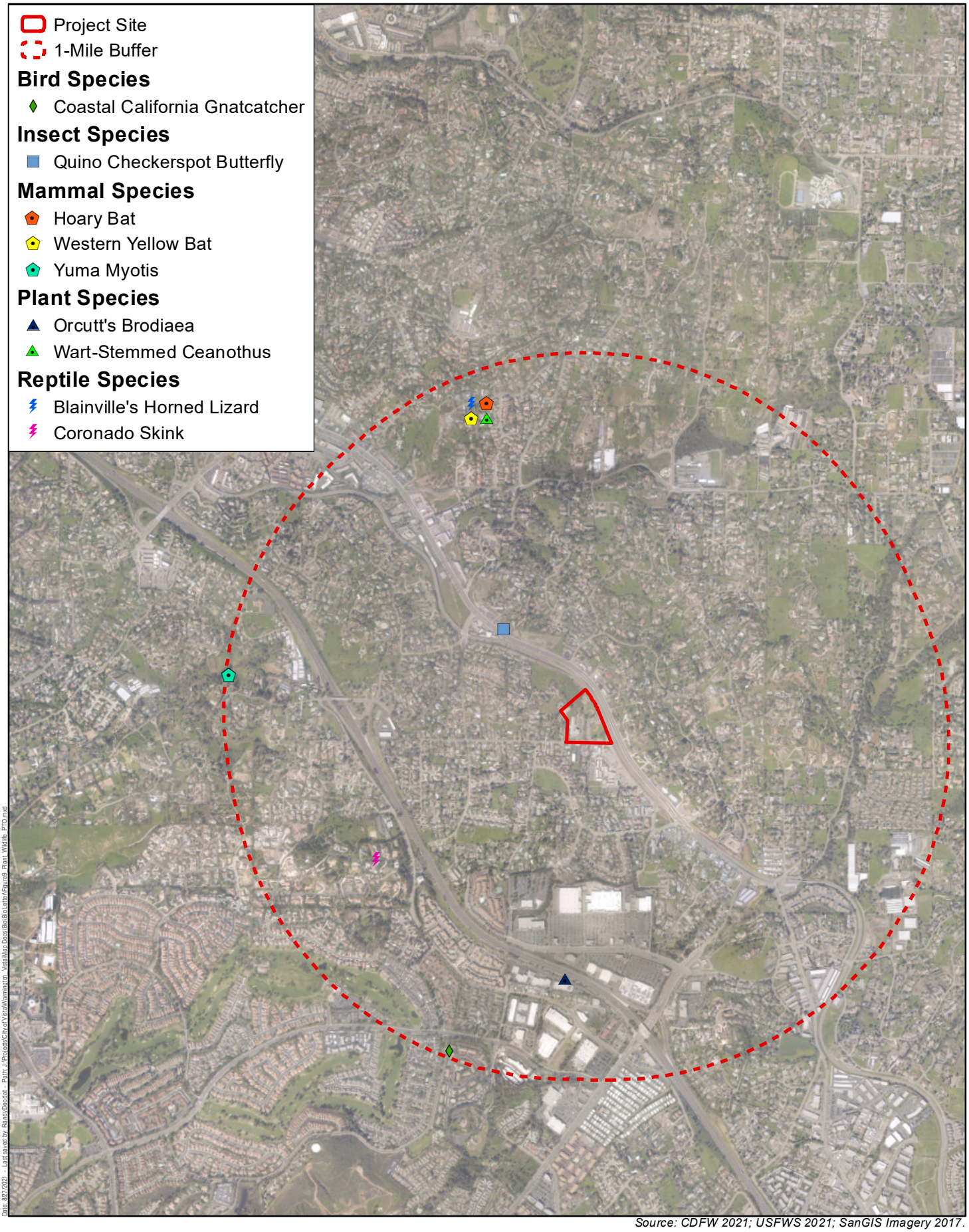
Figure 8

Sensitive Plant Species Observations

Vista II Residential Project



Source: CDFW 2021; USFWS 2021; SanGIS Imagery 2017.

Harris & Associates

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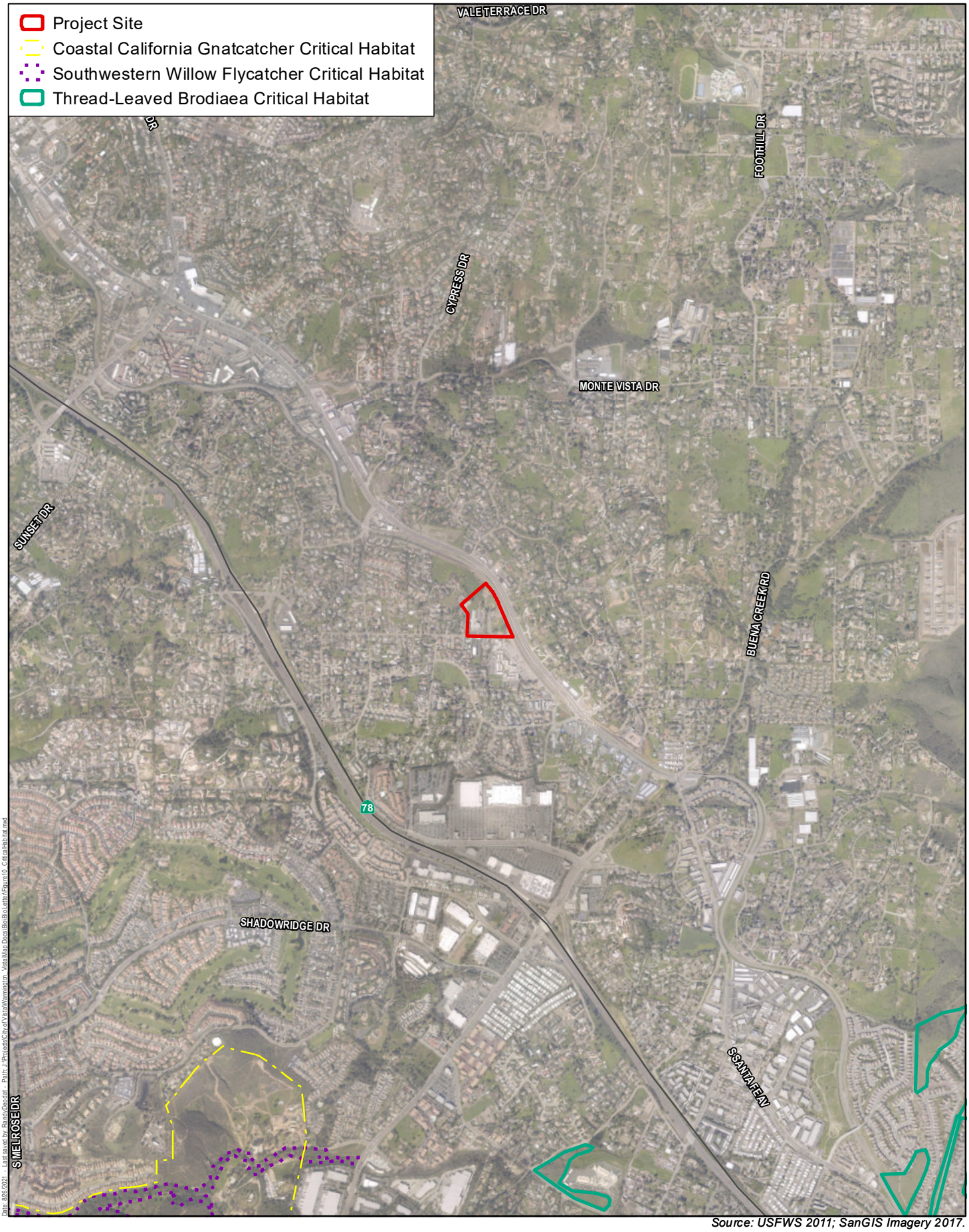
Figure 9

Plant and Wildlife Species with Potential to Occur

Vista II Residential Project



Source: USFWS 2011; SanGIS Imagery 2017.

Harris & Associates

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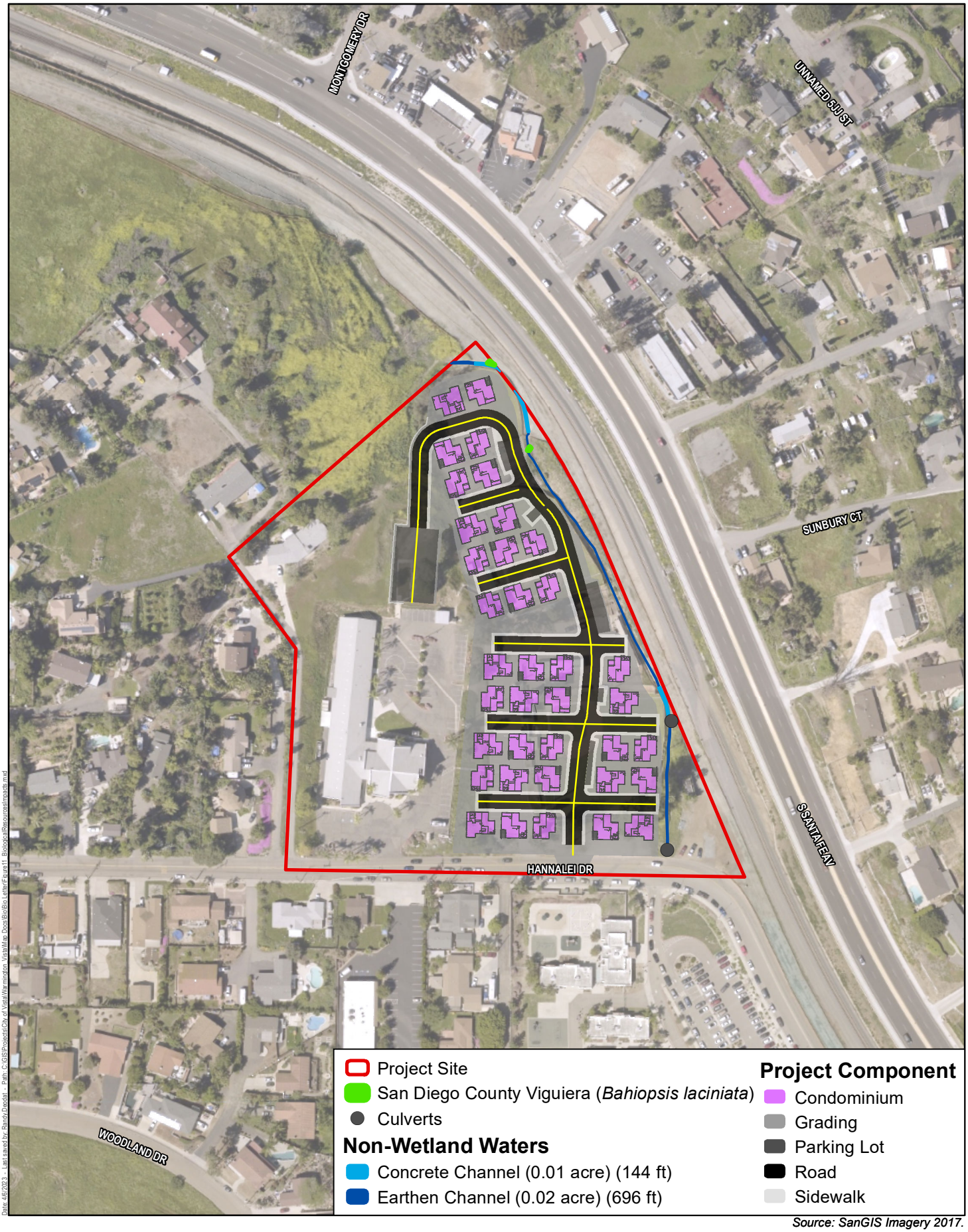
Figure 10

Critical Habitat

Vista II Residential Project



Source: SanGIS Imagery 2017.

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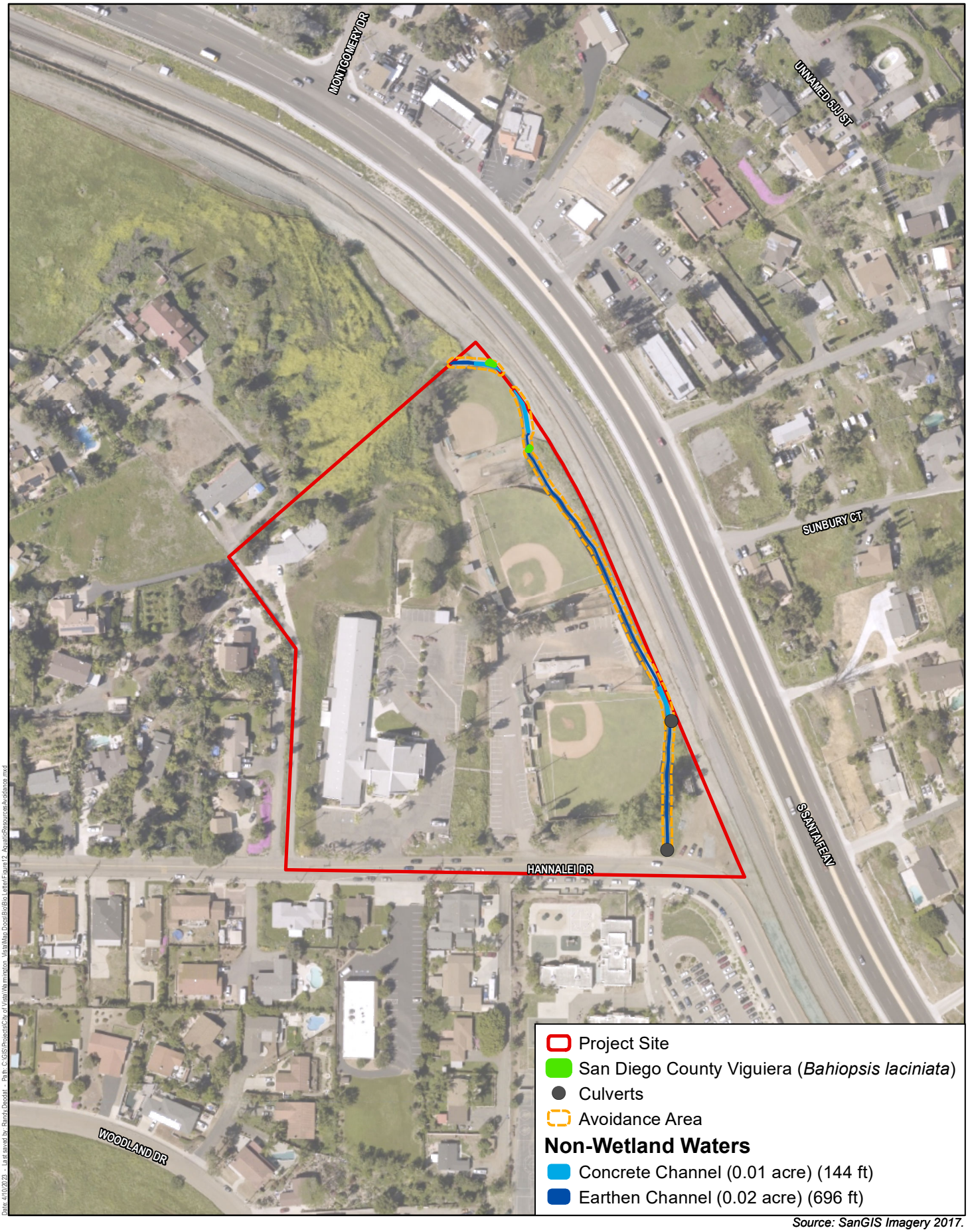
Figure 11

Impacts to Biological Resources

Warmington Vista 145 Hannalei Residential Project



Source: SanGIS Imagery 2017.

Harris & Associates

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Figure 12

Avoidance of Aquatic Resources

Warmington Vista 145 Hannalei Residential Project

Attachment 2. Aquatic Resources Delineation Report

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DRAFT

Aquatic Resources Delineation Report

Vista II Residential Project

August 2024

Prepared for:

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Table of Contents

Tables

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Acronyms and Abbreviations

°F	degrees Fahrenheit
CDFW	California Department of Fish and Wildlife
Harris	Harris & Associates
NRCS	National Resources Conservation Service
NWI	National Wetlands Inventory
OHWM	ordinary high water mark
project	Vista II Residential Project
RWQCB	Regional Water Quality Control Board
SDAM	Streamflow Duration Assessment Method
USACE	U.S. Army Corps of Engineers
USGS	U.S. Geological Survey

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Section A Site Description, Landscape Setting

A.1 Project Location

Warmington Residential (project applicant) is proposing the Vista II Residential Project (project) on approximately 9.4 acres in the County of San Diego, California (Attachment A, Figures; Figure 1, Regional Location, and Figure 2, Project Site). The project site is located at 145 Hannalei Drive (Assessor's Parcel Number 183-060-84-00) and depicted on the U.S. Geological Survey (USGS), the site is in the 7.5-minute San Marcus Quadrangle, Township 11 South, Range 3 West, Section 30 (Figure 3, USGS Topographic Map). The project site is north of Hannalei Drive, west of South Santa Fe Avenue and the North County Transit District SPRINTER railroad tracks, east of the existing Stonebrooke Church, and south of undeveloped land. Existing development on the project site includes the Stonebrooke Church, a parking lot, three baseball fields, a snack shack, and covered seating for the baseball field. The project site also contains native and non-native trees and a concrete-lined and earthen-bottom drainage that runs along the northeastern site boundary. The project site currently consists of developed and undeveloped land (Figure 2).

A.2 Project Description

The project is a Tentative Map and Major Use Permit to subdivide an 8.93-acre site into three lots. Lot 1 would contain an existing church and driveway that would be improved as a secondary access for Lot 2. Lot 2, which would be 5.33 acres, would be improved with 37 multi-family condominium units with associated parking and 14,800 square feet of private usable open space. The third lot, Lot A, which has not been approved for future development, would consist of an existing cellular facility. Access to the project site would be from Hannalei Drive, with secondary emergency access in the northwestern area of the site connecting to the adjacent church property to the west (on Lot 1). The project would be part of the North County Metro Community Planning Area. The Vista Fire Protection District would provide fire service, the Buena Sanitation District would provide sewer service, and the Vista Irrigation District would provide water to the project site. The site is subject to General Plan Designation VR-7.3. Zoning for the site is RS. In total, the project would include 111 parking spaces and 61,462 square feet of open space. Earthwork would consist of 10,700 cubic yards of cut, 22,500 cubic yards of fill, and 11,800 cubic yards of imported material. Currently, the project site contains a stockpile of approximately 3,500 cubic yards of soil spread over a 1-acre area, which violates the County's Grading Ordinance. The stockpile would remain on site and be considered part of the project. Final mapping for the project would occur in phases. The first unit would create Lots 1 and 2 and Lot A for finance and conveyance purposes only, not for development. Once the first unit is recorded, Lot 2 would be transferred to the future developer. Lot 2 would then be developed per the conditions of approval for Tentative Tract Map 5647.

A.3 Landscape Setting

The project site is in a residential area surrounded by single-family residential neighborhoods to the west and south, undeveloped land to the north, and the North County Transit District SPRINTER railroad tracks to the east (Figure 2). The project site consists of non-sensitive disturbed habitats, one unnamed earthen-bottom and concrete-lined channel (Channel 1), and urban/developed areas (the church and baseball field facilities). The majority of the project site is developed, and the northwestern undeveloped portion of the property has historically been disturbed with mowing and other mechanical disturbances.

The project site is made up of two relatively flat terraces, with the western half of the project site higher in elevation and decreasing in elevation moving east across the project site. The on-site elevation ranges from approximately 145 feet to 165 feet above mean sea level. The topographical lines presented on Figure 3 represent the project elevations.

A.4 Project Site Access

The property owner, Stonebrooke Church, granted U.S. Army Corps of Engineers (USACE) personnel access to the project site, as documented in Attachment B, Statement of Access.

Section B Site Alterations, Current, and Past Land Use

The project site is made up of two relatively flat terraces, with the western half of the project site higher in elevation and decreasing in elevation moving east across the project site. The unnamed channel (Channel 1) has historically been present across the eastern portion of the project site, but there is evidence that activities associated with the baseball field development on the eastern half of the project site have altered the flow path of the channel. This alteration includes concrete-lining portions of the channel and shifting the flow of the channel to the easternmost edge of the project site.

B.1 Soils

The project site is underlain by Bonsall sandy loam, Fallbrook sandy loam, and Salinas clay loam (USDA 2019). The soil units on the project site are presented on Figure 4, Soils. Bonsall sandy loam (nine percent to 15 percent slopes) occurs across the majority of the project site. Fallbrook sandy loam (nine percent to 15 percent slopes) occurs in the northern and western portions of the project site. Salinas clay loam (zero percent to two percent slopes) occurs in the western portion of the project site. All three soils are defined as well-drained and are not classified as hydric (wetland) soils (USDA 2019, USDA 2022).

B.2 Hydrology

The project site is in the Carlsbad Watershed (Hydrologic Unit 904) (Project Clean Water 2022). The Carlsbad Watershed encompasses a land area of 211 square miles. It lies in the northern portion of San Diego County and neighbors the San Luis Rey Watershed to the north and the San Dieguito Watershed to the south.

The National Wetlands Inventory (NWI) shows an unnamed riverine feature running through the eastern portion of the project site (Figure 5, National Wetlands Inventory Results). The unnamed riverine feature identified on the NWI mapping results was observed on the project site and identified as Channel 1. The flow path of the riverine feature shown on the NWI mapping results (NWI flow path) was not observed during the aquatic resources delineation investigation on the project site. The NWI flow path is west of what was observed on the project site but could have occurred historically on the project site before the development of the baseball fields, surrounding residential community, and train transportation corridor to the east. The concrete channelization and shifting of portions of Channel 1 to the east likely occurred as a result of the baseball fields. No other aquatic resources were identified in the NWI mapping results or observed on the project site.

Based on a review of the U.S. Geological Survey (USGS) National Hydrography Dataset, Channel 1, which runs through the project site, is connected to Buena Creek, which is a tributary to Agua Hedionda Creek, a traditionally navigable water (TNW) as defined by the USACE (USGS 2022; USACE 2022a). Channel 1 is discussed in detail in Section E, Aquatic Resources Descriptions.

Drainage patterns on the project site show evidence of alteration with on-site mechanical disturbances associated with the construction and maintenance of the baseball park facility in the eastern portion of the project site. While Channel 1 has been channelized and stormwater flows across the project site have been disturbed, the drainage patterns through the eastern portion of the project site appear to be natural.

B.3 Vegetation

Three vegetation communities and land cover types were observed on the project site. These include non-vegetated channel, disturbed habitat, and urban/developed land (Baldwin et al. 2012; Oberbauer et al. 2008; Holland 1986). Table 1 presents the acreages of the vegetation communities and land cover types that occur on the project site. Figure 6, Vegetation Communities, presents the vegetation community and land cover type boundaries.

Table 1. Vegetation Communities and Land Cover Types on the Project Site

Vegetation Community and Land Cover Type	Project Site (acres)[1]
Riparian	
Non-vegetated channel	0.03
Subtotal	*0.03*
Disturbed/Developed	
Disturbed habitat	3.50
Urban/developed land	5.90
Subtotal	*9.40*
Total	**9.43**

Sources: Holland 1986; Oberbauer et al. 2008.

Notes: [1] Acreages rounded up to one-hundredth.

The vegetation communities and land cover types observed on the project site are described in the following subsections.

B.3.1 Non-Vegetated Channel

Non-vegetated channel consists of predominantly sandy, gravelly, or rocky channels lacking or with reduced vegetation. Variable water lines inhibit the growth of vegetation, although some weedy species of grasses may grow along the outer edges of the channel. Vegetation may exist here but is usually less than 10 percent of the total cover (Oberbauer et al. 2008).

Approximately 0.03 acre (840 linear feet) of non-vegetated channel (Channel 1) occurs along the eastern edge of the project site (Figure 6). Two portions of Channel 1 are lined with concrete, accounting for approximately 0.01 acre (144 linear feet) of the channel. The earthen-bottom portions of Channel 1 are approximately 0.02 acre (696 linear feet).

B.3.2 Disturbed Habitat

Disturbed habitat consists of previously disturbed areas that either are devoid of vegetation (dirt roads/trails) or support scattered non-native plant species, such as ornamentals or ruderal exotic species that take advantage of disturbance, such as black mustard (*Brassica nigra*), short-pod mustard (*Hirschfeldia incana*), and *Erodium* species. These species are non-native and typically found in disturbed habitats, particularly in areas that have been graded, been repeatedly cleared for fuel management purposes, or experienced repeated use that prevents natural revegetation (Oberbauer et al. 2008).

Disturbed habitat comprises approximately 3.50 acres on the project site, primarily in the northwestern portion and along the western and southern edges of the project site (Figure 6). Disturbed habitat on the project site is dominated by bare ground and species of mustard and other non-native grass and weed species. A small number of cottonwood (*Populus deltoides*), eucalyptus (*Eucalyptus* sp.), palm (*Arecaceae* sp.), and pine (*Pinus* sp.) trees with bare ground or ornamental understories are present in the disturbed habitat in the northwestern, western, and southeastern portions of the project site. The disturbed habitat on the project site appears to be mowed periodically, likely associated with other maintenance activities conducted for the church and baseball field facilities.

B.3.3 Urban/Developed Land

Urban/developed land represents areas that have been constructed on or otherwise physically altered to an extent that native vegetation communities are not supported (Oberbauer et al. 2008). This land cover type generally consists of semi-permanent structures, homes, parking lots, pavement or hardscape, and landscaped areas that require maintenance and irrigation (e.g., ornamental greenbelts). Typically, this land cover type is unvegetated due to the lack of open available soil, or supports a variety of ornamental plants and landscaping.

Urban/developed land on the project site comprises approximately 5.9 acres and consists of the church building, parking lots, and baseball fields in the central and northeastern portions of the project site (Figure 6). The urban developed areas also contain ornamental and landscaping areas, primarily between the church and the baseball fields.

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Section C Precipitation Data and Analysis

C.1 Climate and Growing Season

On a regional level, San Diego County has a Mediterranean climate, which is characterized by wet winters and dry summers. This is largely because of a semi-permanent high pressure zone that sits over the Pacific Ocean during much of the year and forms a fog belt (marine layer). The survey area is generally located within the Peninsular Ranges of Southern California. Generalized climate in the region is regarded as dry, subhumid mesothermal, with warm dry summers and cold moist winters, which pushes the growing season to the wet months of the year (late winter to early spring). Vegetation often goes dormant (senescent) during the later summer months until initial rains start in the fall. The rainy season typically lasts from October through March.

The closest weather station to the project site is at the Vista National Oceanic and Atmospheric Administration weather station (EW3055) approximately 3 miles northwest of the project site (NOAA 2022). Between 2000 and 2020, the average maximum temperature was 74 degrees Fahrenheit (°F), and the minimum temperature was 48°F. The annual precipitation between 2000 and 2020 was approximately 9.41 inches. In 2020, the total rainfall was 15.81 inches, approximately 8.84 inches less than the previous year (NRCS 2022).

C.2 Antecedent Precipitation Tool and NRCS WETS Table Results Summary

A typical rainfall year in San Diego County has historically been 11 inches of annual precipitation. To calculate whether the aquatic resources delineation fell into a wet, dry, and typical rainfall year, the Harris & Associates (Harris) aquatic resources specialists used the Antecedent Precipitation Tool Version 1.0.19 (USACE 2022b). The Antecedent Precipitation Tool results determined that the aquatic resources delineation was conducted in normal conditions for precipitation in the dry season (see Attachment C, Antecedent Precipitation Tool and NRCS WETS Table Results).

The National Resources Conservation Service (NRCS) Wetland Climate Table for 2000–2020 at Vista, California, is in Attachment C. The average annual precipitation in the area surrounding the project site over the past 20 years was 9.41 inches, with precipitation occurring primarily between November and March (NRCS 2022).

C.3 Wetland Hydrology and Analysis

The Harris aquatic resources specialists reviewed historical and current aerial imagery, topographic maps, and NWI maps. The NWI maps show the unnamed riverine feature running through the eastern portion of the project site as an aquatic resource on the project site. Historical and current aerial imagery depicts the unnamed channel as historically occurring in the same location on the eastern edge of the project site. The USGS topographic map of the project site is provided on Figure 3. The NWI results are presented on Figure 5.

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Section D Methods

D.1 Pre-Field Review

Before conducting fieldwork, aquatic resources specialists referenced the following materials:

- Topographic maps
- Aerial imagery (Google Earth from 1994–2022)
- U.S. Fish and Wildlife Service NWI Online Wetland Mapper (USFWS 2022)
- U.S. Department of Agriculture Natural Resources Conservation Service Web Soil Survey for the project site, which lists hydric soils found in San Diego County (USDA 2019)

D.2 On-Site Aquatic Resources Delineation

The aquatic resources delineation was conducted using the routine on-site determination method described in the Corps of Engineers Wetlands Delineation Manual (USACE 1987) and the Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Arid West Region (USACE 2008a). Harris aquatic resources specialist, Katie Laybourn, conducted the aquatic resources delineation fieldwork on July 19, 2021, to identify aquatic resources on the project site. The aquatic resources specialists completed Arid West region ordinary high water mark (OHWM) data sheets for each unique aquatic resources feature on the project site (Attachment D, Arid West Wetland Determination and Ordinary High Water Mark Datasheets).

Sampling points were taken in each of the unique aquatic resources features. Figure 7, Aquatic Resources Ordinary High Water Mark, shows the sampling points associated with the on-site aquatic resources. Figure 7 was created in adherence with the Updated Map and Drawing Standards for the South Pacific Division Regulatory Program and can be referenced in Attachment A (USACE 2016). Representative photographs of the aquatic resources on the project site are provided in Attachment E, Photographic Log. The delineation methods conducted at each of the sampling points are described in detail below.

Sampling point NW-1 was taken in the center of Channel 1 in the southeastern portion of the project site where an OHWM was observed to determine the extent of the non-wetland feature (Figure 7; Photograph 1). NW-1 was taken in the southern extent of Channel 1 where the channel enters an approximately five-foot-diameter concrete culvert that runs south under Hannalei Drive. Because an OHWM was observed at sampling point NW-1, an Arid West region OHWM data sheet was completed. The delineation results for sampling point NW-1 are presented in Section E, Aquatic Resources Descriptions.

Sampling point NW-2 was taken in the center of Channel 1 on the eastern edge of the project site where the earthen-bottom channel ended and became concrete lined to determine the extent of the non-wetland feature (Figure 7; Photograph 2). Sampling point NW-2 was taken directly south of an

approximately three-foot-diameter concrete culvert that runs east under the train transportation corridor east of the project site. The delineation results for sampling point NW-2 are presented in Section E.

Sampling point NW-3 was taken in proximity to sampling point NW-2 in the center of Channel 1 on the eastern edge of the project site where the concrete-lined portion of the channel began to determine the extent of the non-wetland feature (Figure 7; Photograph 3). Sampling point NW-3 was taken directly west of an approximately three-foot-diameter concrete culvert that runs east under the train transportation corridor east of the project site. The delineation results for sampling point NW-3 are presented in Section E.

Sampling point NW-4 was taken in the center of Channel 1 on the eastern edge of the project site where the concrete-lined channel ended and became earthen bottomed to determine the extent of the non-wetland feature (Figure 7; Photograph 4). The delineation results for sampling point NW-4 are presented in Section E.

Sampling point NW-5 was taken in the center of Channel 1 on the northeastern edge of the project site where the earthen-bottom channel ended and became concrete lined to determine the extent of the non-wetland feature (Figure 7; Photograph 5). The delineation results for sampling point NW-5 are presented in Section E.

Sampling point NW-6 was taken in the center of Channel 1 on the northern edge of the project site where the concrete-lined channel ended and became earthen bottomed to determine the extent of the non-wetland feature (Figure 7; Photograph 6). The delineation results for sampling point NW-6 are presented in Section E.

D.3 On-Site Ordinary High Water Mark Investigation

The aquatic resources delineation was conducted using the routine on-site determination method described in A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual (USACE 2008b). As described in the previous subsection, the majority of the project site consists of developed land in an urban area.

Following the guidance in A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States: A Delineation Manual (USACE 2008b), the aquatic resources specialists collected and recorded data on vegetation, soil, and hydrologic characteristics used as the basis for OHWM determinations. The aquatic resources specialists completed an Arid West Region OHWM data sheet for the non-wetland Channel 1 on the project site (Attachment D). The aquatic resources specialists identified the OHWM in Channel 1 (sampling points NW-1 through NW-6) based on field observations of the presence of the OHWM or defined non-wetland water indicators, including changes in sediment texture, vegetation species or cover, break in bank slope, and floodplain contours in the non-wetland aquatic resources feature

(USACE 2008b). Results of the OHWM identifications conducted for sampling points NW-1 through NW-6 are presented in Section E.

D.4 Streamflow Duration Assessment

The Streamflow Duration Assessment Method (SDAM) for the Arid West was completed for Channel 1 (USEPA 2022) (Attachment F, SDAM for the Arid West Forms). SDAMs are rapid field assessment methods that use hydrological, geomorphological, and/or biological indicators, observable in a single site visit, to classify streamflow duration as perennial, intermittent, or ephemeral at the reach scale. The SDAM results for Channel 1 are presented in Section E, Aquatic Resources Descriptions.

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Section E Aquatic Resources Descriptions

E.1 Non-Wetland Waters

Channel 1 observed on the project site was determined to be a non-wetland water. The non-wetland waters observed on the project site are summarized in Table 2 and described in the following subsections.

Table 2. Non-Wetland Waters on the Project Site

Feature	Non-Wetland Waters (acres)[1]	Linear Feet
Channel 1	0.03	840
Total[1]	**0.03**	**840**

Notes:

[1] Total rounded to one-hundredth of an acre.

The completed Arid West region OHWM data sheets for Channel 1 (sampling points NW-1 through NW-6) are in Attachment D. Representative photographs of Channel 1 are provided in Attachment E. Electronic spatial data of the aquatic resources on the project site is included in Attachment G, Geographic Information Systems Data. The USACE Aquatic Resources Table for the aquatic resources observed on the project site is provided in Attachment H, Aquatic Resources Table.

E.1.1 Channel 1

The extent of Channel 1 that runs through the project site begins on the northeastern portion of the project site and runs approximately 840 linear feet south to the southeastern edge of the project site. The entire Channel 1 on the project site is defined by an OHWM that varies in width between one foot at its narrowest and four feet at its widest (Figure 7). As discussed in Section D.4, the SDAM conducted for Channel 1 determined it is an ephemeral stream (Attachment G).

E.1.1.1 Ordinary High Water Mark Analysis

Channel 1 is an approximately 0.03-acre (840 linear feet) non-wetland water that runs along the eastern edge of the project site (Table 3; Figure 7). Figure 7 shows all sampling points (NW-1 through NW-6) collected in Channel 1, which were within the OHWM of the channel. Attachment E, Photographs 1 through 6, provides representative views of the extent of Channel 1 on the project site. The OHWM indicators were investigated at sampling points NW-1 through NW-6. The OHWMs documented at sampling points NW-1 through NW-6 are described below.

Sampling Point NW-1: The OHWM is approximately two feet wide and 0.5 foot deep (Photograph 1). The other OHWM indicators observed at sampling point NW-1 include a change in vegetation species and cover, a break in bank slope, and the presence of a defined bed and bank. The channel at sampling point NW-1 has upland grasses and weeds growing in the channel and on the banks.

At sampling point NW-1, Channel 1 is surrounded by disturbed habitat. Channel 1 is slightly lower in elevation than the surrounding project site, and the soil at sampling point NW-1 is clay loam.

Sampling Point NW-2: The OHWM is approximately four feet wide and 0.5 foot deep (Photograph 2). The other OHWM indicators observed at sampling point NW-2 include a change in vegetation species and cover, a break in bank slope, and the presence of a defined bed and bank. The channel at sampling point NW-2 has upland grasses and weeds growing on the channel banks. At sampling point NW-2, Channel 1 is surrounded by urban/developed land. Channel 1 is slightly lower in elevation than the surrounding project site, and the soil at sampling point NW-2 is clay loam.

Sampling Point NW-3: The OHWM is approximately four feet wide and 0.5 foot deep (Photograph 3). The other OHWM indicators observed at sampling point NW-3 include a change in vegetation species and cover, a break in bank slope, and the presence of a defined bed and bank. The channel at sampling point NW-3 is concrete lined and has upland grasses and weeds growing at the edges of the channel and on the banks. At sampling point NW-3, Channel 1 is surrounded by urban/developed land. Channel 1 is slightly lower in elevation than the surrounding project site, and the soil at sampling point NW-3 is clay loam.

Sampling Point NW-4: The OHWM is approximately one foot wide and 0.5 foot deep (Photograph 4). The other OHWM indicators observed at sampling point NW-4 include a change in vegetation species and cover, a break in bank slope, and the presence of a defined bed and bank. The channel at sampling point NW-4 has upland grasses and weeds growing in the channel and on the banks. At sampling point NW-4, Channel 1 is surrounded by urban/developed land. Channel 1 is slightly lower in elevation than the surrounding project site, and the soil at sampling point NW-4 is sandy loam.

Sampling Point NW-5: The OHWM is approximately four feet wide and 0.5 foot deep (Photograph 5). The other OHWM indicators observed at sampling point NW-5 include a change in vegetation species and cover, a break in bank slope, and the presence of a defined bed and bank. The channel at sampling point NW-5 is concrete lined and has upland grasses and weeds growing at the edges of the channel and on the banks. At sampling point NW-5, Channel 1 is surrounded by urban/developed land. Channel 1 is slightly lower in elevation than the surrounding project site, and the soil at sampling point NW-5 is sandy loam.

Sampling Point NW-6: The OHWM is approximately three feet wide and 0.5 foot deep (Photograph 6). The other OHWM indicators observed at sampling point NW-6 include a change in vegetation species and cover, a break in bank slope, and the presence of a defined bed and bank. The channel at sampling point NW-6 has upland grasses and weeds growing in the channel and on the banks. At sampling point NW-6, Channel 1 is surrounded by urban/developed land. Channel 1 is slightly lower in elevation than the surrounding project site, and the soil at sampling point NW-6 is sandy loam.

Section F Deviation from Local Wetlands Inventory or National Wetlands Inventory

The NWI shows an unnamed riverine feature running through the eastern portion of the project site (Figure 5, National Wetlands Inventory Results). The unnamed riverine feature identified on the NWI mapping results was observed on the project site as Channel 1. The flow path of the unnamed riverine feature shown on the NWI mapping results was not observed during the aquatic resources delineation investigation on the project site. This flow path could have occurred historically on the project site before the development of the baseball fields, surrounding residential community, and train transportation corridor to the east. The concrete channelization of portions of Channel 1 likely occurred as a result of the baseball fields. No other aquatic resources were identified on the NWI mapping results or observed on the project site.

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Section G Mapping Method

The wetland specialists digitally mapped the limits of non-wetland, non-tidal waters at the OHWM using an ISXBlue II sub-meter Global Positioning System unit. Electronic spatial data collected in the field is in Attachment F.

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Section H Conclusions

Based on the investigation of wetland and non-wetland water indicators, the following aquatic resources area occurs on the project site:

1. One non-wetland water (Channel 1) was observed on the eastern edge of the project site. Channel 1 accounts for approximately 0.03 acre (840 linear feet). Two portions of Channel 1 are lined with concrete, accounting for approximately 0.01 acre (144 linear feet) of the channel. The earthen-bottom portions of Channel 1 are approximately 0.02 acre (696 linear feet). Channel 1 was determined to be an ephemeral stream.

Table 2 includes the extent and summary of the aquatic resource, Channel 1, delineated on the project site.

Table 3. Summary of Non-Wetland Waters on the Project Site

Feature	Acres	Linear Feet	Summary
Channel 1	0.03	840	Non-wetland channel with OHWM indicators present. The OHWM varies in width between one foot at its narrowest and four feet at its widest, with depths of 0.5 foot across the entire reach of the channel. Approximately 0.01 acre (144 linear feet) of Channel 1 is concrete lined. The earthen-bottom portions of Channel 1 are approximately 0.02 acre (696 linear feet).
Non-Wetland Total	**0.03**	**840**	**—**

Notes: OHWM = ordinary high water mark

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Section I Preliminary Jurisdictional Determination

The approximately 0.03-acre Channel 1 that occurs on the project site was determined to be an ephemeral non-wetland water and is potentially under the jurisdiction of USACE and Regional Water Quality Control Board (RWQCB) pursuant to Sections 404 and 401 of the Clean Water Act and California Department of Fish and Wildlife (CDFW) pursuant to Section 1600 of the California Fish and Game Code. Table 4, Potential Jurisdiction of the Aquatic Resource on the Project Site, provides a summary of the aquatic resource and the potential jurisdiction of this feature.

Table 4. Potential Jurisdiction of the Aquatic Resource on the Project Site

Feature	Feature Type	Vegetation/ Land Cover Type	Cowardin Type[1]	Agency Jurisdiction			Description
				USACE	RWQCB	CDFW	
Channel 1	Non-wetland water	Non-vegetated channel	R6	X	X	X	Ephemeral earthen-bottom and concrete-lined channel that flows from northeast to southwest. The channel begins on the northeastern portion of the project site and runs approximately 840 linear feet south to the southeastern edge of the project site. The channel is connected downstream to Buena Creek, which is a tributary to Agua Hedionda Creek, a TNW.

Notes: CDFW = California Department of Fish and Wildlife; USACE = U.S. Army Corps of Engineers; RWQCB = Regional Water Quality Control Board

[1] Cowardin Type: R6 = A wetland, spring, stream, river, pond, or lake that only exists for a short period of time.

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Section J Disclaimer Statement

This aquatic resources delineation and preliminary jurisdictional determinations are subject to verification by the USACE, RWQCB, and CDFW. Harris advises all parties to treat the information in this ARDR as preliminary until the agencies provide written verification of their respective jurisdictional boundaries.

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Attachment A. Figures

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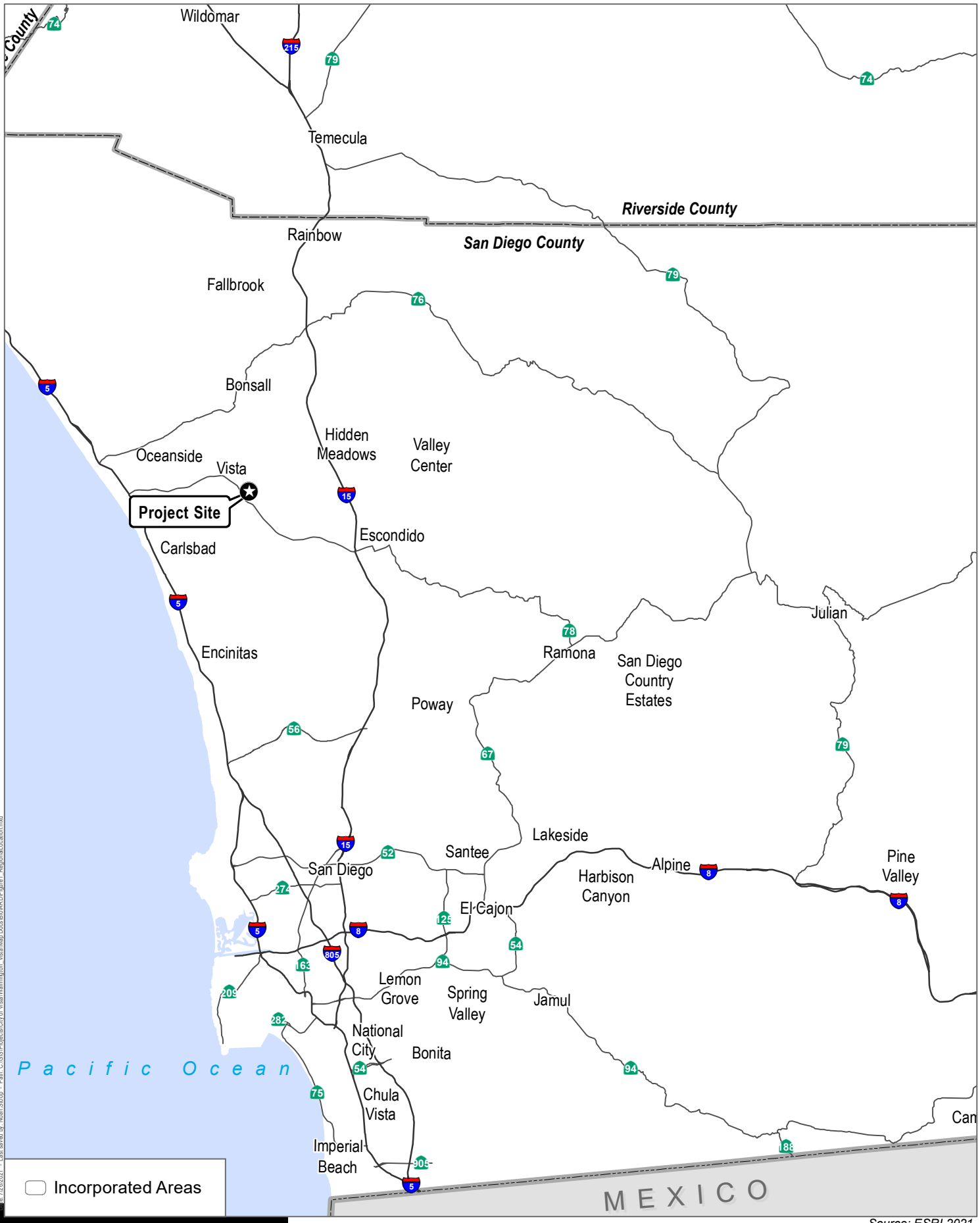


Source: ESRI 2021.

Figure 1

Regional Location

Warmington Vista 145 Hannalei Residential Project

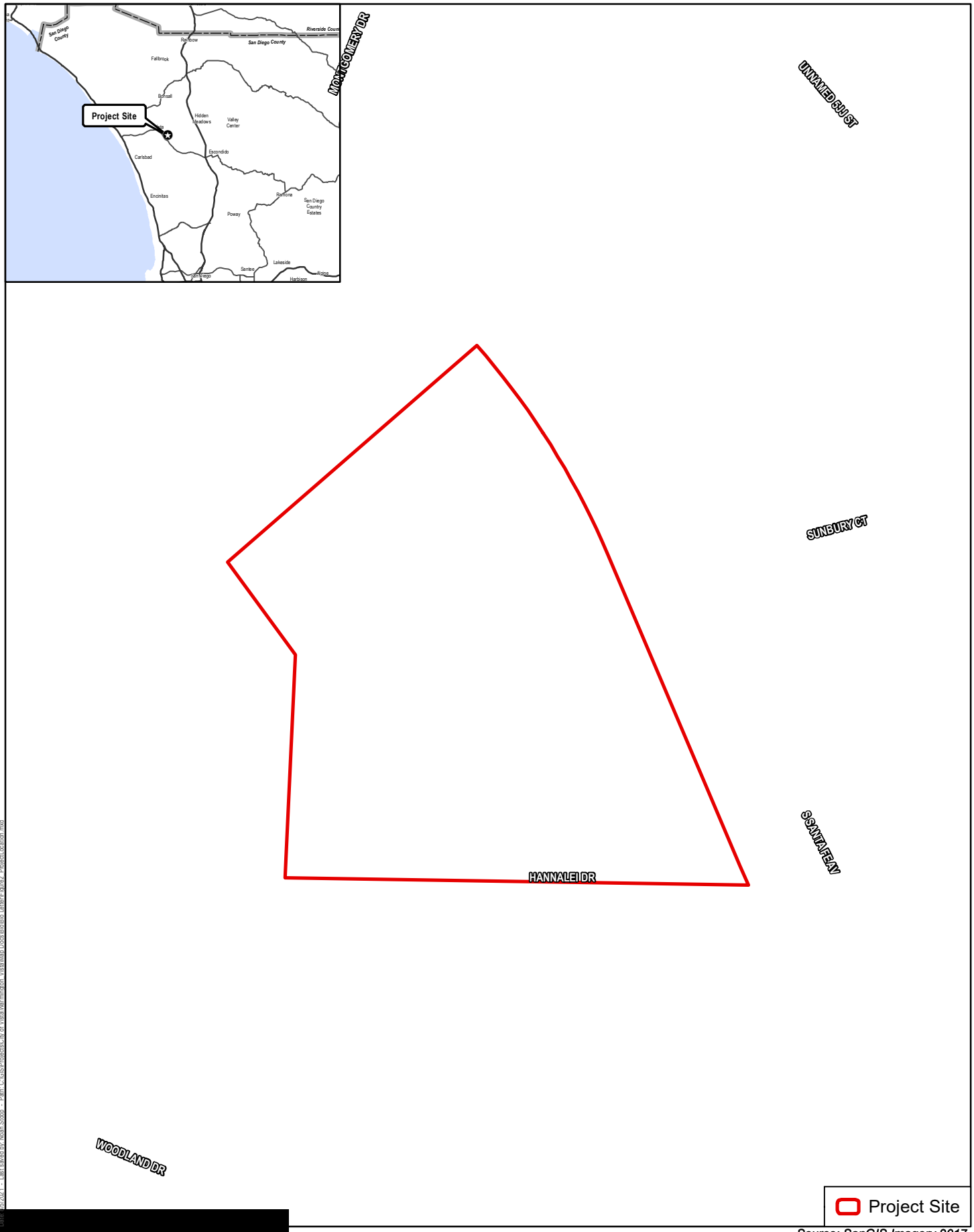
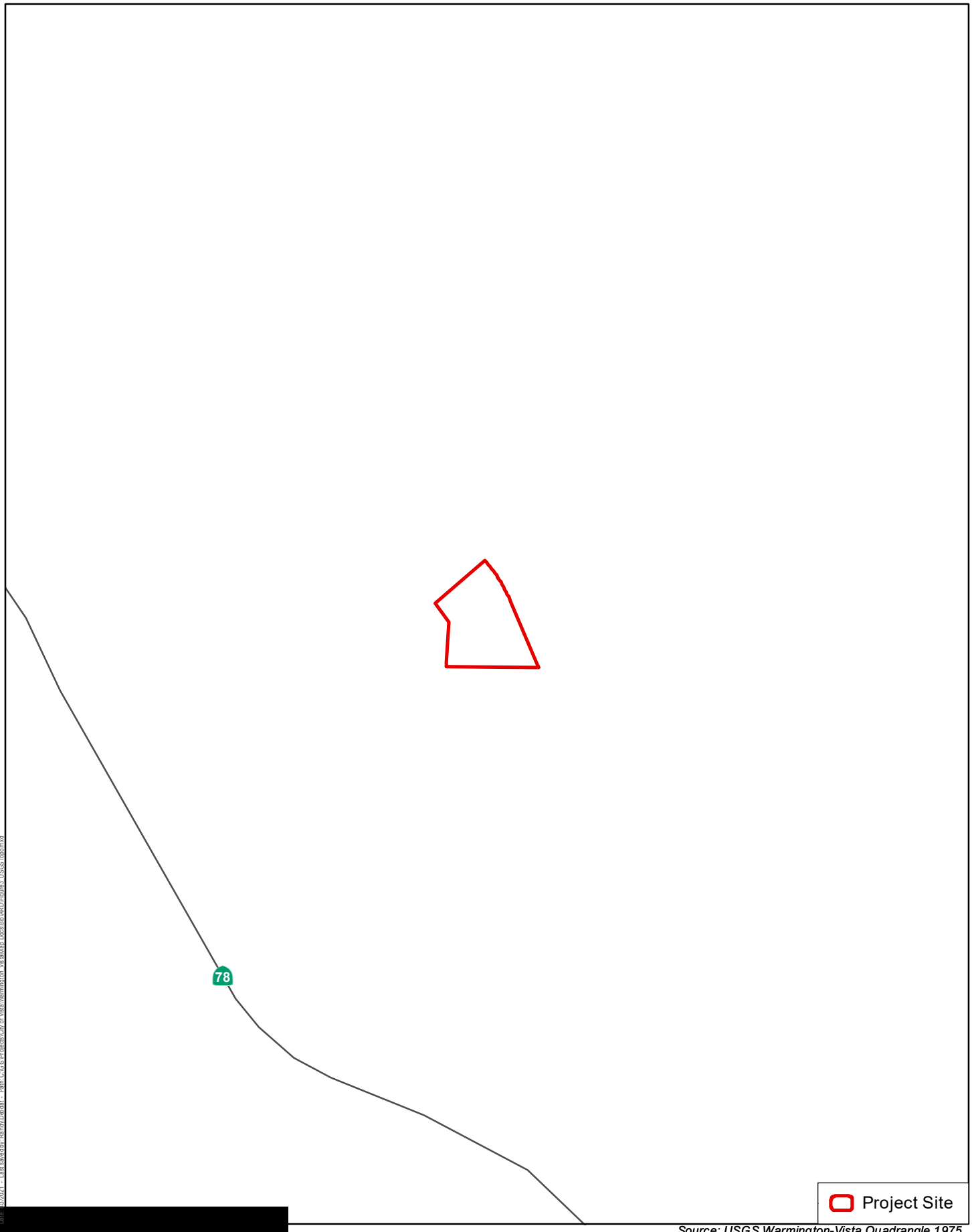


Figure 2

Project Location

Warmington Vista 145 Hannalei Residential Project

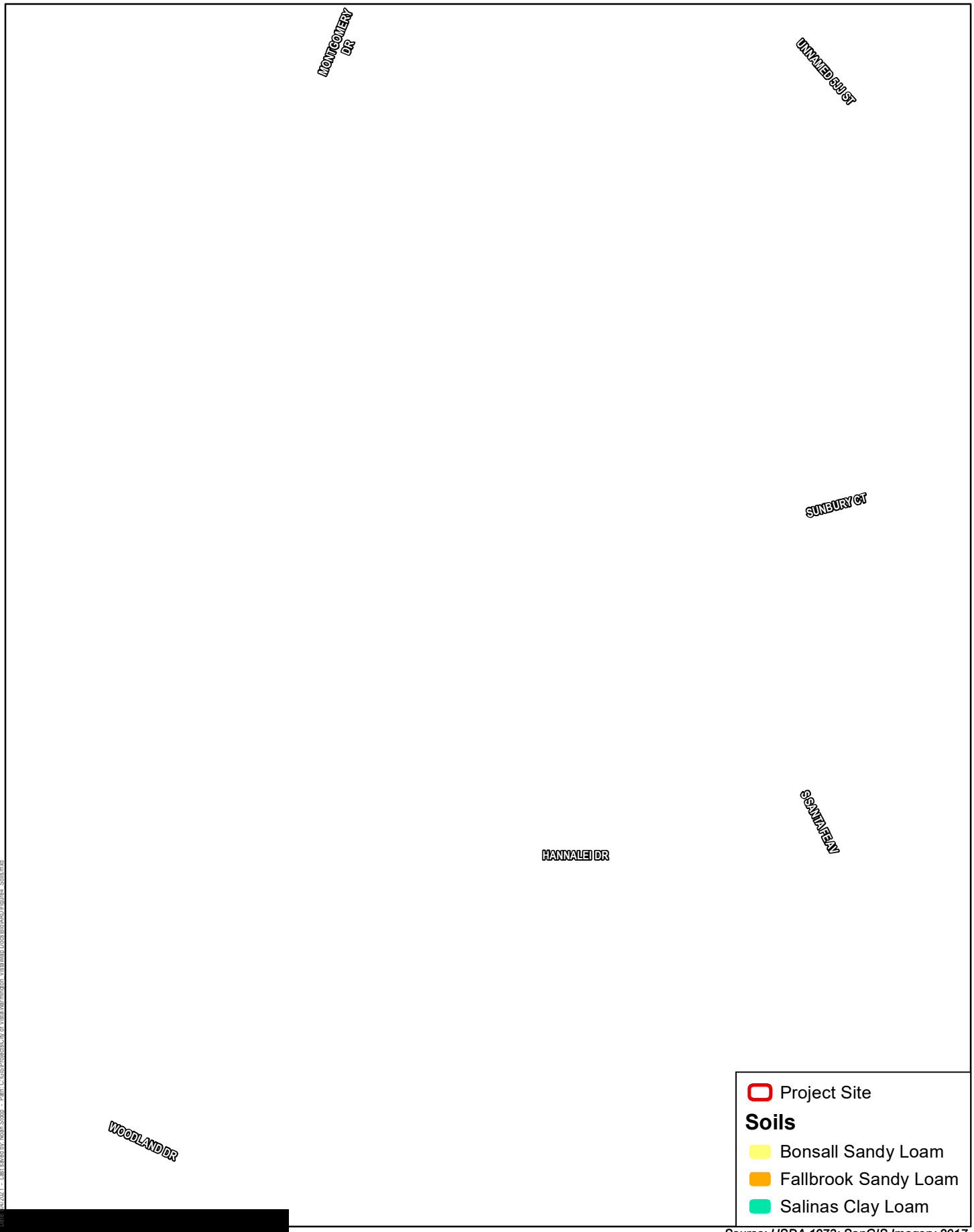


Source: USGS Warmington-Vista Quadrangle 1975.

Figure 3

USGS Topographic Map

Warmington Vista 145 Hannalei Residential Project



Source: USDA 1973; SanGIS Imagery 2017.

Figure 4

Soils

Warmington Vista 145 Hannalei Residential Project

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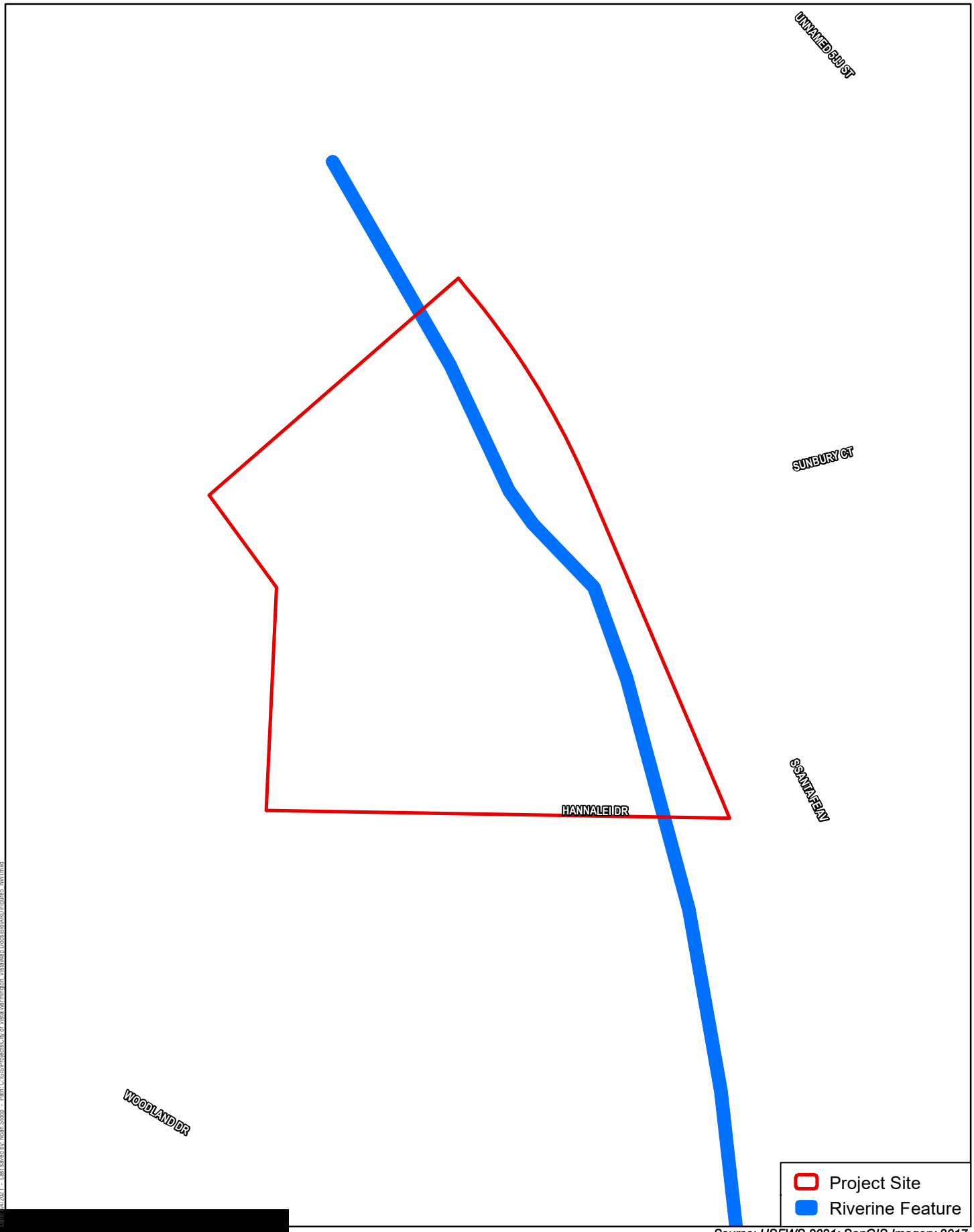
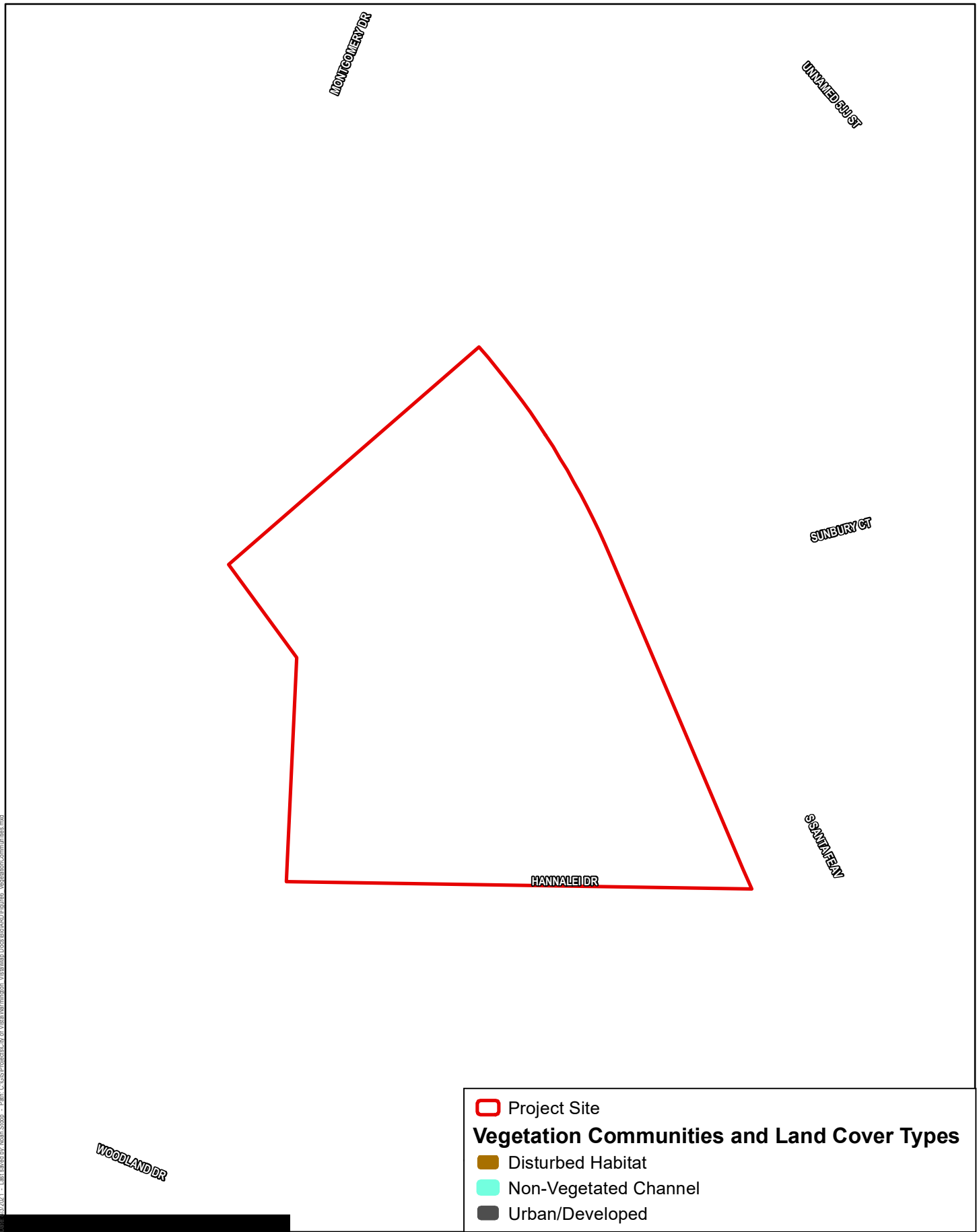


Source: USFWS 2021; SanGIS Imagery 2017.

Figure 5

National Wetlands Inventory Results

Warmington Vista 145 Hannalei Residential Project

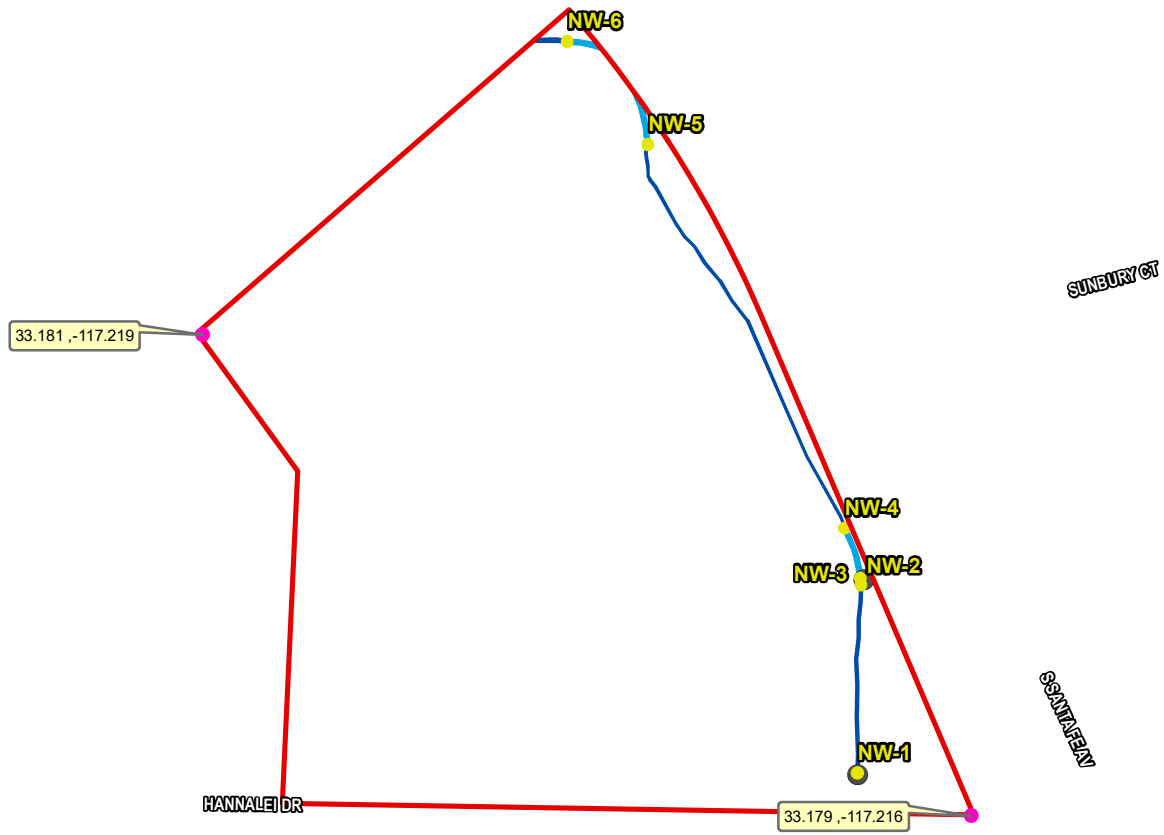


Source: SanGIS Imagery 2017.

Figure 6

Vegetation Communities

Warmington Vista 145 Hannalei Residential Project



[redacted]

Aquatic Resources for the Warmington Vista 145 Hannalei Residential Project

Legend

- Project Site
- Non-Wetland Sampling Points
- Reference Points
- Culverts

Non-Wetland Waters

- Concrete Channel (0.01 acre) (144 ft)
- Earthen Channel (0.02 acre) (696 ft)

N

0 100 200

Feet

Coordinate System: NAD 1983 California State Plane Zone 6
Projection: Lambert Conformal Conic
Datum: North American 1983
Vertical Datum: No Coordinate System
1 inch = 200 feet

Created on July 21st, 2021
Revised on August 3rd, 2021

Made in accordance with the Updated Map and Drawing Standards for the South Pacific Division Regulatory Program, as amended on February 10, 2016, by: Jason Deters, Project Manager Enforcement and Special Projects Unit U.S. Army Corps of Engineers South Pacific Division Sacramento District, Regulatory Division
1325 J Street, Room 1350
Sacramento, California 95814-2922

Date: 8/5/2021 - Last saved by: Noah Stoop - Path: C:\GIS\Projects\City of Vista\Warmington_Vista\Map Docs\BioA\RD\Figure7_AquaticResources.mxd

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Attachment B. Statement of Access

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Statement of Access

The Stonebrooke Church (property owner), allows U.S. Army Corps of Engineers (USACE) personnel to access the project site. The project site is accessible from Interstate 15 by taking exit 32 onto State Route 78 West. Travel 8.9 miles west, then take exit 8 onto Mar Vista Drive. Turn right onto Mar Vista Drive, then in 0.2 mile, turn right onto Avocado Drive, then in 0.3 mile, turn left onto Hannalei Drive, and turn left into the Stonebrooke Church parking lot. The project site is located at 145 Hannalei Drive, Vista, California, 92083 (see Attachment A, Figures; Figure 1, Regional Location, and Figure 2, Project Site).

Name, Title
Company
Department

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Attachment C. Antecedent Precipitation Tool and NRCS WETS Table Results

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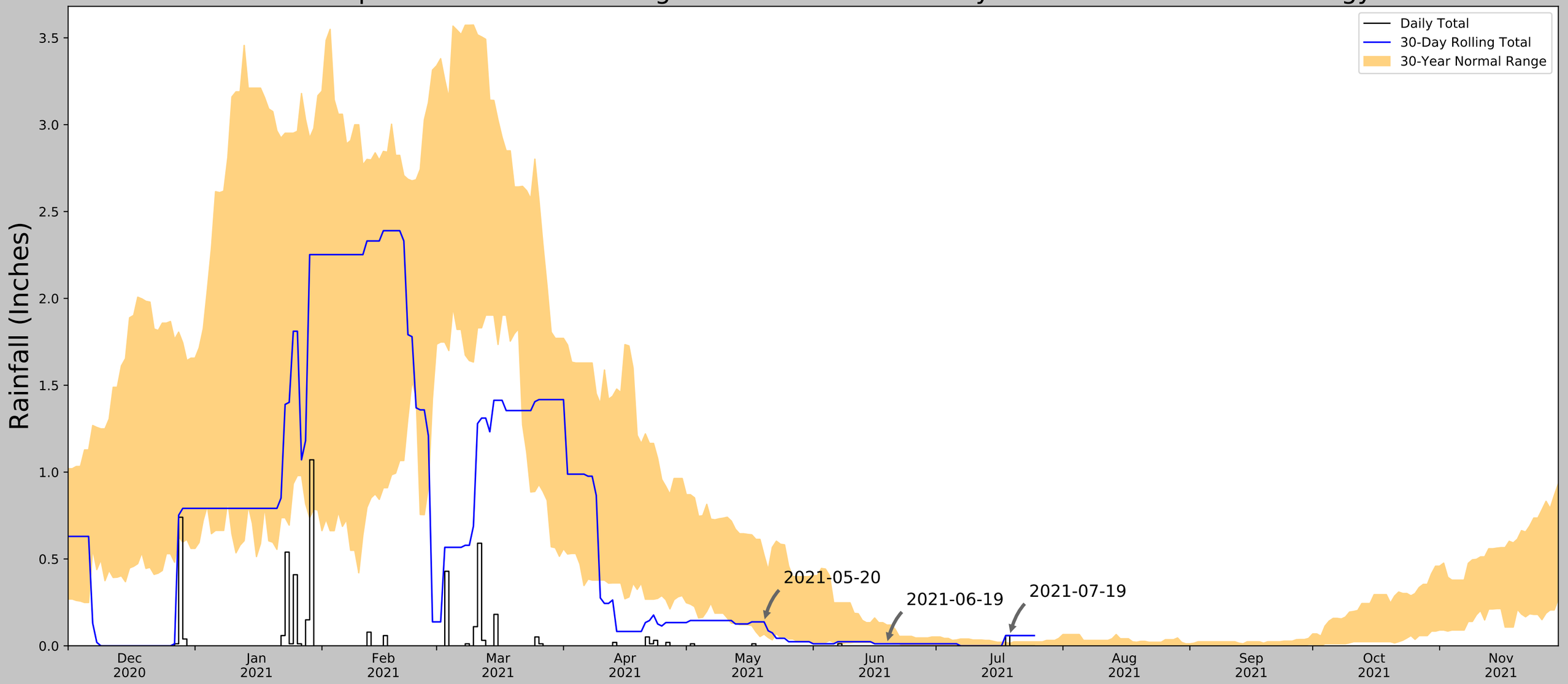
Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	33.179, -117.216
Observation Date	2021-07-19
Elevation (ft)	486.6
Drought Index (PDSI)	Extreme drought (2021-06)
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2021-07-19	0.0	0.014173	0.059055	Wet	3	3	9
2021-06-19	0.019685	0.119685	0.011811	Dry	1	2	2
2021-05-20	0.067323	0.522047	0.137795	Normal	2	1	2
Result							Normal Conditions - 13

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days (Normal)	Days (Antecedent)
CARLSBAD PALOMAR AP	33.1281, -117.2794	328.084	5.081	158.516	3.092	8215	90
VISTA 1.2SE	33.1862, -117.2311	504.921	1.005	18.321	0.471	2	0
VISTA	33.2353, -117.2322	430.118	4.001	56.482	2.026	2981	0
ESCONDIDO #2	33.1211, -117.09	600.066	8.315	113.466	4.685	153	0
SAN PASQUAL ANIMAL PK	33.0956, -116.9975	419.948	13.893	66.652	7.178	2	0

WETS Table

WETS Station: VISTA, CA								
Requested years: 2000 - 2020								
Month	Avg Max Temp	Avg Min Temp	Avg Mean Temp	Avg Precip	30% chance precip less than	30% chance precip more than	Avg number days precip 0.10 or more	Avg Snowfall
Jan	68.2	45.3	56.8	2.17	0.64	2.43	4	-
Feb	67.3	45.3	56.3	-	-	-	-	-
Mar	68.7	47.8	58.2	1.42	0.64	1.73	3	-
Apr	71.2	49.7	60.4	1.07	0.23	1.22	2	-
May	72.7	54.7	63.7	0.37	0.09	0.36	1	-
Jun	76.0	58.7	67.3	0.05	0.00	0.04	0	-
Jul	80.7	62.2	71.5	0.09	0.00	0.03	0	-
Aug	82.0	62.9	72.5	0.02	0.00	0.01	0	-
Sep	82.4	-	-	0.11	0.00	0.07	0	-
Oct	77.6	56.0	66.8	0.69	0.00	0.49	1	-
Nov	72.8	49.7	61.3	1.16	0.40	1.39	3	-
Dec	66.9	44.9	55.9	2.26	0.96	2.66	4	-
Annual:					-	-		
Average	73.9	-	-	-	-	-	-	-
Total	-	-	-	-			-	-

GROWING SEASON DATES			
Years with missing data:	24 deg = 7	28 deg = 7	32 deg = 6
Years with no occurrence:	24 deg = 14	28 deg = 14	32 deg = 12
Data years used:	24 deg = 14	28 deg = 14	32 deg = 15
Probability	24 F or higher	28 F or higher	32 F or higher
50 percent *	Insufficient data	Insufficient data	Insufficient data
70 percent *	Insufficient data	Insufficient data	Insufficient data
* Percent chance of the growing season occurring between the Beginning and Ending dates.			

STATS TABLE - total precipitation (inches)

Yr	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annl
1957								0.00	0.00	1.61	0.62	1.92	4.15
1958													
1959													
1960													
1961													
1962					0.38	0.30	0.00	0.00	0.00	T	0.00	0.08	0.76
1963	T	2.87	1.48	1.43	T	0.12	0.00	0.02	2.57	0.49	3.13	0.10	12.21
1964	2.57	0.35	1.80	0.37	0.19	0.02	0.00	0.00	0.00	0.32	1.77	1.06	8.45
1965	0.57	0.71	1.38	5.01	0.06	0.15	0.14	T	0.22	0.00	7.40	5.29	20.93
1966	1.32	1.50	0.43	T	0.02	T	0.00	0.00	0.15	0.38	1.56	5.98	11.34
1967	2.96	0.00	2.11	3.68	0.05	0.21	0.00	0.00	T	0.00	2.34	2.81	14.16
1968	0.60	0.36	3.15	0.84	0.23	0.12	0.05	0.00	0.00		0.43	1.13	6.91

1969	6.91	7.21	2.49	0.58	0.26	0.17	0.12	0.05	T	0.01	0.92	0.44	19.16
1970	1.02	1.89	1.96	0.23	T	0.00	T	0.00	0.00	0.05	2.71	2.92	10.78
1971	0.75	0.81	0.23	1.34	1.42	0.10	0.00	0.00	0.06	0.93	0.33	4.32	10.29
1972	0.00	0.29	0.00	0.40	0.30	0.60	0.00	T		0.72	3.19	1.77	7.27
1973	2.66	3.38	4.08	0.20	0.10	T	0.00	T	0.00		1.97	0.19	12.58
1974	4.91	0.24	2.33	0.33	0.18	0.00	0.00	0.00	0.00	1.59	0.26	2.35	12.19
1975	0.18	1.81	3.78	3.17	0.18	0.16	0.00	0.00	0.00	0.03	1.43	0.68	11.42
1976	0.00	4.68	1.98	1.36	T	0.37	0.12	0.00	1.89	0.02	0.50	1.06	11.98
1977	3.60	0.30	1.50	0.10	2.45	T	0.00	1.78	0.00	0.01	0.31	2.33	12.38
1978	9.08	4.87	6.84	1.52	0.05	0.00	0.00	0.05	1.14	T	2.66	2.15	28.36
1979	5.93	2.14	4.24	0.00	0.07	0.04	T	0.09	0.00	0.95	0.24	0.42	14.12
1980	10.40	9.13	4.01	0.75	0.33	T	0.01	0.00	0.00	0.39	0.00	0.74	25.76
1981	1.35	2.46	2.85	0.75	0.12	0.00	0.05	0.00	0.00	0.46	1.40	1.00	10.44
1982	M3.32	1.43	4.83	0.83	0.15	0.24	0.00	T	0.80	0.17	2.99	1.75	16.51
1983	2.57	3.00	8.28	2.57	0.22	0.05	0.00	0.20	0.46	0.96	2.66	3.27	24.24
1984	M0.32	0.03	0.03	0.61	0.00	0.04	0.05	0.16	0.05	M0.03	1.57	4.47	7.36
1985	0.83	1.34	0.76	0.30	T	0.04	T	0.00	0.78	0.21	5.46	1.45	11.17
1986	0.78	4.33	4.12	1.11	0.00	0.00	0.08	T	1.57	M0.65	1.33	1.53	15.50
1987	1.63	1.37	1.35	0.48	0.06		0.21	0.12	0.07	2.63		M2.75	10.67
1988	1.65	0.64	0.34	3.49	T	0.00	MT	0.40	0.00	0.00	1.23	3.12	10.87
1989	0.58	0.90	1.17	0.09	0.14	0.00	M0.00	0.00	0.42	0.34	0.16	T	3.80
1990	3.02	1.93	0.58	0.84	0.67	0.66	T	0.16	0.05		0.50	0.29	8.70
1991	0.85	3.84	7.67	0.02	0.01	0.00	0.09	T	0.01	0.56	0.10	1.62	14.77
1992	2.81	4.59	4.26	0.08	0.22	0.00	0.07	0.34	0.00	0.45	0.02	2.89	15.73
1993	12.29	5.09	1.22	0.00		0.59	0.02	0.00	0.00	0.09	1.02	0.89	21.21
1994	1.43	2.99	3.12	0.95	0.07	0.00	0.03	T	T	0.09	0.81	0.63	10.12
1995	9.29	1.30	8.41	1.64	0.54	0.48	0.10	0.00	0.00	T	0.03	0.29	22.08
1996	1.58	2.78	1.88	0.67	0.11	0.00	T	0.00	T	0.91	2.75	1.64	12.32
1997	6.17	0.68	0.00	0.28	0.00	0.04	0.64	0.07	1.11	T	2.20	1.37	12.56
1998	M2.82	M11.04	M3.08		M2.04	0.16	0.10	0.00	0.32	0.14	1.23	0.69	21.62
1999	1.74	M0.85	0.98	1.41	0.00	0.37	0.02	0.00	T	0.00	T	M0.07	5.44
2000	0.63	3.44	M0.91	0.90	0.13	0.00	0.00	0.01	0.13	1.23	M0.20	M0.04	7.62
2001	3.10	4.78	1.33	1.50	0.25	0.00	0.00	0.00	0.00	0.00	1.22	1.12	13.30
2002	0.23	M0.17	0.73	0.57	0.05	0.02	T	0.00	0.28	0.02	1.93	2.07	6.07

2003	0.04	5.42	1.90	2.05	0.30	0.20	T	0.02	0.00	T	0.74	0.87	11.54
2004	M0.00	M3.93	0.34	0.58	0.00	0.08	0.00	0.00	0.00	5.63	M1.48	2.93	14.97
2005	7.46	M7.02	M1.14	0.80	0.03	T	M0.00	0.00	0.15	0.89	M0.03	M0.23	17.75
2006	M1.03	M1.27	M2.48	M1.75	0.57	0.01	0.03	0.05	0.00	0.50	0.03	M0.75	8.47
2007	1.86	2.47	0.23	0.69	0.02	0.00	0.00	0.05	M0.07	0.03	2.04	2.56	10.02
2008	M3.88	2.25	0.10	0.01	0.36	0.00	0.00	0.00	0.00	M0.00	M1.49	3.60	11.69
2009	M0.19	2.89	0.16	0.03	0.10	M0.01	0.00	0.00	0.00	0.04	0.32	2.46	6.20
2010	M5.23	3.40	0.51	2.66	0.00	0.00	0.42	0.00	0.03	M1.54	M0.88	8.12	22.79
2011	M1.91	M2.52	2.64	M1.12	M1.00	M0.00	0.03	0.00	M0.02	1.85	M2.31	0.82	14.22
2012	M0.95	M1.63	1.78	M1.47	0.08	M0.00	0.01	0.01	0.02	0.54	0.53	3.06	10.08
2013	1.54	0.69	1.52	0.05	0.88	0.00	0.01	0.00	0.00	1.26	1.07	0.44	7.46
2014	0.11	1.24	1.20	0.52	0.00	0.00	0.00	0.18	0.00	0.00	0.74	3.66	7.65
2015	0.54	0.50	1.44	0.24	1.22	0.23	1.14	0.00	1.26	0.58	1.12	1.73	10.00
2016	2.69	0.67	1.80	0.47	0.26	0.00	0.00	0.00	0.14	0.04	1.74	4.29	12.10
2017	6.80	5.98	0.19	0.03	1.60	0.02	0.03	0.02	0.04	0.00	0.02	0.00	14.73
2018	3.19	0.54	2.51	0.05	0.32	0.00	0.25	0.00	0.00	1.05	1.41	2.69	12.01
2019	3.20	8.77	1.76	0.49	1.30	0.13	0.03	0.00	0.04	0.00	4.36	4.57	24.65
2020	0.64	0.78	5.16	6.58	0.01	0.36	0.00	0.00	0.00	0.17	0.71	1.40	15.81
2021	3.05	0.11	2.34	0.11	0.10	0.03	M0.25						5.99

Notes: Data missing in any month have an "M" flag. A "T" indicates a trace of precipitation.

Data missing for all days in a month or year is blank.

Creation date: 2021-07-28

Attachment D. Arid West Wetland Determination and Ordinary High Water Mark Datasheets

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Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Warmington 145 Hannalei Residential
Project Number:
Stream: unnamed Channel 1
Investigator(s): Katie Laybourn, Emily Mastrelli

Date: 7/19/2021
Town: Vista
Photo begin file#:

Time: 9:00am
State: CA
Photo end file#:

Y [X] / N [ ] Do normal circumstances exist on the site?

Y [X] / N [ ] Is the site significantly disturbed?

Location Details: 145 Hannalei Drive (APN 183-060-8400)

Projection: **Datum:** NAD83
Coordinates: 33.179, -117.216

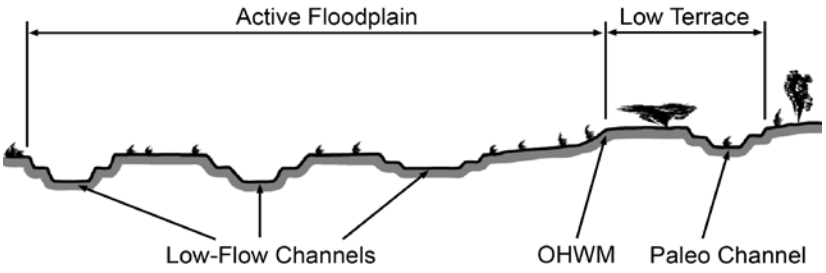
Potential anthropogenic influences on the channel system:
Evidence that the channel was historically modified by diverting the flows along the eastern boundary of the site, concrete-lining of two portions of the channel, and installation of two concrete culverts in the central and southern extents of the channel as a result of development of the baseball fields and associated facilities.

Brief site description:
The majority of the project site is developed, and the northwestern undeveloped portion of the property has historically been disturbed with mowing and other mechanical disturbances. Existing development on the project site includes the Stonebrooke Church, a parking lot, three baseball fields, a snack shack, and covered seating for the baseball field.

Checklist of resources (if available):

- [X] Aerial photography
  Dates:
- [X] Topographic maps
- [ ] Geologic maps
- [X] Vegetation maps
- [X] Soils maps
- [ ] Rainfall/precipitation maps
- [ ] Existing delineation(s) for site
- [X] Global positioning system (GPS)
- [ ] Other studies
- [ ] Stream gage data
  Gage number:
  Period of record:
- [ ] History of recent effective discharges
- [ ] Results of flood frequency analysis
- [ ] Most recent shift-adjusted rating
- [ ] Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

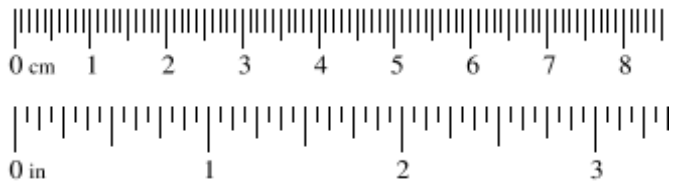


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - [ ] Mapping on aerial photograph
   - [X] GPS
   - [ ] Digitized on computer
   - [ ] Other:

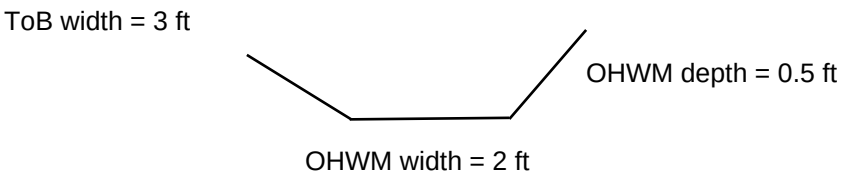
Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	
		Cobble	Gravel
2.56	64	Pebble	
0.157	4	Granule	
0.079	2.00	Very coarse sand	
0.039	1.00	Coarse sand	
0.020	0.50	Medium sand	Sand
1/2 0.0098	0.25	Fine sand	
1/4 0.005	0.125	Very fine sand	
1/8 0.0025	0.0625	Coarse silt	
1/16 0.0012	0.031	Medium silt	
1/32 0.00061	0.0156	Fine silt	Silt
1/64 0.00031	0.0078	Very fine silt	
1/128 0.00015	0.0039	Clay	Mud



Warmington
145 Hannalei
Project ID: Residential **Cross section ID:** NW-1 **Date:** 7/19/2021 **Time:** 9:00am

Cross section drawing:



OHWM

GPS point: NW-1

Indicators:

- ☐ Change in average sediment texture
- ☒ Change in vegetation species
- ☒ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

NW-1 was taken in the southern extent of Channel 1 where the channel enters an approximately 5-foot diameter concrete culvert that runs south under Hannalei Drive.

Floodplain unit: ☒ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: NW-1

Characteristics of the floodplain unit:

Average sediment texture: clay loam

Total veg cover: 80 % Tree: 0 % Shrub: 60 % Herb: 20 %

Community successional stage:

- ☐ NA
- ☒ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Warmington 145 Hannalei Residential
Project Number:
Stream: unnamed Channel 1
Investigator(s): Katie Laybourn, Emily Mastrelli

Date: 7/19/2021
Town: Vista
Photo begin file#:

Time: 9:15am
State: CA
Photo end file#:

Y [X] / N [ ] Do normal circumstances exist on the site?

Y [X] / N [ ] Is the site significantly disturbed?

Location Details: 145 Hannalei Drive (APN 183-060-8400)

Projection: **Datum:** NAD83
Coordinates: 33.179, -117.216

Potential anthropogenic influences on the channel system:
Evidence that the channel was historically modified by diverting the flows along the eastern boundary of the site, concrete-lining of two portions of the channel, and installation of two concrete culverts in the central and southern extents of the channel as a result of development of the baseball fields and associated facilities.

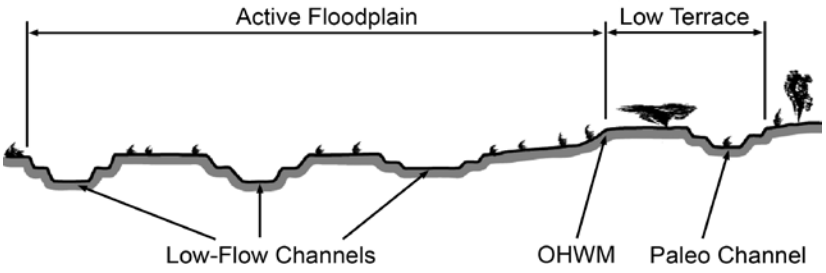
Brief site description:
The majority of the project site is developed, and the northwestern undeveloped portion of the property has historically been disturbed with mowing and other mechanical disturbances. Existing development on the project site includes the Stonebrooke Church, a parking lot, three baseball fields, a snack shack, and covered seating for the baseball field.

Checklist of resources (if available):

- [X] Aerial photography
  Dates:
- [X] Topographic maps
- [ ] Geologic maps
- [X] Vegetation maps
- [X] Soils maps
- [ ] Rainfall/precipitation maps
- [ ] Existing delineation(s) for site
- [X] Global positioning system (GPS)
- [ ] Other studies

- [ ] Stream gage data
  Gage number:
  Period of record:
- [ ] History of recent effective discharges
- [ ] Results of flood frequency analysis
- [ ] Most recent shift-adjusted rating
- [ ] Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

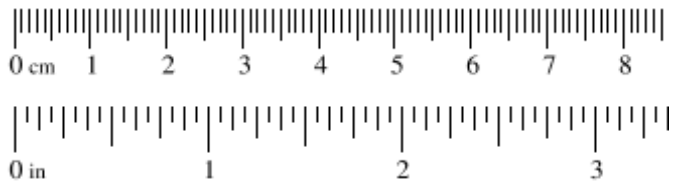


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - [ ] Mapping on aerial photograph
   - [X] GPS
   - [ ] Digitized on computer
   - [ ] Other:

Wentworth Size Classes

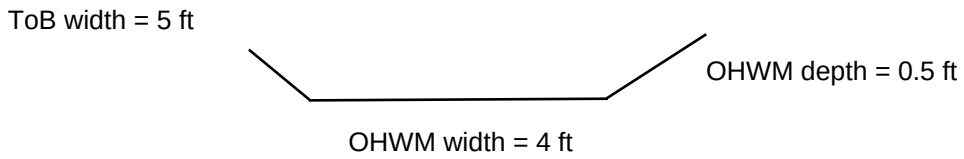
Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	
		Cobble	Gravel
2.56	64	Pebble	
0.157	4	Granule	
0.079	2.00	Very coarse sand	
0.039	1.00	Coarse sand	
0.020	0.50	Medium sand	Sand
1/2 0.0098	0.25	Fine sand	
1/4 0.005	0.125	Very fine sand	
1/8 0.0025	0.0625	Coarse silt	
1/16 0.0012	0.031	Medium silt	
1/32 0.00061	0.0156	Fine silt	Silt
1/64 0.00031	0.0078	Very fine silt	
1/128 0.00015	0.0039	Clay	Mud



Warmington
145 Hannalei

Project ID: Residential **Cross section ID:** NW-2 **Date:** 7/19/2021 **Time:** 9:15am

Cross section drawing:



OHWM

GPS point: NW-2

Indicators:

- ☐ Change in average sediment texture
- ☒ Change in vegetation species
- ☒ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

NW-2 was taken directly south of an approximately 3-foot diameter concrete culvert that runs east under the train transportation corridor east of the project site.

Medium-sized concrete and rock rip rap in the center of the channel in front of the concrete culvert.

Floodplain unit: ☒ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: NW-2

Characteristics of the floodplain unit:

Average sediment texture: clay loam

Total veg cover: 25 % Tree: 0 % Shrub: 10 % Herb: 15 %

Community successional stage:

- ☐ NA
- ☒ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Warmington 145 Hannalei Residential
Project Number:
Stream: unnamed Channel 1
Investigator(s): Katie Laybourn, Emily Mastrelli

Date: 7/19/2021
Town: Vista
Photo begin file#:

Time: 9:30am
State: CA
Photo end file#:

Y [X] / N [ ] Do normal circumstances exist on the site?

Y [X] / N [ ] Is the site significantly disturbed?

Location Details: 145 Hannalei Drive (APN 183-060-8400)

Projection: **Datum:** NAD83
Coordinates: 33.179, -117.216

Potential anthropogenic influences on the channel system:
Evidence that the channel was historically modified by diverting the flows along the eastern boundary of the site, concrete-lining of two portions of the channel, and installation of two concrete culverts in the central and southern extents of the channel as a result of development of the baseball fields and associated facilities.

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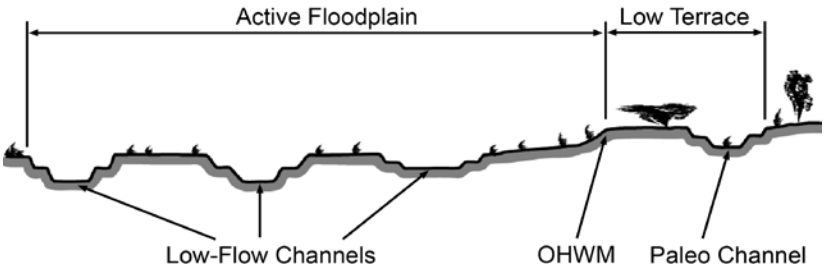
Checklist of resources (if available):

- [X] Aerial photography
  Dates:
- [X] Topographic maps
- [ ] Geologic maps
- [X] Vegetation maps
- [X] Soils maps
- [ ] Rainfall/precipitation maps
- [ ] Existing delineation(s) for site
- [X] Global positioning system (GPS)
- [ ] Other studies

- [ ] Stream gage data
  Gage number:
  Period of record:
- [ ] History of recent effective discharges
- [ ] Results of flood frequency analysis
- [ ] Most recent shift-adjusted rating
- [ ] Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units



Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

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   - [ ] Mapping on aerial photograph
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   - [ ] Digitized on computer
   - [ ] Other:

Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class	
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		Cobble	Gravel
2.56	64	Pebble	
0.157	4	Granule	
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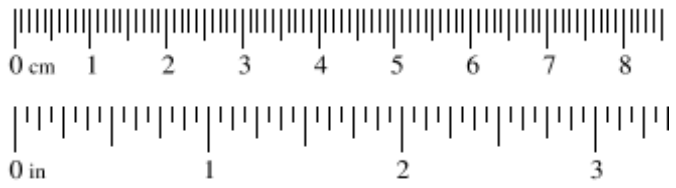
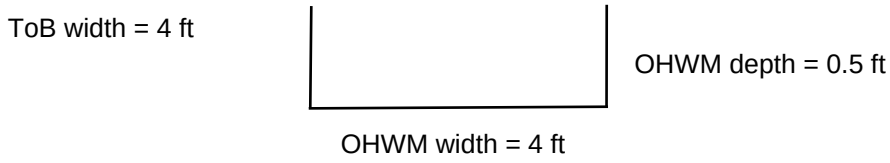
0.039	1.00	Coarse sand	
0.020	0.50	Medium sand	Sand
1/2 0.0098	0.25	Fine sand	
1/4 0.005	0.125	Very fine sand	
1/8 0.0025	0.0625	Coarse silt	
1/16 0.0012	0.031	Medium silt	
1/32 0.00061	0.0156	Fine silt	Silt
1/64 0.00031	0.0078	Very fine silt	
1/128 0.00015	0.0039	Clay	Mud



Warmington
145 Hannalei

Project ID: Residential **Cross section ID:** NW-3 **Date:** 7/19/2021 **Time:** 9:30am

Cross section drawing:



OHWM

GPS point: NW-3

Indicators:

- ☐ Change in average sediment texture
- ☒ Change in vegetation species
- ☒ Change in vegetation cover
- ☒ Break in bank slope
- ☒ Other: concrete-lined channel
- ☐ Other: _____

Comments:

NW-3 was taken directly west of an approximately 3-foot diameter concrete culvert that runs east under the train transportation corridor east of the project site.

Floodplain unit: ☒ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: NW-3

Characteristics of the floodplain unit:

Average sediment texture: clay loam

Total veg cover: 25 % Tree: 0 % Shrub: 20 % Herb: 5 %

Community successional stage:

- ☐ NA
- ☒ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☒ Other: concrete-lined channel
- ☐ Other: _____
- ☐ Other: _____

Comments:

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Warmington 145 Hannalei Residential
Project Number:
Stream: unnamed Channel 1
Investigator(s): Katie Laybourn, Emily Mastrelli

Date: 7/19/2021
Town: Vista
Photo begin file#:

Time: 9:45am
State: CA
Photo end file#:

Y [X] / N [ ] Do normal circumstances exist on the site?

Y [X] / N [ ] Is the site significantly disturbed?

Location Details: 145 Hannalei Drive (APN 183-060-8400)

Projection: **Datum:** NAD83
Coordinates: 33.179, -117.216

Potential anthropogenic influences on the channel system:
Evidence that the channel was historically modified by diverting the flows along the eastern boundary of the site, concrete-lining of two portions of the channel, and installation of two concrete culverts in the central and southern extents of the channel as a result of development of the baseball fields and associated facilities.

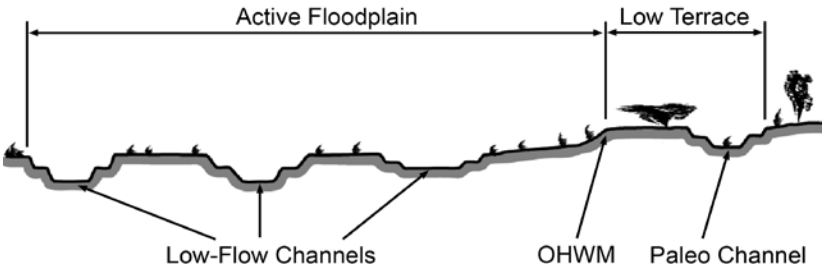
Brief site description:
The majority of the project site is developed, and the northwestern undeveloped portion of the property has historically been disturbed with mowing and other mechanical disturbances. Existing development on the project site includes the Stonebrooke Church, a parking lot, three baseball fields, a snack shack, and covered seating for the baseball field.

Checklist of resources (if available):

- [X] Aerial photography
  Dates:
- [X] Topographic maps
- [ ] Geologic maps
- [X] Vegetation maps
- [X] Soils maps
- [ ] Rainfall/precipitation maps
- [ ] Existing delineation(s) for site
- [X] Global positioning system (GPS)
- [ ] Other studies

- [ ] Stream gage data
  Gage number:
  Period of record:
- [ ] History of recent effective discharges
- [ ] Results of flood frequency analysis
- [ ] Most recent shift-adjusted rating
- [ ] Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

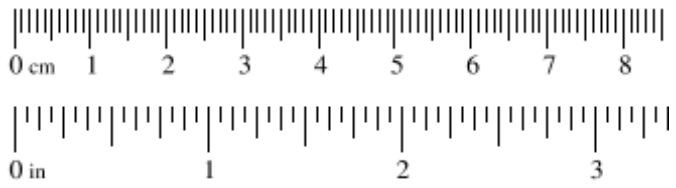


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - [ ] Mapping on aerial photograph
   - [X] GPS
   - [ ] Digitized on computer
   - [ ] Other:

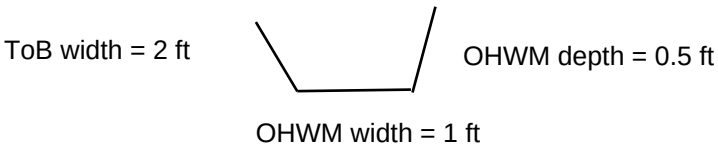
Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	
		Cobble	Gravel
2.56	64	Pebble	
0.157	4	Granule	
0.079	2.00	Very coarse sand	
0.039	1.00	Coarse sand	
0.020	0.50	Medium sand	Sand
1/2 0.0098	0.25	Fine sand	
1/4 0.005	0.125	Very fine sand	
1/8 0.0025	0.0625	Coarse silt	
1/16 0.0012	0.031	Medium silt	
1/32 0.00061	0.0156	Fine silt	Silt
1/64 0.00031	0.0078	Very fine silt	
1/128 0.00015	0.0039	Clay	Mud



Warmington
145 Hannalei
Project ID: Residential **Cross section ID:** NW-4 **Date:** 7/19/2021 **Time:** 9:45am

Cross section drawing:



OHWM

GPS point: NW-4

Indicators:

- ☐ Change in average sediment texture
- ☒ Change in vegetation species
- ☒ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

NW-4 was taken where the concrete-lined channel ends and the earthen-bottom channel begins. Erosion and bank incising observed.

Floodplain unit: ☒ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: NW-4

Characteristics of the floodplain unit:

Average sediment texture: sandy loam

Total veg cover: 35 % Tree: 0 % Shrub: 20 % Herb: 15 %

Community successional stage:

- ☐ NA
- ☒ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Warmington 145 Hannalei Residential
Project Number:
Stream: unnamed Channel 1
Investigator(s): Katie Laybourn, Emily Mastrelli

Date: 7/19/2021
Town: Vista
Photo begin file#:

Time: 10:00am
State: CA
Photo end file#:

Y [X] / N [ ] Do normal circumstances exist on the site?

Y [X] / N [ ] Is the site significantly disturbed?

Location Details: 145 Hannalei Drive (APN 183-060-8400)

Projection: **Datum:** NAD83
Coordinates: 33.179, -117.216

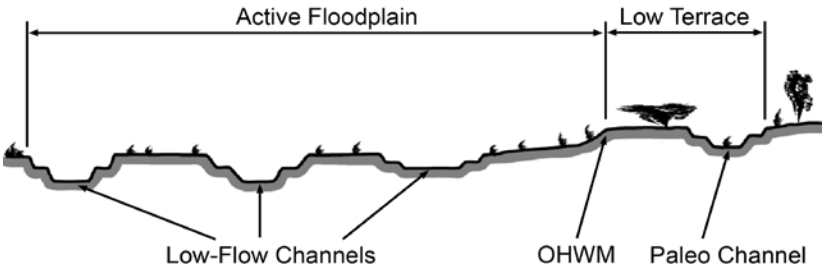
Potential anthropogenic influences on the channel system:
Evidence that the channel was historically modified by diverting the flows along the eastern boundary of the site, concrete-lining of two portions of the channel, and installation of two concrete culverts in the central and southern extents of the channel as a result of development of the baseball fields and associated facilities.

Brief site description:
The majority of the project site is developed, and the northwestern undeveloped portion of the property has historically been disturbed with mowing and other mechanical disturbances. Existing development on the project site includes the Stonebrooke Church, a parking lot, three baseball fields, a snack shack, and covered seating for the baseball field.

Checklist of resources (if available):

- [X] Aerial photography
  Dates:
- [X] Topographic maps
- [ ] Geologic maps
- [X] Vegetation maps
- [X] Soils maps
- [ ] Rainfall/precipitation maps
- [ ] Existing delineation(s) for site
- [X] Global positioning system (GPS)
- [ ] Other studies
- [ ] Stream gage data
  Gage number:
  Period of record:
- [ ] History of recent effective discharges
- [ ] Results of flood frequency analysis
- [ ] Most recent shift-adjusted rating
- [ ] Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

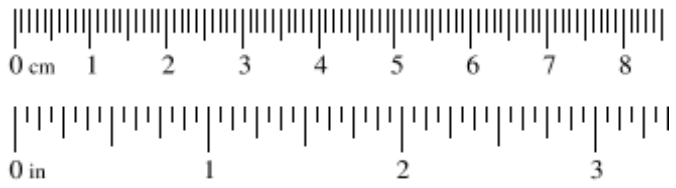


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - [ ] Mapping on aerial photograph
   - [X] GPS
   - [ ] Digitized on computer
   - [ ] Other:

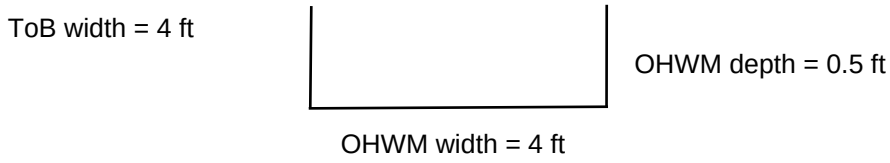
Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	
		Cobble	Gravel
2.56	64	Pebble	
0.157	4	Granule	
0.079	2.00	Very coarse sand	
0.039	1.00	Coarse sand	
0.020	0.50	Medium sand	Sand
1/2 0.0098	0.25	Fine sand	
1/4 0.005	0.125	Very fine sand	
1/8 0.0025	0.0625	Coarse silt	
1/16 0.0012	0.031	Medium silt	
1/32 0.00061	0.0156	Fine silt	Silt
1/64 0.00031	0.0078	Very fine silt	
1/128 0.00015	0.0039	Clay	Mud



Warmington
145 Hannalei
Project ID: Residential **Cross section ID:** NW-5 **Date:** 7/19/2021 **Time:** 10:00am

Cross section drawing:



OHWM

GPS point: NW-5

Indicators:

- ☐ Change in average sediment texture
- ☒ Change in vegetation species
- ☒ Change in vegetation cover
- ☒ Break in bank slope
- ☒ Other: concrete-lined channel
- ☐ Other: _____

Comments:

NW-5 was taken where the earthen-bottom channel ended and became concrete-lined .

Floodplain unit: ☒ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: NW-5

Characteristics of the floodplain unit:

Average sediment texture: sandy loam

Total veg cover: 65 % Tree: 0 % Shrub: 60 % Herb: 5 %

Community successional stage:

- ☐ NA
- ☒ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☒ Other: concrete-lined channel
- ☐ Other: _____
- ☐ Other: _____

Comments:

Arid West Ephemeral and Intermittent Streams OHWM Datasheet

Project: Warmington 145 Hannalei Residential
Project Number:
Stream: unnamed Channel 1
Investigator(s): Katie Laybourn, Emily Mastrelli

Date: 7/19/2021
Town: Vista
Photo begin file#:

Time: 10:15am
State: CA
Photo end file#:

Y [X] / N [ ] Do normal circumstances exist on the site?

Y [X] / N [ ] Is the site significantly disturbed?

Location Details: 145 Hannalei Drive (APN 183-060-8400)

Projection: **Datum:** NAD83
Coordinates: 33.179, -117.216

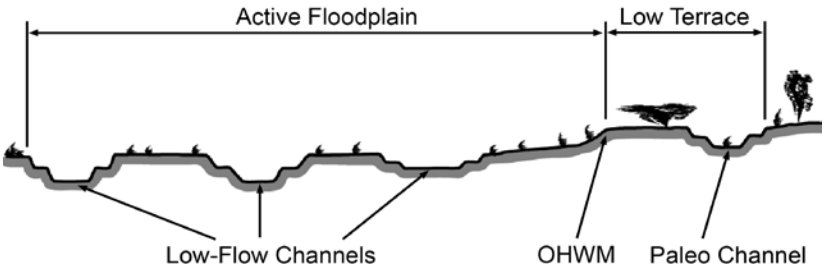
Potential anthropogenic influences on the channel system:
Evidence that the channel was historically modified by diverting the flows along the eastern boundary of the site, concrete-lining of two portions of the channel, and installation of two concrete culverts in the central and southern extents of the channel as a result of development of the baseball fields and associated facilities.

Brief site description:
The majority of the project site is developed, and the northwestern undeveloped portion of the property has historically been disturbed with mowing and other mechanical disturbances. Existing development on the project site includes the Stonebrooke Church, a parking lot, three baseball fields, a snack shack, and covered seating for the baseball field.

Checklist of resources (if available):

- [X] Aerial photography
  Dates:
- [X] Topographic maps
- [ ] Geologic maps
- [X] Vegetation maps
- [X] Soils maps
- [ ] Rainfall/precipitation maps
- [ ] Existing delineation(s) for site
- [X] Global positioning system (GPS)
- [ ] Other studies
- [ ] Stream gage data
  Gage number:
  Period of record:
- [ ] History of recent effective discharges
- [ ] Results of flood frequency analysis
- [ ] Most recent shift-adjusted rating
- [ ] Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event

Hydrogeomorphic Floodplain Units

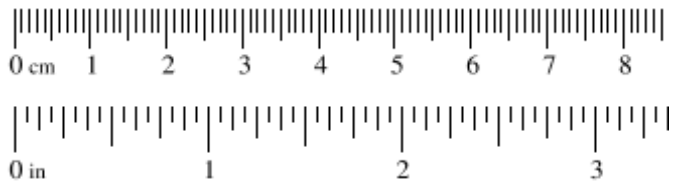


Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWM:

1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site.
2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units.
3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units.
   a) Record the floodplain unit and GPS position.
   b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit.
   c) Identify any indicators present at the location.
4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section.
5. Identify the OHWM and record the indicators. Record the OHWM position via:
   - [ ] Mapping on aerial photograph
   - [X] GPS
   - [ ] Digitized on computer
   - [ ] Other:

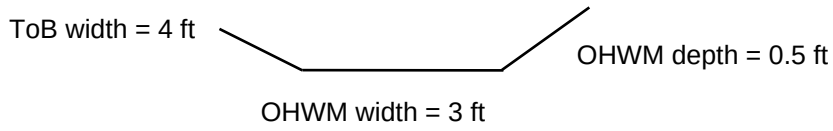
Wentworth Size Classes

Inches (in)	Millimeters (mm)	Wentworth size class	
10.08	256	Boulder	
		Cobble	Gravel
2.56	64	Pebble	
0.157	4	Granule	
0.079	2.00	Very coarse sand	
0.039	1.00	Coarse sand	
0.020	0.50	Medium sand	Sand
1/2 0.0098	0.25	Fine sand	
1/4 0.005	0.125	Very fine sand	
1/8 0.0025	0.0625	Coarse silt	
1/16 0.0012	0.031	Medium silt	
1/32 0.00061	0.0156	Fine silt	Silt
1/64 0.00031	0.0078	Very fine silt	
1/128 0.00015	0.0039	Clay	Mud



Warmington
145 Hannalei
Project ID: Residential **Cross section ID:** NW-6 **Date:** 7/19/2021 **Time:** 10:15am

Cross section drawing:



OHWM

GPS point: NW-6

Indicators:

- ☐ Change in average sediment texture
- ☒ Change in vegetation species
- ☒ Change in vegetation cover
- ☒ Break in bank slope
- ☐ Other: _____
- ☐ Other: _____

Comments:

NW-4 was taken where the concrete-lined channel ends and the earthen-bottom channel begins. Sandbags were observed on the southern side of the channel likely to prevent erosion and flooding into the baseball field to the south.

Floodplain unit: ☒ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: NW-6

Characteristics of the floodplain unit:

Average sediment texture: sandy loam

Total veg cover: 15 % Tree: 0 % Shrub: 5 % Herb: 10 %

Community successional stage:

- ☐ NA
- ☒ Early (herbaceous & seedlings)
- ☐ Mid (herbaceous, shrubs, saplings)
- ☐ Late (herbaceous, shrubs, mature trees)

Indicators:

- ☐ Mudcracks
- ☐ Ripples
- ☐ Drift and/or debris
- ☒ Presence of bed and bank
- ☐ Benches
- ☐ Soil development
- ☐ Surface relief
- ☐ Other: _____
- ☐ Other: _____
- ☐ Other: _____

Comments:

Attachment E. Photographic Log

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Source: SanGIS Imagery 2017.

Harris & Associates

N

0 100 200

Feet

Attachment E

Photographic Log

Warmington Vista 145 Hannalei Residential Project

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Channel 1

Photograph 1: (33.179, −117.216) North-facing view of the southern reach of the 2-foot-wide earthen-bottom channel on the southern portion of the project site. This photo shows where sampling point NW-1 was taken to determine the presence of OHWM indicators. This photo also shows the approximately 5-foot-diameter concrete culvert that runs south under Hannalei Drive.

Photograph 2: (33.179, −117.216) North-facing view of the 4-foot-wide earthen-bottom channel on the eastern edge of the project site. This photo shows where sampling point NW-2 was taken to determine the presence of OHWM indicators. This photo also shows the approximately 3-foot-diameter concrete culvert that runs east under the train transportation corridor east of the project site and the concrete and rock riprap in the center of the earthen-bottom channel.

Photograph 3: (33.179, −117.216) North-facing view of the 4-foot-wide concrete-lined portion of the channel on the eastern edge of the project site. This photo shows where sampling point NW-3 was taken to determine the presence of OHWM indicators. The approximately 3-foot-diameter concrete culvert that runs east under the train transportation corridor east of the project site is shown on the right side of the photo.

Photograph 4: (33.179, −117.216) Northwest-facing view of the 1-foot-wide earthen-bottom channel on the eastern edge of the project site. This photo shows where sampling point NW-4 was taken to determine the presence of OHWM indicators. This photo also shows the end of the concrete-lined portion of the channel that occurs south of sampling point NW-4.

Photograph 5: (33.179, −117.216) North-facing view of the 5-foot-wide concrete-lined portion of the channel on the northeastern edge of the project site. This photo shows where sampling point NW-5 was taken to determine the presence of OHWM indicators.

Photograph 6: (33.179, −117.216) West-facing view of the 3-foot-wide earthen-bottom channel on the northeastern edge of the project site. This photo shows where sampling point NW-6 was taken to determine the presence of OHWM indicators. This photo also shows the end of the concrete-lined portion of the channel that occurs south of sampling point NW-6.

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Attachment F. SDAM for the Arid West Forms

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Beta Arid West Streamflow Duration Assessment Method

General site information

Project name or number: Warmington 145 Hannalei Residential		
Site code or identifier:	Assessor(s): Katie Laybourn, Emily Mastrelli	
Waterway name: Unnamed Channel 1		Visit date: 7/19/2021
Current weather conditions (check one) ☐ Storm/heavy rain ☐ Steady rain ☐ Intermittent rain ☐ Snowing ☐ Cloudy (___ % cover) ■ Clear/Sunny	Notes on current or recent weather conditions (e.g., precipitation in previous week):	Coordinates at downstream end (decimal degrees): Lat (N): 33.179 Long (W): -117.216 Datum: NAD83
Surrounding land-use within 100 m (check one or two): ■ Urban/industrial/residential ☐ Agricultural (farmland, crops, vineyards, pasture) ☐ Developed open-space (e.g., golf course) ☐ Forested ☐ Other natural ☐ Other: _____	Describe reach boundaries: The extent of Channel 1 occurs along the eastern edge of the project site, between the baseball fields and the train transportation corridor east of the project site. Channel 1 is primarily an earthen-bottom channel, with two portions concrete-lined. Two concrete culverts occur within the channel, one in the center of the reach and one on the southern end of the reach.	
Mean channel width (m): 3ft (1m)	Reach length (m): 905 ft (276m) 40x width; min 40 m; max 200 m.	Enter photo ID, or check if completed Attachment E, Photographic Log, Photos 1 through 6
Disturbed or difficult conditions (check all that apply): ☐ Recent flood or debris flow ■ Stream modifications (e.g., channelization) ■ Diversions ☐ Discharges ☐ Drought ☐ Vegetation removal/limitations ☐ Other (explain in notes) ☐ None	Notes on disturbances or difficult site conditions: Evidence that the channel was historically modified by diverting the flows along the eastern boundary of the site, concrete-lining of two portions of the channel, and installation of two concrete culverts in the central and southern extents of the channel as a result of development of the baseball fields and associated facilities.	
Observed hydrology: ___0___ % of reach with surface flow ___0___ % of reach with sub-surface or surface flow ___0___ # of isolated pools	Comments on observed hydrology: No water was observed in the channel during the delineation field work.	

Site sketch:

1. Hydrophytic plant species

Record up to 5 hydrophytic plant species (FACW or OBL in the **Arid West** regional wetland plant list) within the assessment area: **within the channel or up to one half-channel width**. Explain in notes if species has an odd distribution (e.g., covers less than 2% of assessment area, long-lived species solely represented by seedlings, or long-lived species solely represented by specimens in decline), or if there is uncertainty about the identification. Enter photo ID, or check if photo is taken.

Check if applicable: ☐ No vegetation in assessment area ■ No hydrophytes in assessment area

Species	Odd distribution?	Notes	Photo ID

Notes on hydrophytic vegetation: No hydrophytic vegetation observed in or adjacent to Channel 1. Upland grasses and weeds were observed in the channel and on the channel banks.

2 and 3. Aquatic invertebrates

2. How many aquatic invertebrates are quantified in a 15-minute search?

Number of individuals quantified:
■ None
☐ 1 to 19
☐ 20 +

(Do not count mosquitos)

Photo ID:_____N/A_____

3. Is there evidence of aquatic stages of EPT (Ephemeroptera, Plecoptera and Trichoptera)?

Yes / No

Ephemeroptera larva
Image credit: Dieter Tracey

Plecoptera larva
Tracey Saxby

Trichoptera larva
Tracey Saxby

Notes on aquatic invertebrates: None observed.

4. Algal Cover

Are algae found on the streambed? ☐ Check if *all* observed algae appear to be deposited from an upstream source.	■ Not detected ☐ Yes, < 10% cover ☐ Yes, ≥ 10% (check Yes in single indicator below)	Notes on algae cover: No algae observed in Channel 1.	Photo ID: Photos 1 through 6

5. Are single indicators observed?

Indicator	Present	Notes	Photo ID
Fish	☐ Yes ■ No, no fish ☐ No, only non-native mosquitofish		Photos 1 through 6
Algae cover ≥ 10%	☐ Yes ■ No		Photos 1 through 6

Supplemental information E.g., aquatic or semi-aquatic amphibians, snakes, or turtles; iron-oxidizing bacteria and fungi; etc.

Photo log

Indicate if any other photos taken during the assessment

Photo ID	Description
Photos 1 through 6	Attachment E, Photographic Log

Additional notes about the assessment:

Classification: _____Ephemeral_____

1. Hydrophytic plant species	2. Aquatic invertebrates	3. EPT taxa	4. Algae	5. Single indicators • fish present • algae cover ≥ 10%	Classification
None	None	Absent	Absent	Absent	**Ephemeral**
				Present	**At least intermittent**
			Present	Absent	**Need more information**
				Present	**At least intermittent**
	Few (1-19)	Absent	Absent	Absent	**Need more information**
				Present	**At least intermittent**
			Present	Absent	**Need more information**
				Present	**At least intermittent**
		Present			**At least intermittent**
	Many (20+)	Absent	Absent	Absent	**Need more information**
				Present	**At least intermittent**
			Present	Absent	**Need more information**
				Present	**At least intermittent**
		Present			**At least intermittent**
Few (1-2)	None	Absent	Absent	Absent	**Need more information**
				Present	**At least intermittent**
			Present		**At least intermittent**
	Few (1-19)	Absent	Absent		**Intermittent**
			Present		**At least intermittent**
		Present			**At least intermittent**
	Many (20+)	Absent	Absent		**Intermittent**
			Present		**At least intermittent**
		Present	Absent		**At least intermittent**
			Present		**Intermittent**
Many (3+)	None	Absent	Absent	Absent	**Need more information**
				Present	**At least intermittent**
			Present		**At least intermittent**
	Few (1-19)	Absent			**At least intermittent**
		Present			**Perennial**
	Many (20+)	Absent			**At least intermittent**
		Present			**Perennial**

Shading provided to enhance readability by increasing the contrast between neighboring cells; empty cells indicate the classification will not change with additional information however it is recommended that all five indicators be measured and recorded during every assessment.

Attachment G. Geographic Information Systems Data

Can be provided upon request.

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Attachment H. Aquatic Resources Table

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Waters_Name	State	Cowardin_Code	HGM_Code	Meas_Type	Amount	Units	Waters_Type	Latitude	Longitude	Local_Waterway	Similarity_Situated	Sim_Situated_Aggregated_SPOE	Adjcent_Waters_Sbjct_33USC1344	OHWM_Chg_In_Plant_Community	OHWM_Bed_And_Banks	OHWM_Break_In_Slope	OHWM_Chg_In_Character_Of_Soil	OHWM_Chg_In_Veg_Density_Maturity	OHWM_Chg_In_Sediment_Texture	OHWM_Line_Impressed_On_Bank	OHWM_Destr_Of_Terrestrial_Veg	OHWM_Leaf_Litter_Disturbed	OHWM_Multiple_Flow_Events	OHWM_Scour	OHWM_Sediment_Deposition	OHWM_Sediment_Sorting	OHWM_Shelving	OHWM_Litter_and_Debris_Present	OHWM_Wrack_Line_Present	OHWM_Veg_Matted_Bent_Or_Absent	OHWM_Water_Staining	OHWM_Other	OHWM_Other_Text	Func_I_Sediment_Trapping	Func_II_Nutrient_Recycling	Func_III_Pollutant_Management	Func_IV_Retntn_Attenu_Fld_Wtrs	Func_V_Runoff_Storage	Func_VI_Contribution_of_Flow	Func_VII_Export_Organic_Matter	Func_VIII_Export_Fo	Func_IX
Channel 1	CALIFORNIA	R4SB	RIVERINE	Linear	905	FOOT	A6BOHWM	33.17900000	-117.21600000	Tributary to Buena Creek	NO	NO	NO	YES	YES	YES	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO		NO	NO	NO	NO	NO	YES	NO	NO	NO

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Attachment 3. Species Observed

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Plant Species Observed

Scientific Name	Common Name
Dicots	
Anacardiaceae	**Cashew or Sumac Family**
Schinus molle[1]	Peruvian pepper tree
Apiaceae	**Carrot, Celery, or Parsley Family**
Foeniculum vulgare[1]	Fennel
Apocynaceae	**Dogbane Family**
Nerium oleander[1]	Oleander
Asteraceae	**Sunflower Family**
Ambrosia psilostachya	Western ragweed
Baccharis pilularis ssp. *pilularis*	Coyote brush
Bahiopsis laciniata[2, 3]	San Diego County viguiera
Centaurea melitensis[1]	Tocalote
Erigeron bonariensis[1]	Flax-leaved horseweed
Helminthotheca echioides[1]	Bristly ox-tongue
Heterotheca grandiflora	Telegraph weed
Lactuca serriola[1]	Prickly lettuce
Aizoaceae	**Fig-Marigold Family**
Carpobrotus edulis[1]	Hottentot fig
Bignoniaceae	**Bignonia Family**
Jacaranda mimosifolia[1]	Blue jacaranda
Boraginaceae	**Borage Family**
Echium candicans[1]	Pride of madeira
Heliotropium curassavicum	Salt heliotrope
Brassicaceae	**Mustard Family**
Brassica nigra[1]	Black mustard
Hirschfeldia incana[1]	Shortpod mustard
Chenopodiaceae	**Goosefoot Family**
Salsola tragus[1]	Russian thistle
Cupressaceae	**Cypress Family**
Cedrus atlantica	Atlas cedar
Euphorbiaceae	**Spurge Family**
Euphorbia maculata[1]	Spotted spurge
Ricinus communis[1]	Castor bean
Fabaceae	**Legume Family**
Acmispon glaber var. *brevialatus*	Long keeled deerweed
Fagaceae	**Oak Family**
Quercus agrifolia var. *oxyadenia*	Interior coast live oak
Geraniaceae	**Geranium Family**
Pelargonium capitatum[1]	Rose scented zonal geranium

Plant Species Observed

Scientific Name	Common Name
Lamiaceae	**Mint Family**
Westringia fruticosa	Coastal rosemary
Myrsinaceae	**Myrsine Family**
Anagallis arvensis	Scarlet pimpernel
Myrtaceae	**Myrtle family**
Eucalyptus camaldulensis[1]	Red gum
Oleaceae	**Olive Family**
Fraxinus uhdei	Shamel ash
Papaveraceae	**Poppy Family**
Eschscholzia californica	California poppy
Polygonaceae	**Buckwheat Family**
Rumex crispus[1]	Curly dock
Pinaceae	**Pine Family**
Pinus jeffreyi	Jeffrey pine
Ranunculaceae	**Buttercup Family**
Clematis drummondii	Texas virgin's bower
Rosaceae	**Rose Family**
Heteromeles arbutifolia	Toyon
Solanaceae	**Nightshade Family**
Datura wrightii	Wright's jimsonweed
Ulmaceae	**Elm Family**
Ulmus parvifolia[1]	Chinese elm
Verbenaceae	**Vervain Family**
Lantana camara[1]	Lantana
Monocots	
Agavaceae	**Century Plant**
Agave americana[1]	American century plant
Agave attenuata	Swan's neck agave
Arecaceae	**Palm Family**
Phoenix canariensis[1]	Canary Island palm
Syagrus romanzoffiana[1]	Queen palm
Washingtonia robusta[1]	Mexican fan palm
Asphodelaceae	**Asphodel Family**
Asphodelus fistulosus[1]	Onionweed
Poaceae	**Grass Family**
Avena barbata[1]	Slender wild oat
Bromus madritensis ssp. *rubens*[1]	Red brome
Cortaderia selloana[1]	Pampas grass
Distichlis spicata	Salt grass

Plant Species Observed

Scientific Name	Common Name
Pennisetum setaceum[1]	African fountain grass
Sorghum bicolor[1]	Sorghum

Notes:

[1] Non-native

[2] California Rare Plant Rank 4.3

[3] County of San Diego Sensitive Plant List D

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Wildlife Species Observed

Family	Common Name	Scientific Name
Reptiles		
Squamata (Lizards and Snakes)		
Iguanidae American Arboreal Lizards, Chuckwallas, and Iguanas	Great basin fence lizard	*Sceloporus occidentalis longipes*
Invertebrates		
Lepidoptera (Butterflies)		
Lycaenidae Gossamer-Wing Butterflies	Western pygmy-blue	*Brephidium exile*
Nymphalidae Brush-Footed Butterflies	Monarch butterfly[1]	*Danaus plexippus*
Pieridae True Butterflies	Cabbage white[2]	*Pieris rapae*
Birds		
Accipitriformes (Hawks, Kites, Eagles, and Allies)		
Accipitridae Hawk, Eagle, Kite, and Allies	Red-shouldered hawk[3]	*Buteo lineatus*
	Red-tailed hawk	*Buteo jamaicensis*
Caprimulgiformes (Nightjars)		
Trochilidae Hummingbirds	Allen's hummingbird	*Selasphorus sasin*
	Anna's hummingbird	*Calypte anna*
Passeriformes (Perching Birds)		
Columbiformidae Doves	Mourning dove	*Zenaida macroura*
Corvidae Jays, Magpies, and Crows	American crow	*Corvus brachyrhynchos*
Fringillidae Finches	House finch	*Haemorhous mexicanus*
Mimidae Mockingbirds and Thrashers	Northern mockingbird	*Mimus polyglottos*
Paridae Titmice	Mountain chickadee	*Poecile gambeli*
Passerellidae New World Sparrows	California towhee	*Melozone crissalis*
Sturnidae Starlings and Mynas	European starling[2]	*Sturnus vulgaris*

Wildlife Species Observed

Family	Common Name	Scientific Name
Tyrannidae Tyrant Flycatchers	Cassin's kingbird	*Tyrannus vociferans*
	Say's phoebe	*Sayornis saya*
Troglodytidae Wrens	Bewick's wren	*Thryomanes bewickii*
Mammals		
Lagomorpha (Rabbits, Hares, and Pika)		
Leporidae Rabbits and Hares	Desert cottontail rabbit	*Sylvilagus audubonii*
Rodentia (Rodents)		
Geomyidae Pocket Gophers	Botta's Pocket gopher	*Thomomys bottae*
Sciuridae Squirrels, Chipmunks, and Marmots	California ground squirrel	*Spermophilus beecheyi*
Carnivora (Carnivores)		
Canidae Foxes, Wolves, and Relatives	Domestic dog	*Canis familiaris*

Notes:

[1] Under review for protection under the federal Endangered Species Act

[2] Non-native

[3] County of San Diego Sensitive Animals List